VOLUME I

FHWA-MT-EIS-95-01-F

F 5-1(9)6, U.S. HIGHWAY 93
EVARO - POLSON
MISSOULA AND LAKE COUNTIES, MONTANA

FINAL

ENVIRONMENTAL IMPACT STATEMENT

AND

SECTION 4(f) EVALUATION

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
AND
STATE OF MONTANA
DEPARTMENT OF TRANSPORTATION

FHWA-MT-EIS-95-01-FD

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Submitted Pursuant To 42 U.S.C 4332(2)(C);
49 U.S.C. 303; MEPA 2-3-104 and 75-1-101
and Executive Order 11990

U.S. Department of Transportation
Federal Highway Administration
and
Montana Department of Transportation

Cooperating Agencies

U.S. Environmental Protection Agency
U.S. Department of Health and Human Services
Confederated Salish and Kootenai Tribes
Advisory Council on Historic Preservation
U.S. Department of Housing and Urban Development
U.S. Fish and Wildlife Service
U.S. Natural Resources Conservation Service
U.S. Army Corps of Engineers
U.S. Bureau of Indian Affairs
U.S. Bureau of Reclamation

6/6/96
Date of Approval

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6/17/96
Date of Approval

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This final environmental impact statement (EIS) is an examination of proposed improvements to U.S. Highway 93 from Evaro, Montana through Polson, Montana. This document discusses the purpose and need, alternatives, affected environment, environmental consequences, mitigation measures and comments, coordination and issues. It evaluates no action, alignment alternatives, lane configuration alternatives, transportation demand management measures, alternate highway routes and design options. A list of preparers and the final EIS circulation list are included in the document.

TABLE OF CONTENTS

2. SUMMARY 2-1

2.1. PURPOSE AND NEED FOR ~~THE PROPOSED~~ ACTION 2-1

2.2. OTHER MAJOR PROPOSED ACTIONS BY GOVERNMENTAL AGENCIES 2-1

2.3. ALTERNATIVES 2-2
2.3.1. Alternatives Under Consideration 2-2
2.3.2. The Preferred Alternatives 2-6

2.4. SUMMARY OF IMPACTS OF THE MDT PREFERRED ALTERNATIVE 2-10

2.5. AREAS OF CONTROVERSY 2-11

2.6. UNRESOLVED ISSUES WITH OTHER AGENCIES 2-11

2.7. OTHER FEDERAL AND TRIBAL ACTIONS REQUIRED 2-12

2.8. SUMMARY OF MITIGATION MEASURES 2-12

LIST OF FIGURES

Figure 2.3-1 Lane Configuration Alternatives 2-4
Figure 2.3-1 Lane Configuration Alternatives (Cont'd) 2-5
Figure 2.3-2 Lane Configuration of the MDT Preferred Alternative 2-9

LIST OF TABLES

Table 2.3-1 Lane Configuration of the MDT Preferred Alternative 2-8

2. SUMMARY

This document proposes and evaluates various alternatives to improve traffic operation and safety on U.S. Highway 93 (US 93) for a distance of 56.3 miles in Lake and Missoula counties, from Evaro, Montana (approximately 6.5 miles north of Interstate Highway 90) through Polson, Montana. Except for a one-half mile segment at the southern end in Evaro, the proposed action is contained within the Flathead Indian Reservation.

2.1. PURPOSE AND NEED FOR ~~THE PROPOSED~~ ACTION

The proposed action is needed to improve transportation on US 93, which is important to local, regional and nationwide travel. Transportation demand is high and is expected to continue to increase.

The high rate of population growth and increased tourism throughout western Montana are sources of growth in traffic on US 93. The highway is important to safety, social well-being and the economy. US 93 is the major north-south transportation route in western Montana. It provides interstate, regional and local access to natural resources-based industries such as agriculture, forestry, mining, tourism and recreation.

US 93 in the area of the proposed action, and for its entire length within Montana, is functionally classified as a principal arterial. It is part of the National Highway System (NHS). ~~as established by the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA).~~

The highway is part of an extensive system of arterial routes: I-90; Montana highways (MT) 28, 35, 135, and 200 in Lake and Sanders counties; MT 83, which is east of the proposed action, in the Swan Valley of Lake and Missoula counties; and Montana secondaries (MTS)~~Federal Aid Secondary (FAS) routes~~ 211, 212, 382 and 559 in Lake and Sanders counties. (Figure 5.1-6)

Traffic is expected to continue to increase at the 1970-90 annual average rate of three percent, slightly more than doubling the existing volume by the design year 20202015. ~~In the design year, average daily traffic (ADT) will range from 10,510 at the permanent counter south of Ravalli to 13,110 in the Arlee area, 16,050 in the Ronan area and 21,700 in the Polson area.~~ Truck traffic is expected to continue to be 13.7% of total traffic south of MTS~~FAS~~ 212 and 10% north of MTS~~FAS~~ 212. (Figures 6.1-2 and 7.1-1)

The existing roadway has various geometric features that do not meet current standards for safety and design. Existing level-of-service (LOS) is poor, generally LOS D and E, compared with the desired standard of LOS B for rural highways. It is projected that by the design year 20202015 capacity of the existing facility will be exceeded, and the highway will be operating at LOS F in most sections. Accident numbers per mile are substantially higher than statewide averages. (Tables 6.1-15 and 7.1-2)

2.2. OTHER MAJOR PROPOSED ACTIONS BY GOVERNMENTAL AGENCIES

Planned improvements to other major highways in northwestern Montana will help ensure highway traffic is appropriately distributed throughout the region. Then the most direct, efficient routes can be used by local and regional traffic. These improvements include:

- Reconstruction of US 93 from Lolo to Hamilton and from Somers to Whitefish.
- Several recent and proposed future projects on MT 83 and 200, as described in Section 5.1.5.
- Reconstruction of US 2 from Columbia Heights to Hungry Horse.

- Various improvement projects on I-90.

- Mission Valley Power operations and maintenance facility on the west side of US 93 in Pablo.

2.3. ALTERNATIVES

2.3.1. Alternatives Under Consideration

Alternatives under consideration include No Action, alignment alternatives, lane configuration alternatives, transportation demand management (TDM) measures, alternate highway routes and design options. (Chapter 5)

No Action

No Action will continue the existing transportation system with no substantial improvement.

Alignment Alternatives

The existing alignment, also referred to as Alignment 1, consists of reconstructing the roadway with only minor adjustments to allow for widening, to improve horizontal curves and vertical grades and curves, and to avoid important features adjacent to the roadway. (Appendix A, aerial photographs and maps)

Arlee alignments: (Figure 5.1-1)

Alignment 1, the existing alignment.

Alignment 2, west of Arlee and passing between the town and the existing railroad tracks.

Alignment 3, east of Arlee passing west of the rodeo grounds, east of the schools and southwest of the fish hatchery.

Alignment 4, leaves US 93 at Dirty Corner (near the Missoula/Lake county line near Milepost 15.1), continues north across the Jocko River, then continues northwest to rejoin the existing highway approximately three miles north of Arlee.

Ronan alignments: (Figure 5.1-2)

Alignment 1 is the existing alignment.

Alignment 2 is a one-way couplet that will carry southbound traffic one block west of the existing alignment on First Avenue Southwest. Northbound traffic will remain on the existing alignment.

Alignment 3 passes along the west edge of the community, approximately 0.6 mile west of the existing alignment.

Alignment 4 passes along the west edge of the community, approximately one mile west of the existing alignment, west of the sewage treatment lagoons and, for a short distance, adjacent to the railroad and a community ballfield.

Polson alignments: (Figure 5.1-3)

Alignment 1 is the existing alignment, with a bridge over the Flathead River constructed adjacent to the existing bridge.

Alignment 2 passes along Caffrey Road south of Polson, connects with Kerr Dam Road, crosses the Flathead River with a new bridge and connects with the existing highway east of the fairgrounds.

Alignment 3 is identical to Alignment 2 along Caffrey Road, then veers west by one-third to one-half mile and crosses the Flathead River with a new bridge at a point approximately 3,500 feet downstream from the Alignment 2 bridge crossing. It continues north along an alignment that is west of the airport and connects with the existing highway 1.5 miles north of Polson.

Lane Configuration Alternatives

Lane configuration alternatives: (Figure 2.3-1)

Lane Configuration A is a two-lane, two-way highway with auxiliary lanes (Figure 5.1-5). Where needed, passing lanes will be added for short distances, designated left-turn bays will be constructed at important intersections and continuous two-way left-turn center medians will be constructed where there are high numbers of intersections and driveways.

Lane Configuration B is a four-lane highway with two traffic lanes in each direction. ~~A four-foot painted median will be included with this lane configuration.~~ Designated left-turn bays will be constructed at important intersections.

Lane Configuration C is a four-lane highway with a continuous two-way left-turn center median.

Lane Configuration D is a four-lane highway with a divided, unpaved center median. Designated left-turn bays will be constructed at important intersections.

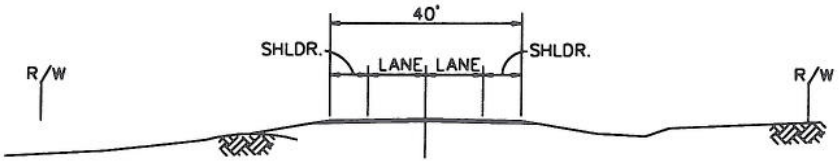
Transportation Demand Management

Transportation Demand Management (TDM) includes various measures that might help to reduce the traffic demand on the existing US 93 and thereby preserve or enhance traffic operation with highway improvement (Section 5.1.4). They include: 1) promotion and development of the use of railroads, airlines, and buslines for passenger and freight traffic; 2) development of facilities for and promotion of carpooling and ride-sharing; and 3) promoting shifts of existing and future traffic from US 93 to alternate highway routes, which are discussed in more detail in the next section.

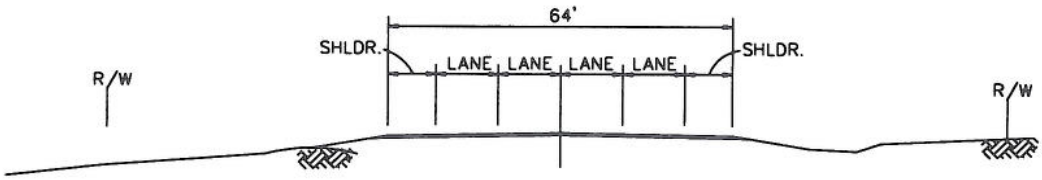
It is desirable to encourage more use of TDM, but analysis indicates TDM measures are not likely to substantially reduce existing and design year ~~20152020~~ traffic demand and volume on US 93. Therefore they will not substantially reduce the need for highway improvement.

Implementation of TDM measures is a desirable, long-term goal, and any highway improvement should be designed to: 1) not reduce or adversely affect TDM activities already occurring; and 2) accommodate and promote increased use of TDM.

A Transit Development Plan (TDP) is being prepared ~~to identify TDM measures that will~~ by the Montana Department of Transportation (MDT) and Lake County. The TDP will determine and evaluate public transit needs and recommend measures to meet them. It is expected that measures such as park and ride facilities, bus turnouts



LANE CONFIGURATION A
2 LANE RDWY
MINIMUM RIGHT OF WAY WIDTH, 160 FT.



LANE CONFIGURATION B
4 LANE RDWY.
GENERAL RIGHT OF WAY WIDTH, APPROX. 180 FT.

NOTE:
EXCEPT WHERE OTHERWISE NOTED, LANES ARE 12.0' WIDE, SHOULDERS ARE 8.0' WIDE.

LANE CONFIGURATION ALTERNATIVES **FIGURE 2.3-1**

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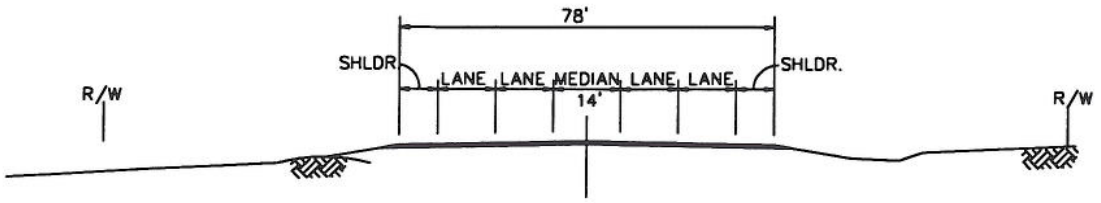
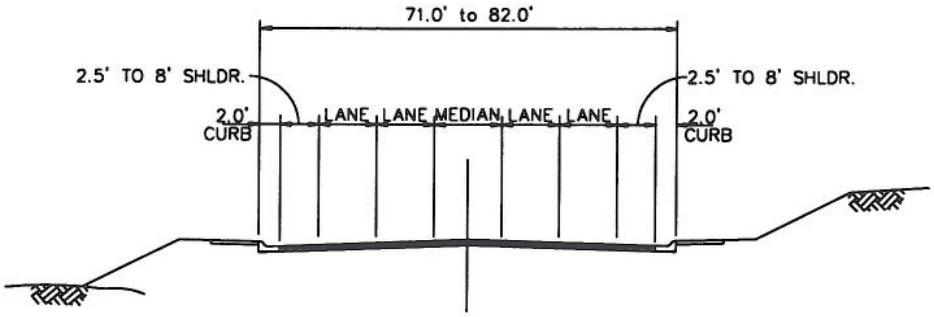


LANE CONFIGURATION C

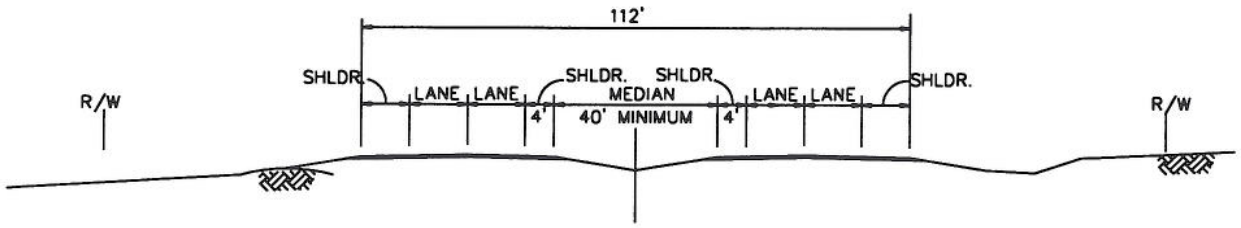
4 LANE WITH MEDIAN/LEFT TURN BAY

GENERAL RIGHT OF WAY WIDTH, APPROX. 200 FT.



LANE CONFIGURATION C

4 LANE WITH MEDIAN/LEFT TURN BAY WITH CURB & GUTTER



LANE CONFIGURATION D

4 LANE DIVIDED

GENERAL RIGHT OF WAY WIDTH, APPROX. 220 FT.
PAVEMENT WIDTH, 72' TOTAL(36' EACH SIDE)

NOTE:

EXCEPT WHERE OTHERWISE NOTED, LANES ARE 12.0' WIDE, SHOULDERS ARE 8.0' WIDE.

LANE CONFIGURATION ALTERNATIVES (CONT.) FIGURE 2.3-1

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or other features may be recommended to be included in the final design of highway improvement. The results of the TDP will be available for use with the final environmental impact statement (EIS).

Alternate Highway Routes

Alternate highway routes might reduce highway traffic demand by promoting shifts of existing and future traffic from US 93 to other existing highway routes. Alternate routes that have been suggested include MT 83 in the Swan Valley and MT 200-382-28 in Lake and Sanders counties.

Alternate highway routes are not evaluated in detail in this document. Though it may be desirable to encourage more use of these alternate routes to take advantage of the better operating conditions, it is not likely enough traffic will shift to these routes to substantially reduce traffic demand on US 93.

It is likely that where substantially greater distances do not discourage them, drivers already are selecting, and will continue to select, these routes instead of using US 93. Current traffic volumes on these highways are less than one-fifth the volume on US 93, an indication of the importance of US 93 as the most direct route between Missoula and Kalispell/Glacier National Park.

Implementation of measures that will require, by law or regulation, vehicles to use these alternate routes and to improve these routes to multiple lane highways is not recommended because:

- No practical and acceptable method has been identified to shift the traffic, and
- Substantial improvement (such as additional traffic lanes) to these highways and substantially increased traffic volume may have environmental impacts equal to or greater than impacts that have been identified if US 93 is improved.

Design Options

Major design options include partial access control, wildlife crossings, frontage roads, pedestrian and bicycle facilities, truck routes and traffic signals. Section 5.1.6 presents detailed information about all design options considered with the alignment and lane configuration alternatives. After the final EIS is complete, it is recommended the participation of community teams (developed during the environmental analysis phases) be continued through project design phases. This will help ensure that local involvement is continued to help select the most appropriate design options for the proposed action.

2.3.2. The Preferred Alternatives ~~The Preferred Alternative~~

There are two preferred alternatives that have been identified. The alternative preferred by the Montana Department of Transportation is referred to in this document as the MDT Preferred Alternative. The alternative preferred by the Confederated Salish and Kootenai Tribes (CSKT) is referred to in this document as the CSKT Preferred Alternative.

2.3.2.1. The MDT Preferred Alternative

The following is a description of the MDT Preferred Alternative, which was recommended by the Interdisciplinary (ID) Team, MDT and the Federal Highway Administration (FHWA). ~~The Tribal Council of the Confederated Salish and Kootenai Tribes (CSKT) has not made a recommendation for a preferred alternative.~~

Alignment 1, the existing alignment, is recommended as the preferred alignment from Evaro to Polson. At Polson, Alignment 1 is recommended as the designated route for US 93, and Alignment 3, which is approximately 5.8 miles long and passes south and west of Polson, is recommended as a truck route and as an alternate route around Polson.

Preservation of a corridor of land for future highway construction is recommended on Alignment 2 through the Arlee area and Alignment 4 through the Ronan area. Corridor preservation will be accomplished by measures such as: 1) cooperative access control and land use planning and regulation with tribal and local governments; 2) purchase of easements, options or right-of-way (ROW) by MDT; and other public/private cooperative methods.

Table 2.3-1 and Figure 2.3-2 indicate specific locations for each of the lane configurations in the MDT Preferred Alternative.

Lane Configuration A (a two-lane highway with ~~passing lanes and other~~ auxiliary lanes in some areas) is recommended for 3.8 miles in the city of Polson, where a substantial portion of highway traffic is shifted to Alignment 3. Lane Configuration A also is recommended initially for Alignment 3 at Polson until further traffic volume requires a four-lane highway.

Lane Configuration A is not recommended for other sections of the highway because it does not adequately accommodate existing and projected future traffic volumes, and it does not meet the purpose and need for the proposed action.

Lane Configuration B (a four-lane highway), with ~~a four-foot-wide painted center median and~~ designated left-turn bays where appropriate, is recommended for most of the length of the proposed action (approximately 37.6 miles on the existing alignment and, when warranted by traffic volume, 5.8 miles on Alignment 3 at Polson).

Approximately 14.5 miles of the highway is recommended to be constructed as Lane Configuration C (a four-lane highway with a continuous two-way left-turn center median). Recommendations for Lane Configuration C generally have been made where the highway passes through existing communities and where high concentrations of highway intersections and driveways occur.

Lane Configuration D (a four-lane highway with a divided, unpaved center median approximately 40-feet wide), is recommended for a short distance (0.4 mile) in the area of the Evaro wildlife corridor. As indicated by project biologists, it provides better opportunities for constructing safe and effective wildlife crossings.

Lane Configurations B, C and D, each providing four lanes for highway traffic, will increase the highway's capacity to several times the capacity of a two-lane highway (the existing roadway or Lane Configuration A) and will ensure the highway will accommodate projected traffic volume through the design year ~~2015~~2020.

2.3.2.2. The CSKT Preferred Alternative

Details of the CSKT Preferred Alternative are presented in Section 5.4. Following is a summary of major features of the CSKT Preferred Alternative:

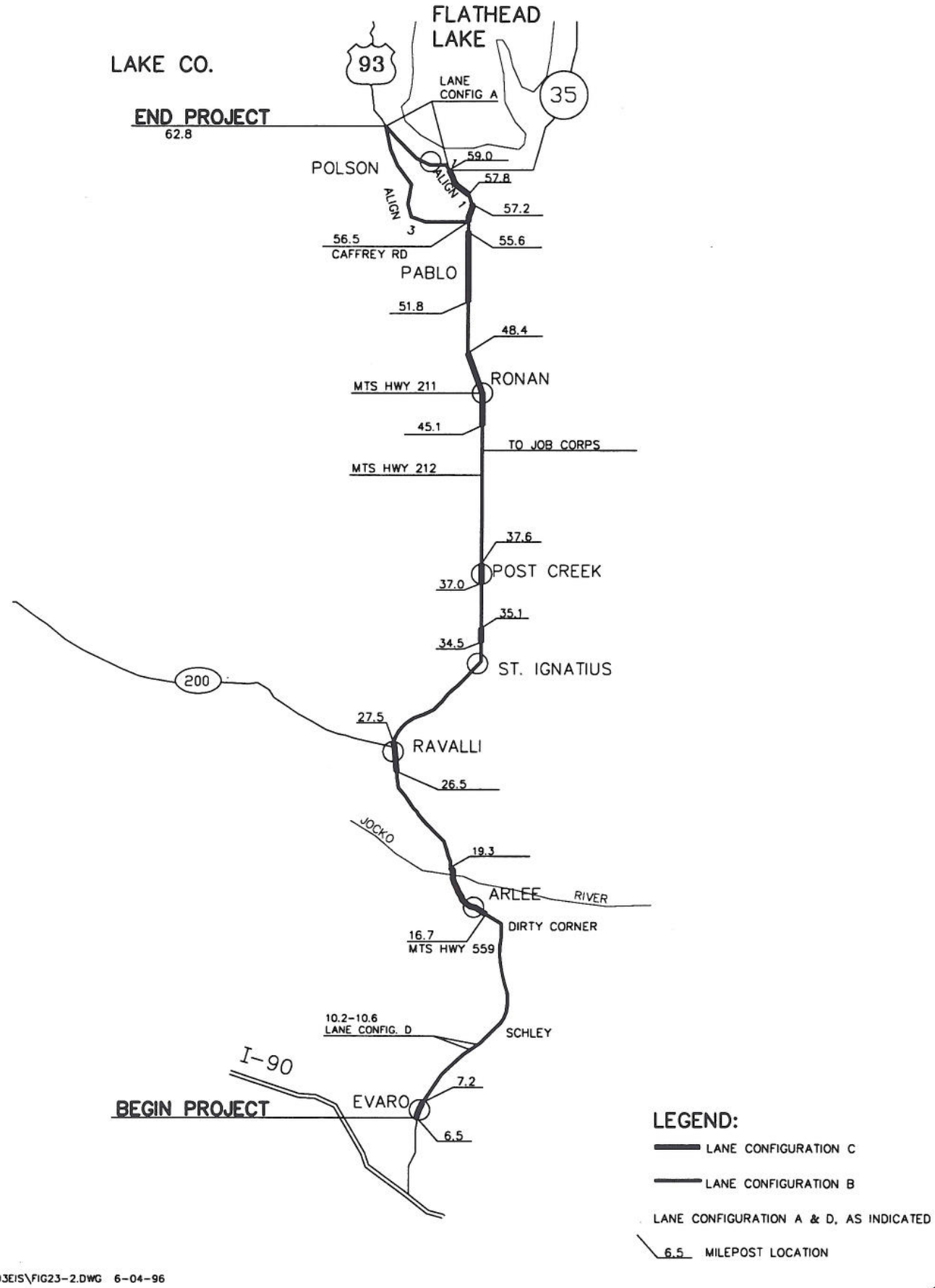
With this alternative, the existing alignment, Alignment 1, is recommended throughout the length of the proposed action. Preservation of a corridor for future highway construction is recommended in the Ronan area but not in the Arlee area. Neither an alternative route nor preservation of a corridor for future highway construction around Polson is recommended.

Lane Configuration A is recommended throughout the length of this alternative with continuous two-way left-turn lanes, truck climbing lanes, slow moving vehicle lanes, left-turn lanes and right-turn lanes where appropriate.

Table 2.3-1 Lane Configuration of the MDT Preferred Alternative

LOCATION (Mileposts)		LANE CONFIGURATION				LOCATION DESCRIPTION
FROM	TO	A	B	C	D	
6.5	7.2			0.7		Evaro
7.2	10.2		3.0			Evaro to vicinity of Joe's Smoke Ring
10.2	10.6				0.4	Evaro wildlife corridor (Joe's Smoke Ring to Schley homesites)
10.6	16.7		6.1			Schley homesites to Jocko Road (MTSFAS 559)
16.7	17.3			0.6		Jocko Road (MTSFAS 559) to Arlee
17.3	18.4			1.1		Arlee
18.4	19.3			0.9		Arlee to north of Dumontier Road
19.3	26.5		7.2			North of Dumontier Road to Ravalli
26.5	27.5			1.0		Ravalli
27.5	34.5		7.0			Ravalli to north of St. Ignatius
34.5	35.1			0.6		Vicinity of Lemery/Pinsoneault roads, north of St. Ignatius
35.1	37.0		1.9			North of St. Ignatius to Post Creek area
37.0	37.6			0.6		Post Creek area
37.6	45.1		7.5			Post Creek area to area south of Ronan
45.1	46.1			1.0		Area south of Ronan
46.1	47.9			1.8		Ronan
47.9	48.4			0.5		Ronan to vicinity of Baptiste/Spring Creek roads, north of Ronan
48.4	51.8		3.4			North of Ronan to Pablo
51.8	53.6			1.8		Pablo
53.6	55.6			2.0		North of Pablo, vicinity of Courville/Light roads to North Reservoir Road/Minesinger Trail
55.6	56.5		0.9			North Reservoir Road/Minesinger Trail to Caffrey/Ford roads
56.5	57.2			0.7		Caffrey/Ford roads to highway segment with narrow width due to hill and railroad tracks
57.2	57.8		0.6			Highway segment with narrow width
57.8	59.0			1.2		Highway segment with narrow width to MT 35
59.0	61.1	2.1*				MT 35 to Flathead River bridge, Polson
61.1	62.8	1.7**				Flathead River bridge to end of proposed action, Polson
SUBTOTAL: EXISTING ALIGNMENT		3.8	37.6	14.5	0.4	
56.5	62.8		5.8			Alignment 3 around Polson
TOTALS		3.8	43.4	14.5	0.4	

Morrison-Maierle and Carter Burgess. 1994.
* No change in existing lane configuration. ** Addition of a continuous two-way left-turn center median.



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LANE CONFIGURATION OF THE MDT PREFERRED ALTERNATIVE FIGURE 2.3-2

2.4. SUMMARY OF IMPACTS OF THE MDT PREFERRED ALTERNATIVE

Tables 5.2-1 through 5.2-4 present a comparison of environmental impacts for No Action and each of the alignment alternatives and lane configuration alternatives under consideration. Major environmental impacts of the MDT Preferred Alternative are summarized in following paragraphs.

- The capacity of the highway will be increased substantially, which will result in traffic operation at LOS B in the design year, instead of LOS F with No Action. Operating efficiency will be improved substantially, reducing congestion ~~and congestion will be eliminated.~~

- ~~Accident rates and frequencies are expected to decline. In particular, be~~Based on ~~similar~~ experience near the proposed action, serious accidents involving injuries and fatalities are expected to decline substantially.

- With the implementation of partial access control and land use planning and regulation, strip development and other highway-related development can be better controlled.

- Approximately 360~~370~~ acres of land will be converted to new highway ROW.

- Approximately 46 acres of farmland that is prime or unique farmland or farmland of statewide or local importance will be converted to highway ROW. Most of this conversion is caused by Alignment 3 in Polson.

- The physical prominence of the highway will increase with related barrier effects and visual effects.

- The highway will be more desirable for commuters, which may encourage population growth.

- Carbon monoxide (CO) will be substantially less and PM_{10} concentrations will be slightly less than for No Action ~~emissions will decrease. PM_{10} emissions will not differ substantially from No Action except in Polson.~~ In Polson, with construction of Alignment 3, traffic volumes in the city, as compared with No Action will be substantially reduced. Traffic operation and safety in and through Polson will be improved. Impacts on businesses during construction will be less severe, and PM_{10} emissions will be reduced in the Polson non-attainment area.

- Approximately 40 acres of wetlands will be filled or otherwise destroyed by construction of the MDT Preferred Alternative. These wetlands will be replaced by wetlands developed to provide similar or better functions and values. Replacement wetlands generally will be farther from the highway, which will be beneficial to wildlife.

- Special wildlife crossings will be constructed in the Evaro area and other areas of the proposed action. Wildlife crossings may benefit grizzly bear and other wildlife species by improving migration routes and decreasing or avoiding highway mortality.

- Direct use of land from several Section 4(f) properties will be required.

- Relocation of several buildings, including approximately five~~eight~~ residences, will be required on the existing alignment. Relocation of approximately three residences will be required on Polson Alignment 3.

- Continuation of major highway traffic through Arlee and Ronan will continue adverse traffic operation and safety conditions. Short-term impact to some businesses will occur during construction.

- Approximately 40.42 wetland acres and 7.65 acres of non-wetland riparian vegetation would be lost to construction over the 15 to 20 year construction period. Additionally, approximately 0.18 acre of non-wetland waters of the U.S. would be filled during construction of the new bridge over the Flathead River on Polson Alignment 3.

2.5. AREAS OF CONTROVERSY

Areas of controversy related to the proposed action include:

- Whether the benefits of the construction of a four-lane highway, which will improve safety and increase traffic carrying capacity by several times, outweigh environmental impacts, such as contributing to increased numbers of commuters in the growing population. A survey conducted in 1994 for CSKT, of both tribal members and non-tribal members living on the Flathead Indian Reservation, indicates agreement that serious problems exist with driving conditions on many sections and overall on the highway. Approximately 55% of both groups rated overall driving conditions as having serious problems. The survey also indicated that 63% of tribal members and 63% of non-tribal members either supported or strongly supported converting US 93 to an undivided four-lane highway with turn bays at intersections (Lane Configuration B). Overall, there was more support for a four-lane highway than a two-lane highway, but tribal members indicated more support than non-tribal members for a two-lane highway. Approximately 47% of tribal members, compared with 31% of non-tribal members, either supported or strongly supported maintaining US 93 as a two-lane highway and adding turn bays and passing lanes[1].

- Concern that construction of a substantially improved highway will contribute to changes in the rural character of the Flathead Indian Reservation.

- Concern that construction of a substantially improved highway will adversely impact traditional cultural values of the Flathead Indian Reservation.

- Whether the benefits of improved safety and traffic operation, which will occur if new highway routes are constructed around the communities of Arlee, Ronan and Polson, outweigh the adverse economic impacts that may occur to existing highway-oriented businesses.

2.6. UNRESOLVED ISSUES WITH OTHER AGENCIES

~~Major unresolved i~~Issues that require resolution include:

- A final~~draft~~ Section 4(f) evaluation has been completed (Chapter 12). A determination has been made that there are no feasible and prudent alternatives that will avoid Section 4(f) use~~, has not yet been made. This item will be completed in the final Section 4(f) evaluation that will be included with the final EIS.~~

[1]Bioeconomics, Inc. and Boyer Consulting Services. Draft, U.S. Highway 93 Corridor Use and Opinion Survey: Summary Results and Survey Methodology, 10 November 1994. Pages 10-11. The percentages do not add to 100% because some respondents indicated support or strong support for both improvement alternatives and some indicated support for neither.

- A land use study is being completed by CSKT and Lake and Missoula counties, with support from MDT, to better define existing and future land use concerns. ~~Information and recommendations from this study will be included in the final EIS.~~

- A TDP is being completed by MDT for Lake County. ~~results and recommendations related to the TDP will be included in the final EIS.~~

- The proposed action has been coordinated with CSKT, which has recommended a preferred alternative that has some similarities and some differences with the MDT Preferred Alternative. ~~, which has not yet expressed an opinion for a preferred alternative.~~ Section 2.3.2 presents details about the MDT Preferred Alternative and the CSKT Preferred Alternative.

~~An Aquatic Lands Conservation Ordinance (ALCO) 87-A permit will be required for all stream and drainage crossings of the proposed action. The CSKT Shoreline Protection Office (SPO) will administer the ALCO permit process.~~

2.7. OTHER FEDERAL AND TRIBAL ACTIONS REQUIRED

Other federal actions that must be completed include the following:

- A Section 404 (of the Clean Water Act) permit will be required from the U.S. Army Corps of Engineers for areas where construction of the proposed action will result in discharge of dredged or fill material into streams or wetlands. A draft Section 404(b)(1) evaluation has been included in Appendix C. ~~, and a final Section 404(b)(1) evaluation will be included in the final EIS.~~

~~Air quality conformance evaluations and determinations, as required by the December 1993 regulations promulgated by the U.S. Environmental Protection Agency, have not yet been completed for the Ronan and Polson PM_{10} non-attainment areas. They will be completed and discussed in the final EIS.~~ The required regional analysis and conformity determination for the MDT Preferred Alternative in the Polson and Ronan PM_{10} nonattainment areas, has been completed by the Montana Department of Transportaion and approved by the Federal Highway Administration. It is included in Appendix F. of this final EIS. The analyses show that, in both Polson and Ronan, the MDT Preferred Alternative (also referred to in the regional analysis as the "Action Scenario") will result in a reduction in PM_{10} emissions compared to the Baseline Scenario and therefore fulfills the requirements for conformity determinations for included projects.

- Floodplain permits from the local floodplain coordinators and the Federal Emergency Management Agency will be required for all stream crossings located in delineated floodplains.

- Water quality standards by the state of Montana do not apply on the Flathead Indian Reservation. On 27 February 1995, the U.S. Environmental Protection Agency (EPA) approved the application from CSKT for "treatment as a state" (TAS) to administer Section 303 of the Clean Water Act. CSKT has adopted water quality standards of reservation-wide applicability, effective 27 April 1995.

- An Aquatic Lands Conservation Ordinance (ALCO) 87-A permit will be required for all stream and drainage crossings of the proposed action. The CSKT Shoreline Protection Office (SPO) will administer the ALCO permit process. A separate ALCO permit will be needed for each action considered to be a project by the tribal SPO.

2.8. SUMMARY OF MITIGATION MEASURES

Right-of-Way and Access Control

Property that is required for construction will be subject to the provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.

Air Quality

- Gravel and dirt shoulders will be surfaced.
- Curbs and gutters will be added in Arlee, Ravalli, Ronan, Pablo, and Polson.
- Gravel and dirt approaches will be consolidated wherever possible and surfaced from the edge of the highway ROW.
- The proposed action will provide new surfacing throughout.

Water Quality

Where necessary to clean bridge decks, as part of construction or during maintenance after construction, the decks will be swept, and the debris will be collected and taken to a proper disposal site. This will be done in lieu of hosing the bridge decks with water, which carries the debris into the streams.

Wetlands

Replacement will be done according to the following priorities:

1. On-site replacement or enhancement is the preferred type of mitigation.
2. When on-site mitigation is not practical, off-site replacement or enhancement will be considered.
3. When the above are not practical, "wetland banking" will be considered; this allows the highway agency to develop wetland complexes in the general area, and then, as wetland losses occur, the acreage will be subtracted.

A wetland mitigation plan has been prepared which demonstrates that losses of wetland functions and values anticipated with the proposed action will be replaced. Mitigation of the unavoidable wetland losses resulting from the improvement of the highway will be accomplished using a combination of on-site and off-site mitigation.

Riparian Areas

Mitigation for loss of riparian areas primarily will be achieved through protective purchase and enhancement of a parcel of land that contains Post Creek and is adjacent to US 93. The wetland/riparian zone bordering Post Creek is considered an extremely high value corridor for grizzly bears and other wildlife. Existing riparian and wetland vegetation along the creek will be enhanced through planting of woody vegetation and exclusion of grazing.

Fish and Wildlife

- Culverts in streams will be designed and constructed to not inhibit fish passage.

- Site specific designs will be developed for key stream crossings.

- Wildlife crossing structures are planned to help reduce impacts to wildlife, including grizzly bear and grey wolf.

Cultural Resources

A consultation process for design engineers and representatives of the Flathead and Kootenai culture committees will address culturally significant areas. Coordination with representatives of the culture committees will occur prior to the beginning of each design project and continue through the construction phase.

Mitigation of long-term effects to traditional values of the Salish and Kootenai Tribes will be addressed with two types of action:

1. Using traditional Native American and English languages for highway signs:

    - Major highway signs entering and leaving the Flathead Indian Reservation

    - Community signs located on highway ROW for all major communities located on the Flathead Indian Reservation

2. Establishment of two visitor information centers to be located and designed in cooperation with tribal architects and the Flathead and Kootenai culture committees.

Hazardous Materials

Various potential hazardous material sites exist within or adjacent to the ROW of the existing highway. Where necessary, a Phase II hazardous materials assessment will be conducted so sites of concern will be further defined or evaluated and removal or mitigation plans will be completed and implemented.

Visual

Mitigation measures to mitigate impacts to visual resources will include:

- Retention of trees and natural vegetation except where removal is required for construction, for sight distance improvement, or for other safety requirements.

- Construction of the roadway with smooth, rounded excavation and embankment slopes to match and blend in with the adjacent natural terrain as much as possible.

- Excavation and embankment slopes will generally be constructed flat enough to allow re-establishment of natural vegetation.

Relocations

Federal highways are subject to provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (as amended).

The Intermodal Surface Transportation Efficiency Act (ISTEA), H.R. 2950, includes all references to the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. They require compliance with Title VI of the Civil Rights Act of 1960, H.R. 2950-34, Section 1017 Acquisition of Rights-of-Way. Relocation resources are available for all displaced residential and commercial buildings without discrimination.

Construction

An erosion control plan will be developed to avoid impacts to streams and other features during and after construction.

Inconvenience and delay to travelers on the highway will be minimized, to the extent practical, by developing and following a carefully planned traffic control plan.

U.S. HIGHWAY 93
FINAL ENVIRONMENTAL IMPACT STATEMENT

TABLE OF CONTENTS

VOLUME I

1. COVER SHEET

2. SUMMARY

3. TABLE OF CONTENTS

4. PURPOSE AND NEED FOR ACTION
   - 4.1. SYSTEM LINKAGE
   - 4.2. TRANSPORTATION DEMAND
   - 4.3. ROADWAY DEFICIENCIES
   - 4.4. CAPACITY AND LEVEL-OF-SERVICE
   - 4.5. SAFETY

5. ALTERNATIVES
   - 5.1. ALTERNATIVES UNDER CONSIDERATION
   - 5.2. COMPARISON OF ALTERNATIVES
   - 5.3. THE PREFERRED ALTERNATIVE

6. AFFECTED ENVIRONMENT
   - 6.1. TRAFFIC OPERATION AND SAFETY
   - 6.2. LAND USE
   - 6.3. FARMLANDS
   - 6.4. SOCIAL
   - 6.5. ECONOMICS
   - 6.6. PEDESTRIANS AND BICYCLISTS
   - 6.7. AIR QUALITY
   - 6.8. NOISE
   - 6.9. WATER QUALITY
   - 6.10 WETLANDS
   - 6.11. FLOODPLAINS/STREAM CROSSINGS
   - 6.12. FISH AND WILDLIFE
   - 6.13. THREATENED/ENDANGERED SPECIES
   - 6.14. CULTURAL RESOURCES
   - 6.15. PARKS AND RECREATION
   - 6.16. HAZARDOUS MATERIALS
   - 6.17. VISUAL
   - 6.18. RELOCATIONS

7. ENVIRONMENTAL CONSEQUENCES AND MITIGATION
   - 7.1. TRAFFIC OPERATION AND SAFETY
   - 7.2. LAND USE
   - 7.3. FARMLANDS
   - 7.4. SOCIAL
   - 7.5. ECONOMICS
   - 7.6. PEDESTRIANS AND BICYCLISTS
   - 7.7. AIR QUALITY
   - 7.8. NOISE
   - 7.9. WATER QUALITY
   - 7.10. WETLANDS
   - 7.11. FLOODPLAINS/STREAM CROSSINGS
   - 7.12. FISH AND WILDLIFE
   - 7.13. THREATENED/ENDANGERED SPECIES
   - 7.14. CULTURAL RESOURCES
   - 7.15. PARKS AND RECREATION
   - 7.16. HAZARDOUS MATERIALS
   - 7.17. VISUAL
   - 7.18. RELOCATIONS
   - 7.19. ENERGY/COMMITMENT OF RESOURCES
   - 7.20. CONSTRUCTION

8. LIST OF PREPARERS

9. CIRCULATION OF THE DRAFT EIS

10. ~~COMMENTS,~~ COORDINATION OF PUBLIC SCOPING AND ISSUES

11. INDEX

12. SECTION 4(f) EVALUATION

APPENDICES
   - A. AERIAL PHOTOGRAPHS AND MAPS
   - B. TRANSPORTATION DEMAND MANAGEMENT
   - C. SECTION 404(b)(1) EVALUATION
   - D. INFLUENCE ON RETAIL TRADE
   - E. DRIVE-THROUGH EXPENDITURE PATTERNS
   - F. AIR QUALITY TECHNICAL REPORTS

VOLUME II

PUBLIC HEARINGS
DRAFT EIS COMMENTS

Note: More detailed tables of contents are included at the beginning of each of the above sections.

TABLE OF CONTENTS

4. PURPOSE AND NEED FOR ACTION 4-1

4.1. SYSTEM LINKAGE 4-1

4.2. TRANSPORTATION DEMAND 4-2

4.3. ROADWAY DEFICIENCIES 4-3

4.4. CAPACITY AND LEVEL-OF-SERVICE 4-4

4.5. SAFETY 4-6

LIST OF FIGURES

Figure 4.2-1 Average Daily Traffic (ADT) on Two-Lane Highways Outside Communities 4-2
Figure 4.2-2 Rate of Population Growth 4-3

4. PURPOSE AND NEED FOR ACTION

The purpose of the proposed action is to improve the transportation system on U.S. Highway 93 (US 93) from Evaro, Montana (approximately 6.5 miles north of Interstate Highway 90 near Missoula, Montana) through Polson, Montana (a distance of approximately 56.3 miles). It is anticipated the proposed action will be constructed with several separate construction projects.

Alternatives under consideration to improve the highway are described in Chapter 5 and are evaluated in detail in Chapters 6 and 7.

US 93 is important to local, regional and nationwide transportation; the volume of traffic is high, has been steadily increasing and is projected to continue to increase. The existing roadway has various geometric features that do not meet current guidelines and standards for safety and design. Existing level-of-service (LOS) is poor, and it is projected that traffic volume will exceed capacity by the design year ~~2015~~2020.[1] With the high volume of traffic, the accident rate is similar to the statewide accident rate, while accident numbers per mile are substantially higher than statewide averages.

The following sections provide additional detail and explain the need for improvement of the highway.

4.1. SYSTEM LINKAGE

Highway improvement that will preserve and enhance US 93 is needed because of its importance to the transportation system of Lake and Missoula counties, the Flathead Indian Reservation, western Montana, and the western United States.

Nationally, US 93 traverses the United States in generally a north-south direction from the Canadian border to near the Mexican border, passing through the states of Montana, Idaho, Nevada and Arizona.

US 93, which is the major north-south transportation route in western Montana, is functionally classified as a principal arterial and a rural primary highway. It is part of the National Highway System (NHS)~~, as established by the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991.~~ Prior to NHS~~ISTEA~~, this highway was part of Montana's Federal Aid Primary (FAP) highway system. The Confederated Salish and Kootenai Tribes (CSKT) have not agreed to the designation of US 93 as a part of the NHS.

US 93 is part of an extensive system of rural arterial routes that support the interstate highway system. Other highways in the region are: I-90; Montana highways (MT) 28, 35, 135, and 200 in Lake and Sanders counties; MT 83, which is east of US 93 across the Mission Mountains in the Swan Valley of Lake and Missoula counties; and Montana secondaries (MTS)~~Federal Aid Secondary (FAS) routes~~ 211, 212, 382 and 559 in Lake and Sanders counties. US 93 provides transportation services to an area that spans six major valleys in Montana: Flathead, Mission, Jocko, Missoula, Swan, and Bitterroot. US 93 is the major transportation route providing access to Flathead Lake and Glacier National Park. There are no north-south interstate highways in northwestern Montana. (Figure 5.1-6)

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[1]It is anticipated that the earliest sections of highway improvements will be completed no sooner than the year ~~1995~~2000. It is considered desirable to design highway improvements to accommodate projected traffic demand for at least 20 years after the implementation. The year ~~2015~~2020 is, therefore, considered the "design year" for the proposed action.

~~The federal and state governments operate the primary and secondary highways as part of the transportation system.~~ Lake County operates approximately 1,200 miles of rural roads with mostly gravel surfaces. In the southern part of the area of the proposed action, Missoula County maintains rural roads with gravel surfaces.[2] The CSKT Roads Program~~Bureau of Indian Affairs (BIA)~~ maintains rural roads that interconnect with county and private roads on the Flathead Indian Reservation.

4.2. TRANSPORTATION DEMAND

Improvement to the existing transportation system along US 93 is needed to safely and efficiently accommodate existing and projected future transportation demand through the design year ~~20152020~~.

Excluding the segments of highway in the incorporated cities Ronan and Polson, US 93 has average daily traffic (ADT) that ranges from ~~5,200 at the permanent counter south of Ravalli~~5,300 south of MTS 212 to more than ~~7,900~~10,000 between Pablo and Polson. The level of ADT from Evaro through Polson generally is between two- and three-times higher than ADT for other rural primary highways in Montana, and it is six-times higher than MT 83 in the Swan Valley. Other rural primary highways in the state generally operate at LOS A or B, compared with LOS D on US 93. (Sections 4.4 and 6.1 and Figure 4.2-1)

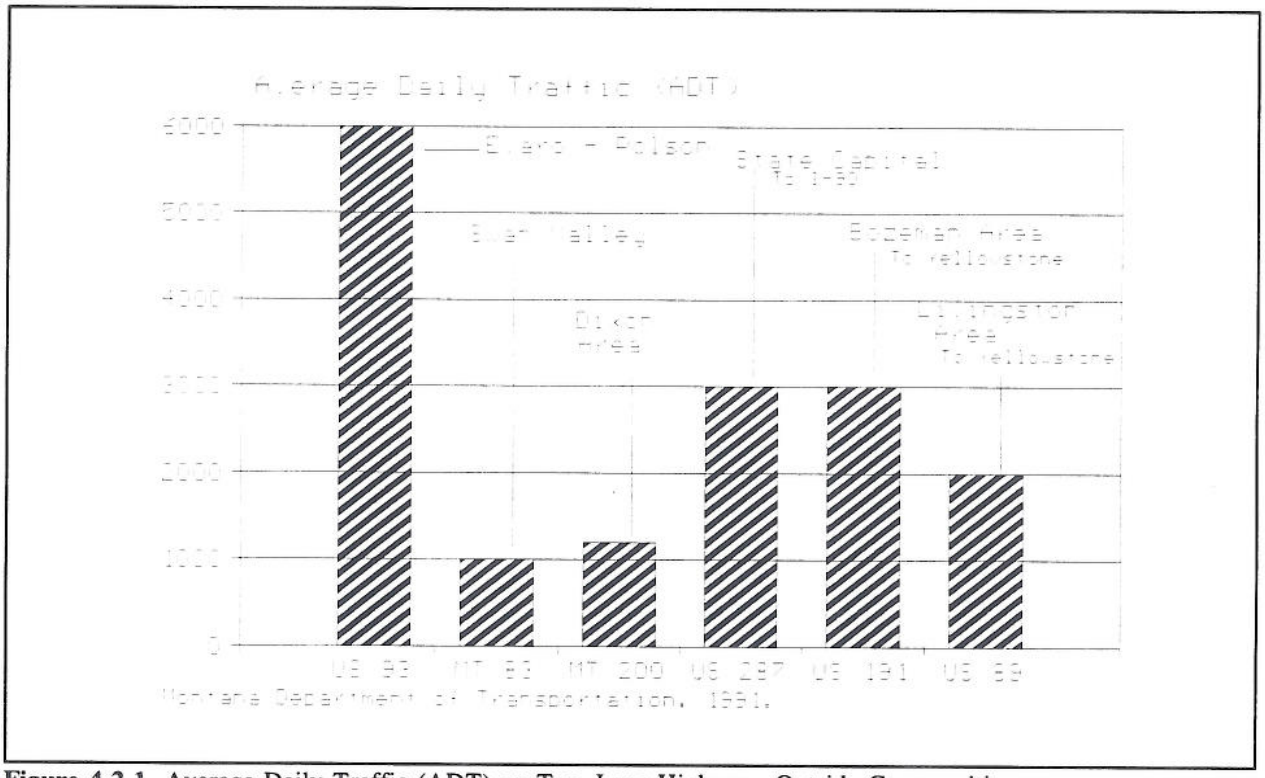

Figure 4.2-1 Average Daily Traffic (ADT) on Two-Lane Highways Outside Communities

As indicated in Section 6.1.4, average annual growth in traffic volume on US 93 has been approximately three percent during the past 20 years. Existing traffic demand is high and, as indicated in Section 7.1.1, this growth rate is projected to continue, with or without improvement of the highway, which means that traffic volume on the

[2]The Lake County Overall Economic Development Plan, 1990 Update; P. 13.

highway will approximately double by the design year ~~2015~~2020. As indicated in Section 4.4, this increasing traffic volume is currently straining the existing highway system and is projected to cause serious operational and congestion problems in the future.

The percentage of trucks in the traffic stream is between 10 and 13.7%. This percentage is expected to continue through the design year.

The increased traffic demand is a result of the growing population in the region. US 93 from Evaro through Polson provides transportation for the local area and the regional population throughout western Montana. The western part of the state has experienced a high rate of population growth since 1970. An eight-county area of western Montana, including Lake, Missoula, Flathead, Sanders, Ravalli, Mineral, Lincoln and Granite counties, had 52% of all population growth in Montana between 1970 and 1990. During that 20-year period, the population of the eight counties increased from 23 to 27% of the total population in the state.[3]

Between 1970 and 1990, the populations of Lake, Missoula and Flathead counties increased by 42%, while the overall population of Montana increased by 15%; during the 20-year period the population of the Flathead Indian Reservation increased by 37%.[4] (Figure 4.2-2 and Section 6.4)

4.3. ROADWAY DEFICIENCIES

Improvement of US 93 is needed to correct deficiencies in the existing highway to meet current design and safety standards for a design speed of 60 miles per hour (mph). As explained in Section 6.1.2, the existing highway fails to meet current safety and design standards for a design speed of 60 mph for a rural arterial highway in various categories including those described in following paragraphs. There are two horizontal curves that are

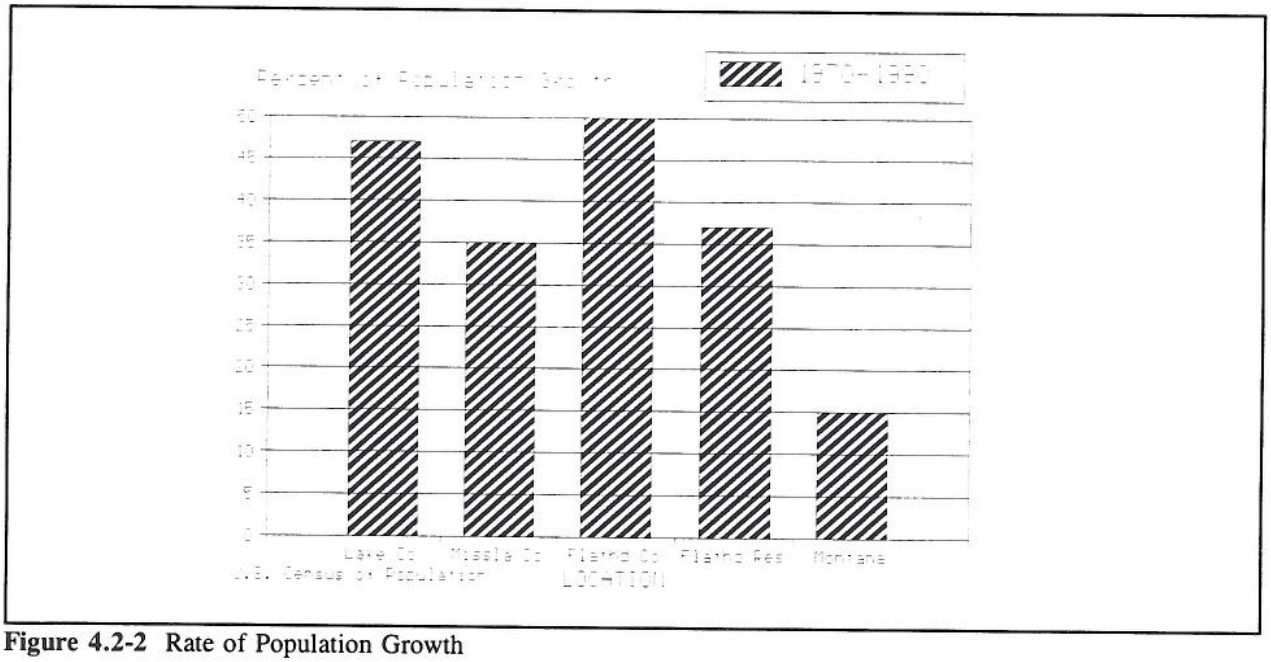

Figure 4.2-2 Rate of Population Growth

[3]U.S. Department of Commerce, Bureau of the Census. Census of Population. 1970-1990.
[4]U.S. Department of Commerce, Bureau of the Census. Census of Population. 1970-1990.

substandard.[5] These curves reduce sight distance, increase the possibility for vehicles going out of control and leaving the highway, create a speed differential in the traffic stream, increase chances for rear-end collisions~~, reduce capacity and LOS,~~ and reduce vehicle efficiency. (Table 6.1-3)

Vertical grades on four different sections of the roadway are substandard.[6] Vertical grades that are steeper than standard substantially reduce the speed of trucks, recreational vehicles (RVs) and other heavy vehicles, and they begin to reduce the speed of some passenger cars. This also affects safety by creating a speed differential in the traffic stream, increasing the potential for rear-end collisions. The speed differential also reduces capacity and LOS, and it increases driver frustration -- some drivers begin to pass where it is unsafe. (Table 6.1-4)

Twenty vertical curves do not provide adequate stopping sight distance for a 60 mph design speed.[7] Vertical curves that are inadequate for the design speed provide inadequate sight distance and therefore increase the possibility of accidents. (Table 6.1-5)

Paved roadway shoulder width (the paved area of the roadway outside the driving lanes) is generally substantially less than the eight-foot width considered standard and desirable for rural arterial highways with high traffic volumes. Space is therefore limited and not sufficient for 1) emergency stopping on the roadway; 2) farm equipment, wide loads or other equipment using the roadway; 3) pedestrians and bicyclists (Sections 6.6 and 7.6); 4) a recovery zone for errant or out-of-control vehicles; and 5) snow removal and storage. As a result, there is a decrease in safety and driving comfort, or convenience.

In Polson, an inadequate storm-runoff drainage system results in run-off directly into Flathead Lake, and inadequate bridge shoulders result in accidents as vehicles attempt to pass. The current bridge over the Flathead River at Polson doesn't have a passing lane.

4.4. CAPACITY AND LEVEL-OF-SERVICE

The proposed action is needed to improve the existing poor LOS and to attain a desirable LOS through the design year ~~20152~~2020 by: 1) improving the highway to adequately accommodate existing and future traffic demand, and; 2) by participation in development of transportation demand management (TDM) measures to manage the growth of traffic.

In rural areas, desirable operation is defined as LOS B or better. In communities such as Arlee, Ronan, Pablo and Polson, desirable operation is defined as LOS C or better.

The capacity of the highway is reached when traffic operation is represented by LOS E. As traffic demand exceeds the capacity (LOS E), congestion and unstable flow occurs and flow rate decreases (LOS F).

~~LOS on the existing highway is poor (LOS D and E) throughout most of the proposed action (Section 6.1.5). Unstable traffic flow begins to occur as LOS D is approached on a two-lane highway. The two opposing traffic streams begin to operate separately, as passing becomes difficult. Passing demand is high, while passing capacity approaches zero. Average platoon sizes of five to 10 vehicles are common. Turning vehicles and/or roadside distractions cause major speed reductions in the traffic stream. The percentage of time motorists are delayed approaches 75% of overall travel time.~~The existing highway is generally operating at LOS D and E.

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[5]Three of the five horizontal curves listed on Table 6.1-3 are in developed areas in or near the city of Polson. These horizontal curves are not considered substandard because the travel speeds in this area are well below 60 mph.

[6]Four of the eight vertical grades listed on Table 6.1-4 are in developed areas in or near the city of Polson. These grades are not considered substandard because the travel speeds in this area are well below 60 mph.

[7]Eleven of the 31 vertical curves listed on Table 6.1-5 are in developed areas in or near the city of Polson. These vertical curves are not considered substandard because the travel speeds in this area are well below 60 mph.

At LOS D, passing demand is high while passing capacity is near zero. Platoons are forming in the traffic stream and the percentage of time motorists are delayed approaches 75%. At LOS E, passing is virtually impossible, platooning becomes intense and vehicles are delayed more than 75% of the time.

It is projected that, with no substantial improvement by the design year, traffic demand on the existing highway will exceed capacity and will be operating at LOS F. (Section 7.1.2.2) LOS F represents heavily congested flow with traffic demand exceeding capacity. Breakdowns in the flow of traffic, with related formation of queues and reductions in travel speed, occur frequently. Under these conditions, the capacity of the highway decreases.

Poor traffic operation and congestion on US 93 will result in the following types of conditions:

- As LOS deteriorates, frustration levels of drivers increase and some drivers begin to take chances, begin to follow other vehicles too closely and attempt to pass where it is unsafe. As a result, head-on and rear-end collisions increase.

- As indicated in Section 7.4, as the volume of traffic increases, US 93 will become more of a barrier. If the highway is not improved, there will be increased concentrations of traffic. Longer platoons of vehicles will further restrict the continuous flow of traffic. It will be increasingly difficult to have access to and from the highway for residential, commercial, industrial, agricultural, public and other open areas. Some alternatives for improvement of the highway will provide additional traffic lanes, including left-turn bays and continuous two-way left-turn center medians, to improve vehicle access to and from the highway.

- As indicated in Section 7.4, congestion caused by traffic volume that exceeds capacity disrupts neighborhoods, communities and rural areas outside communities by affecting residents' ability to meet casually and associate freely. Traffic congestion causes reduced association with neighbors, disruption of living patterns, and reduced efficiency of facilities/services.

- The increasing congestion and traffic volume that exceeds the capacity of US 93 disrupts the ability of Polson to function as a cohesive community and impedes local circulation for pedestrians and vehicles. Flathead Lake now serves as a major attribute for recreation and tourism, on which the city of Polson and CSKT are capitalizing with lake-related development such as lakeside hotels, boating and golfing. US 93 effectively bisects the central area of town from the lake, substantially reducing the ability of the town to tie into lake activities. This barrier effect of US 93 is projected to worsen as traffic volume increases. This will result in further disruption to the community, disrupting traffic and circulation, reducing the efficiency of the provision of facilities/services, and hampering the ability of Polson to capitalize on the potential of the lake for recreation and tourism.

- When traffic congestion occurs on the highway, access and travel by emergency vehicles (ambulances, fire trucks, police) are seriously hampered. Travel speeds are reduced substantially, flows are sporadic and excessive deceleration, stopping and acceleration occurs. It becomes difficult for vehicles to move off the roadway to let emergency vehicles pass. Emergency vehicles may often be forced to take less direct, alternate routes that may be substantially longer and also have low travel speeds, which could cause increases in emergency response times.

- As indicated in Section 7.5, as traffic demand increases and the highway becomes more congested, approaching unstable flows characteristic of LOS E and F, delivery of goods and services to the area and shipping of agricultural, timber and other products from the area will be hampered. The unstable flow and cyclic start and stop traffic operations will increase travel times and costs for shipping, resulting in more expensive and less reliable transportation services for the economy.

- As indicated in Section 7.7 and Appendix F, as traffic operations approach LOS E and F, air quality emissions will increase substantially because of the resulting increases in acceleration/deceleration, start/stop and vehicle idling time.

4.5. SAFETY

The proposed action is needed to improve safety and reduce the number of accidents and resulting property damage and, particularly, injuries and fatalities that have occurred on the highway in the past.

Experience with other highways near the proposed action has indicated highway improvement substantially reduces the number and severity of accidents. As indicated on Table 6.1-10, fatalities were eliminated in the first five years and injuries were reduced by two-thirds when the approximately six miles of US 93 between I-90 and Evaro was improved from two lanes to four lanes.

The accident history from Evaro through Polson, as described in Section 6.1.3 and based on information from accident reports submitted for the years ~~1987~~1990 through ~~1991~~1994, indicates that:

- Approximately ~~702~~750 accidents occurred during the five-year period.
- There were 16 fatal accidents that resulted in ~~17~~24 fatalities and ~~278~~320 accidents that resulted in injuries. ~~Seven of the fatalities were American Indians.~~
- There were substantially more accidents per mile on this roadway (~~2.49~~2.66) as compared with the statewide average (~~0.50~~.53). ~~(Figure 4.5-1)~~
- The accident rate (accidents per million vehicle miles) was slightly lower on this roadway (~~1.1~~1.03) than the statewide average (~~1.26~~1.30).
- Though it is difficult to place an appropriate dollar value on a human life or a serious injury, the estimated monetary cost of accidents that occurred on the highway during the five-year period, based on average accident costs determined by the Federal Highway Administration (FHWA), is estimated to be ~~$64.7~~89.4 million, or ~~$12.9~~17.9 million per year.

As indicated in Section 6.1.3, research by the Montana Multi-Disciplinary Traffic Safety Task Force shows this section of US 93 as having a high number of traffic collisions and a large percentage of accidents involving older drivers.

Recommendations for improvement were made by the task force particularly to target and reduce accidents for elderly drivers that should, at the same time, benefit all drivers: Various measures for improving visibility of signs, pavement markings and signals; adding designated left-turn bays; removing or improving unsafe slopes and obstacles; reducing the number and improving the design of approaches to the highway; and other measures.

As listed on Table 6.2-4, there are approximately 681 approaches to the existing highway. These include highway and street intersections; residential, commercial and industrial driveways; farm field approaches; and others.

Junction density is particularly high in communities such as Arlee, Ronan and Polson. The number of private approaches to the highway is increasing steadily as population increases and development occurs in the area.

Some of these approaches have undesirable intersection angles with the highway, creating difficulty for drivers to see approaching vehicles and also encouraging improper turns and failure to stop or yield. Some of the approaches have grades that are too steep. This creates difficult and unsafe stopping conditions for vehicles approaching the

highway downhill and difficult starting and acceleration for vehicles approaching uphill, particularly on slick surfaces.

The density of junctions to a highway is an important contributor to the accident rate on a rural arterial highway. As indicated on Table 6.1-7, ~~241~~272 (~~34~~36%) of the recorded accidents on US 93, including the incorporated cities Ronan and Polson, involved approaches; they occurred at intersections of the highway with other roads; or they were related to intersection or driveway access.[8] ~~Excluding Ronan and Polson, 32% of accidents involved approaches, compared with 31% statewide. The percentage of accidents at intersections and related to intersections on US 93 is similar to statewide, but the percentage of accidents on US 93 involving driveway access, which primarily serves residential or business development, is more than 60% higher than statewide for rural primary highways. (Figure 4.5-2 and Sections 4.3 and 6.1)~~

It is likely that approaches contribute to other types of accidents by distracting drivers or by causing them to veer away from the approach and move closer to the roadway centerline. High junction density also contributes to substantial reductions in the capacity, service level and driving comfort of the highway.

[8]Montana Department of Transportation and Montana Department of Justice. Accident Records System. 1987-91.

TABLE OF CONTENTS

5. ALTERNATIVES 5-1

5.1. ALTERNATIVES UNDER CONSIDERATION 5-1
- 5.1.1. No Action 5-1
- 5.1.2. Alignment Alternatives 5-1
  - 5.1.2.1. Existing Alignment 5-1
  - 5.1.2.2. Arlee Alignments 5-1
  - 5.1.2.3. Ronan Alignments 5-3
  - 5.1.2.4. Polson Alignments 5-5
  - 5.1.2.5. Old Freight Route 5-7
- 5.1.3. Lane Configuration Alternatives 5-7
  - 5.1.3.1. Lane Configuration A 5-7
  - 5.1.3.2. Lane Configuration B 5-11
  - 5.1.3.3. Lane Configuration C 5-11
  - 5.1.3.4. Lane Configuration D 5-11
- 5.1.4. Transportation Demand Management 5-11
- 5.1.5. Alternate Highway Routes 5-12
- 5.1.6. Design Options 5-14

5.2. COMPARISON OF ALTERNATIVES 5-16

5.3. THE MDT PREFERRED ALTERNATIVE 5-35
- 5.3.1. Alignments 5-35
- 5.3.2. Lane Configurations of the MDT Preferred Alternative 5-37
- 5.3.3. Transportation Demand Management 5-42
- 5.3.4. Design Options of the MDT Preferred Alternative 5-42

5.4. THE CSKT PREFERRED ALTERNATIVE 5-52

LIST OF FIGURES

Figure 5.1-1 Arlee Alignment Alternatives 5-2
Figure 5.1-2 Ronan Alignment Alternatives 5-4
Figure 5.1-3 Polson Alignment Alternatives 5-6
Figure 5.1-4 Lane Configuration Alternatives 5-8
Figure 5.1-4 Lane Configuration Alternatives (Cont'd) 5-9
Figure 5.1-5 Lane Configuration A 5-10
Figure 5.1-6 Alternate Highway Routes 5-13
Figure 5.3-1 Lane Configuration of the MDT Preferred Alternative 5-39

LIST OF TABLES

Table 5.2-1 Comparison of Impacts: Existing Alignment (Except Arlee, Ronan and Polson) 5-17
Table 5.2-2 Comparison of Impacts: Arlee Alignments 5-23
Table 5.2-3 Comparison of Impacts: Ronan Alignments 5-27
Table 5.2-4 Comparison of Impacts: Polson Alignments 5-31
Table 5.3-1 Lane Configuration of the Preferred Alternative 5-38
Table 5.3-2 Existing Intersections to have Left-Turn Bays 5-46

5. ALTERNATIVES

This section of the ~~draft~~final environmental impact statement (EIS) describes alternatives under consideration for the proposed action and identifies alternatives that will be evaluated in detail in later sections of the document (Section 5.1); summarizes and compares the alternatives (Section 5.2); and identifies the Montana Department of Transportation's (MDT) Preferred Alternative and the Confederated Salish and Kootenai Tribes' (CSKT) Preferred Alternative~~preferred alternative~~ and explains reasons for selection (Section 5.3).

5.1. ALTERNATIVES UNDER CONSIDERATION

The National Environmental Policy Act of 1969, as amended, (NEPA) requires evaluation of reasonable alternatives related to the proposed action, including No Action.

Alternatives were developed for the proposed action based on written and oral comments received during the public scoping process, on coordination by MDT with CSKT, local, state and federal agencies interested in the proposed action, and on engineering and environmental studies. (Chapter 10)

Alternatives that have been developed are described in the following sections and include No Action (Section 5.1.1), alignment alternatives (Section 5.1.2), lane configuration alternatives (Section 5.1.3), Transportation Demand Management (TDM) alternatives (Section 5.1.4), and alternate highway routes (Section 5.1.5). Design options that can be applied to each of the alternatives under consideration are described in Section 5.1.6.

5.1.1. No Action

With this alternative, the existing highway transportation system will receive no substantial improvement.

Although this alternative will not meet the purpose and need for the proposed action, it is evaluated in detail in accordance with NEPA and the Council on Environmental Quality (CEQ) Regulations.[1] (Chapter 4)

5.1.2. Alignment Alternatives

Various alignment alternatives are under consideration as described in the following paragraphs. Except where otherwise noted, all alignment alternatives are evaluated in detail.

5.1.2.1. Existing Alignment

This alternative consists of reconstructing the roadway in its existing corridor with only minor adjustments to allow for widening, to improve horizontal curves and vertical grades and curves, and to avoid important features adjacent to the roadway. The existing alignment, also referred to as Alignment 1, is shown on aerial photographs and maps in Appendix A.

5.1.2.2. Arlee Alignments

Five alignment alternatives, as shown on Figure 5.1-1 and Appendix A, are under consideration in the Arlee area:

Alignment 1, the existing alignment.

Alignment 2, an alignment west of Arlee and passing between the town and the existing railroad tracks.

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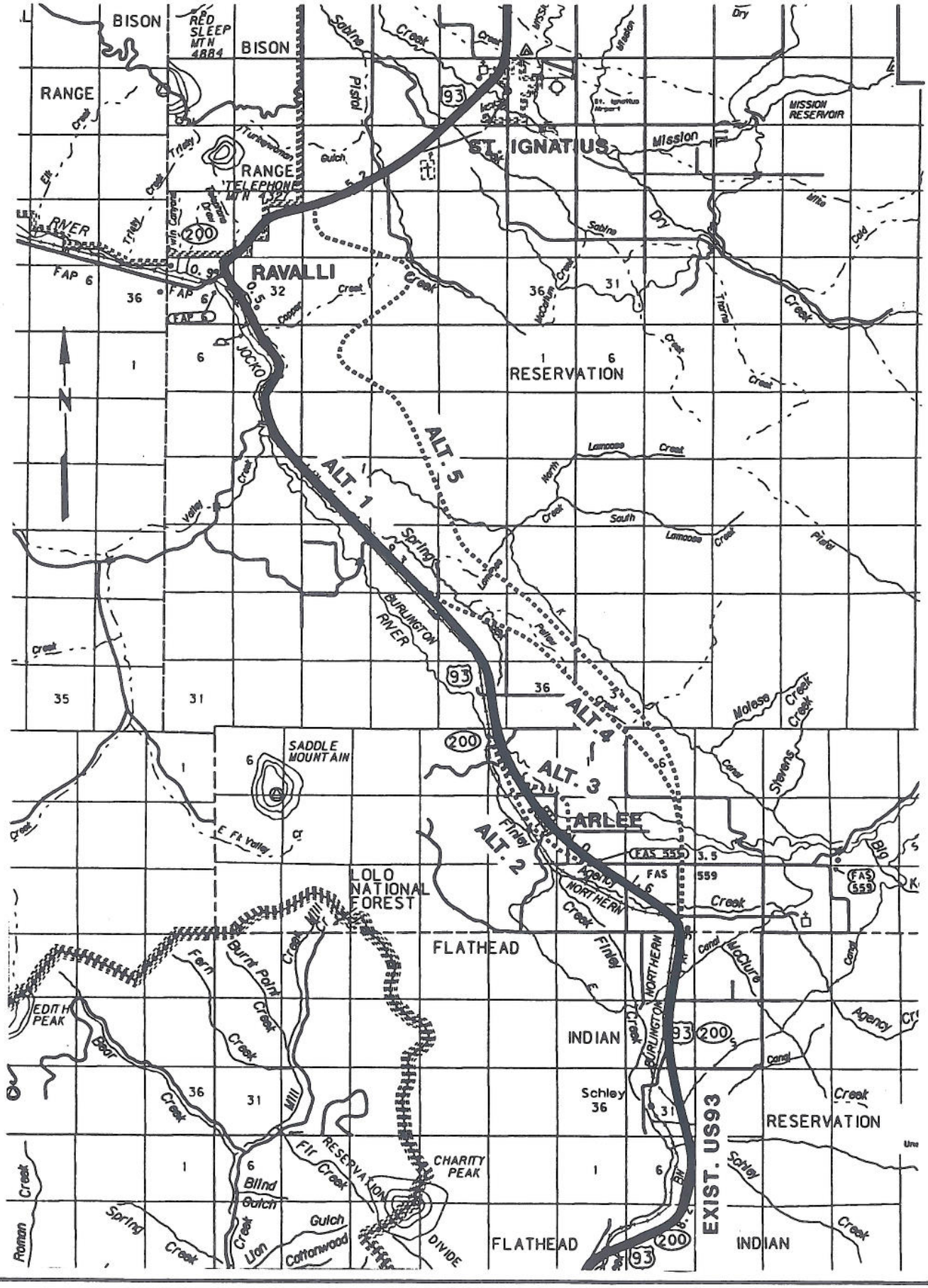
[1]Council on Environmental Quality, Executive Office of the President, Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act, 01 July 1986.



ARLEE ALIGNMENT ALTERNATIVES

FIGURE 5.1-1

Alignment 3, an alignment east of Arlee passing west of the rodeo grounds, east of the schools and southwest of the fish hatchery.

Alignment 4, an alignment that leaves U.S. Highway 93 (US 93) at Dirty Corner (near the Missoula/Lake County line near Milepost 15.1), continues north across the Jocko River, then continues northwest to rejoin the existing highway approximately three miles north of Arlee.

Alignment 5, an alignment that, similar to Alignment 4, leaves US 93 at Dirty Corner (near the Missoula/Lake County line near Milepost 15.1), continues north across the Jocko River to the base of the Mission Mountains on the east side of the valley, then follows the base of the mountains to rejoin the existing highway between Ravalli and St. Ignatius. This alignment is not evaluated in detail because:

- It received substantial public opposition and only minor public support.
- It will cause substantial environmental impacts related to introducing highway traffic in an area that currently has little vehicle traffic. Related impacts will include noise, safety, visual, air quality, social and cultural resources.
- There will be substantial wetland and wildlife impacts.
- New crossings of the Jocko River and of several streams will be required.
- Large amounts of farmland will be converted to highway right-of-way (ROW). A substantial number of irrigation laterals and systems will be disrupted.
- Implementation of this alternative will create two highways through this portion of the Mission Valley -- the existing US 93 will still require maintenance to serve residences, business and communities located along its route.
- This alignment will cross hills east of Ravalli approximately 1,300 feet higher than the existing alignment. Grades will be steeper, and snow and ice accumulations will be greater.

5.1.2.3. Ronan Alignments

Four alignment alternatives, as shown on Figure 5.1-2 and Appendix A, are under consideration in the Ronan area:

Alignment 1, the existing alignment.

Alignment 2, an alignment approximately one block west of the existing alignment on First Avenue Southwest. This alignment is part of a one-way couplet and will carry southbound traffic while northbound traffic will remain on the existing alignment.

Alignment 3, passes along the west edge of the community, approximately 0.6 mile west of the existing alignment.

Alignment 4, is located approximately one mile west of the existing alignment, west of the sewage treatment lagoons and, for a short distance, adjacent to the railroad and a community ballfield.

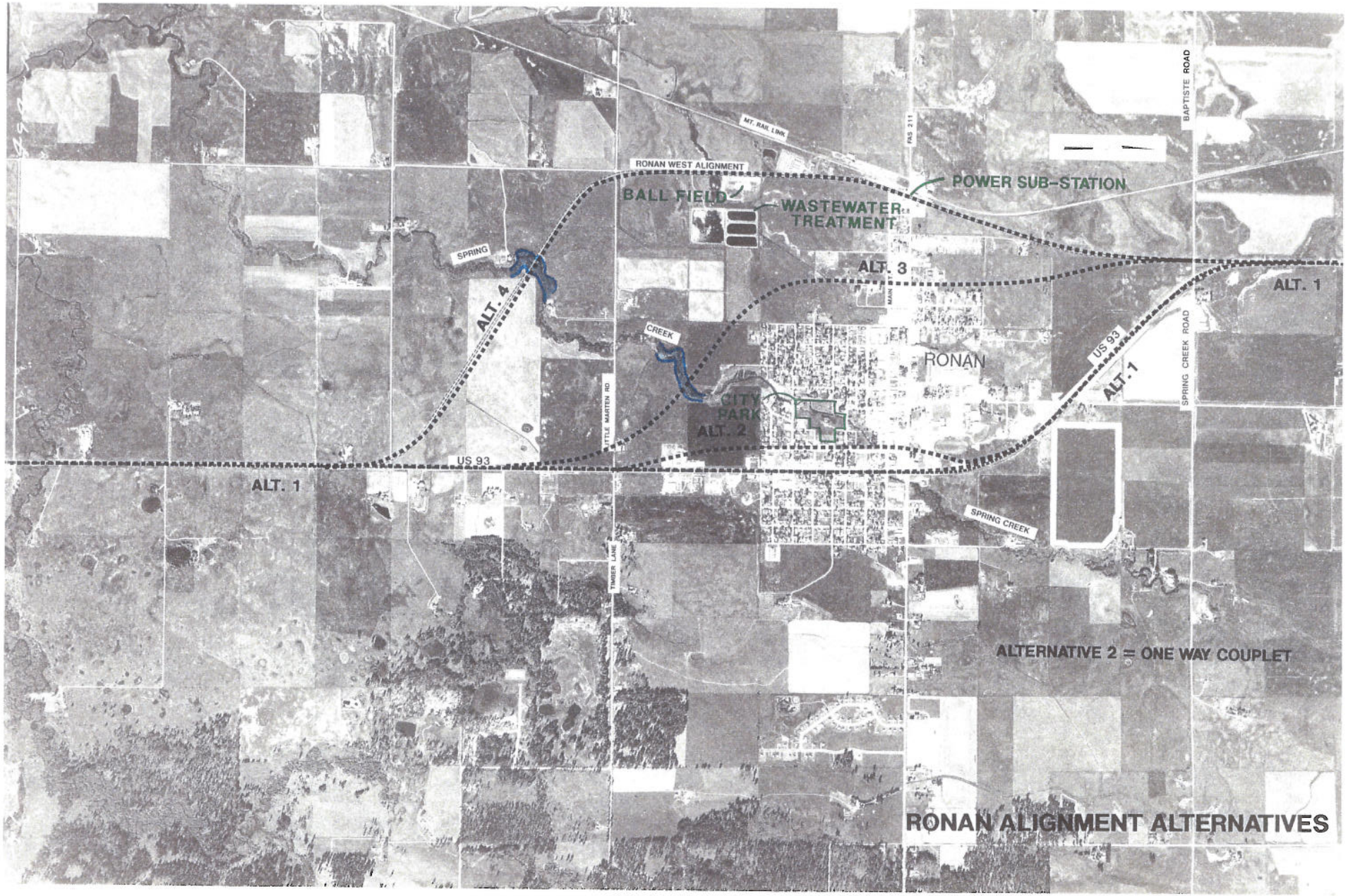

MT. RAIL LINE
RONAN WEST ALIGNMENT
BALL FIELD
WASTEWATER TREATMENT
POWER SUB-STATION
BAPTISTE ROAD
SPRING
ALT. 4
ALT. 3
ALT. 1
CREEK
RONAN
US 93
ALT. 1
CITY PARK
ALT. 2
SPRING CREEK ROAD
LITTLE MARTEN RD
US 93
ALT. 1
SPRING CREEK
TIMBER LANE
ALTERNATIVE 2 = ONE WAY COUPLET
RONAN ALIGNMENT ALTERNATIVES

FIGURE 5.1-2

5.1.2.4. Polson Alignments

In Polson, objectives were developed which reflected public and agency concerns and were then used to guide the development of alternatives:

1. Maintain and enhance traffic flow.
2. Improve the safety of the transportation system.
3. Minimize negative impacts to existing residential neighborhoods.
4. Minimize negative impacts to the business community.
5. Limit construction disruption as much as possible.
6. Minimize impacts to important natural resources in the Flathead Valley.
7. Enhance and preserve recreational resources.
8. Minimize impacts of property acquisition.
9. Be responsive to long-term maintenance requirements.
10. Be responsive to future land use plans and transportation needs.

Several alignments have been developed and are under consideration as shown on Figure 5.1-3 and Appendix A:

Alignment 1, consisting of reconstructing the roadway in its existing corridor with adjustments to allow for widening, improving horizontal curves, reconstructing substandard intersections, improving vertical alignment (includes removing the road surface from the floodplain), and avoiding any important feature adjacent to the roadway. The bridge over the Flathead River will be improved or replaced.

Alignment 2, consisting of a new alignment along Caffrey Road south of Polson, then along Kerr Dam Road, across the river just east of the fairgrounds. A new bridge across the Flathead River will be constructed to continue the general Kerr Dam Road alignment straight north over the river. New intersection configurations will be needed for the intersections with Caffrey Road and US 93.

Alignment 3, which is identical to Alignment 2 for the eastern approximately 3.25 miles of the alignment along Caffrey Road. It then veers west of Alignment 2 by one-third to one-half mile, crosses the river at a point approximately 3,500 feet downstream from the Alignment 2 bridge crossing, then continues north along an alignment that is west of the airport. A new bridge across the Flathead River will be constructed.

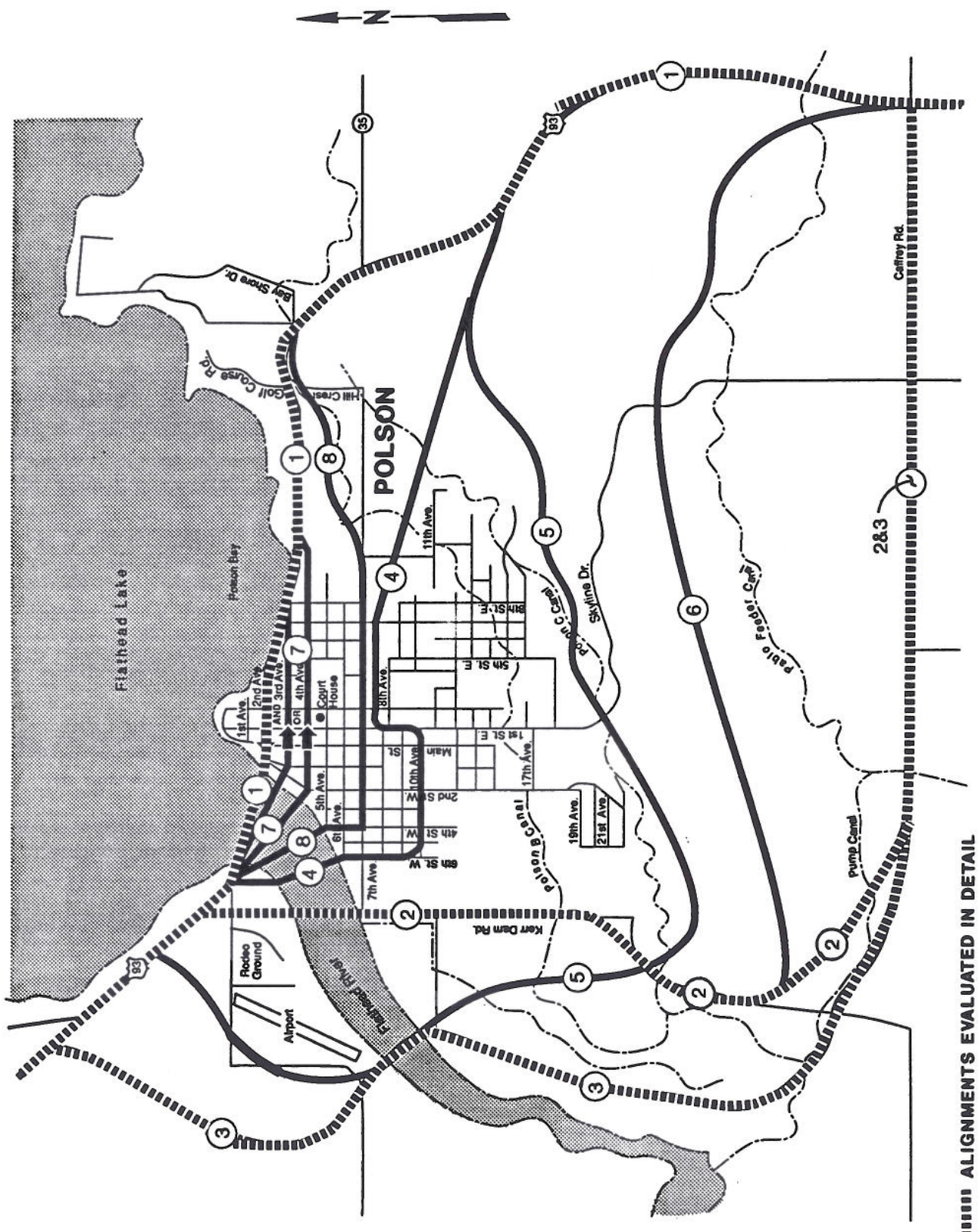
Alignment 4 (Old Mill to Eighth Avenue) is not evaluated in detail because of its circuitous, forced alignment, which will likely not meet the purpose and need; its socioeconomic impacts to residential areas on the hillside; its effects on the elementary and junior high schools; and its noise impacts. It did not meet objectives one, three and 10.

Alignment 5 (North Base of Hill) is not evaluated in detail because of its circuitous, forced alignment and six-percent grades, which will not meet the purpose and need; potential icing problems in the winter; socioeconomic impacts to residential areas; and conflict with the airport. It did not meet objectives one, two, three, nine and 10.

Alignment 6 (Top of Polson Hill) is not evaluated in detail because of its requirement for almost a mile of six-percent grade, which will not meet the purpose and need. It also would have potential icing problems. It did not meet objectives one, two and nine.

Alignment 7 (Third/Fourth Couplet) is not evaluated in detail because of its impacts on sensitive community resources such as schools, churches and the courthouse; its potential for increased pedestrian conflicts, including accidents; and its noise impacts. It did not meet objectives two, three and 10.

Alignment 8 (Railroad Alignment to Seventh Avenue) is not evaluated in detail because it will not operate well as a one-way couplet and will thus not meet the purpose and need; its impacts to the elementary and junior high schools; its effect on the fairgrounds; and its noise impacts. It did not meet objectives one, three, seven and 10.



POLSON ALIGNMENT ALTERNATIVES

FIGURE 5.1-3

5.1.2.5. Old Freight Route

This alternative (shown on the map of the proposed action in Appendix A) would consist of constructing a new roadway approximately four miles west of and generally parallel with the existing roadway along the "Old Freight Road." This alternative leaves the existing roadway near Ravalli or near St. Ignatius and passes either east or west of the National Bison Range, then continues north to the city of Polson.

This alternative is not evaluated in detail because:

- It received substantial public opposition and only minor public support.
- It will cause substantial environmental impacts related to introducing substantial highway traffic into an area that currently has little vehicle traffic. Related impacts will include noise, safety, visual, air quality and cultural resources.
- Wetland impacts will be at least equal to and possibly greater than impacts along the existing roadway.
- Large amounts of farmland will be converted to highway ROW.
- Implementation of this alternative will create two highways through this portion of the Mission Valley. Existing US 93 will still require maintenance to serve residences, business and communities along its route.
- This alternative will divert motor vehicle traffic on the existing highway away from the towns of St. Ignatius, Ronan, Pablo and Polson. St. Ignatius and Ronan have indicated opposition to any highway relocation that will divert highway traffic. As a result of and in accordance with Montana Code Annotated (MCA 60-2-211 Bypassing of Municipalities -- Consent of Municipal Governing Body), these alignments cannot be constructed by MDT without approval of the municipality.

5.1.3. Lane Configuration Alternatives

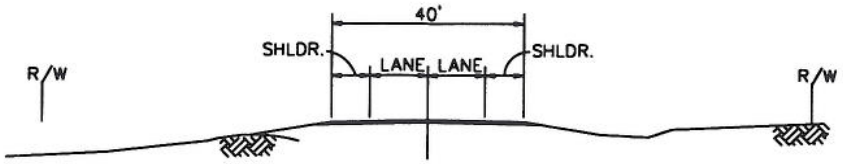
The following sections and Figure 5.1-4 describe and show lane configuration alternatives that are under consideration for each segment of the highway.

5.1.3.1. Lane Configuration A is a two-lane, two-way highway. Where needed, passing lanes will be added for short distances, designated left-turn bays will be constructed at selected intersections and continuous two-way left-turn center medians will be constructed where there are high numbers of intersections and driveways. (Figure 5.1-5)

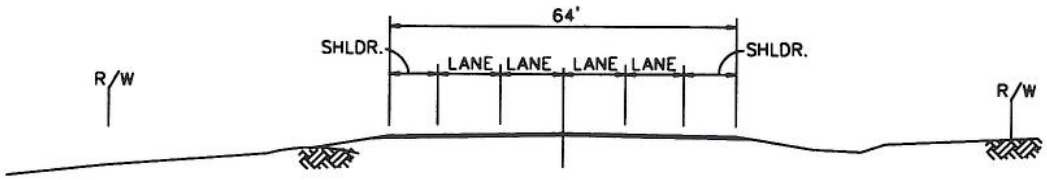
Slow-vehicle turnouts have been suggested for inclusion with this lane configuration to allow large, slow-moving trucks and recreational vehicles (RVs) to pull off the roadway and allow long traffic queues to clear. This option is not considered with this lane configuration because traffic volume is too high to allow them to operate properly.

When slow-moving vehicles pull off and stop, the high traffic volume will make it difficult and unsafe for them to reenter the highway and accelerate to reasonable highway speeds. The state of Oregon has used this concept in the past and has determined that it is not appropriate for high volume arterial highways.[2]

[2]Tabeary, Vern. Oregon Department of Transportation. Telephone Conversation. November 1993.



LANE CONFIGURATION A
2 LANE RDWY
MINIMUM RIGHT OF WAY WIDTH, 160 FT.



LANE CONFIGURATION B
4 LANE RDWY.
GENERAL RIGHT OF WAY WIDTH, APPROX. 180 FT.

NOTE:
EXCEPT WHERE OTHERWISE NOTED, LANES ARE 12.0' WIDE, SHOULDERS ARE 8.0' WIDE.

LANE CONFIGURATION ALTERNATIVES **FIGURE 5.1-4**

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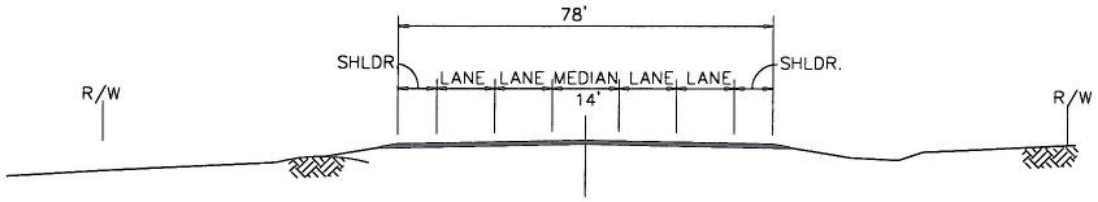
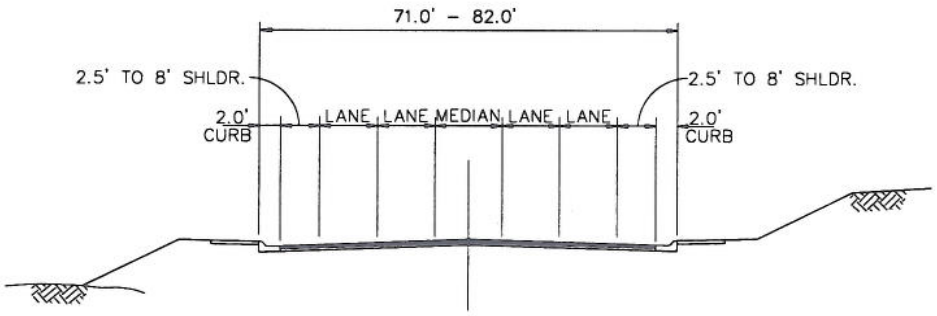


LANE CONFIGURATION C

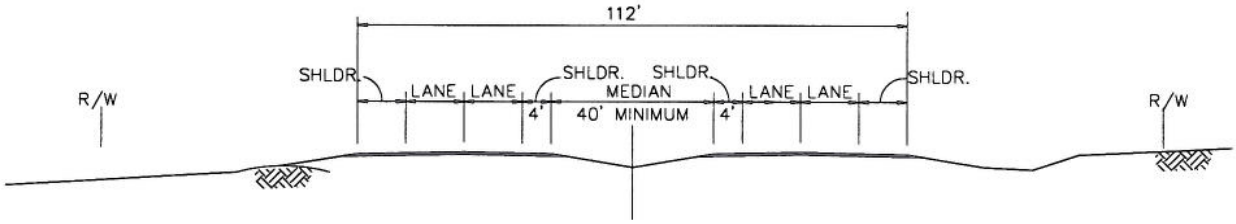
4 LANE WITH MEDIAN/LEFT TURN BAY

GENERAL RIGHT OF WAY WIDTH, APPROX. 200 FT.



LANE CONFIGURATION C

4 LANE WITH MEDIAN/LEFT TURN BAY WITH CURB & GUTTER



LANE CONFIGURATION D

4 LANE DIVIDED

GENERAL RIGHT OF WAY WIDTH, APPROX. 220 FT.

PAVEMENT WIDTH, 72' TOTAL(36' EACH SIDE)

NOTE:

EXCEPT WHERE OTHERWISE NOTED, LANES ARE 12.0' WIDE, SHOULDERS ARE 8.0' WIDE.

LANE CONFIGURATION ALTERNATIVES (CONT.) FIGURE 5.1-4

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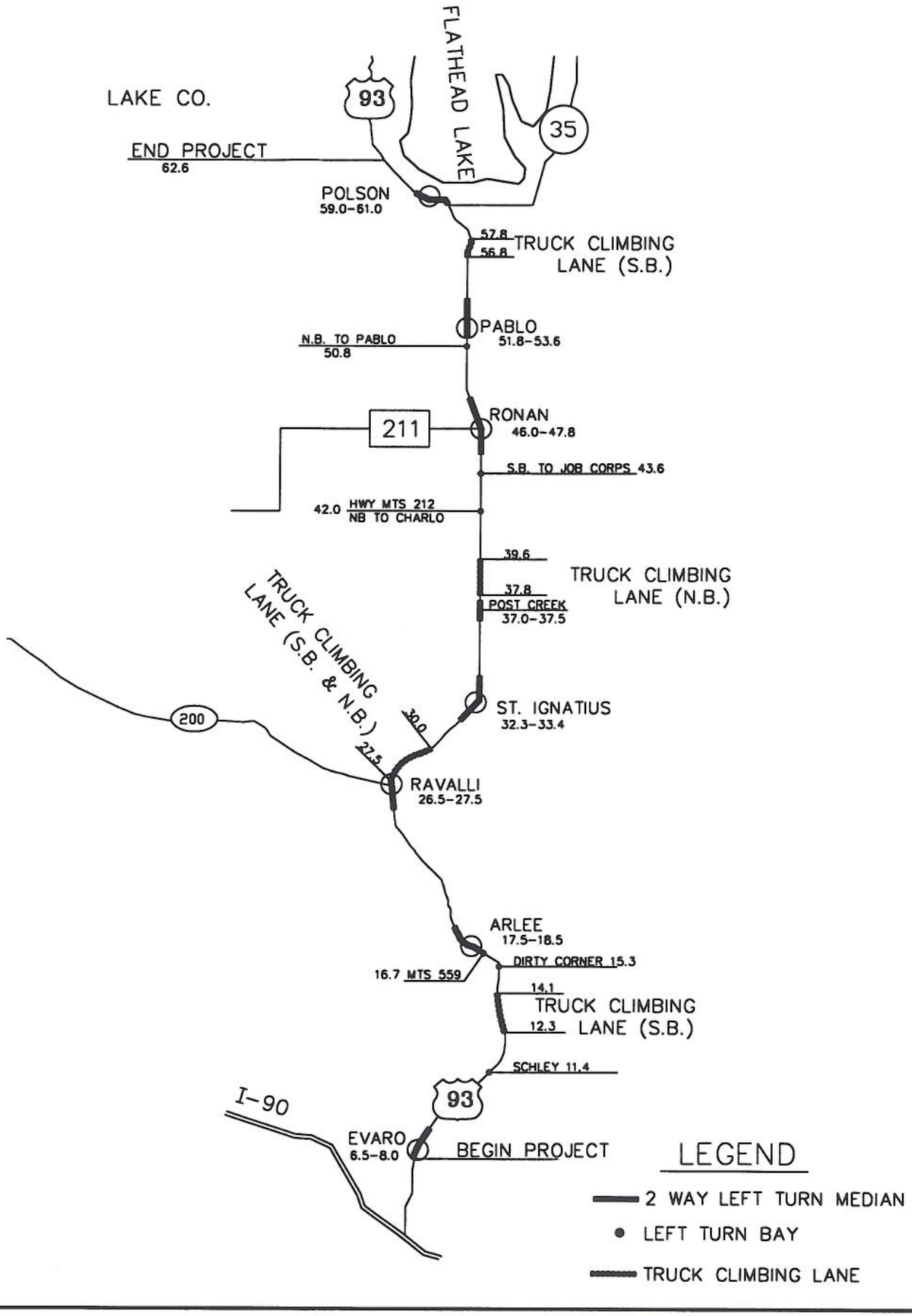

LANE CONFIGURATION A **FIGURE 5.1-5**

D:\US93EIS\FIG51-5.DWG 5/29/96

5.1.3.2. Lane Configuration B is a four-lane highway with two traffic lanes in each direction. ~~As indicated in Section 5.1.6, a four-foot painted center median may be added to this configuration to separate opposing lanes of traffic.~~ Designated left-turn bays will be constructed at selected intersections.

5.1.3.3. Lane Configuration C is a four-lane highway with a continuous two-way left-turn center median.

5.1.3.4. Lane Configuration D is a four-lane highway with a divided, unpaved center median at least 40-feet wide. Designated left-turn bays will be constructed at important intersections.

5.1.4. Transportation Demand Management

Transportation Demand Management (TDM) alternatives will include various measures that might help to reduce the traffic demand on the existing US 93 and thereby preserve or enhance traffic operation with highway improvement. These alternatives also were evaluated to determine whether development of reasonable and cost-effective TDM measures will reduce or eliminate the need for highway improvement.

TDM measures could include ride-sharing (e.g., car pools and van pools), pedestrian/bicycle facilities, bus transit, rail transit (freight and passenger), air transit and alternate highway routes. Alternate highway routes are discussed in Section 5.1.5. An analysis of TDM alternatives for the proposed action has been completed[3] and is included in Appendix B.

Public comment has expressed interest in determining whether TDM alternatives could be effective in reducing traffic volume on the existing highway sufficient to eliminate the need for highway improvement, while providing adequate capacity ~~for~~and a desirable level-of-service (LOS).

TDM generally applies to traffic that uses the highway on a daily basis, primarily commuter travel or other travel that occurs on a regular basis. The Federal Highway Administration (FHWA) considers TDM alternatives to be most practical and effective in urban areas with a population of at least 200,000.[4] In 1990 the population of the immediate area served by US 93 from Evaro through Polson, with 21,100 people in Lake County and 820 in Missoula County, was approximately 10% of FHWA's base urban population for TDM.[5,6,7]

Residents of Lake County use similar means of travel to work as the overall Montana population. In 1990, the percentage of Lake County residents using a car, truck or van was slightly lower than the totals for Montana.

Fewer than one percent of workers in Lake County and the state use public transportation to ride to work.[8,9] College students (estimates of the numbers are not available) also travel on US 93 to the University of Montana in Missoula and Flathead Community College in Kalispell, either daily or several days each week. (Section 7.4.1)

Evaluation and public comment have indicated implementation of TDM options will be desirable where practical and feasible. However, even with optimum reductions ranging from 20 to 40% of vehicle traffic,[10] LOS using ~~1991~~1994 traffic volume will be improved only slightly and will generally be C and D. Currently LOS is mostly D and E (Table 6.1-15). In ~~2015~~2020, LOS with the 20 to 40% reduction of traffic will be ~~D and E~~E and F with

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[3]Matthew J. Delich, P.E., Analysis of Transportation Demand Management Alternatives, U.S. Highway 93, Evaro to Polson, February 1993.
[4]Federal Highway Administration. FHWA Technical Advisory T 6640.8A. October 30, 1987.
[5]Ibid.
[6]U.S. Department of Commerce, Bureau of the Census. Census of Population and Housing. 1990.
[7]It should be noted people from outside the immediate area drive US 93 on a daily basis. They are not included in the above numbers.
[8]U.S. Department of Commerce, Bureau of the Census. Census of Population. 1950-1990.
[9]Morrison-Maierle. Technical Report for Social Conditions: Supplement to U.S. Highway 93 Environmental Impact Statement. 1993.
[10]The 20 to 40% reduction in vehicle traffic volumes is considered very high. Research indicates areas with successful TDM programs typically are able to reduce traffic by a maximum of only 20%.

the existing highway or with an improved two-lane highway.[11] This is a slight improvement over projected LOS ~~E and~~ F in the design year ~~2015~~2020 without implementation of TDM options (Table 7.1-~~32~~), but does not provide the desired LOS B conditions.

5.1.5. Alternate Highway Routes

These alternatives will include measures that might reduce highway traffic demand by promoting shifts of existing and future motor vehicle traffic from US 93 to other existing highway routes. Alternate routes that have been suggested include Montana Highway (MT) 83 in the Swan Valley and MT 200-382-28 in Lake and Sanders counties (Figure 5.1-6).

Alternate highway routes are not evaluated in detail. Large portions of these routes have been recently improved or are scheduled for improvement, including widening shoulders, flattening slopes, removal of unsafe roadside obstructions, improved alignment and grade, new pavement and improved signing and stripinges. Construction has been completed or environmental impacts of these improvements have been or are being evaluated in studies and environmental documents prepared specifically for these projects, as summarized below:

- MT 83, Clearwater Junction - North, Mileposts 0 to 14.7, categorical exclusion approved 3/90, construction scheduled beginning in 1993.

- MT 83, Clearwater Junction - Construction scheduled beyond 2000.

- MT 83, Seeley Lake - Inez Lake, Mileposts 14.7 to 23.1, categorical exclusion approved, construction completed in 1988.

- MT 83, Lake Inez - North, Mileposts 23.1 to 31.4, finding of no significant impact approved 3/92, construction completed in 1992~~nearing completion~~.

- MT 83, Condon - North and South, Mileposts 31.4 to 47.7, environmental assessment in-progress 3/90, construction scheduled beginning in 1994.

- MT 83, Missoula County Line - North and South, Mileposts 47.7 to 65.1, environmental assessment in-progress, construction scheduled beginning in 1996.

- MT 28/200, Hot Springs - North and South, Mileposts 16.2 to 26.1, categorical exclusion approved, construction completed in 1992~~nearing completion~~.

- MT 28~~200~~, Lonepine - North and South, Mileposts 26.1 to 36.1, categorical exclusion approved 2/91, construction scheduled beyond 2000~~beginning in 1998~~.

- Montana Secondary (MTS) 382, Perma Canyon - North, Mileposts 3.9 to 11.0, environmental assessment in progress, construction scheduled in 1997.

- MTS 382, three miles north of Camas Prairie - North, Mileposts 11.0 to 15.8, state-funded thin overlay, scheduled for November 1995.

- MT 200, Dixon - Ravalli, Mileposts 109.1 to 116.2, environmental assessment in progress, construction scheduled in 1998.

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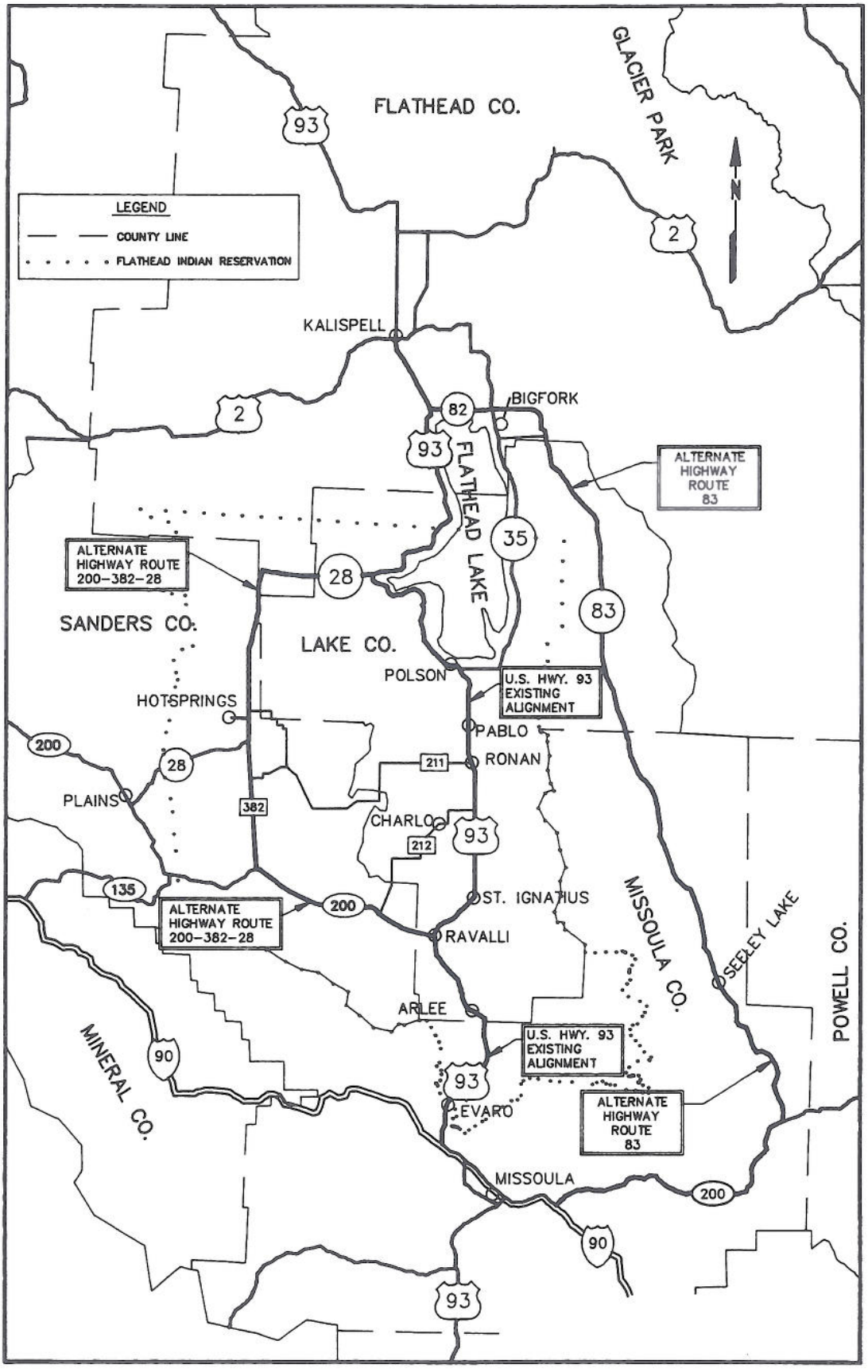
[11]Delich, Matthew. U.S. Highway 93 Transportation Demand Management. April 1993.



ALTERNATE HIGHWAY ROUTES FIGURE 5.1-6

L:FIG51-6.DWG 3/30/94

- MT 200, Dixon - West, Mileposts 99.2 to 109.1, environmental assessment in progress, construction scheduled beyond 2000.

- MT 28, Elmo - West, Mileposts 36.1 to 46.7, state-funded seal and cover, construction completed in 1995.

Travel distances, as summarized below, are greater along these routes:

Missoula to:	Montana 83	Montana 200-382-28	US 93
Polson	--	120	66
Kalispell	144	137	115
West Glacier	170	167	149

Traffic operation on these alternate routes is currently at LOS A and B as compared with LOS D and E on US 93. This difference in LOS indicates that, on these routes, travel speeds are higher; interruptions are fewer; and safety, comfort and convenience are greater. Drivers currently may be selecting these routes for travel when distances are approximately equal and possibly, because of the substantially better operation, when travel distances are greater. (Section 6.1.4.1)

It may be desirable to encourage more use of these alternate routes to take advantage of the better operating conditions using additional highway signing, designation as special routes, public notification, advertising and education or other methods. It is not likely, however, that enough traffic will shift to these routes to reduce traffic demand substantially on US 93.

5.1.6. Design Options

The following design options will be applied, where appropriate, with the alignment and lane configuration alternatives described in Sections 5.1.2 and 5.1.3. They may be used as mitigation measures or to help meet specific transportation and safety needs:

Partial Access Control	Frontage Roads	Bus Turnouts
Pedestrian Facilities	Bicycle Facilities	Concrete Median Barrier
Four-Foot Painted Median	Wildlife Crossings	Livestock Crossings
Wildlife Fence	Traffic Signals	Sidewalk, Curb and Gutter
Landscaping	Truck Route	One-way Couplet
Auxiliary Lanes[12]	Slow-Vehicle Turnouts	Landscaped Medians
Improved Signage and Pavement Markings		

Where applicable, these design options are described and their application, benefits and impacts are explained in other sections.

Partial access control includes the condition in which the right of access to land adjacent to the highway is eliminated or restricted. This limits the conflict with through traffic by eliminating or limiting the number of private driveways and public roads entering directly onto the through traffic lanes of the highway.

[12]May include acceleration/deceleration lanes, passing lanes, designated right-turn bays, designated left-turn bays and continuous two-way left-turn center median.

Frontage roads, generally parallel with the highway, may be desirable in some areas to help reduce the number of access points to the highway.

Turnouts for historic points, scenic viewpoints, fishing and other access sites, chain-up areas, rest areas, information centers or other facilities are under consideration where needed and where they can be safely constructed and used.

Pedestrian facilities including paths, sidewalks, signals, cross-walks, overpasses and underpasses are under consideration.

Bicycle facilities including bicycle paths (incorporated into the highway typical section or constructed separately) are a design option.

A concrete median barrier will include a 2.5- to three-foot high barrier constructed between opposing lanes of traffic. The barrier will be separated from traffic lanes by approximately seven feet on each side requiring a total median width of 14 feet. This option might be effective in some areas for physically separating opposing directions of traffic and thereby improving safety.

A four-foot painted center median is an option under consideration. This option will not provide the positive physical separation of a concrete barrier, but it will help separate opposing lanes of traffic and may help improve safety.

Wildlife crossings and wildlife fence (to direct wildlife to use the crossings) are under consideration in areas where important wildlife crossings have been identified.

Where important livestock crossings exist, underpasses are under consideration. The underpasses will consist of large, oval-shaped pipe culverts.

Where important for erosion control, visual impact mitigation, noise attenuation and other mitigation needs, landscaping is a design option.

Where warranted, traffic signals will be considered with highway improvement.

In community areas, concrete curb, gutter and sidewalk may be appropriate. Required storm water disposal and treatment systems will be incorporated.

With most of the alignment alternatives, a one-way couplet concept is under consideration. This will place traffic in one direction on the existing roadway, while traffic in the opposing direction will be placed on the new roadway (on one of the alignment alternatives described in Section 5.1.2).

The truck route listed above will consist of constructing a new roadway around Arlee, Ronan or Polson (on one of the alignment alternatives described in Section 5.1.2) and designating it as a truck route. The existing roadway through the community will remain and will continue to be designated as the main route for US 93.

Acceleration/deceleration lanes may be desirable at important intersections to allow vehicles to enter or leave US 93 without affecting through traffic. These include designated right-turn bays, designated left-turn bays and, with Lane Configuration A, a continuous two-way left-turn center median with a two-lane highway. Other auxiliary lanes that are under consideration, particularly for Lane Configuration A, include passing lanes and truck climbing lanes.

In areas where Lane Configuration A is constructed, slow-moving vehicle turnouts have been suggested to allow recreational vehicles and other slower vehicles to pull off the roadway and allow backed-up traffic to pass.

It has been suggested that landscaped medians be used to improve visual quality. This will include planting and maintaining grasses and shrubs where the median can be constructed wide enough to allow it. In addition to improving visual quality, if properly designed and constructed, the landscaped median will help to separate opposing traffic lanes and thereby improve safety. Landscaped medians will include native vegetation, grasses, or other vegetation appropriate for road conditions, traffic and climate.

Research indicates: (Section 6.1.3)

- Replacement of existing signs with larger, more visible and correctly placed signs, and

- Replacement of existing pavement markings (generally four inches wide) with six-inch pavement markings will help drivers recognize them and react sooner and will thereby help to reduce accidents. As a result of this research, these improved signs and pavement markings already are being installed in the area from Evaro through Polson and should be considered for incorporation with any of the alternatives under consideration.

Members of the public have suggested increasing the level of enforcement of traffic laws to obtain better adherence to speed limits and thereby improve highway safety. Adherence to traffic laws is an important consideration and enforcement should be considered with any of the alternatives under consideration. State, local and tribal governments should continue to make sure that an appropriate level of enforcement occurs -- where traffic studies or other factors indicate stricter enforcement is warranted, it should be implemented. However, enforcement of speed limits lower than the speed the majority of drivers are comfortable with has, in the past, normally proven unsuccessful.

5.2. COMPARISON OF ALTERNATIVES

Tables 5.2-1 through 5.2-4 on the following pages compare impacts, both adverse and beneficial, of each of the lane configuration and alignment alternatives under consideration.

Table 5.2-1 Comparison of Impacts: Existing Alignment (Except Arlee, Ronan and Polson)

Sections	No Action	CSKT Preferred Alternative Lane Configuration A (Two-lane)	Lane Configuration B (Four-lane)	Lane Configuration C (Four-lane with continuous two-way left-turn center median)	Lane Configuration D (Four-lane, with divided median)	MDT Preferred Alternative Combination of Lane Configurations A, B, C and D
6.1/7.1 Traffic Operation	• No correction of deficiencies in existing geometric design. • Existing LOS D deteriorates to LOS F in most areas by the design year ~~20152020~~. • Traffic operation poor, with congestion and substantial interruption in the flow of traffic.	• Slight improvement in operation in some areas, but LOS deteriorates to F in most sections of the roadway by ~~20152020~~. • Consolidation or closure of approaches and partial access control improves traffic operation in developed areas.	• Substantial improvement in operation and capacity of highway several times greater than a two-lane highway, • LOS improves to B, which is considered desirable. • Consolidation or closure of approaches and partial access control improves traffic operation in developed areas.	• Operation similar to Lane Configuration B, with slight improvement due to reduced influence of left turns from US 93.	• Operation similar to Lane Configuration C, with more improvement because of total separation of opposing traffic lanes. • May adversely affect access to some properties because no left turns will be allowed between major intersections.	• Combines Lane Configurations B, C and D for substantial improvement in operation and capacity of highway. • Lane Configuration B will be 37.6 miles. • Lane Configuration C will be 14.5 miles. • Lane Configuration D will be 0.4 mile, wildlife corridor.
6.1/7.1 Safety	• No correction of roadway deficiencies, no reduction of approaches to highway and no improvement in safety.	• Accident reduction should occur due to correction of existing roadway deficiencies, elimination or consolidation of approaches to the highway and addition of left-turn bays at major junctions. • Safety improvement due to four-lane roadway will not be realized.	• More reduction of accidents than Lane Configuration A. • Based on experience with similar four-lane projects, substantial reductions are expected in injuries and fatalities.	• Accident reduction similar to Lane Configuration B. • Addition of the continuous two-way left-turn center median provides improvement in safety for areas with high density of approaches and frequent left turns. • The continuous two-way left-turn center median separates opposing lanes of traffic, substantially reducing head-on collisions.	• Accident reduction similar to Lane Configurations B and C. • Complete separation of opposing traffic lanes virtually eliminates head-on collisions.	• Combines elements of Lane Configuration B in areas with lower density of approaches and elements of Lane Configuration C in areas with high density of approaches to provide expectation of substantial reductions in accidents, injuries and fatalities.
6.2/7.2 Land Use	• No highway improvement to encourage change of existing pattern of land use for residential, commercial, and industrial development. •Along US 93, residential and business strip development continues. • No partial access control.	• Partial access control can combine with land use planning and regulation to control residential and business strip development. • Converts 88 acres to highway ROW.	• Partial access control similar to Lane Configuration A. • Converts 204 acres to ROW.	• Partial access control is similar to Lane Configurations A and B. • Continuous two-way left-turn center median may encourage strip development, especially without coordinated access control and land use planning and regulation. • Converts 293 acres to ROW.	•Partial access control is similar to Lane Configurations A, B and C. • Divided, unpaved center median prohibits left turns across opposing lanes of traffic, except at major intersections, which may discourage strip development. • Converts 436 acres to ROW.	• Partial access control is similar to Lane Configurations B, C and D. • For segments of highway with Lane Configuration C, continuous two-way left-turn center median may encourage strip development, especially without coordinated access control and land use planning and regulation. • Converts 217 acres to ROW.

Table 5.2-1 Comparison of Impacts: Existing Alignment (Except Arlee, Ronan and Polson) (continued)

Sections	No Action	**CSKT Preferred Alternative** Lane Configuration A (Two-lane)	Lane Configuration B (Four-lane)	Lane Configuration C (Four-lane with continuous two-way left-turn center median)	Lane Configuration D (Four-lane, with divided median)	**MDT Preferred Alternative Combination of Lane Configurations A, B, C and D**
6.3/7.3 Farmlands	• No impact for FPPA farmland. (prime or unique farmlands or farmlands of statewide or local importance).	• No impact for FPPA farmland.	• Conversion to ROW of 10.9 acres of FPPA farmland.	• Conversion to ROW of 14 acres of FPPA farmland.	• Conversion to ROW of 17 acres of FPPA farmland.	• Conversion to ROW of 11.7 acres of FPPA farmland.
6.4/7.4 Social: Community and Rural Conditions	• No change in physical prominence. • Barrier effect of highway in communities increases due to increased congestion, which disrupts pedestrian and vehicular access to residential, business and public facilities.	• Similar to No Action.	• Width and physical prominence increase. • Congestion decreases, causing less disruption of pedestrian and vehicular access to residential, business and public facilities. • Wider highway decreases buffer zones between property and highway. • Makes highway more desirable for commuters, with potential to contribute to population growth and economic development.	• Similar to Lane Configuration B.	• Similar to Lane Configurations B and C.	• Social conditions are similar to Lane Configurations B, C and D.
6.5/7.5 Economics	• More congestion increases barrier to business. • More congestion increases travel time and shipping costs. Travel for tourism more difficult and reduces opportunity to increase attraction.	• Similar to No Action. • During construction, short-term disruption of traffic restricts access to business and reduces sales. • Local business benefits by providing support services and supplies during construction.	• Less traffic congestion improves access to business. • Less congestion reduces travel time and shipping costs. Travel for tourism more convenient and improves opportunity to increase attraction. • Construction impacts similar to Lane Configuration A.	• Similar to Lane Configuration B.	• Similar to Lane Configurations B and C.	• Economics are similar to Lane Configurations B, C and D.

Table 5.2-1 Comparison of Impacts: Existing Alignment (Except Arlee, Ronan and Polson) (continued)

Sections	No Action	CSKT Preferred Alternative Lane Configuration A (Two-lane)	Lane Configuration B (Four-lane)	Lane Configuration C (Four-lane with continuous two-way left-turn center median)	Lane Configuration D (Four-lane, with divided median)	MDT Preferred Alternative Combination of Lane Configurations A, B, C and D
6.6/7.6 Pedestrians and Bicyclists	• Opportunities not realized for improvement to facilities. • As traffic volume increases, safety, comfort and convenience of non-motorized travel adversely affected.	• Eight-foot shoulder, which is adequate for most bicyclists, enhances safety, comfort and convenience of non-motorized travel.	• Similar to Lane Configuration A, but wider highway and additional lanes may be slightly more difficult for pedestrians to cross.	• Similar to Lane Configuration B.	• Similar to Lane Configurations B and C, and median provides area for pedestrians to pause, after crossing one direction of traffic, and prepare to cross opposing direction of traffic.	• Conditions for pedestrians and bicyclists are similar to Lane Configurations B, C and D.
6.7/7.7 Air Quality	• As traffic volume increases, CO concentration continues to increase. • As traffic volume increases, PM_{10} concentration continues to increase.	• Similar to No Action.	• Because of improved traffic flow, CO concentration decreases compared with No Action and Lane Configuration A. • PM_{10} concentration similar to No Action and Lane Configuration A.	• Similar to Lane Configuration B.	• Similar to Lane Configurations B and C.	• Air quality is similar to Lane Configurations B, C and D.
6.8/7.8 Noise	• Noise level within 100 feet of the highway centerline exceeds the FHWA noise abatement criterion of 67 dBA by the design year.	• Noise level in design year similar to No Action.	• Noise level generally two to three dBA higher than No Action or Lane Configuration A. • Noise level in design year exceeds FHWA noise abatement criterion within 150 feet of highway centerline.	• Similar to Lane Configuration B.	• Similar to Lane Configurations B and C.	• Noise is similar to Lane Configurations B, C and D.
6.9/7.9 Water Quality	• No impact to water quality.	• Potential for hazardous materials contamination during construction operations. • During construction, runoff from disturbed areas increases erosion and may result in temporarily increased turbidity in streams. • After construction, runoff increases slightly due to increased pavement areas.	• Similar to Lane Configuration A, but larger disturbed areas and pavement areas result in slightly greater potential impacts to runoff and streams.	• Similar to Lane Configuration B.	• Similar to Lane Configurations B and C.	• Water quality is similar to Lane Configurations B, C and D.

Table 5.2-1 Comparison of Impacts: Existing Alignment (Except Arlee, Ronan and Polson) (continued)

Sections	No Action	**CSKT Preferred Alternative** Lane Configuration A (Two-lane)	Lane Configuration B (Four-lane)	Lane Configuration C (Four-lane with continuous two-way left-turn center median)	Lane Configuration D (Four-lane, with divided median)	**MDT Preferred Alternative Combination of Lane Configurations A, B, C and D**
6.10/7.10 Wetlands	• No impact to wetlands.	• Proposed action affects ~~2021.75~~ acres of existing wetlands.	• Proposed action affects ~~3836.15~~ acres of existing wetlands.	• Proposed action affects ~~4543.03~~ acres of existing wetlands.	• Proposed action affects ~~6758.71~~ acres of existing wetlands.	• Proposed action affects 40.42 acres of existing wetlands.
6.11/7.11 Floodplains and Stream Crossings	• No change for existing stream crossing and floodplain characteristics. • No realization of opportunity to improve existing floodplain problems.	• Generally requires 12 feet additional bridge width and 50 feet additional culvert length at each crossing. • Improvement of many existing floodplain problems.	• Generally requires 36 feet additional bridge width and 74 feet additional culvert length at each crossing. • Floodplain improvement similar to Lane Configuration A.	• Generally requires 50 feet additional bridge width and 88 feet additional culvert length at each crossing. • Floodplain improvement similar to Lane Configurations A and B.	• Generally requires 76 feet additional bridge width and 114 feet additional culvert length at each crossing. • Floodplain improvement similar to Lane Configurations A, B and C.	• Combination of Lane Configurations B, C and D results in general requirements for additional bridge width and additional culvert length, as identified for each lane configuration. • Floodplain improvement is similar to Lane Configurations B, C and D.
6.12/7.12 Fish and Wildlife	• No impact to fish and wildlife habitat. • Highway collision mortality increases as traffic volume increases. • The highway continues to discourage use of habitat near the highway. • No realization of potential improvement due to improved or new crossings for mammals, turtles, ducks, fish and other wildlife.	• Highway collision mortality similar to No Action. • Potential impact to fish resulting from reconstruction of culverts and bridges. • No realization of potential improvement due to improved or new crossings for mammals, turtles, ducks, fish and other wildlife.	• Wider highway creates slightly greater potential for wildlife mortality due to highway collisions. • Potential impact to fish resulting from reconstruction of culverts and bridges. • Proposed wildlife crossings in the Evaro and other areas may substantially reduce vehicle/animal conflicts.	• Wider highway creates slightly greater potential for wildlife mortality due to highway collisions. • Potential impact to fish resulting from reconstruction of culverts and bridges. • Proposed wildlife crossing benefits similar to Lane Configuration B.	• Wider highway creates slightly greater potential for wildlife mortality due to highway collisions. • Potential impact to fish resulting from reconstruction of culverts and bridges. • Proposed wildlife crossing benefits similar to Lane Configurations B and C.	• Impacts to fish and wildlife are similar to Lane Configurations B, C and D.
6.13/7.13 Threatened and Endangered Species	• Not likely to adversely affect any threatened or endangered species.	• Not likely to adversely affect any threatened or endangered species.	• Not likely to adversely affect any threatened or endangered species.	• Not likely to adversely affect any threatened or endangered species.	• Not likely to adversely affect any threatened or endangered species.	• Not likely to adversely affect any threatened or endangered species.

Table 5.2-1 Comparison of Impacts: Existing Alignment (Except Arlee, Ronan and Polson) (continued)

Sections	No Action	CSKT Preferred Alternative Lane Configuration A (Two-lane)	Lane Configuration B (Four-lane)	Lane Configuration C (Four-lane with continuous two-way left-turn center median)	Lane Configuration D (Four-lane, with divided median)	MDT Preferred Alternative Combination of Lane Configurations A, B, C and D
6.14/7.14 Cultural Resources	• No change in cultural resources.	• Increased convenience and desirability of commuter travel, with potential to contribute to population growth and economic development, adversely affects the Native American sense of community and traditional cultural values.	• Potential impact to several eligible cultural resource properties. • Impacts on Native American sense of community and traditional cultural values similar to Lane Configuration A.	• Similar to Lane Configuration B.	• Similar to Lane Configurations B and C.	• Impacts to cultural resources are similar to Lane Configurations B, C and D.
6.15/7.15 Parks and Recreation	• Increasing traffic, with more noise and visual distraction, encroaches on areas used for recreation.	• Highway improves access to scenic/historic turnouts. • Highway improvement provides opportunity to improve access to and control use of turnouts and recreation sites.	• Opportunity to improve access and control use similar to Lane Configuration A. • With four lanes, land along edge of recreation areas converted to ROW, but public use not disrupted. • Traffic noise and visual distraction is closer to recreation sites.	• Similar to Lane Configuration B.	• Similar to Lane Configurations B and C.	• Impacts to parks and recreation are similar to Lane Configurations B, C and D.
6.16/7.16 Hazardous Materials	• Potential will remain for hazardous material spills, similar to what has occurred in the past.	• Improved roadway will improve safety and reduce potential for transportation-related spills. • Potential for construction-related contamination.	• Wider, improved roadway will substantially improve safety and reduce potential for spills. • Potential construction impact similar to Lane Configuration A.	• Improved safety and reduced potential for spills similar to Lane Configuration B. • Potential construction impact similar to Lane Configurations A and B.	• Improved safety and reduced potential for spills similar to Lane Configurations B and C. • Potential construction impact similar to Lane Configurations A, B and C.	• Improved safety, reduced potential for spills and potential construction impacts are similar to Lane Configurations B, C and D.
6.17/7.17 Visual	• Deterioration of LOS reduces comfort and visual quality for drivers and passengers. • High traffic volume interrupts views from and of the road.	• Narrower road width results in minimal change to existing landform and land cover. • Increased traffic volume and reduced LOS diminishes visual quality for drivers and passengers.	• Wider road results in more disturbance to existing landforms and land cover. • Improved comfort allows drivers and passengers to view and appreciate more scenery.	• Similar to Lane Configuration B.	• Similar to Lane Configurations B and C.	• Impacts to visual conditions are similar to Lane Configurations B, C and D.
6.18/7.18 Relocations	• No buildings require relocation.	• No buildings require relocation.	• Relocation required for two buildings.	• Relocation required for 16 buildings.	• Relocation required for 35 buildings.	• Relocation required for 11 buildings

Table 5.2-1 Comparison of Impacts: Existing Alignment (Except Arlee, Ronan and Polson) (continued)

Sections	No Action	**CSKT Preferred Alternative** Lane Configuration A (Two-lane)	Lane Configuration B (Four-lane)	Lane Configuration C (Four-lane with continuous two-way left-turn center median)	Lane Configuration D (Four-lane, with divided median)	**MDT Preferred Alternative Combination of Lane Configurations A, B, C and D**
7.19 Energy and Commitment of Resources	• No improvement in traffic operating efficiency and no related long-term decrease in energy use. • No commitment of resources required.	• Minor improvement in traffic operating efficiency and related long-term decrease in energy use. • Fossil fuels, labor and construction materials expended.	• Substantial improvement in traffic operating efficiency and related long-term decrease in energy use. • Fossil fuels, labor and construction materials expended in greater quantities than Lane Configuration A.	• Substantial improvement in traffic operating efficiency and related long-term decrease in energy use. • Fossil fuels, labor and construction materials expended in greater quantities than Lane Configurations A and B.	• Substantial improvement in traffic operating efficiency and related long-term decrease in energy use. • Fossil fuels, labor and construction materials expended in greater quantities than Lane Configurations A, B and C.	• Substantial improvement in traffic operating efficiency and related long-term decrease in energy use. • Results in expenditure of fossil fuels, labor and construction materials greater than Lane Configuration B, but less than Lane Configuration C.
7.20 Construction	• No construction-related impact or cost.	• Short-term impacts occur for air quality, noise, water quality and other environmental resources. • Serious periods of inconvenience and delay to US 93 vehicle traffic during construction. • Estimated total construction cost is approximately $38 million.	• Short-term environmental impacts similar to Lane Configuration A. • Periods of inconvenience and delay to US 93 vehicle traffic during construction, but less than Lane Configuration A. • Estimated total construction cost is approximately $72 million.	• Short-term environmental impacts and periods of inconvenience and delay similar to Lane Configuration B. • Estimated total construction cost is approximately $83 million.	• Short-term environmental impacts and periods of inconvenience and delay similar to Lane Configurations B and C. • Estimated total construction cost is generally higher per mile than Lane Configuration C.	• Short-term environmental impacts and periods of inconvenience and delay are similar to Lane Configurations B, C and D. • Estimated total construction cost is greater than Lane Configuration B, but less than Lane Configuration C.

Table 5.2-2 Comparison of Impacts: Arlee Alignments

Sections	No Action	**MDT and CSKT Preferred Alternatives** Alignment 1 (Existing Alignment)	Alignment 2 (West Alignment)	Alignment 3 (East Alignment)	Alignment 4 (Jocko Valley Alignment)
6.1/7.1 Traffic Operation	• As traffic volume increases, adverse operating conditions more severe, including reduced speed, frequent traffic flow interruption and high number of turns to and from highway.	• MDT Preferred Alternative is Lane Configuration C, a four-lane highway with a continuous two-way left-turn center median. CSKT Preferred Alternative is Lane Configuration A, a two-lane highway, with left-turn bays. • Similar to No Action, but if additional lanes are added, turns to and from highway improve and interruption is reduced.	• Adverse operating conditions in Arlee eliminated. Speed not reduced, interruption eliminated and through traffic not affected as much by turns to and from highway.	• Similar to Alignment 2.	• Similar to Alignments 2 and 3.
6.1/7.1 Safety	• As traffic volume increases, more conflicts and potential safety problems related to highway traffic through the community.	• Conflicts and potential safety problems related to highway traffic similar to No Action. • Improvement in safety may occur if left-turn bays are added, approaches are consolidated or eliminated or pedestrian crossings are improved.	• Conflicts and potential safety problems related to highway traffic through the community mostly eliminated. • Highway approaches substantially reduced, which substantially decreases possibility of intersection- and driveway-related accidents.	• Beneficial impacts similar to Alignment 2, but close to schools, rodeo grounds and powwow grounds, which may result in additional vehicle and pedestrian conflicts and related accidents.	• Conflicts and potential safety problems related to highway traffic through the community virtually eliminated. • Other beneficial impacts similar to Alignments 2 and 3.
6.2/7.2 Land Use	• No highway improvement to encourage change of existing pattern of land use for commercial and residential development along highway through Arlee.	• Pattern of land use changes as highway improvement encourages more commercial development along highway through Arlee. • Converts 16 to 36 acres to highway ROW.	• Pattern of land use changes with introduction of highway traffic in rural areas. Without control of land use and access along new route, new development accelerates subdivision of land. • Converts 51 to 93 acres to ROW.	• Similar to Alignment 2. • Converts 44 to 86 acres to ROW.	• Similar to Alignments 2 and 3, but more severe because of more rural and undeveloped area with some prime and unique farmlands. • Converts 139 to 192 acres to ROW.
6.3/7.3 Farmlands	• No impact for FPPA farmlands (prime or unique farmlands or farmlands of statewide or local importance).	• No impact for FPPA farmlands.	• No impact for FPPA farmlands.	• No impact for FPPA farmlands.	• Conversion to ROW of up to 9.3 acres of FPPA farmland.

Table 5.2-2 Comparison of Impacts: Arlee Alignments (continued)

Sections	No Action	**MDT and CSKT Preferred Alternatives** Alignment 1 (Existing Alignment)	Alignment 2 (West Alignment)	Alignment 3 (East Alignment)	Alignment 4 (Jocko Valley Alignment)
6.4/7.4 Social	• More congestion increases barrier effect on social interaction and access. • Concentrated traffic diminishes positive perception of environment.	• Similar to No Action. • Wider highway may increase barrier effect.	• Diversion of through traffic reduces congestion and barrier effect on social interaction and access. • Without control of land use and access along new route, barrier effect shifts as development and traffic increase in area of new route. • Highway crosses area planned for sewer lagoon. • Strong public opposition.	• Reduction of congestion and barrier effect similar to Alignment 2, but highway and through traffic are located closer to schools. • Strong public opposition.	• Reduction of congestion and barrier effect similar to Alignments 2 and 3, but without increased traffic through residential areas between existing alignment and new route. • Strong public opposition.
6.5/7.5 Economics	• Business on highway remains visible to all traffic. • More congestion increases barrier to business. • Continues existing drive-through traffic in short-term, but limits long-term growth of sales, earnings and employment.	• Similar to No Action. • During construction, short-term disruption of access to business.	• Travel patterns divert traffic around community. Adverse effect for existing highway-oriented business. • Long-term improvement of access to business. • Traffic on local streets is not disrupted during construction. • Strong business opposition.	• Similar to Alignment 2.	• Similar to Alignments 2 and 3.
6.6/7.6 Pedestrians and Bicyclists	• Conflicts with pedestrians, particularly school children, and safety problems become more severe as traffic volume increases. • No realization of improvement to bicycle access.	• Conflicts with pedestrians and safety problems similar to No Action. • Some improvement occurs if additional crosswalks and traffic signals are installed. • A wider highway and additional lanes may be slightly more difficult for pedestrians to cross.	• Pedestrian crossings and conflicts substantially reduced. • Crossings on higher-speed highway than existing highway.	• Similar to Alignment 2, but closer to schools. Pedestrian crossings and potential conflicts and safety problems related to rodeo and powwow grounds.	• Similar to Alignments 2 and 3, but with fewer pedestrian crossings and virtually no crossings by school children.
6.7/7.7 Air Quality	• PM_{10} concentration high in spring due to accumulated winter sanding materials; use of chemical deicer reduces PM_{10}.	• CO concentration reduced if more lanes constructed. • PM_{10} concentration similar to No Action.	• CO and PM_{10} concentrations reduced in Arlee.	• Similar to Alignment 2.	• Similar to Alignments 2 and 3.
6.8/7.8 Noise	• Noise level will nearly equal FHWA noise abatement criterion of 67 dBA within 150 feet of highway centerline.	• Noise level in Arlee similar to No Action in the design year.	• Noise level increases by as much as 26 dBA in area of new alignment and exceeds FHWA noise abatement criterion. • Noise level in Arlee on existing alignment decreases by nine dBA.	• Similar to Alignment 2.	• Similar to Alignment 2.

Table 5.2-2 Comparison of Impacts: Arlee Alignments (continued)

Sections	No Action	MDT and CSKT Preferred Alternatives Alignment 1 (Existing Alignment)	Alignment 2 (West Alignment)	Alignment 3 (East Alignment)	Alignment 4 (Jocko Valley Alignment)
6.9/7.9 Water Quality	• No impact to water quality.	• Negligible impact because no streams or water bodies are crossed.	• Similar to Alignment 1.	• Requires three crossings of an irrigation canal, so potential water quality impact slightly greater than Alignment 1. A wellhead protection area exists on public school property adjacent to this alignment.	• New highway crossings over Jocko River and several creeks required with resulting greater potential for water quality impact.
6.10/7.10 Wetlands	• No impact to wetlands.	• Approximately ~~1.1 to 2.82~~ 2.48 acres affected~~, depending on lane configuration~~.	• ~~Similar to Alignment 1~~Approximately 2.58 to 5.09 acres affected, depending on lane configuration.	• ~~Similar to Alignments 1 and 2~~Approximately 2.16 to 5.28 acres affected, depending on lane configuration.	• Approximately ~~1.8 to 2.38~~ 2.23 to 13.13 acres affected, depending on lane configuration.
6.11/7.11 Floodplains and Stream Crossings	• No change for existing stream crossing and floodplain characteristics.	• No change for existing stream crossing and floodplain characteristics.	• No change for existing stream crossing and floodplain characteristics.	• No change for existing stream crossing and floodplain characteristics.	• Requires new crossings of Jocko River, Agency Creek, Pellew Creek and Spring Creek. No substantial increase of historic floodplain elevations.
6.12/7.12 Fish and Wildlife	• No impact to fish and wildlife habitat.	• Negligible impact to fish and wildlife habitat.	• Similar to Alignment 1.	• Similar to Alignments 1 and 2.	• Greater potential impact than Alignments 1, 2 and 3 because of introduction of highway traffic to new areas, with conversion of wildlife habitat to pavement and ROW.
6.13/7.13 Threatened and Endangered Species	• No impact to threatened or endangered species.	• No impact to threatened or endangered species.	• No impact to threatened or endangered species.	• No impact to threatened or endangered species.	• Not likely to adversely affect any threatened or endangered species.
6.14/7.14 Cultural Resources	• No impact to cultural resources.	• Potential visual effect to one eligible historic building (24LA133).	• New traffic and development may affect traditional Native American uses.	Possible physical effect to one potentially eligible historic property.	• Potential impact to several historic properties.
6.15/7.15 Parks and Recreation	• Increasing traffic, with more noise and visual distraction, near community park.	• Places traffic, with more noise and visual distraction, closer to community park. • Provides opportunity to improve access to and control use of park.	• Diverts traffic away from existing alignment and reduces traffic near community park. • Increases traffic near Finley Creek.	• Similar to Alignment 2, but increases traffic near schools, powwow and rodeo grounds, ballfield and fish hatchery.	• Requires a new crossing of Jocko River and disrupts the natural setting used for recreation.

Table 5.2-2 Comparison of Impacts: Arlee Alignments (continued)

Sections	No Action	MDT and CSKT Preferred Alternatives Alignment 1 (Existing Alignment)	Alignment 2 (West Alignment)	Alignment 3 (East Alignment)	Alignment 4 (Jocko Valley Alignment)
6.16/7.16 Hazardous Materials	• Potential effect on human health due to transport of hazardous materials through community. • Nine existing sites near highway with moderate to high potential for contamination.	• Similar to No Action. • Nine existing sites near highway with moderate to high potential for contamination.	• Moves transport of hazardous materials outside community. • No identified sites within proposed new ROW with moderate to high potential for contamination.	• Moves transport of hazardous materials outside community, but closer to schools. • No identified sites within proposed new ROW with moderate to high potential for contamination.	• Similar to Alignment 2. • No identified sites within proposed new ROW with moderate to high potential for contamination.
6.17/7.17 Visual	• Increased traffic reduces visual quality for views from and of the road.	• Increase in traffic reduces visual quality. As pavement width increases, disturbance and visual fragmentation of the streetscape also increase.	• New alignment opens new views from and of the road. • New and wider roadways cause visual impact to rural residential areas.	• Similar to Alignment 2.	• Similar to Alignments 2 and 3.
6.18/7.18 Relocations	• No buildings require relocation.	• No buildings require relocation with Lane Configurations A and B. Four buildings require relocation with Lane Configuration C.	• No buildings require relocation.	• No buildings require relocation with Lane Configurations A, B and C. One building will require relocation with Lane Configuration D.	• One building requires relocation with Lane Configurations A, B and C. Two buildings require relocation with Lane Configuration D.
7.19 Energy and Commitment of Resources	• No improvement in traffic operating efficiency and no related long-term decrease in energy use. • No commitment of resources required.	• Traffic operating efficiency and related energy use, as compared with rural sections of the highway, will be poor due to frequent acceleration and deceleration.	• Traffic operating efficiency and related energy use similar to rural sections of highway, and substantially better than Alignment 1.	• Similar to Alignment 2.	• Slightly better than Alignments 2 and 3.
7.20 Construction	• No construction-related impact or cost.	•Short-term impacts occur for air quality, noise, water quality and other environmental resources. • Serious periods of inconvenience and delay to US 93 vehicle traffic during construction. • Short-term adverse impact to business.	• Short-term environmental impacts similar to Alignment 1. • Little or no inconvenience and delay to US 93 vehicle traffic.	• Similar to Alignment 2.	• Similar to Alignments 2 and 3, but substantially higher construction cost.

Table 5.2-3 Comparison of Impacts: Ronan Alignments

Sections	No Action	MDT and CSKT Preferred Alternatives Alignment 1 (Existing Alignment)	Alignment 2 (One-Way Couplet)	Alignment 3 (West Alignment)	Alignment 4 (West Alignment)
6.1/7.1 Traffic Operation	• As traffic volume increases, adverse operating conditions more severe, including reduced speed, frequent traffic flow interruption, high number of turns to and from highway.	• MDT Preferred Alternative is Lane Configuration C, a four-lane highway with a continuous two-way left-turn center median. CSKT Preferred Alternative is Lane Configuration A, a two-lane highway, with left-turn bays. • Similar to No Action, but if additional lanes are added, turns to and from highway improve and interruption is reduced.	• Introduces highway traffic to a new part of Ronan. • Improves LOS and makes crossing the highway less difficult.	• Adverse operating conditions in Ronan eliminated. Speed not reduced, interruption eliminated and through traffic not affected as much by turns to and from highway.	• Similar to Alignment 3.
6.1/7.1 Safety	• As traffic volume increases, more conflicts and potential safety problems related to highway traffic through the community.	• Conflicts and potential safety problems related to highway traffic similar to No Action. • Improvement in safety may occur if left-turn bays are added, approaches are consolidated or eliminated or pedestrian crossings are improved.	• Conflicts and potential safety problems and improvement related to highway traffic similar to Alignment 1. • Southbound portion of couplet results in additional conflicts with vehicles and pedestrians.	• Conflicts and potential safety problems related to highway traffic through the community mostly eliminated. • Highway approaches substantially reduced, which decreases possibility of intersection- and driveway- related accidents.	• Similar to Alignment 3.
6.2/7.2 Land Use	• No highway improvement to encourage change of existing pattern of land use for commercial and residential development along highway through Ronan.	• Pattern of land use changes as highway improvement encourages more commercial development along highway through Ronan. • Converts five to 13 acres to highway ROW.	• Similar to Alignment 1, but more severe because potential for commercial development to encroach on established residential and park areas. • Converts 18 acres to ROW.	• Pattern of land use changes with introduction of highway traffic in rural areas. Without control of land use and access along new route, potential new development accelerates subdivision of land. • Converts 54 to 84 acres to ROW.	• Similar to Alignment 3. • Converts 68 to 94 acres to ROW.
6.3/7.3 Farmlands	• No impact for FPPA farmlands (prime or unique farmlands or farmlands of statewide or local importance).	• Conversion to ROW of less than one acre of FPPA farmlands.	• Similar to Alignment 1.	• Conversion to ROW of up to 17.3 acres of FPPA farmland.	• Conversion to ROW of up to 16.1 acres of FPPA farmland.
6.4/7.4 Social	• More congestion increases barrier effect on social interaction and access. • Concentrated traffic diminishes positive perception of environment.	• Similar to No Action. • Wider highway may increase barrier effect.	• Similar to No Action and Alignment 1, and barrier effect is added in residential area with housing development for elderly and handicapped residents. • Strong public opposition.	• Diversion of through traffic reduces congestion and barrier effect on social interaction and access. • Without control of land use and access along new route, barrier effect shifts as development and traffic increase in area of new route. • Strong public opposition.	• Similar to Alignment 3. • Strong public opposition.

Table 5.2-3 Comparison of Impacts: Ronan Alignments (continued)

Sections	No Action	MDT and CSKT Preferred Alternatives Alignment 1 (Existing Alignment)	Alignment 2 (One-Way Couplet)	Alignment 3 (West Alignment)	Alignment 4 (West Alignment)
6.5/7.5 Economics	• Business on highway remains visible to all traffic. • More congestion increases barrier to business. • Continues existing drive-through traffic in short-term, but limits long-term growth of sales, earnings and employment.	• Similar to No Action. • During construction, short-term disruption of access to business.	• Most highway-oriented business is less visible to southbound traffic. • Long-term improvement of access to business. • During construction, short-term disruption of access to business. • Strong business opposition.	• Travel patterns divert traffic around community. Adverse effect for existing highway-oriented business. • Long-term improvement of access to business. • Traffic on local streets is not disrupted during construction. • Strong business opposition.	• Similar to Alignment 3.
6.6/7.6 Pedestrians and Bicyclists	• Conflicts with pedestrians, particularly school children, and safety problems become more severe as traffic volume increases. • No realization of improvement to bicycle access.	• Conflicts with pedestrians and safety problems similar to No Action. • Some improvement occurs if additional crosswalks and traffic signals are installed. • A wider highway and additional lanes may be slightly more difficult for pedestrians to cross.	• Similar to Alignment 1. • Southbound portion of couplet introduces highway traffic and resulting conflicts with pedestrians to residential area. • Pedestrians required to cross only one direction of traffic at a time.	• Pedestrian crossings and conflicts substantially reduced. • Crossings on higher speed highway than existing highway.	• Similar to Alignment 3.
6.7/7.7 Air Quality	• PM_{10} concentration exceeds NAAQS in the spring due to accumulated winter sanding materials; use of chemical deicer reduces PM_{10}.	• CO concentration reduced if more lanes constructed. • PM_{10} similar to No Action.	• CO concentration reduced. • PM_{10} similar to No Action and Alignment 1.	• CO and PM_{10} concentrations reduced in Ronan.	• Similar to Alignment 3.
6.8/7.8 Noise	• Noise level increases by approximately three dBA and will be equal to FHWA noise abatement criterion in the design year.	• Similar to No Action.	• Slight increase over existing noise level on existing alignment in the design year due to reduced traffic volume. • Noise level on southbound portion of couplet increases, but remains below FHWA noise abatement criterion.	• Noise level increases by as much as 26 dBA in area of new alignment and exceeds FHWA noise abatement criterion. • Noise level in Ronan on existing alignment decreases by five dBA.	• Similar to Alignment 3.
6.9/7.9 Water Quality	• No impact to water quality.	• Existing crossing of Spring Creek requires reconstruction, with related potential water quality impact.	• Two existing crossings of Spring Creek will require reconstruction.	• Requires new crossings of Spring Creek and an irrigation canal, so potential water quality impact slightly greater than Alignment 2.	• Requires new crossings of Spring Creek and two irrigation canals, so potential water quality impact slightly greater than Alignments 2 and 3.
6.10/7.10 Wetlands	• No impact to wetlands.	• Approximately ~~0.1 to 0.20~~ 59 acre affected~~, depending on lane configuration~~.	• ~~No impact to wetlands~~ Approximately 0.41 to 1.41 acres affected, depending on lane configuration.	• Approximately ~~0.6 to 0.82~~.42 to 3.87 acres affected, depending on lane configuration.	• Approximately ~~1.4 to 1.86~~.22 to 10.10 acres affected, depending on lane configuration.

Table 5.2-3 Comparison of Impacts: Ronan Alignments (continued)

Sections	No Action	MDT and CSKT Preferred Alternatives Alignment 1 (Existing Alignment)	Alignment 2 (One-Way Couplet)	Alignment 3 (West Alignment)	Alignment 4 (West Alignment)
6.11/7.11 Floodplains and Stream Crossings	• No change for existing stream crossings and floodplain characteristics.	• Requires modification of existing crossing of Spring Creek. No substantial increase of historic floodplain elevations.	• Requires modification of two existing crossings of Spring Creek. No substantial increase of historic floodplain elevations.	• Require a new crossing of Spring Creek. No substantial increase of historic floodplain elevations.	• Requires new crossing of Spring Creek. No substantial increase of historic floodplain elevations.
6.12/7.12 Fish and Wildlife	• No impact to fish and wildlife habitat.	• Negligible impact to fish and wildlife habitat.	• Similar to Alignment 1.	• Similar to Alignments 1 and 2.	• Similar to Alignments 1, 2 and 3.
6.13/7.13 Threatened and Endangered Species	• No impact to threatened or endangered species.	• No impact to threatened or endangered species.	• No impact to threatened or endangered species.	• No impact to threatened or endangered species.	• No impact to threatened or endangered species.
6.14/7.14 Cultural Resources	• No impact to cultural resources.	• No impact to cultural resources.	• Potential visual effect to three unrecorded cultural resource properties whose eligibility is undetermined.	• Potential visual effect to four unrecorded cultural resource properties whose eligibility is undetermined.	• Potential visual effect to one potentially eligible property (24LA211).
6.15/7.15 Parks and Recreation	• Increasing traffic, with more noise and visual distraction, near park and recreation areas.	• Places traffic, with more noise and visual distraction, closer to ballfield at north edge of Ronan. • Provides opportunity to improve access to and control use of recreation areas.	• Opportunity to improve access to and control use of park and recreation areas similar to Alignment 1. • Requires land for ROW along the east edge of city park.	• Diverts traffic away from city park and ballfield on existing alignment. • Increases traffic near the ballfield at the west edge of Ronan.	• Similar to Alignment 3. • Requires conversion of ballfield land to ROW.
6.16/7.16 Hazardous Materials	• Potential effect on human health due to transport of hazardous materials through community. • Nine existing sites near highway with moderate to high potential for contamination.	• Similar to No Action. • Nine existing sites near highway with moderate to high potential for contamination.	• Similar to No Action and Alignment 1. • Fifteen existing sites near highway with moderate to high potential for contamination.	• Moves transport of hazardous materials outside community. • Three existing sites near highway with moderate to high potential for contamination.	• Similar to Alignment 3. • Three existing sites near highway with moderate to high potential for contamination.
6.17/7.17 Visual	• Increased traffic reduces visual quality for views from and of the road.	• Increase in traffic reduces visual quality. As pavement width increases, disturbance and visual fragmentation of the streetscape also increase.	• Views from and of the road unchanged on northbound couplet, but adversely affected on new southbound roadway.	• New alignment opens new views from and of the road. • New and wider roadways cause visual impact to rural residential areas.	• Similar to Alignment 3.

Table 5.2-3 Comparison of Impacts: Ronan Alignments (continued)

Sections	No Action	**MDT and CSKT Preferred Alternatives** Alignment 1 (Existing Alignment)	Alignment 2 (One-Way Couplet)	Alignment 3 (West Alignment)	Alignment 4 (West Alignment)
6.18/7.18 Relocations	• No buildings require relocation.	• No buildings require relocation.	• Five buildings require relocation.	• Two buildings require relocation with Lane Configuration A. Lane Configurations B, C and D each require relocation of four buildings.	• Three buildings require relocation with Lane Configuration A, while Lane Configurations B, C and D require relocation of six, seven and seven buildings, respectively.
7.19 Energy and Commitment of Resources	• No improvement in traffic operating efficiency or related long-term decrease in energy use. • No commitment of resources required.	• Traffic operating efficiency and related energy use, as compared with rural sections of the highway, will be poor due to frequent acceleration and deceleration.	• Slight improvement over No Action and Alignment 1.	• Traffic operating efficiency and related energy use similar to rural sections of highway, and substantially better than Alignments 1 and 2.	• Similar to Alignment 3.
7.20 Construction	• No construction-related impact or cost.	• Short-term impacts occur for air quality, noise, water quality and other environmental resources. • Serious periods of inconvenience and delay to US 93 vehicle traffic during construction. • Short-term adverse impact to business.	• Short-term environmental impacts similar to Alignment 1. • Impact to business during construction less than Alignment 1.	• Short-term environmental impacts similar to Alignments 1 and 2. • Little or no inconvenience and delay to US 93 vehicle traffic.	• Similar to Alignment 3.

Table 5.2-4 Comparison of Impacts: Polson Alignments

Sections	No Action	MDT and CSKT Preferred Alternatives Alignment 1 (Existing Alignment)	Alignment 2	MDT Preferred Alternative Alignment 3
6.1/7.1 Traffic Operation	• As traffic volume increases, adverse operating conditions more severe, including reduced speed, frequent traffic flow interruption, high number of turns to and from highway and high traffic volume.	• MDT Preferred Alternative is Lane Configuration A, a two-lane highway with a continuous two-way left-turn center median. CSKT Preferred Alternative is Lane Configuration A, a two-lane highway, with left-turn bays. • Traffic flows more freely with additional lanes, and breaks in traffic are larger and more frequent.	• Adverse operating conditions on existing alignment greatly reduced. Speed increases and interruption is reduced on new roadway as a result of fewer highway approaches.	• MDT Preferred Alternative is Lane Configuration B, a four-lane highway. CSKT does not recommend Alignment 3 for the preferred alternative. • Similar to Alignment 2 but with fewer delays due to fewer highway approaches to new road.
6.1/7.1 Safety	• As traffic volume increases, more conflicts and potential safety problems related to highway traffic through the community.	• Conflicts and potential safety problems related to highway traffic similar to No Action. • Improvement in safety may occur if approaches are consolidated or eliminated and pedestrian crossings are improved.	• Conflicts and potential safety problems related to highway traffic through the community greatly reduced. Highway approaches substantially reduced, decreasing possibility of intersection- and driveway-related accidents.	• Similar to Alignment 2, but with fewer highway approaches, further reducing the possibility of intersection- and driveway-related accidents.
6.2/7.2 Land Use	• No highway improvement to encourage change of existing pattern of land use for commercial and residential development along highway through Polson.	• Pattern of land use changes slightly as highway improvement encourages more commercial development along the highway through Polson. • Converts 17 to 40 acres to highway ROW.	• Pattern of land use changes with introduction of highway in rural areas. • Without control of land use and access along new route, potential new development accelerates subdivision of land. • Converts 108 to 141 acres to ROW.	• Similar to Alignment 2. • Converts 140 to 179 acres to ROW.
6.3/7.3 Farmlands	• No impact for FPPA farmlands (prime or unique farmlands or farmlands of statewide or local importance).	• Requires conversion of up to 1.6 acres of FPPA farmland to ROW.	• Requires conversion of up to 29.5 acres of FPPA farmland to ROW.	• Requires conversion of up to 35.7 acres of FPPA farmland to ROW.
6.4/7.4 Social	• Increased barrier separating social interactions between north side of Polson and rest of city. • Access to business and recreation areas decreased. • Congestion could slow emergency vehicle response times. • Concentrated traffic diminishes positive perception of environment.	• Similar to No Action, except improvement for emergency vehicle response time. • Wider highway may increase barrier effect.	• Diversion of through traffic reduces congestion and barrier to social interaction and access to business and recreation areas. • Without control of land use and access along new route, barrier effect shifts as development and traffic increase in area of new route. • Less congestion improves emergency vehicle response time.	• Similar to Alignment 2.

Table 5.2-4 Comparison of Impacts: Polson Alignments (continued)

Sections	No Action	MDT and CSKT Preferred Alternatives Alignment 1 (Existing Alignment)	Alignment 2	MDT Preferred Alternative Alignment 3
6.5/7.5 Economics	• Business on highway remains visible to all traffic. • More congestion increases barrier to business. • Continues most drive-through traffic in long-term with additional travelers using MT 35. • Increased traffic discourages major tourist attractions from being developed along the shoreline of Flathead Lake.	• Similar to No Action. • During construction, short-term disruption of access to business.	• Travel patterns divert traffic around community. • Reduced potential tourist visual exposure to Polson area, and fewer businesses are visible to all traffic. • Long-term improvement of access to business in lake front area. • Traffic on local streets is not disrupted during construction.	• Similar to Alignment 2.
6.6/7.6 Pedestrians and Bicyclists	• More conflicts with pedestrians, particularly senior citizens and children. • Safety problems become more severe as traffic volume increases.	• Similar to No Action. • Some improvement occurs if additional crosswalks, traffic signals and pedestrian and bicycle paths are installed. • A wider highway may be slightly more difficult for pedestrians to cross.	• Pedestrian crossings and conflicts with pedestrians and bicyclists substantially reduced. • Crossings will be on a higher-speed highway than existing highway.	• Similar to Alignment 2, with even less potential for conflicts with pedestrians and bicyclist.
6.7/7.7 Air Quality	• PM_{10} concentration exceeds NAAQS in the spring due to accumulated winter sanding materials; chemical deicer reduces PM_{10}.	• CO concentration reduced. • PM_{10} similar to No Action.	• CO and PM_{10} concentration reduced in Polson.	• Similar to Alignment 2.
6.8/7.8 Noise	• Noise level will be 69 dBA, which exceeds FHWA noise abatement criterion of 67 dBA within 100 feet of highway centerline.	• Noise level in Polson similar to No Action in the design year.	• Noise level increases by as much as 22 dBA in area of new alignment and exceeds FHWA noise abatement criterion. • Noise level in Polson on existing alignment decreases slightly.	• Similar to Alignment 2.
6.9/7.9 Water Quality	• Storm water runoff continues to discharge directly into Flathead Lake.	• Drainage improvement potentially improves water quality, in concert with highway widening. • New bridge structure over Flathead River could have some impact to water quality.	• New crossings of Pablo feeder canal and bridge structure over Flathead River required, with related potential water quality impact. • Storm water runoff continues to discharge directly into Flathead Lake on existing alignment.	• Similar to Alignment 2.
6.10/7.10 Wetlands	• No impact to wetlands.	• Approximately ~~0.2 to 0.4~~0.15 acre affected~~, depending on lane configuration~~.	• Approximately ~~1.3 to 1.7~~0.37 to 2.26 acres affected, depending on lane configuration.	• Approximately ~~0.4 to 1~~0.08 acre affected~~, depending on lane configuration~~.

Table 5.2-4 Comparison of Impacts: Polson Alignments (continued)

Sections	No Action	**MDT and CSKT Preferred Alternatives** Alignment 1 (Existing Alignment)	Alignment 2	**MDT Preferred Alternative** Alignment 3
6.11/7.11 Floodplains and Stream Crossings	• No change to existing floodplains and stream crossings.	• If Lane Configuration B, C or D is constructed, requires new bridge north of the existing bridge over Flathead River. No substantial increase of historic floodplain elevations.	• Requires new bridge over Flathead River. No substantial increase of historic floodplain elevations.	• Requires new bridge over Flathead River. No substantial increase of historic floodplain elevations.
6.12/7.12 Fish and Wildlife	• No impact to fish and wildlife habitat.	• No impact to fish and wildlife habitat.	• Some loss of habitat may occur for wildlife, and some displacement of waterfowl may result from new roadway and bridge structure.	• Similar to Alignment 2, but with slightly less potential loss of habitat and displacement of waterfowl.
6.13/7.13 Threatened and Endangered Species	• No impact to threatened and endangered species.	• Not likely to adversely affect bald eagle. No impact to other threatened and endangered species.	• Not likely to adversely affect bald eagle. No impact to other threatened and endangered species.	• Not likely to adversely affect bald eagle. No impact to other threatened and endangered species.
6.14/7.14 Cultural Resources	• No impact to cultural resources.	• Potential impact to 10 historic properties. • Adverse effect on the NPRR Dixon-Polson branchline, which is an eligible site and has been previously recorded.	• Potential direct physical effect to one historic property, with undetermined eligibility.	• Similar to Alignment 2.
6.15/7.15 Parks and Recreation	• Increasing traffic, with more noise and visual distraction, near park and recreation areas.	• Potential impact to Municipal Golf Course and substantial impacts to Ducharme Park, Riverside Park and Lions Park. • Requires 1.4 acres of public land to convert to ROW.	• Converts from public land to ROW 16 and 20 acres of land with Lane Configurations B and D, respectively. • Converts to ROW a portion of the 7th Avenue ball fields, including part of one ball diamond.	• No impact to parks and recreation land.
6.16/7.16 Hazardous Materials	• Known contamination of soil along some portions of ROW and high potential for contamination along additional portions. • Potential effect on human health due to transport of hazardous materials through community. • Twenty-two existing sites near highway with moderate to high potential for contamination.	• Similar to No Action. • Twenty-two existing sites near highway with moderate to high potential for contamination.	• No known contamination of soil along ROW and some potential for contamination in two locations. • Moves transport of hazardous materials outside community. • Three sites near highway with moderate to high potential for contamination.	• Similar to Alignment 2. • One site near highway with moderate to high potential for contamination.

Table 5.2-4 Comparison of Impacts: Polson Alignments (continued)

Sections	No Action	**MDT and CSKT Preferred Alternatives** Alignment 1 (Existing Alignment)	Alignment 2	**MDT Preferred Alternative** Alignment 3
6.17/7.17 Visual	• No impact to existing visual character.	• Increase in visual scale of highway through town. • If Lane Configuration B, C or D is constructed, a new bridge structure will be required north of the existing bridge and will creates visual impact to Flathead River from many areas of Polson.	• Increase in views of Polson and Flathead Lake. • New and wider roadways cause visual impact to rural residential areas. • Grade changes along Kerr Dam Road require cut and fill to maintain an acceptable road grade, creating a visual impact to nearby residential areas. • New river crossing affects existing river view from many areas of Polson.	• Substantial decrease of views of Polson and Flathead Lake. • Hilly terrain prohibits a view of Flathead River until the road curves west to cross the river. • New road segments, increased road width along existing alignment, and new bridge across Flathead River have a visual impact to rural residential areas.
6.18/7.18 Relocations	• No buildings require relocation.	• May require relocation of one building and one residence. • Eliminates entirely, or reduces, substantial amounts of parking for business.	• Requires relocation of six buildings and six residences, and, additionally, may require relocation of three more buildings and three more residences.	• Requires relocation of three residences, and, additionally, may require relocation of four more buildings and three more residences.
7.19 Energy and Commit-ment of Resources	• Decreasing traffic operating efficiency or related long-term increase in energy use. • No commitment of resources required.	• Traffic operating efficiency and related energy use levels better than the existing conditions. • Some additional energy used by deceleration and acceleration required through installation of new traffic signals.	• Traffic operating efficiency and related energy use similar to rural sections of highway, and substantially better than Alignment 1.	• Similar to Alignment 2, with even more efficient movement on new alignment due to fewer highway approaches.
7.20 Construc-tion	• No construction-related impact or cost.	• Short-term impacts occur for air quality, noise, water quality and other environmental resources. • Long periods of inconvenience and delay to US 93 traffic. • Adverse impact to business.	• Short-term environmental impacts similar to Alignment 1. • Minor impact to traffic during construction.	• Similar to Alignment 2.

5.3. THE MDT PREFERRED ALTERNATIVE

~~This section identifies the preferred alternative for segments of the roadway and explains reasons for selection.~~

The MDT Preferred Alternative to improve US 93 was developed by the Interdisciplinary (ID) Team,[13] which considered engineering and environmental studies; recommendations from community teams in Arlee, Ronan, Pablo and Polson; and public comment.[14] The MDT Preferred Alternative ~~of the ID Team~~ includes the recommendations of MDT, FHWA, Lake and Missoula counties and the cities of Ronan and Polson. CSKT, which also is a member of the ID Team, has made a recommendation for a preferred alternative that differs from that of the ID Team ~~has not made a recommendation for a preferred alternative.~~ The following sections describe the MDT Preferred Alternative and explain reasons for recommendations for alignment alternatives (Section 5.3.1), lane configurations (Section 5.3.2), TDM options (Section 5.3.3) and design options (Section 5.3.4).

Section 5.4 presents details about the CSKT Preferred Alternative.

5.3.1. Alignments of the MDT Preferred Alternative

Alignment 1 has been selected as the alignment alternative that is preferred throughout the area, except in Polson. Alignment 1 follows the existing highway alignment with only minor adjustments to improve the horizontal and vertical alignment of the roadway and to avoid, as much as practical, important topographic features, residences or other buildings and environmental features such as wetlands, streams and riparian areas.

Preservation of a corridor of land for future construction of the highway around Arlee and Ronan is recommended on Alignment 2 through the Arlee area and Alignment 4 through the Ronan area. Corridor preservation will be accomplished by measures such as: 1) cooperative access control and land use planning and regulation with tribal and local governments; 2) purchase of easements, options or ROW by MDT; and other public/private cooperative methods.

At Polson, Alignment 1 is recommended as the designated route for US 93, and Alignment 3, which is approximately 5.8 miles long and passes south and west of Polson, is recommended as a truck route and as an alternate route around Polson. Alignment 1 will remain as a business and scenic route through Polson. On Alignment 3, access should be restricted to only intersections with Skyline Drive, Kerr Dam Road, Irvine Flats Road, US 93 at both ends and existing driveways along Caffrey Road. Signing should be provided to designate Alignment 3 as a truck route and the existing route (Alignment 1) as a business and scenic route. (Figure 5.1-3)

Specific reasons for the selection of alignment alternatives in Arlee, Ronan and Polson are discussed in the following paragraphs.

Arlee. Specific reasons for selecting Alignment 1, the existing alignment, for improvements to US 93 in the Arlee area include the following:

- Information received during the public scoping process indicates the public is strongly in favor of constructing the new roadway on its existing alignment.

- Substantial public opposition has been expressed to each of the alignments (Alignments 2, 3 and 4).

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[13]As explained in Section 10.1.2, the ID Team is an advisory group with representatives from governmental agencies with legal jurisdiction in the area of the proposed action.

[14]As explained in Section 10.1.2, the community teams are advisory groups with representatives from governments, schools, business and citizens groups in communities.

- Alignment 2 may impact important cultural resource sites west of Arlee.

- Many residents of Arlee feel that reconstructing the roadway on its existing alignment will be most safe for pedestrians and bicyclists, particularly school children. They indicate having the lower speed traffic through the community will be much more safe than constructing a higher speed roadway west or east of the community.

- Constructing Alignment 3, just east of Arlee, may impact the public schools, the rodeo grounds and the powwow grounds.

- Constructing Alignment 4 will remove a substantial amount of farmland from production; introduce traffic and related noise, air quality and other impacts to areas currently not impacted; and require a new crossing of the Jocko River.

- Alignment 1 will have the least impact on existing highway-oriented business. Economic studies indicate that diverting traffic away from highway-oriented business may adversely affect them. Representatives of local business and many local residents feel strongly that any impact on existing business will have substantial negative impacts on the economy -- they feel some businesses will not be able to survive and many jobs will be lost.

- Less land will be converted to highway ROW than with Alignments 2, 3 or 4.

- No streams or other water bodies will be crossed, and no floodplains will be affected.

- There will be negligible impacts on threatened or endangered species and other wildlife.

- No sites that are eligible for the National Register of Historic Places (NRHP) will be impacted.

- There will be minor use of Section 4(f) property.

Ronan. Specific reasons for selecting Alignment 1, the existing alignment, for improvements to US 93 in the Ronan area include the following:

- Montana law prohibits MDT from constructing highway routes that divert motor vehicles away from an existing roadway without the consent of the governing body (MCA 60-2-211). The city of Ronan has denied consent. This effectively prohibits the construction of Alignment 3 or 4.

- Information received during the public scoping process indicates the public is in favor of constructing the new roadway on its existing alignment.

- Substantial public opposition has been expressed to each of the alignments (Alignments 2, 3 and 4).

- Constructing Alignment 2, the one-way couplet, will require the relocation of several buildings and will introduce highway traffic into residential and other areas, with related noise, air quality, safety and other impacts.

- Constructing Alignment 3 or 4 will remove a substantial amount of farmland from production and introduce traffic and related noise, air quality, safety and other impacts to areas currently without highway traffic.

- Alignment 1 will have the least impact on existing highway-oriented business. Economic studies indicate that diverting traffic away from highway-oriented business may adversely affect them. Representatives of local business and many local residents feel strongly that any impact on existing business will have substantial negative impacts on the economy -- they feel some businesses will not be able to survive and many jobs will be lost.

- Less land will be converted to highway ROW than with Alignments 2, 3 or 4.

- There will be negligible impacts on threatened or endangered species and other wildlife.

- No sites that are eligible for the NRHP will be impacted.

- There will be no use of Section 4(f) property.

Polson. Specific reasons for selecting Alignment 3, the western-most alignment, and improvements to Alignment 1, the existing alignment, in the Polson area include the following:

- Information received during the public scoping process indicates the majority of the public is in favor of constructing a new roadway on a new alignment.

- The Polson Community Team's recommendation for a preferred alternative also is for construction of Alignment 3 and improvements to the existing alignment.

- Constructing Alignment 2 will have direct impacts to a Section 4(f) site, will require the greatest number of residence relocations, will have noise impacts to the greatest number of sensitive receptors and has some potential to affect threatened and endangered species.

- Constructing Alignment 1 will not improve safety conditions substantially, will increase the barrier effect, may have direct impacts to four Section 4(f) sites, will have the greatest potential to encounter hazardous materials, will require taking a substantial amount of parking from existing businesses and will create the greatest construction related impacts to business and traffic.

- There will be negligible impacts on threatened or endangered species and other wildlife.

- One site eligible for the NRHP will be impacted.

- There will be no use of Section 4(f) property.

- Traffic operating efficiency will be greater than with Alignments 1 or 2 due to fewer highway approaches.

- The Polson City Council has voted in favor of the MDT Preferred Alternative.

5.3.2. Lane Configurations of the MDT Preferred Alternative

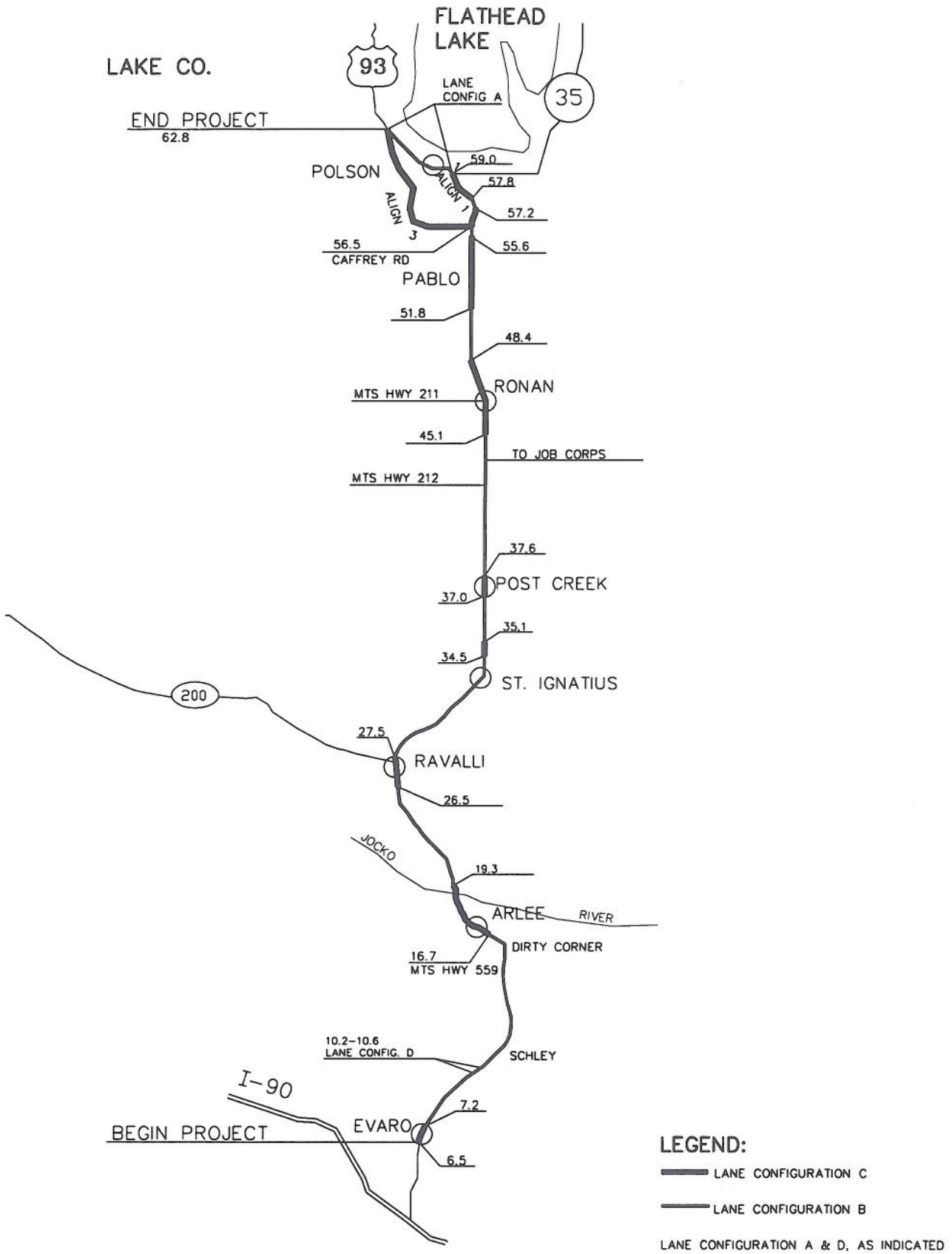
A discussion of where each lane configuration generally is most appropriate is included in following paragraphs. Specific locations where each lane configuration has been selected are shown on Table 5.3-1 and Figure 5.3-1.

Selected lane configurations shown on the table at specific locations are based on existing and projected future conditions. The locations and lengths shown are intended to be a current best estimate of the extent of each lane configuration that should be constructed. As the construction date for each segment of the proposed action nears,

Table 5.3-1 Lane Configuration of the Preferred Alternative

LOCATION (Mileposts)		LANE CONFIGURATION				LOCATION DESCRIPTION
FROM	TO	A	B	C	D	
6.5	7.2			0.7		Evaro
7.2	10.2		3.0			Evaro to vicinity of Joe's Smoke Ring
10.2	10.6				0.4	Evaro wildlife corridor (Joe's Smoke Ring to Schley homesites)
10.6	16.7		6.1			Schley homesites to Jocko Road (~~MTSFAS~~ 559)
16.7	17.3			0.6		Jocko Road (~~MTSFAS~~ 559) to Arlee
17.3	18.4			1.1		Arlee
18.4	19.3			0.9		Arlee to north of Dumontier Road
19.3	26.5		7.2			North of Dumontier Road to Ravalli
26.5	27.5			1.0		Ravalli
27.5	34.5		7.0			Ravalli to north of St. Ignatius
34.5	35.1			0.6		Vicinity of Lemery/Pinsoneault roads, north of St. Ignatius
35.1	37.0		1.9			North of St. Ignatius to Post Creek area
37.0	37.6			0.6		Post Creek area
37.6	45.1		7.5			Post Creek area to area south of Ronan
45.1	46.1			1.0		Area south of Ronan
46.1	47.9			1.8		Ronan
47.9	48.4			0.5		Ronan to vicinity of Baptiste/Spring Creek roads, north of Ronan
48.4	51.8		3.4			North of Ronan to Pablo
51.8	53.6			1.8		Pablo
53.6	55.6			2.0		North of Pablo, vicinity of Courville/Light roads to North Reservoir Road/Minesinger Trail
55.6	56.5		0.9			North Reservoir Road/Minesinger Trail to Caffrey/Ford roads
56.5	57.2			0.7		Caffrey/Ford roads to highway segment with narrow width due to hill and railroad tracks
57.2	57.8		0.6			Highway segment with narrow width
57.8	59.0			1.2		Highway segment with narrow width to MT 35
59.0	61.1	2.1*				MT 35 to Flathead River bridge, Polson
61.1	62.8	1.7**				Flathead River bridge to end of proposed action, Polson
SUBTOTAL: EXISTING ALIGNMENT		3.8	37.6	14.5	0.4	
56.5	62.8		5.8			Alignment 3 around Polson
TOTALS		3.8	43.4	14.5	0.4	

Morrison-Maierle and Carter Burgess. 1994.
* No change in existing lane configuration. ** Addition of a continuous two-way left-turn center median.



LANE CONFIGURATION OF THE MDT PREFERRED ALTERNATIVE FIGURE 5.3-1

\US93EIS\FIG53-1.DWG 6-04-96

refinements and revisions to these locations and lengths may be necessary, but substantial and extensive revisions are not expected.

Lane Configuration A

Lane Configuration A, the ~~modified~~improved two-lane alternative, is recommended for 3.8 miles (seven percent) of the proposed action, including in Polson on Alignment 1 and temporarily as part of the Polson truck route (Alignment 3). It is not recommended for the remainder of the proposed action because it will not meet the purpose and need for the following reasons:

- Lane Configuration A will provide no substantial improvements in the existing capacity and poor LOS of the roadway. The existing two-lane highway is generally operating at LOS D and E and is projected to operate at LOS ~~E and~~ F by the design year ~~2015~~2020. Lane Configuration A will provide only minor improvements in LOS and capacity. It also is projected to generally operate at LOS ~~E and~~ F in the design year. Construction of passing lanes or truck climbing lanes "where needed" will improve LOS in the direction of the additional lane, but will not improve and may actually be detrimental to LOS of the opposing traffic lane.

  As indicated in Section 4.4, acceptable operation for a highway of this type is considered to be LOS B. Construction of any of the four-lane configurations (Lane Configuration B, C or D) will increase the highway's capacity to three-to-four times existing levels or Lane Configuration A levels. A four-lane highway will ensure the highway facility will accommodate projected traffic volumes through the design year ~~2015~~2020.

- Lane Configuration A will not help to substantially reduce head-on collisions and rear-end collisions, which generally are more serious and cause more serious injuries and damage. For example, studies of accident records have indicated injury accidents were reduced to approximately one-third and fatalities were eliminated in the first five years after the six-mile section of US 93 from Interstate Highway 90 to Evaro was improved from two lanes to four lanes.

Lane Configuration B

Lane Configuration B, the four-lane undivided highway alternative with no continuous two-way left-turn center median, is recommended for most of the length of the proposed action, approximately 37.6 miles (67%) on the existing alignment and, when warranted by traffic volume, 5.8 miles on Alignment 3 at Polson ~~(70%)~~. It includes areas where:

- There are currently lower numbers of approaches to the highway and consequently not a large demand for left turns from the highway, and

- Construction of a wider roadway to include a continuous two-way left-turn center median (Lane Configuration C) or a divided highway (Lane Configuration D) will: 1) cause substantial, otherwise avoidable, environmental impacts or 2) require unreasonable construction costs.

~~Wherever Lane Configuration B is recommended, it will include the design options of constructing a four-foot wide painted center median and designated left-turn bays.~~

A survey conducted in 1994 for the Confederated Salish and Kootenai Tribes, of both tribal members and non-tribal members living on the Flathead Indian Reservation, indicates agreement that serious problems exist with driving conditions on many sections and overall on the highway. Approximately 55% of both groups rated overall driving conditions as having serious problems. The survey also indicated that 63% of tribal members and 63% of non-tribal members either supported or strongly supported converting US 93 to an undivided four-lane highway with turn bays

at intersections (Lane Configuration B). Overall, there was more support for a four-lane highway than a two-lane highway, but tribal members indicated more support than non-tribal members for a two-lane highway. Approximately 47% of tribal members, compared with 31% of non-tribal members, either supported or strongly supported maintaining US 93 as a two-lane highway and adding turn bays and passing lanes[15].

Lane Configuration C

Lane Configuration C, the four-lane highway alternative with a continuous two-way left-turn center median, is recommended for 14.5 miles (25%) of the proposed action, including areas where:

- In communities and where there are currently higher numbers of approaches to the highway and consequently a large demand for left turns from the highway.

- The density and use of approaches and the density of development adjacent to the highway are such that substantial reductions in the number of current approaches by implementation of partial access control and construction of frontage roads is not practical.

- A substantial amount of development already has occurred, and it is considered desirable to accommodate this development by providing many opportunities for left turns, and

- Construction of a wider roadway to include a continuous two-way left-turn center median can be accomplished without: 1) causing substantial, otherwise avoidable, environmental impacts or 2) requiring unreasonable construction costs.

Lane Configuration D

Lane Configuration D, the four-lane highway alternative with an unpaved center median at least 40-feet wide, is recommended on 0.4 mile (one percent) of the proposed action. This is in the area of the Evaro wildlife corridor. It will provide better opportunity to construct safe and effective wildlife crossings.

Polson Area. The lane configurations selected in Polson are explained in the following paragraphs:

Alignment 1, MT 35 to the Flathead River bridge - Similar to Ronan, Arlee and Evaro, there is a high demand for left turns from the highway. Lane Configurations B and C were not selected because of the extensive impact to business parking, relocation of several buildings, and encroachment into Flathead Lake and Ducharme Park. Alignment 3 is expected to provide relief for through traffic movements and provide for a higher speed facility with few access points. Therefore, for this segment on the existing alignment, US 93 is recommended to remain in the existing lane configuration (two lanes with a continuous two-way left-turn center median).

Various Transportation System Management (TSM) improvements are recommended for this section including adding designated left-turn bays, traffic signals, asphalt overlay, intersection and safety improvement and pedestrian and bicycle improvement.

Alignment 3 - Lane Configuration B has been selected by the ID Team on Alignment 3 to carry traffic volume in the design year ~~2015~~2020. Because of current lower traffic volume, Lane Configuration A with

[15]Bioeconomics, Inc. and Boyer Consulting Services, Draft, U.S. Highway 93 Corridor Use and Opinion Survey: Summary Results and Survey Methodology, 10 November 1994. Pages 10-11. The percentages do not add to 100% because some respondents indicated support or strong support for both improvement alternatives and some indicated support for neither.

passing lanes is recommended for initial construction on Alignment 3, along with acquisition of ROW for future construction of Lane Configuration B.

5.3.3. Transportation Demand Management

TDM alternatives under consideration for the proposed action are described in Section 5.1.4.

Studies, evaluations and public/agency comments received to-date indicate that:

- Implementation of TDM measures is a desirable, long-term goal, and any highway improvement should be designed to: 1) not reduce or adversely affect TDM activities already occurring and 2) accommodate and promote increased use of TDM.

- Incorporation of TDM is not likely to substantially reduce existing and design year ~~2015~~2020 traffic demand and volume on US 93. TDM will, therefore, not substantially reduce the need for highway improvement.

A transit development plan (TDP) being prepared for Lake County may identify measures that can be included in the final design of highway improvement. ~~The results of the TDP will be available for the final EIS.~~

5.3.4. Design Options of the MDT Preferred Alternative

Design options under consideration for the proposed action are described in Section 5.1.6. Recommendations for the application of some of the more prominent and more readily identifiable design options are described in following paragraphs. Others will be more appropriately addressed during the design phase of the proposed action. After the final EIS is complete, it is recommended participation of community teams (developed during the environmental analysis phases) be continued through project design phases. This will help ensure that local involvement is continued to help select the most appropriate design options. With this concept, a team will be organized for each of the anticipated six or more construction projects, and each team will consist of representatives of local and tribal governments, business, schools and possibly other community organizations. Each team will meet several times during design phases with project engineers and designers to review construction plans as they are developed and provide local suggestions and information.

Arlee Design Options.

The Arlee Community Team identified a preferred alternative as follows:

1. Improve the existing alignment through Arlee.

2. The highway should have two lanes for traffic, with a continuous two-way left-turn center median. (As indicated in Section 5.3.2, the MDT Preferred Alternative, which was recommended by the ID Team, is Lane Configuration C, a four-lane highway with a continuous two-way left-turn center median.)

3. Include an eight-foot shoulder, but prohibit on-street parking. (If Lane Configuration C is constructed, 2.5-foot wide shoulders will be used with no on-street parking.)

4. Include sidewalk, curb and gutter.

5. Install a pedestrian-activated traffic signal at the intersection of "B" Street (Butch Larsen/Taelman) and US 93. Install advance traffic signal warning lights north and south of the traffic signal.

6. Educate school children to cross the highway only at the traffic signal crossing. The Arlee schools should provide crossing guards at the traffic signal crossing.

7. Do not develop a process for a transportation "corridor preservation" plan for the community. The community team indicated there is not a "general charge" from the Arlee community to develop land use planning and regulation in the Arlee area. The community team indicated land use planning and regulation should be developed with the authority available for the Confederated Salish and Kootenai Tribes and Lake County.

8. Develop a plan for posting highway signs that state US 93 through the Flathead Indian Reservation is not a "super highway." Highway signs also should state a 55 miles per hour (mph) speed limit[16] is enforced, and the highway route is located to route traffic through communities.[17]

Ronan Design Options.

The Ronan Community Team identified a preferred alternative as follows:

1. Improve the existing alignment through Ronan.

2. The highway through Ronan should have a lane configuration similar to the lane configuration of the highway outside town. If the overall highway has two lanes, the highway in Ronan should have two lanes, possibly with a continuous two-way left-turn center median. If the overall highway has four lanes, the highway in Ronan also should have four lanes, with a continuous two-way left-turn center median.

3. Include sidewalk, curb and gutter.

4. Include pedestrian-activated traffic signals at three locations:

   - Round Butte Road (MTS 211)

   - Eisenhower Street

   - Buchanan Street

   The current traffic signal is located at Round Butte Road. A flashing signal and pedestrian crossing currently is located at Eisenhower Street, which is in the southern part of Ronan.

5. Educate school children to cross the highway only at the signalized crossings.

6. Provide bicycle access with a signed route through Ronan.

7. Develop a process for a transportation "corridor preservation" plan for the community. The city of Ronan has been developing a comprehensive plan since late-1993, and it has indicated a corridor should be located farther west than either Alignment 3 or Alignment 4.[18]

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[16]The Arlee Community Team provided their recommendations regarding a 55 mph speed limit prior to the removal of federal mandates for speed limits. Montana has not enacted legislation to establish formal, posted daytime speed limits.

[17]After Congress repealed the national speed limit of 65 mph on interstates and 55 mph on other highways in 1995, Montana automatically reverted to its former law that has the "basic rule." A driver may not drive at speeds exceeding what is "reasonable and prudent" for traffic, road and weather conditions.

[18]Montana Code Annotated. 76-2-310.

8. Begin to plan for a truck route or bypass, as long as those plans are to not construct an alternative highway route at the present time.

9. Schedule construction of the highway through the Ronan area as one of the last construction projects. That will allow some time to consider the rates of growth for population and traffic volume.

Pablo Design Options. ~~Several specific design options are recommended in Pablo, as developed by the Pablo community team. These options include frontage roads, access control, raised medians, additional median width to accommodate the raised median, designated left turn bays, approach consolidation, traffic signals, lighting, concrete curb and gutter and pedestrian crossings.~~

The Pablo Community Team discussed the following options:

Option 1 - 30-Foot Wide Raised Curb Median. This was unanimously selected as the team's preferred alternative with some minor modifications discussed below.

Option 2 - 14-Foot Wide Painted Median. Adequate for vehicles but unsafe for pedestrians.

Option 3 - Pedestrian Underpasses. Undesirable - the area has ground water problems, and the roadway would have to be raised four to five feet. It will be difficult to determine the number required and the most advantageous locations. It will be difficult to get pedestrians to use them.

Option 4 - Vehicular Underpass. This option received the most negative reaction. Drainage and ground water problems will require raising the roadway about 18 feet, which will be a visual detriment with access problems.

Following are the modifications to Option 1 preferred by the Pablo Community Team:

1. Use a curb and gutter typical section rather than the rural type which had been planned. This generally tends to slow traffic and gives better expectation of signals in the area.

2. Retain the frontage road on the west side from Second Street to the approach near the Third Street location. This should be kept as near US 93 as possible.

3. Representatives of the schools suggested that the frontage road on the east, from College Street, (right of Station 1071+50) north to Clairmont Street, is not required and would not be desirable. They recommended an approach, opposite the Third Street approach, that would tie to their existing roadway network and would be the least disruptive. A minor amount of work will be required to connect the access between the college and Two Eagle River School along the present ROW line. The access road on the east side of the college that was constructed in the fall of 1992 could possibly be extended to the Two Eagle River School parking lot providing two means of access.

4. The frontage road on the east will then connect the approach opposite Division Street northerly to College Street (Station 1071+50). An approach was suggested at that location, but there is only about 550 feet between it and Division Street, which is inadequate for any left-turn bays.

5. The convenience store - gas station opposite Division Street has considerable large truck traffic, for which the above recommendations may pose difficulties for turning movements and access to and from US 93. Access for this location should be carefully studied. In addition, a 60 unit housing development is being developed in this area.

6. A landscaped median probably is not feasible for this area. Landscaping outside the clear zone between the highway and frontage roads and on the fill slopes may be possible but the responsibility for maintenance would have to be defined.

7. If the east-side frontage road is eliminated from College to Clairmont streets, a foot or bike path will be appropriate.

Polson Design Options. Several specific design options are recommended in Polson:

1. Recommend improvements to existing US 93 within two-to-five years, including but not limited to: adding turn lanes, signalization, asphalt overlay, intersection and safety improvements and pedestrian and bicycle improvements.

2. Acquire ROW adequate for a four-lane highway for Alignment 3, which will cross Flathead River south of the airport, then continue northward along an alignment west of the airport.

3. Construct a two-lane highway with truck climbing lanes as soon as possible.

4. Provide signage on Alignment 3 as a truck route and the existing route as a business and scenic route.

5. Incorporate access management and land use planning and regulation.

6. Provide for a highway connection back to Polson at Irvine Flats Road.

7. Provide adequate design of intersections of Alignment 3 with existing US 93.

8. Provide a grade separation at the intersection with Kerr Dam Road on Alignment 3.

9. Construct an additional two lanes on Alignment 3 when needed in the future.

Auxiliary Lanes. Existing public roads and highways intersecting US 93 have been evaluated to determine the need for left-turn bays. The evaluation was based on existing and projected future left-turn volumes from US 93, accident history, sight distance and other geometric considerations, growth potential, wetland impacts and other potential environmental impacts. Based on this evaluation, it is estimated that left-turn bays should be constructed at approximately 46 of the existing intersections (outside areas recommended for Lane Configuration C, as listed on Table 5.3-2). It is recognized that, as final design progresses, more detailed information will become available, and it is possible that the number of left-turn bays required may change.

Access Control. Partial, or limited, access control is recommended for the entire length of the highway except for short distances as the highway passes through the following communities: Evaro, Arlee, Ravalli, St. Ignatius, Post Creek, Ronan, Pablo and Polson. Partial access control features and benefits are described in Section ~~6.1~~7.1.3.2.

Table 5.3-2 Existing Intersections To Have Left-Turn Bays

Milepost	Intersection	
	Description	Left-Turn Bay Direction
8.60	Unnamed Road	Southbound to Eastbound
9.30	Whispering Pines Road	Northbound to Westbound
9.9	Joes Smoke Ring	Northbound to Westbound
10.10	Coriacan Road	Southbound to Eastbound
11.20	Schley Homesites	Northbound to Westbound and Southbound to Eastbound
12.05	Unnamed Road at East Finley Creek	Southbound to Eastbound
12.20	Sheep Ranch Inn	Southbound to Eastbound
13.05	McClure Road	Northbound to Westbound and Southbound to Eastbound
13.40	Doney Road	Northbound to Westbound
14.05	Mountain Home Lane	Southbound to Eastbound
15.10	South Couture Loop	Northbound to Westbound
15.20	Dirty Corner	Southbound to Eastbound
15.85	Unnamed Road	Southbound to Eastbound
15.95	Private Drive	Southbound to Eastbound
16.10	Private Drive	Southbound to Eastbound
16.20	Coombs Lane	Northbound to Westbound
16.55	Cottonwood Lane	Northbound to Westbound
16.70	Jocko Road	Southbound to Eastbound
17.20	Lumprey Road	Northbound to Westbound and Southbound to Eastbound
18.70	Saddle Mountain Road	Northbound to Westbound
18.95	Private/Commerical Drive(Bar/feed/store/campground)	Northbound to Westbound and Southbound to Eastbound
19.00	Dumontier Road	Southbound to Eastbound
19.80	White Coyote and Detwiler Roads	Northbound to Westbound and Southbound to Eastbound

Morrison-Maierle, Inc. 1994. This table has been added to the final EIS.

Table 5.3-2 Existing Intersections To Have Left-Turn Bays (Cont'd)

Milepost	Intersection	
	Description	Left-Turn Bay Direction
20.00	Montana Naturals	Southbound to Eastbound
21.25	Rentfro Road and Scott Lane	Northbound to Westbound and Southbound to Eastbound
22.75	South Valley Creek Road	Northbound to Westbound
25.00	North Valley Creek Road	Northbound to Westbound
29.15	Bison Range Viewpoint	Northbound to Westbound and Southbound to Eastbound
30.40	Old Freight Road	Northbound to Westbound
30.55	Pistol Creek Road	Southbound to Eastbound
31.20	Old U.S. 93	Southbound to Eastbound
31.60	Blood Ranch Lane	Northbound to Westbound
32.30	Sabine Road and Road to Mission Church	Northbound to Westbound and Southbound to Eastbound
32.70	Commercial Drive and Mountain View Road	Northbound to Westbound and Southbound to Eastbound
33.10	Lower Crossing Road and Airport Road	Northbound to Westbound and Southbound to Eastbound
35.10	Pinsoneault and Lemery Roads	Northbound to Westbound and Southbound to Eastbound
36.10	Hawkins and Ashley Lake Roads	Northbound to Westbound and Southbound to Eastbound
37.10	Dublin Gulch and Red Horn Roads	Northbound to Westbound and Southbound to Eastbound
38.10	Post Creek Road (East and West)	Northbound to Westbound and Southbound to Eastbound
39.10	Leon and McDonald Lake Roads	Northbound to Westbound and Southbound to Eastbound
40.10	Olsen and Gunlock Roads	Northbound to Westbound and Southbound to Eastbound
40.95	Private Drive (Allentown)	Southbound to Eastbound

Morrison-Maierle, Inc. 1994. This table has been added to the final EIS.

Table 5.3-2 Existing Intersections To Have Left-Turn Bays (Cont'd)

Milepost	Intersection	
	Description	Left-Turn Bay Direction
41.10	Recreation Site Road and Eagle Pass Trail	Northbound to Westbound and Southbound to Eastbound
42.10	Highway 212 and Kicking Horse Road	Northbound to Westbound and Southbound to Eastbound
42.35	Commercial and Private Drives (Countryside Cafe)	Northbound to Westbound and Southbound to Eastbound
43.10	Duck Road	Northbound to Westbound
43.60	Mollman Pass Trail	Southbound to Eastbound
44.10	Beaverhead Lane and Private Drive/Rest Area	Northbound to Westbound and Southbound to Eastbound
45.10	Private Drive (Industrial)	Southbound to Eastbound
45.35	Bouchard Road	Northbound to Westbound
45.50 to 45.70	Unnamed Roads and Drives	Southbound to Eastbound
48.30	Baptiste and Spring Creek Roads	Northbound to Westbound and Southbound to Eastbound
50.10	Mud Creek Lane	Northbound to Westbound and Southbound to Eastbound
50.90	Old U.S. 93	Northbound to Westbound and Southbound to Eastbound
54.10	Skylark Lane	Northbound to Westbound
54.50	Grover Road and Mud Lake Trail	Northbound to Westbound and Southbound and Eastbound
55.00	Lake County Gravel Pit Road and Commercial Drive	Northbound to Westbound and Southbound to Eastbound
55.50	North Reservoir Road and Minesinger Trail	Northbound to Westbound and Southbound to Eastbound
56.50	Caffrey and Ford Roads	Northbound to Westbound and Southbound to Eastbound

Morrison-Maierle, Inc. 1994. This table has been added to the final EIS.

Traffic Signals. Traffic signals will be considered when counts and studies indicate they are warranted by traffic and pedestrian volumes and characteristics, including the following locations:

- Arlee - "B" Street (Butch Larsen/Taelman) (existing flashing yellow light)
- Ronan - Round Butte Road (existing signal)
- Pablo - Division Street
- Polson - MT 35 (Installed in 1995)
- Polson - First Street East (existing signal)
- Polson - Main Street
- Polson - Bayshore Drive/Golf Course Entrance

It is anticipated that, during future stages of project development, warrants for additional signals may be determined. These intersections include:

- Pablo - Clairmont / Pablo West Road
- Ronan - Eisenhower Street (existing flashing yellow light)
- Ronan - Buchanan Street
- Polson - 4th Avenue East (Super 1 Foods)
- Polson - 8th Street East
- Polson - Alignment 3 (Caffrey Road)
- Polson - Alignment 3 (End of Proposed Action)

Some other important intersections may warrant the installation of traffic signals in the future. As highway improvement occurs, intersections where signalization appears likely to be required should be designed and constructed to allow the installation of the signals when traffic volume and characteristics indicate they are warranted.

Pedestrian Facilities. The following pedestrian facilities are recommended at this time:

- When signals are installed at the signal locations listed above, include push-button actuated pedestrian signals. Also install crosswalks.
- In Arlee, Ronan and Polson, construct five-foot concrete sidewalks on both sides of the highway adjacent to the back of the concrete curb and gutter at the shoulder of the roadway.
- In all other areas, construct eight-foot paved shoulders.
- Shoulders will be widened where appropriate to allow school buses to pull out of traffic lanes to load and unload students.

Other recommended pedestrian facilities may be identified with the final design and additional information from community teams.

Bicycle Facilities. The following bicycle facilities are recommended at this time:

- In ~~all~~rural areas ~~except Arlee~~, construct eight-foot paved shoulders with a three-foot "rumble strip" to provide adequate width for bicycle travel and effectively separate it from highway traffic.

- Through the Arlee, Ronan and Polson areas, if roadway shoulders narrower than six feet are constructed, develop designated bicycle routes through the community and away from the highway on existing streets with appropriate signing, pavement marking and other safety features.

- Perpetuate the existing bicycle/pedestrian path between the town of Arlee and the tribal housing complex at the north end of town.

Other recommended bicycle facilities likely will be identified with the final design and additional information from community teams.

Four-Foot Painted Center Median. Use of this painted median is not recommended. ~~in all areas where Lane Configuration B (a four-lane highway with no continuous two-way left-turn center median) is constructed. This will~~It is not wide enough to effectively help separate opposing traffic lanes, help reduce opposing headlight glare and ~~may~~ help reduce head-on collisions. Its use does not justify the substantial construction cost and the adverse additional environmental impacts that would occur.

Wildlife Crossings.

The following recommendations are made for the Evaro wildlife crossings:

- Construct Lane Configuration D from Mileposts 10.2 to 10.6,

- Construct a wildlife overpass at Milepost 10.3. The overpass will include two arch structures, one over the two northbound lanes and one over the two southbound lanes. The structures will support a minimum of four feet of topsoil on which vegetation will be established to provide cover for wildlife. The structure will create a tunnel for highway traffic approximately 165 feet long.[19]

- ~~Construct two wildlife underpasses — one at Milepost 10.3, which will include a three-span structure with a 60-foot center span, and one at Milepost 10.5, which will include a structure with a single 60-foot span and vertical abutments — taking advantage of the 40-foot Lane Configuration D divided, unpaved center median to provide an opening in the structures to avoid any "tunnel effect" in lighting.~~

- Implement other mitigation measures recommended in the "Evaro Corridor Wildlife Use Study" completed by CSKT including:

  Fencing the highway ROW with 10-foot high fences located 150 feet from the outer edge of the borrow pit on both sides of the highway to facilitate wildlife movement toward the overpass;

[19]Morrison-Maierle Environmental Corporation, Biological Assessment, F 5-1(9)6, U.S. Highway 93, Evaro through Polson, 11 October 1996.

- Establishing vegetation outside fences to provide security for animals approaching the overpass. Planting of trees and shrubs to screen animals from traffic would be proposed if natural vegetation has been removed or is sparse;

- Constructing one-way gates in the fences on both sides of the highway to facilitate escape of animals trapped inside the fences;

- Managing vegetation between the fences and the highway to provide escape and security cover for animals that become trapped inside the fences.

- Constructing game trails, if necessary, to direct animals toward the overpass;

- Closing and revegetating dead-end roads leading off the highway in the immediate vicinity of the overpass; and

- Supporting the joint effort of the Confederated Salish and Kootenai Tribes and Missoula County to develop land use planning and regulation for the Evaro area.

~~- Drift-and-exclusion-fencing-and-one-way-gates,~~

~~- Signing-at-either-end-of-the-corridor,~~

~~- Closure-of-dead-end-roads,-and-rerouting-through-roads-from-other-accesses,~~

~~- Vegetation-management-inside-and-outside-the-fencing,~~

~~- Joint-effort-by-tribal-and-local-governments-for-effective-land-use-planning-and-regulation.~~

Other recommended wildlife crossing measures include an expanded bridge structure at Post Creek to allow larger animals to follow the stream across the highway and, if workable and practical designs can be developed, crossings for turtles in the Ninepipe refuge area.

Concrete Curb and Gutter

In the communities of Arlee, Ravalli, Ronan, Pablo and Polson, concrete curb and gutter is recommended at the edge of the roadway to coordinate with the more urban settings, to help control entrances to the highway, to control drainage and to reduce the amount of ROW required for construction.

5.4. THE CSKT PREFERRED ALTERNATIVE

Section 5.4 presents the CSKT Preferred Alternative. The Tribal Council of the Confederated Salish and Kootenai Tribes submitted its preferred alternative with a cover letter dated 29 February 1996.

9100-82 020 F

THE CONFEDERATED SALISH AND KOOTENAI TRIBES
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February 29, 1996

Mr. Joel Marshik
Manager, Environmental Services
Montana Department of Transportation
2701 Prospect Avenue
Box 201001
Helena, Montana 59620-1001

RE: U.S. HIGHWAY 93 EVARO TO POLSON PROJECT, TRIBES' PREFERRED ALTERNATIVE

Dear Mr. Marshik:

Please accept the materials accompanying this letter as a statement of the Confederated Salish and Kootenai Tribes ("Tribes") preferred alternative for the U.S. Highway 93 Evaro to Polson Project ("Project"). This statement is submitted with the intent that the selected alternative will be included within the Final Environmental Impact Statement for the Project and identified as a preferred alternative.

The Federal Highway Administration ("FHWA") is the lead agency with oversight responsibility for assuring that this Project complies with the National Environmental Policy Act of 1969 (NEPA), 42 U.S.C. 4321 - 4370b. FHWA has prescribed policies and procedures for implementing NEPA at 23 CFR 771, as amended, and is also subject to the regulations of the Council on Environmental Quality ("CEQ") at 40 CFR 1500 - 1508. As lead agency in this process, FHWA retains ultimate responsibility for preparing the Environmental Impact Statement ("EIS"), assuring its adequacy and identifying the preferred alternative(s).

The Montana Department of Transportation (MDT) operates as agent for the FHWA for compliance with these laws. FHWA has assigned MDT with the responsibility for preparing the EIS for the Project. As the document preparer, MDT is obligated to "identify the agency's preferred alternative or alternatives, if one or more exists, in the draft statement and identify such alternative in the final statement . . . " 40 CFR 1502.14(e) (1995). The CEQ requires that the EIS "must be objectively prepared and not slanted to support the choice of the agency's preferred alternative over the other reasonable and feasible alternatives." 46 Fed. Reg. 18026 (Mar. 23, 1981) (NEPA's Forty Most Asked Questions, Question 4c).

The Tribes operate as a cooperating agency in this NEPA process. The Tribes' cooperating agency status is due to their unique interest in the Flathead Indian Reservation as the Tribal homeland and the Tribes' special expertise in all issues affecting the Reservation. The Tribes, consistent with CEQ guidance, want this document incorporated into the Final EIS as a preferred alternative:

> A lead agency, of course, has the ultimate responsibility for the content of an EIS. But it is supposed to use the environmental analysis and recommendations of cooperating agencies with jurisdiction by law or special expertise to the maximum extent possible, consistent with its own responsibilities as lead agency. [citations omitted].
>
> If the lead agency leaves out a significant issue or ignores the advice and expertise of the cooperating agency, the EIS may be found later to be inadequate. Similarly, where cooperating agencies have their own decisions to make and they intend to adopt the environmental impact statement and base their decisions on it, one document should include all of the information necessary for the decisions by the cooperating agencies. . . .
>
> Because the EIS is not the Record of Decision, but instead constitutes the information and analysis on which to base a decision, disagreements about conclusions to be drawn from the EIS need not inhibit agencies from issuing a joint document, or adopting another agency's EIS, if the analysis is adequate. Thus, if each agency has its own "preferred alternative," both can be identified in the EIS. 46 Fed. Reg. 18026 (Mar. 23, 1981) (NEPA's Forty Most Asked Questions, Question 14b).

It is the Council's intent that this statement of preferred alternative to be the final definitive statement by the Tribes on this matter for the purposes of the present NEPA process. The Tribes will review the Draft Final EIS with regard to this statement and comment as necessary. The Tribes encourage MDT to go forward with preparing the Draft Final EIS. However, because the Tribes are a cooperating agency with a preferred alternative which conflicts with the preparer's preferred alternative, the Tribes request that FHWA involve the Tribes directly with drafting the record of decision for this NEPA document. Please direct any questions that you might have regarding this Tribal statement of preferred alternative or the NEPA process to Joe Hovenkotter, Attorney, Tribal Legal Department at (406)675-2700 ext. 460.

Sincerely,

Rhonda Swaney
Chairwoman - Tribal Council

CC: Dale Paulsen, FHWA
John Glueckert, Mayor, City of Polson
Brad Peterson, Morrison-Mairle
Jeanette LoStracco, Carter-Burgess

CONFEDERATED SALISH AND KOOTENAI TRIBES
STATEMENT OF PREFERRED ALTERNATIVE

HIGHWAY 93 - EVARO TO POLSON PROJECT

(1) Alignments of the Preferred Alternative

Alignment 1 has been selected as the alignment alternative that is preferred throughout the area. Alignment 1 follows the existing highway alignment with only minor adjustments to improve the horizontal and vertical alignment of the roadway and to avoid, as much as practical, important topographic features, residences or other buildings and environmental features such as wetlands, streams and riparian areas.

(2) Lane Configurations of the Preferred Alternative

Lane Configuration A, the modified two-lane alternative, is recommended for all 56.3 miles of the proposed action, including all segments of the highway located within Reservation communities.

(3) Transportation Demand Management (TDM)

TDM alternatives include the construction of park and ride lots, State subsidy of locally administered vanpools, and completion of a feasibility study of light rail commuter transit between Reservation communities.

Park and ride lots should be constructed at strategic sites in Arlee, St. Ignatius, Ronan, Pablo, and Polson. Each park and ride lot should abut the highway and include sufficient lighting to provide a baseline level of safety, a shelter to protect waiting riders from the wind and rain. Each park and ride lot should be connected with a pedestrian/bike path(s) leading to town centers and high density residential areas. Park and ride lots will be maintained by MDT as a component of the highway facility.

The State of Montana should provide sufficient resources, either in the form of cash subsidy or vehicles, to support regional vanpooling. The vanpools would be administered by local and Tribal government. The target group of highway users for the vanpool is daily commuters travelling to/from Reservation communities.

MDT should conduct a study of the feasibility of constructing light rail facilities and/or utilizing existing railroad tracks for light rail for transit of commuters between Reservation communities.

(4) Alternate Routes

MDT should encourage use of other north-south routes through Western Montana including

Highways 28, 83, 135, 141, 200, and 382. Signs at major highway junctions north and south of the Highway 93 Corridor through the Flathead Reservation recommending alternative routing should be installed at Garrison, Bonner, Ravalli, Perma, Plains, Kalispell, Elmo and Bigfork.

MDT should include a warning for travellers on all roadmaps MDT produces, in whole or in part, that show any or all segments of the road included in this Project. The warning should state that within the Flathead Indian Reservation U.S. Highway 93 is a heavily travelled two-lane roadway. The warning should encourage through travellers to select an alternate north-south travel route through Western Montana. The warning should be situated on the map so it will be readily apparent to persons studying portion of the map which includes the U.S. Highway 93 corridor.

(5) Design Options of the Preferred Alternative

Design options for the proposed action are described in Section 5.1.6 of the Draft EIS. Recommendations for the application of some of the more prominent and more readily identifiable design options are described in the following paragraphs:

Arlee Design Options. This design option includes the segment of highway located within the Arlee community between PowWow Road and "A" Street. Lane configuration A is recommended with a raised landscaped 20 - 30 foot-wide median. Left turn bays and crosswalks, for both northbound and southbound lanes, should be constructed at the "A", "B", "C" and "D" Street intersections and the PowWow Road/Couture Loop intersection. A pedestrian operated crossing signal should be installed at the "B" Street intersection. Sufficient signage to warn highway traffic of these new design options should be integrated into the design.

Preservation of a corridor of land for future construction of the highway around Arlee is not recommended.

Ronan Design Options. This design option includes the segment of highway located within the city limits of the incorporated municipality of Ronan. Lane configuration A is recommended with a raised landscaped 20 - 30 foot-wide median. Left turn bays for northbound lanes, should be constructed at the intersections with Round Butte Road (Highway 211), Main Street, Adams Street, Eisenhower Street and Dayton Street. Left turn bays, for southbound lanes, should be constructed at the intersections with Terrace Lake Road, Adams Street, Cleveland Street, Eisenhower Street and Garfield Street. The existing stop signal at the intersection with Round Butte Road (Highway 211) should be maintained. Crosswalks and pedestrian operated crossing signals should be installed at the intersections with Round Butte Road (Highway 211) and Eisenhower Street. Sufficient signage to warn highway traffic of these new design options should be integrated into the design.

Preservation of a corridor of land for future construction of the highway around Ronan is recommended west of Ronan.

Pablo Design Options. This design option includes the 2.3 mile segment of highway located within the Pablo community between Division Street and the S & K Housing Office

(mileposts 51.9 - 54.2). The Pablo Design Option includes the following components:

- Lane configuration A with a raised landscaped 20 - 30 foot-wide median.
- Stop signals (which include pedestrian operated crossing signals) and crosswalks at the Division Street and Claremont/Pablo West Roads intersections.
- Left turn bays for northbound lanes at Division Street, the point where Pablo's Third Street will intersect when extended, Pablo West Road and Light Road.
- Right turn bays for northbound lanes at Division Street, Claremont Road and Courville Trail.
- Left turn bays for southbound lanes at Courville Trail, Claremont Road and Division Street.
- Right turn bays for southbound lanes at Light Road, Pablo West Road, the point where Pablo's Third Street will intersect when extended and Division Street.
- The Division Street intersection will either (a) remain as placed and MDT will acquire right-of-way through Joe's Jiffy Stop to access a reverse frontage road serving the Salish and Kootenai College; (b) be realigned to approximately 100 meters south of its existing location ; or (c) be realigned to approximately 50 meters north of its existing location to access both a reverse frontage road serving the Salish and Kootenai College on the east and a short connecting road to Division Street on the west.
- Two-way frontage roads will be built (a) on the east side of the Highway between Claremont Road and Courville Trail; (b) on the west side of the Highway between Old Highway 93 and the S & K Housing Office; and (c) if necessary on the west side of the Highway between Pablo West Road and the access to the Pablo Branch of Ronan State Bank.
- All private approaches accessing the Highway will be closed.
- A pedestrian/bicycle path will be constructed on the east side of the highway between Division Street and Courville Trail. A pedestrian/bicycle path will be integrated into the design of the frontage road west of the highway between Light Road and S & K Housing.
- Sufficient signage to warn highway traffic of these new design options and to provide clear direction to all travellers attempting to access government and tourist facilities.
- Install sufficient lighting at intersections and areas of pedestrian activity so that approaching vehicles and pedestrians will be visible to highway traffic at all times.

Polson Design Options. This design option includes the segment of highway located within the incorporated municipality of Polson. Lane configuration A is selected because it minimizes impacts to business parking, existing buildings, Ducharme Park and Flathead Lake shorefront. The Council concurs with the Transportation System Management improvements recommended for Polson by the ID team in the Draft EIS at pages 5-40 through 5-43.

Preservation of a corridor of land for future construction of the highway around Polson is not recommended.

Auxiliary Lanes. Access related auxiliary lanes should be constructed in accordance with design standards and specifications included within the Memorandum of Agreement for Access

Management Planning (see discussion on Access Control for additional details).

Auxiliary lanes in the form of climbing/passing lanes for traffic travelling up grades should be located as follows:

- Schley Grade southbound, for a distance of 2 miles between the Sheep Ranch Inn (milepost 12.1) and Mountain Home Lane (milepost 14.1);
- Ravalli Hill northbound, for a distance of 1.8 miles between the Highway 200 junction in Ravalli (milepost 27.7) and a point located approximately ¼ mile north of the Ravalli Hill Summit (milepost 29.5);
- Bison Range Grade southbound, for a distance of approximately 1.7 miles between a point located approximately ¼ south of the Old Highway 93 junction (milepost 31.2) to a point located approximately ½ mile north of the Ravalli Hill Summit (milepost 29.5) (the start point should be located so that the safest design can be achieved for the Old Highway 93 junction);
- Post Creek Hill northbound for a distance of 1.8 miles between a point located approximately ¼ mile north of the Post Creek Road intersection (milepost 38.4) and a point located approximately ¼ mile north of the Gunlock/Olsen Roads intersection (milepost 40.2);
- Polson Hill southbound for a distance of 1.8 miles between a point located approximately ¼ mile south of the Caffrey/Ford Roads intersection (milepost 56.3) and the point where the existing climbing lane presently begins (milepost 58.2).

Exact locations for the climbing lane transition points may vary slightly to include safety factors such as proximity of intersections, stopping distance, access management standards and sight distance requirements. Climbing lane transition points should be well signed. The short segment between the ends of Ravalli Hill northbound and Bison Range Grade southbound climbing lanes should be of sufficient distance so that there will not be opposing traffic completing transition movements in both directions at the same location.

Access Control. MDT and the Tribes will continue working cooperatively to establish a Memorandum of Agreement for Access Management Planning for inclusion within the Final EIS. The MOA will identify procedures, design standards and specifications which will facilitate the maximum level of access control possible under State, Tribal and Federal law for this preferred alternative. The Tribes see this as a critical unresolved issue due to approximately ⅓ of all accidents on the Highway 93 corridor being access related and correspondingly, the crucial factor for attenuating this situation will be access control regardless of lane configuration.

Traffic Signals. Present conditions warrant maintenance or installation of signals at the following locations:

- Arlee - "B" Street (existing signal).
- Ronan - Round Butte Road (Highway 211) (existing signal).

- Eisenhower Street (flashing yellow).
- Pablo - Division Street (stop signal).
- Pablo West Road/Claremont Road (stop signal).
- Polson - Highway 35 (existing signal).
- Fourth Avenue East/Super One Foods (stop signal).
- First Street East (existing signal).
- Main Street (stop signal).

Other intersections may warrant the installation of traffic signals in the future. As highway improvement occurs, intersections where signalization appears likely to be required should be designed and constructed to allow the installation of the signals when warranted by traffic and pedestrian volume and characteristics. Particular intersections for consideration include but are not limited to Buchanan Street in Ronan and Bayshore Drive/Golf Course in Polson.

Pedestrian Facilities / Bicycle Facilities The Council concurs with the preferred alternative as described in the Draft EIS at page 5-42 with following exceptions and additions:

(a) Where the Draft EIS calls for the construction of eight-foot paved shoulders, the Tribes recommend the construction of ten-foot paved shoulders. The ten-foot shoulder should be constructed with a three-foot rumble strip at the inside edge to separate traffic from pedestrian and bicyclists travelling on the remaining seven-foot smooth outer shoulder.

(b) In areas where sidewalks are to be constructed, the sidewalks should be constructed on both sides of the highway where reasonably possible. Sidewalks located in areas where ten-foot shoulders are not constructed should be separated from the curb by a minimum distance of between two to eight feet to enhance pedestrian safety and security.

(c) As noted in Section (3) of this statement, pedestrian/bike paths leading to town centers and high density residential areas should be constructed so that they connect with park and ride lots. Pedestrian/bike paths should also be constructed alongside the highway in areas with a high probability of use.

Four-Foot Painted Center Median The Council does not object to the ID Team's rejection of the four-foot painted median. However, the center median should consist of more than simple striping. Raised or inset reflective markers that clearly delineate the center line in all weather and roadway conditions should be installed in addition to conventional striping.

Concrete Curb and Gutter. The Council concurs with the preferred alternative as described in the Draft EIS at page 5-43.

Bus Turnouts. Bus turnouts should be built where there are known concentrations of users.

(6) **Wetlands Mitigation**

The following wetlands protection guidelines are recommended for all wetlands that are located within the project area:

(a) Follow the sequencing requirements per the Memorandum of Agreement for Mitigation of Unavoidable Impacts to Wetlands by Highway Construction entered into by the Tribes and MDT on June 1, 1993. Those sequencing requirements in order of priority are:

1. Avoiding the impact altogether by not taking a certain action or parts of an action;
2. Minimizing impacts by limiting the degree or magnitude of the action and its implementation;
3. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
4. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and
5. Compensating for the impact by replacing or providing substitute resources or environments.

(b) Establish a wetlands mitigation bank.

The purposes of the wetlands mitigation bank are avoiding and minimizing the loss of wetlands and riparian areas within the Flathead Indian Reservation due to direct and indirect highway construction impacts, and obtaining full and effective mitigation for unavoidable losses of wetlands and riparian areas and their functions and values.

The banking instrument should be signed by the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, MDT and the Tribes.

The Tribes should serve as bank manager, will hold title to all bank lands in perpetuity, and will maintain and operate bank properties. The U.S. Army Corps of Engineers should serve as bank auditor. MDT should serve as purchaser of bank lands and engineer for design of mitigation site plans. All signatory parties should serve on the Flathead Reservation Interagency Wetlands Group for purposes of providing recommendations, review and oversight for all scientific and technical activities of the wetlands mitigation bank.

The wetlands mitigation bank rules should be developed in accordance with federal law and regulatory guidance from the U.S. Environmental Protection Agency and U.S. Army Corps of Engineers.

The wetlands mitigation banking prospectus, instrument and conceptual plan should be included within the Final EIS.

(c) Maintain wetland hydrology by incorporating highway design features that protect and maintain the natural hydrologic regime particularly for those wetlands located downslope (generally west) of the highway that receive water from sources upslope (generally east)

of the highway.

(d) Minimize fill by incorporating highway design features such as minimum toe slopes in wetlands areas.

(e) Revegetate exposed areas with native wetland/riparian species to reduce erosion, minimize sedimentation, provide habitat and reduce invasion by noxious weeds. Implement additional stabilization/control measures at perennial stream crossings where needed.

(f) Minimize the horizontal extent of maintenance activities which are damaging to wetlands such as brush removal, mowing, and use of herbicides.

(7) **Site Specific Wetlands Mitigation**

(a) Ninepipe / Kicking Horse / Duck Haven Wetlands Complex

(i) Pingo Berms: Protection of pingo berms is critical to the maintenance of pond hydrology. Pingo berms broken during construction should be restored to their original contours. Cross-highway drainage should be eliminated by construction of an artificial berm between the open water area and the roadbed where a portion of the pingo is within the highway right-of-way. Several pingo berms were breached during construction of the existing highway. This past damage should be repaired during construction of the present project by restoring the original contours of the berms.

(ii) Ponds H36, H37 and I3: Pothole ponds H36 - H37 (identified as two potholes by MDT) and I3 (identified as one pothole by MDT) were bisected during construction of the existing highway. The current project provides an opportunity to restore original hydrologic characteristics and animal travel routes to these bisected potholes. The filled roadbed should be replaced with a causeway or other structure that spans the ponds and allows normal circulation of water, passage of a high level of ambient sunlight and provides a minimum 45 foot-width of riparian bank for turtle, brooding waterfowl and other terrestrial animal passage.

(iii) Fill slopes: To minimize area of wetlands impacted, highway design in this area should incorporate guardrails with 1:6 slope walls and no median.

(b) Riparian Wetlands Associated with Perennial Streams (Finley Creek, East Fork Finley Creek, Schley Creek, Jocko River, Jocko Springs, Mission Creek, Sabine Creek, Post Creek, Crow Creek, Ronan Springs Creek, Mud Creek, and unnamed streams A3, A5, A10, H9 and H11).

Wetlands mitigation needs are incorporated into stream crossing designs developed by Tribal fish and wildlife biologists and discussed herein in section 8, Fish Passage, below.

(c) Riparian Wetlands Associated with Ephemeral Streams (Matt Creek, unnamed streams A9 and I14.

Install culverts to maintain cross-highway flow of streams and riparian wetlands located on the west side of the highway.

(d) Riparian Wetlands Associated with Ephemeral Drainages A12, A13, A14, A18, C11, C12, C13, C14, F1, F3, F4, F5, H2, H3, H4, H5, H6, H7, H13, H21 and K3.

Install culverts to maintain cross-highway flow of streams and riparian wetlands located on the west side of the highway. Remove existing blockages to ephemeral drainages.

(e) Wetlands Associated with Ponds or Depressions Outside of the Ninepipe/Kicking Horse/duck Haven Complex Area (Avocet Pond and unnamed ponds/depressions D5, H14, I17, K1, and K2).

Maintain individual pond/depression hydrology by restoring any berms broken during construction. Restore to original contours when possible. Eliminate cross-highway pond drainage by constructing barriers between adjacent ponds and between pond and highway right-of-way.

(f) Wetlands Located in Borrow Pits

These small and biologically simple wetlands provide the important function of trapping and filtering chemicals and sediment transported by highway runoff. Many of these wetlands will eventually reestablish naturally along any newly constructed highway segments. However, wetlands should be reconstructed where borrow pits discharge into Reservation surface waters so that the trapping and filtering function which protects water quality will be restored as soon as possible.

(8) Stream Crossings / Fish Passage / Wildlife Crossings

In general, extension and maintenance of existing culverts and bridges identified in Table 6.11-1 of the Draft EIS will continue to facilitate adequate fish passage. Exceptions are:

(a) Evaro Corridor (milepost 10.2 - 10.6): A two-lane tunnel/underpass should be constructed for traffic. This configuration would underlay an overhead wildlife crossing structure. General components are described in the following list and further construction details of this design option are documented in Appendix 1 to this document.

- Construction of the overpass structure spanning the highway with a width of not less than 50 meters.
- Contouring and vegetating the surface of the wildlife crossing structure and areas adjacent to the structure to enhance the likelihood of selection as an animal migration route across the highway corridor.
- Construction of ten foot high drift fences leading east and west from the wildlife crossing structure on both sides of the highway right-of-way.
- Construction of one-way gates in the drift fences to facilitate movement of animals out of the highway corridor.
- Management of the vegetation between the drift fences and the highway to provide hiding and escape cover for animals that enter the right-of-way.
- Alteration of existing wildlife trails to facilitate animal crossing.
- Installation of animal crossing warning signs along the highway between Evaro (milepost 7.2) and Dirty Corner (milepost 15).
- Closure and revegetation of all access approaches within 500 meters of either end of the wildlife crossing structure.

(b) East Fork, Finley Creek (milepost 12.2): Presently this site is a perched culvert and does not afford upstream fish passage. Because of native species preservation concerns above this site, this culvert should remain perched to provide a barrier to upstream fish passage by nonnative species.

(c) Agency Creek (milepost 15.7): A larger pipe/culvert should be installed to adequately accommodate flood flows. Agency Creek eventually flows into Finley Creek. It is not desirable to provide fish passage from Finley Creek to Agency Creek because of native species preservation concerns in Agency Creek. Therefore, the new pipe/culvert should be designed to prevent upstream fish passage by nonnative species.

(d) Jocko River (milepost 19.0): The existing bridge should be reconstructed at its existing location to minimize potential impact to fish resulting from new construction of a different alignment. Reconstruction should incorporate qualities so that the roadway is wide enough to include ten-foot shoulders and so that the structure would not impede the flows of a one-hundred year flood.

(e) Jocko Spring Creek (milepost 23.3): The creek was rerouted from its natural channel to flow through the existing S-shaped 90° bend / culvert / 90° bend / channel / 90° bend / culvert / 90° bend configuration that winds across both the highway and railroad rights-of-way. This current condition should be improved by providing a direct crossing of the highway and the railroad approximately 100 meters south of the present highway culvert so that the creek will be restored to its natural channel west of the railroad. As with all stream crossings, it will be important to adequately protect newly constructed stream channels from erosion and provide adequate separation between the highway and the stream and to revegetate disturbed areas.

(f) Ravalli Canyon (mileposts 24.7 - 29.5): Ravalli Canyon is an important crossing site for big game and other species. The topography, width of the canyon, and the existence of the highway, river and railroad preclude crossing structures. In the alternative, wildlife crossing signs should be posted throughout Ravalli Canyon and on Ravalli Hill.

(g) Mission Creek (milepost 32.4): The current structure should be replaced with a bridge of sufficient height and length to allow human foot travel alongside the stream bank under the highway. However, Mission Creek is utilized as a travel corridor by deer, black bear and mountain lion. If possible, to diminish the risk of human/animal conflict in the town of St. Ignatius, the design of the bridge should not encourage use of the underpass by deer, black bear and mountain lion.

(g) Post Creek (milepost 37.8): Post Creek is utilized as a travel corridor by deer, bear, and other species. Use of this travel corridor by animals is to be encouraged. A new bridge should be constructed of sufficient height and length at this stream crossing to provide an average underpass clearance of not less than nine vertical feet a minimum horizontal clearance of not less than 45 feet to either side of the stream.

(h) Ninepipe / Kicking Horse / Duck Haven Wetlands Complex (mileposts 39.5 - 44.5): To reduce roadkill of painted turtles, passage structures should be constructed at locations with high roadkill mortality. Passage designs known to be used by turtles should be utilized. Additional design consideration and study of turtle passage structures is needed prior to installation of turtle passage structures. A cooperative study of turtle passage design, similar to the painted turtle population dynamics study would be beneficial. A pilot project at the Scenic Turnout (milepost 44) should be conducted involving the installation of alternative designs for turtle passage structures to evaluate effectiveness of each design prior to selection for final construction design.

(i) Ronan Spring Creek (milepost 47.0): The size and surface clearance in the present structure is inadequate to accommodate flood flows and creates a drowning hazard for humans and other creatures travelling in or alongside the creek. A new culvert system should be installed which will adequately accommodate flood flows and will provide safe passage for humans and other creatures travelling in or alongside the creek.

In addition to these exceptions, at each location where roadside borrow pits/ditches drain into streams, MDT should design and construct catchment basins which are suitable for intercepting hazardous materials which may be spilled by transporters using the highway. Such catchment basins should be suitable for the placement of booms and other spill response equipment.

(9) Cultural Resources

All project activities shall be done in compliance with the Tribes Cultural Resource Protection Ordinance, 95. The Tribal Cultural Preservation Office is the Tribal agency with authority for

corresponding with MDT with regard to protecting cultural resources threatened by highway construction projects on the Flathead Reservation. The Tribal point of contact is the Preservation Officer. Construction projects which might affect any cultural resource, including but not limited to, religious sites, archeological resources, burial sites, human skeletal remains, traditional cultural properties, historic resources, cultural items, and/or food and medicinal plants located on protected lands shall apply to the Tribal Cultural Preservation Board for a permit.

MDT shall consult with the Preservation Officer at the earliest phases of any construction project. The Preservation Officer will assist MDT with the permit process as required, and will coordinate a consultation process between design engineers and the Cultural Resource Protectors or other representatives from the Flathead and Kootenai Culture Committees. Coordination with these representatives will occur no later than the initiation of preconstruction design and continue through the construction phase. Coordination will include a preliminary field visit during which the design engineering team will identify design options (general routing, lane widths, etc.) to representatives of the culture committees. The culture committees will present their findings from this preliminary field visit to Tribal elders. A second field visit will be held, during which representatives of the culture committees will provide information and feedback from the elders to the design team. This process of consultation will continue through the construction period and may require additional field visits. The Preservation Officer will monitor the project area during the construction phase to assure compliance with all permit terms and conditions and will coordinate with the construction officer and the culture committees to assure adequate on-site review and consultation.

Mitigation of the impacts to traditional values of the Salish and Kootenai people shall be addressed with three types of action:

(a) Using Salish, Kootenai and English languages for highway signs including but not limited to:

  (i) Major highway signs which denote the boundary crossing for traffic entering and leaving the Flathead Indian Reservation with the content of the sign message to be determined cooperatively by MDT and the Tribes;

  (ii) Community signs located on the highway right-of-way for Arlee, Ravalli, St. Ignatius, Ronan, Pablo, and Polson; and

  (iii) Official directional signs located on the highway right-of-way identifying Tribal governmental and tourist facilities.

(b) Establishment of two visitor information centers to be located and designed cooperatively by the Tribes and MDT. MDT shall provide funding sufficient for hiring necessary independent architectural contractors, to be selected by the Tribes, for assistance with this mitigation activity.

(c) MDT shall provide sufficient ongoing funding to support a program to be administered by the Tribes, for the life of the project for:

(i) training Kootenai and Salish language teachers so that a sufficient number of such teachers with credentials sufficient to satisfy certification requirements of the Montana Department of Public Instruction are available to teach Salish and Kootenai language classes in all Reservation schools; and

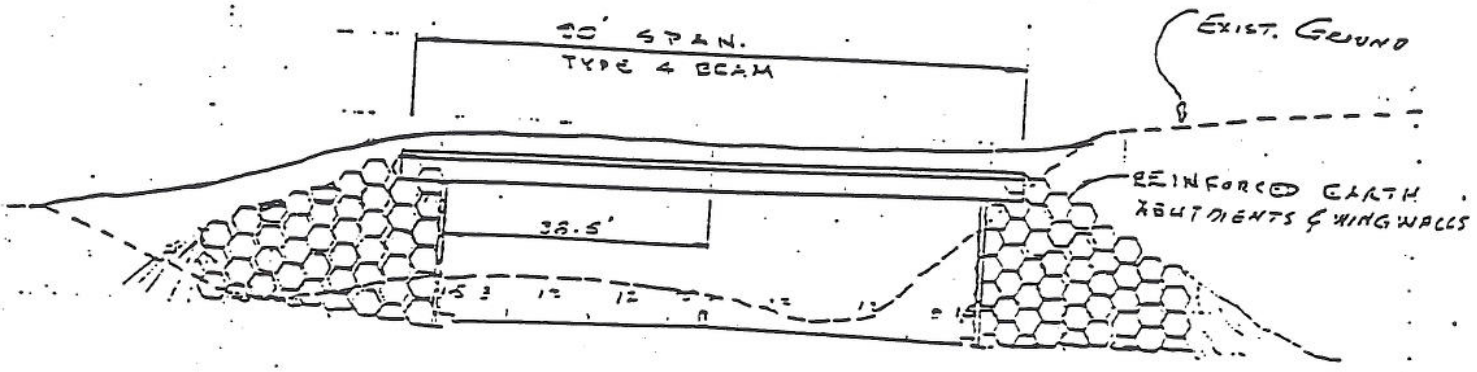
(ii) conducting Kootenai and Salish language immersion camps so that school age Tribal-member children have the opportunity to participate in such a camp for a period of not less than two weeks each year.

APPENDIX #1

EVARO WILDLIFE CROSSING STRUCTURE

	DATE 1-15-93	PROJ NO.	
CHK:	DATE	PAGE 6	OF

WILDLIFE OVERPASS



STRUCTURE:

EARTHWORK: 12,000 C.Y. @ $3

SPEC BACKFILL 7,500 C.Y. @ $5

RE-EARTH ABUTMENTS: 25% 360 = 7,500 SF x 2 x $15

FA TYPE 4 BEAMS 90' = 500 x 90 x $150

DECK 8" x 90' x 300' ÷ 27 = 6,700 C.Y. @ $350

LIGHTING:

VENTILATION:

DRIFT FENCE - 4000' @ $10

END SEALING: 1000 SF FLAT. - $500; 200 SHRUBS & SMALL TREES @ $50

	$ 400,000
	37,500
	450,000
	675,000
	225,000
	150,000
	200,000
	40,000
	10,000
SUBTOTAL	1,960,500

GLADED ROAD WORK:

EXCAVATION: 12,000 C.Y. @ $3

FENCING 20 STA @ $2,500

SIGNAGE

TRAFFIC CONTROL:

MEDIAN WIDENING - 1000' (CONT. SUM SUM (.75m)) = 12,500

PLANTED BORDER 700' @ $25 = 17,500

	36,000
	45,000
	20,000
	150,000
	12,500
	17,500
	281,000
TOTAL	2,137,500
10% CONT.	213,800
15% CONST. ENG.	321,000
TOTAL	2,767,300

TABLE OF CONTENTS

6. AFFECTED ENVIRONMENT 6.1-1
Flathead Indian Reservation 6.1-1
Geographic Area and Climate 6.1-1
Analysis Segments 6.1-2

6.1. TRAFFIC OPERATION AND SAFETY 6.1-4
6.1.1. General Traffic Characteristics 6.1-4
6.1.2. Existing Highway Conditions 6.1-6
6.1.2.1. Existing Lane Configuration 6.1-6
6.1.2.2. Railroad Interaction 6.1-6
6.1.2.3. Horizontal Geometric Design 6.1-7
6.1.2.4. Vertical Geometric Design 6.1-8
6.1.2.5. Intersections and Approaches 6.1-9
6.1.2.6. Intersections and Approaches 6.1-14
6.1.2.7. Public Perception of Existing Highway Conditions 6.1-14
6.1.3. Accident History 6.1-14
6.1.3.1. Four-Lane/Two-Lane Highway Comparison 6.1-18
6.1.3.2. Comparison of Two-Lane Highway, Passing Lanes and Transition Areas . . . 6.1-18
6.1.4. Historic Traffic Volume 6.1-20
6.1.5. Level-of-Service and Capacity Concepts and Criteria 6.1-21
6.1.6. Existing Level-of-Service and Capacity 6.1-27

6.2. LAND USE 6.2-1
6.2.1. Land Use Plans 6.2-1
6.2.2. Intergovernmental Cooperation 6.2-1
6.2.3. Pattern of Land Use 6.2-1
6.2.3.1. Lake County 6.2-1
6.2.3.2. Missoula County 6.2-1
6.2.3.3. Flathead Indian Reservation 6.2-4
6.2.3.4. US 93 . . . . . 6.2-5
6.2.3.5. Communities: Arlee, Ronan and Polson 6.2-5
6.2.3.6. Confederated Salish and Kootenai Tribes Policies and Objectives for Management of Land and Resources 6.2-11
6.2.3.7. Major Land Use Considerations 6.2-12
6.2.4. Land Status 6.2-14
6.2.5. Residential Development 6.2-16
6.2.5.1. Land Subdivision 6.2-16
6.2.5.2. Residential Development 6.2-16
6.2.6. Pattern of Land Use and Development 6.2-21

6.3. FARMLANDS 6.3-1

6.4. SOCIAL 6.4-1
6.4.1. Setting 6.4-1
6.4.2. Lifestyle 6.4-1
6.4.3. Population and Demographic Characteristics 6.4-2
6.4.3.1. Total Population 6.4-2
6.4.3.1.1. Lake County and Western Montana 6.4-2
6.4.3.1.2. Flathead Indian Reservation 6.4-2
6.4.3.1.3. Communities in the Area of the Proposed Action 6.4-4
6.4.3.2. Race, Age and Sex Characteristics 6.4-4

6.4.3.2.1. Lake County 6.4-4
6.4.3.2.2. Flathead Indian Reservation 6.4-4
6.4.3.3. Patterns of Natural Increase and Migration 6.4-6
6.4.3.4. Population Projections ~~for Lake, Missoula and Flathead Counties~~ 6.4-6
6.4.3.4.1. Flathead Indian Reservation 6.4-6
6.4.3.4.2. Lake, Missoula, Sanders and Flathead Counties 6.4-6
6.4.4. Community Cohesion 6.4-7
6.4.4.1. Social Stability 6.4-8
6.4.4.2. Social Mobility 6.4-11
6.4.5. Facilities/Services 6.4-14

6.5. ECONOMICS 6.5-1
6.5.1. Employment And Personal Earnings In The Area Economy 6.5-1
6.5.2. Highway-Oriented Businesses And Nonhighway-Oriented Businesses 6.5-3
6.5.3. Economic Characteristics Of Communities Considered For Highway Alignments 6.5-6
6.5.3.1. Arlee 6.5-6
6.5.3.2. Ronan 6.5-7
6.5.3.3. Polson 6.5-8
6.5.4. Tourism 6.5-9

6.6. PEDESTRIANS AND BICYCLISTS 6.6-1

6.7. AIR QUALITY 6.7-1
6.7.1. Regulatory Background 6.7-1
6.7.2. PM_{10} Violations 6.7-1
6.7.3. PM_{10} Sources 6.7-1
6.7.4. TSD Strategies 6.7-2

6.8. NOISE
6.8.1. Noise Parameters and Criteria 6.8-1
6.8.2. Existing Noise Levels 6.8-1

6.9. WATER QUALITY 6.9-1
6.9.1. Surface Water Hydrology 6.9-1
6.9.1.1. Location and Characteristics of Surface Water Features 6.9-1
6.9.1.2. Stream Flow and Lake Levels 6.9-1
6.9.1.3. Frequency and Magnitude of Precipitation Events 6.9-1
6.9.2. Surface Water Quality 6.9-3
6.9.2.1. Water Quality Standards 6.9-3
6.9.2.2. Water Quality Data 6.9-3
6.9.2.3. Erosion Rates 6.9-4
6.9.2.4. Sole-Source Aquifers and Wellhead Protection Areas 6.9-4

6.10. WETLANDS 6.10-1

6.11. FLOODPLAINS AND STREAM CROSSINGS 6.11-1
6.11.1. Flood Peaks 6.11-1
6.11.2. Existing Floodplain Study 6.11-1
6.11.3. Existing Culverts and Bridges 6.11-1
6.11.4. Fish Passage 6.11-1
6.11.5. Specific Stream Crossings 6.11-1

6.12. FISH AND WILDLIFE 6.12-1
6.12.1. Aquatic Habitats and Wetlands 6.12-1
6.12.2. Riparian Areas 6.12-3
6.12.3. Agricultural Lands and Grasslands 6.12-4
6.12.4. Coniferous Forests 6.12-4
6.12.5. Urban Areas 6.12-4
6.12.6. Species of Special Concern 6.12-5
6.12.7. Wildlife Movement Corridors 6.12-8

6.13. THREATENED AND ENDANGERED SPECIES 6.13-1
6.13.1. Grizzly Bear 6.13-1
6.13.2. Gray Wolf 6.13-2
6.13.3. Bald Eagle 6.13-2
6.13.4. Peregrine Falcon 6.13-4

6.14. CULTURAL RESOURCES 6.14-1
6.14.1. Setting and Background Information 6.14-1
6.14.2. Outline of Reservation History 6.14-1
6.14.3. Current Concerns 6.14-3
6.14.4. Recorded Cultural Resource Properties 6.14-4

6.15. PARKS AND RECREATION 6.15-1
6.15.1. Parks and Recreation in Communities 6.15-1
6.15.2. Recreation Outside Communities 6.15-1
6.15.3. Section 4(f) and Section 6(f) Properties 6.15-2

6.16. HAZARDOUS MATERIALS 6.16-1
6.16.1. Hazardous Material Assessments 6.16-1

6.17. VISUAL 6.17-1
6.17.1. Landscape Character and Visual Quality 6.17-1
6.17.2. Viewers 6.17-4
6.17.3. Visually Sensitive Resource Areas 6.17-5

6.18. RELOCATIONS 6.18-1

LIST OF FIGURES

Figure 6.1-1 Comparison of Accident Rates and Accidents per Mile 6.1-20
Figure 6.1-2 ~~1991~~1994 Average Daily Traffic (ADT) and Design Hourly Volume (DHV). 6.1-23
Figure 6.2-1 Flathead Indian Reservation Study Areas 6.2-2
Figure 6.2-2 Land Use in the Polson Area 6.2-10
Figure 6.2-3 Land Status on the Flathead Indian Reservation (1992) 6.2-15
Figure 6.4-1 Commuters and Commuter-Related Population 6.4-13
Figure 6.4-2 Facilities/Services in Communities 6.4-16
Figure 6.5-1 Indicators of Growth in Tourism 6.5-10
Figure 6.5-2 Seasonal Variations in Accommodations Tax Revenue: Lake County 6.5-10
Figure 6.9-1 Annual Streamflows, North Fork Jocko River 6.9-2
Figure 6.9-2 Draft Polson Wellhead Protection Areas 6.9-6
Figure 6.13-1 Bald Eagle Habitat Locations 6.13-3
Figure 6.17-1 Visual Assessment Landscape Units 6.17-2

LIST OF TABLES

Table 6.1-1 Highway Analysis Segments and Characteristics 6.1-3
Table 6.1-2 Summary of Existing Auxiliary Lanes 6.1-7
Table 6.1-3 Summary of Substandard Horizontal Curves 6.1-8
Table 6.1-4 Summary of Vertical Grades Steeper Than Design Standards 6.1-9
Table 6.1-5 Vertical Curves Not Meeting Design Standards 6.1-10
Table 6.1-6 Accidents By Year. 6.1-11
Table 6.1-7 Number of Accidents by Various Factors 6.1-12
Table 6.1-7 Number of Accidents by Various Factors (Continued) 6.1-13
Table 6.1-8, Accident Comparison With Statewide 6.1-15
Table 6.1-9 Accidents by Driver's Age, Comparison with Statewide (1990-1994) 6.1-17
Table 6.1-10 Comparison of Accidents, U.S. Highway 93 (Four-Lane): I-90 to Evaro* 6.1-19
Table 6.1-11 ADT and 30 HV at Automatic Recorder South of Ravalli
Table 6.1-12 Traffic Volume By Day & Hour, One Week In July and August, 1991~~4~~ 6.1-24
Table 6.1-13 Ravalli Automatic Recorder Data By Month and Day Of Week, 1991~~4~~ 6.1-25
Table 6.1-14 Traffic By Geographic Origin 6.1-26
Table 6.1-15 1991~~4~~ Operation - Existing Roadway 6.1-28
Table 6.1-16 1991~~4~~ Intersection Operation - Existing Roadway 6.1-29
Table 6.2-1 Land Use for Jocko Valley, Mission Valley and Jocko Valley Study Areas 6.2-3
Table 6.2-2 Percent of Land Use* Based on Miles of Highway Right-of-Way Frontages: Existing Alignment 6.2-6
Table 6.2-3 Land Use: Arlee, Ronan and Polson Alignments 6.2-7
Table 6.2-4 Highway Approaches To Highway Right-Of-Way Frontage: Existing Alignment 6.2-8
Table 6.2-5 Approaches: Arlee, Ronan and Polson Alignments 6.2-9
Table 6.2-6 Taxable Value (1990-94) 6.2-17
Table 6.2-~~6~~7 Occupied and Vacant Housing Units (1990) 6.2-18
Table 6.2-~~7~~8 Homeowner and Rental Occupancy (1990) 6.2-19
Table 6.2-~~8~~9 Type of Housing Units and Water and Sewer Facilities (1990) 6.2-20
Table 6.3-1 Location of FPPA Farmland 6.3-2
Table 6.3-1 Location of FPPA Farmland - Continued 6.3-3
Table 6.3-1 Location of FPPA Farmland - Continued 6.3-4
Table 6.4-1 Population: Montana and Study Area 6.4-3
Table 6.4-2 Population: Flathead Indian Reservation 6.4-3
Table 6.4-3 Population: Census County Subdivisions and Communities 6.4-5
Table 6.4-4 Vehicle Traffic Patterns 6.4-9
Table 6.4-5 Social Stability Characteristics 6.4-10
Table 6.4-6 Labor Force Characteristics 6.4-10
Table 6.4-7 Workers Commuting Outside Lake County 6.4-12
Table 6.5-1 Lake County Total Employment (1970-1990) 6.5-2
Table 6.5-2 Highway-Oriented And Nonhighway-Oriented Businesses (1991-1992) 6.5-4
Table 6.5-3 Highway-Oriented And Nonhighway-Oriented Businesses In Communities (1991-1992) . . . 6.5-5
Table 6.6-1 Bicycles Counted within the Study Area 6.6-2
Table 6.6-2 Accidents Involving Pedestrians and Bicyclists 6.6-5
Table 6.9-1 Maximum Projected Precipitation for Polson 6.9-3
Table 6.9-2 Water Quality Classifications 6.9-4
Table 6.9-3 Water Quality Parameters In The Jocko River Above Arlee and Near Dixon 6.9-5
Table 6.11-1 Stream Crossing Summary 6.11-2
Table 6.12-1 Instream Flows For Streams In the Study Area 6.12-3
Table 6.12-2 Species of Special Concern Known Or Suspected To Occur
In Flathead and Lake Counties 6.12-6
Table 6.12-2 Species of Special Concern Known Or Suspected To Occur
In Flathead and Lake Counties (Continued) 6.12-7

Table 6.14-1 NRHP Eligible Properties 6.14-6
Table 6.15-1 Activity Participation By Travel Groups 6.15-3
Table 6.16-1 Areas of Hazardous Materials Concerns 6.16-2
Table 6.18-1 Residences and Buildings, Distance from the Highway 6.18-2

6. AFFECTED ENVIRONMENT

Flathead Indian Reservation

The Flathead Indian Reservation is a rural area, bordered on the south by Missoula County and the city of Missoula, which form Montana's second largest urban trade center. The reservation is bordered on the north by Flathead County, the fourth largest county in Montana.[1]

Except for a one-half mile segment at the southern end in Evaro, the proposed action is contained within the Flathead Indian Reservation. The proposed action is located in the eastern part of the reservation, and it spans approximately three-quarters of the north-south distance of the reservation. Figure 5.1-6 shows the location and external boundaries of the Flathead Indian Reservation.

The Flathead Indian Reservation is home to two major Salish-speaking tribes, the Salish and the Pend d'Oreilles, and one band of the Kootenai Tribe. Tribal elders say the tribes originate from an ancestral Salish-speaking tribe, which divided into a number of different bands. The bands later became tribes and migrated throughout their territory of aboriginal lands that spanned the Northwest, from British Columbia to Montana and beyond.[2]

The tribes hold values for the natural environment and apply their values to present-day philosophy about natural resources. In the past, the land and its associated resources have defined the culture and history of the Salish and Kootenai Tribes. Today the land of the reservation provides a cultural and spiritual link with the past, while providing the primary sources of revenue for the general fund of the tribal government.[3]

The Tribes recognize the overall importance of the land and its resources. They have been buying back fee (private) lands on the reservation to increase the tribal land base. They also have sought to protect the tribal land base by establishing wilderness and primitive areas and by developing regulations and resource management plans designed to conserve tribal resources. In an ideal future, tribal members would prefer to see reservation lands used in a sustainable manner compatible with environmental and cultural resource protection.[4]

For the Tribes and tribal members, prudent use and management of natural resources is important to provide a healthy natural environment essential to maintain tribal culture and spirituality. A clean environment also is important to the physical and mental well-being of individual tribal members.[5]

Geographic Area and Climate

U.S. Highway 93 (US 93) from Evaro through Polson is located in the wide basin at the base of the Mission Mountain Range. There is a narrow canyon approximately three miles long near Evaro at the southern end of the area, another canyon approximately seven miles long near Ravalli, a grade approximately two miles long in the Post Creek area, and Polson Hill has 2.5 miles of grade near Polson at the northern end of the area. The remainder of the alignment is relatively level.

The area is sheltered by mountains and has lighter winds and more stable atmospheric conditions than open terrain. The average wind speed for the area is 6.5 miles per hour (mph) as recorded at Glacier International Airport.[6]

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[1] Flathead Reservation Comprehensive Resources Plan. Volume I, Existing Conditions. 1994. Page 4-2.
[2] Ibid. Pages 2-2 and 3-2.
[3] Ibid. Page 4-7.
[4] Ibid. Pages 4-7 and 4-9.
[5] Ibid. Page 4-9.
[6] U.S. Department of Commerce, National Oceanic and Atmospheric Administration, 1991 Local Climatological Data Annual Summary with Comparative Data, Kalispell, Montana, National Climatic Data Center, Ashville, North Carolina 28801-2733

The climate of the area is dominated by Pacific maritime weather. Winters are cold and cloudy, while summers are sunny and cool. Occasionally, weather fronts of the Pacific maritime and continental origin collide over the high mountains of the continental-divide country and result in high intensity rainfalls.

Average annual precipitation varies from 80 inches in the Mission Range to 16 to 30 inches west of the Mission Range. The average precipitation from the years 1941 through 1970 ranges from 13 inches at Missoula to 16 inches at St. Ignatius and Kalispell.[7] The heaviest rainfall typically occurs in late-spring and early-summer. July and August are the hottest and driest months.

Analysis Segments

The highway corridor, which is approximately 56.3 miles in length from Evaro through Polson, has been divided into the following segments for analysis: (Table 6.1-1)

Segment A begins in Evaro near the south boundary of the Flathead Indian Reservation and ends just south of Arlee, approximately where the speed limit decreases. The terrain is considered to be rolling due to a combination of horizontal and vertical curves. Thirty percent of this segment is striped as no passing. It is approximately 10 miles long, and there is a 1.8 mile-long southbound passing lane section with an average grade of 3.5%.

Segment B is within the town of Arlee. The posted speeds are 35 and 45 mph. There are numerous, closely spaced intersections and access points which create side friction for through traffic. US 93 has the right-of-way (ROW) through Arlee with minor streets having stop sign control. The terrain is level.

Segment C begins just north of Arlee and ends just south of Ravalli Canyon. It is a mix of rolling and level terrain. Thirty-eight percent of this segment is striped as no passing.

Segment D lies within Ravalli Canyon. It ends at the location where the speed limit decreases on the south side of the community of Ravalli. Due to a combination of vertical and horizontal alignments, this segment is considered to be rolling terrain. Seventy-eight percent of this segment is striped as no passing.

Segment E lies within the community of Ravalli. It is posted at 45 mph. The north terminus is at the base of Ravalli Hill just north of the intersection of US 93 and Montana Highway (MT) 200. The terrain is considered to be level.

Segment F begins just north of MT 200, includes Ravalli Hill and extends to the old US 93 intersection near St. Ignatius. The cross section just north of MT 200 has two lanes northbound and one lane southbound with an average grade of six percent for 1.6 miles. The section just south of old US 93 includes a southbound passing lane extending for approximately 1.1 miles at approximately a three-percent grade. It is striped as 100% no passing.

Segment G begins at the south access road to St. Ignatius (old US 93) and extends to approximately 0.5 mile north of the north approach to St. Ignatius (Airport Road). The terrain is considered to be rolling. It is striped as 35% no passing.

Segment H begins approximately 0.5 mile north of the north approach to St. Ignatius (Airport Road) and ends at the Montana Secondary (MTS)~~Federal Aid Secondary (FAS)~~ 212 intersection. It is striped as approximately 55% no passing. The terrain is considered to be rolling.

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[7]U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Monthly Normals of Temperature, Precipitation, and Heating and Cooling Degree Days 1941-70, National Climatic Data Center, Ashville, North Carolina, 28801-2733.

Table 6.1-1 Highway Analysis Segments and Characteristics

Location	Segments By Milepost		Miles	Year Built	Year Improved	# of Lanes	Type of Roadway	Pavemnt Width (Feet)	Shldr Width (Feet)	Traffic Control	
	From South	To North								Speed Limit (mph)*	No Passing Zones
SEGMENT A: Evaro to Arlee Evaro to Dirty Corner Dirty Corner to Arlee	 6.5 15.0	 15.0 16.7	 8.5 1.7	 1964 1940	 1976 1976	 3 2	 Rural Rural	 36-40' 30-41'	2	 55 55	 30% 38%
SEGMENT B: Arlee	16.7	18.2	1.5	1940	1976	2	Rural	44'	10	35/45	100%
SEGMENT C: Arlee to Ravalli Canyon	18.2	24.7	6.5	1956	1960	2	Rural	30-32'	3-4	55	38-78%
SEGMENT D: Ravalli Canyon to Ravalli	24.7	26.5	1.8	1956	1960	2	Rural	32'	4	55	38-78%
SEGMENT E: Ravalli	26.5	27.5	1.0	1956	1960	3	Rural	44'	4	45	100%
SEGMENT F: Ravalli Hill	27.5	31.2	3.7	1956	1960/ 1983/ 1989	3	Rural	32-48'	6	55	100%
SEGMENT G: St. Ignatius	31.2	33.5	2.3	1956	1983	2	Rural	32'	4	55	35%
SEGMENT H: St. Ignatius to MTS 212	33.5	42.1	8.6	1950-1956	1983	2	Rural	28-32'	2-4	55	55%
SEGMENT I: MTS 212 to Ronan	42.1	46.1	4	1966	--	2	Rural	40'	3	55	24%
SEGMENT J: Ronan	46.1	47.6	1.5	1966-1970	1983	3	Urban	44'	4	25,35,45	100%
SEGMENT K: Ronan to Pablo	47.6	50.8	3.2	1970	--	2	Rural	40'	8	55	18%
SEGMENT L: Pablo	50.8	54.7	3.9	1958	--	3	Rural	32-44'	4	55	100%
SEGMENT M: Pablo to Caffrey Road	54.7	56.5	1.8	1958	1974	2	Rural	32'	4	55	35%
SEGMENT N: Caffrey Road to MT 35	56.5	59.0	2.5	1958	1982	3	Rural	39-44'	2-4	45,55	100%
SEGMENT O: Polson - MT 35 to Flathead River Bridge	59.0	61.0	2.0	1958	--	3	Urban	44-59'	0-4	25,35	100%
SEGMENT P: Polson to End of Proposed Action	61.0	62.8	1.8	1958	1986	2	Rural	24-32'	0-4	45,55	100%
TOTAL:	--	--	56.3	--	--	--	--	--	--	--	60%

Montana Department of Transportation, Environmental Assessments for Evaro-Dirty Corner; Dirty Corner-Ravalli; Ravalli-North; Ronan-Polson; 1990.
MTS is Montana Secondary HighwayEAS is Federal Aid Secondary highway.
*After Congress repealed the national speed limit of 65 mph on interstates and 55 mph on other highways in 1995, Montana automatically reverted to its former law that has the "basic rule." A driver may not drive at speeds exceeding what is "reasonable and prudent" for traffic, road and weather conditions.

Segment I begins at MTSFAS 212 and ends just south of Ronan. It has a mix of rolling and level terrain and is striped as 24% no passing.

Segment J is within the community of Ronan. It is posted at 45 mph and has a continuous two-way left-turn center median through Ronan. There are many intersections and accesses, with stop sign control, which create side friction. There is a traffic signal in Ronan at MTSFAS 211. The terrain is considered to be level.

Segment K is between the communities of Ronan and Pablo. It is predominantly level with 18% striped as no passing.

Segment L is within the community of Pablo and includes a continuous two-way left-turn center median. There are some intersecting streets and driveways which cause some side friction. The intersecting streets have stop sign control. The terrain is considered to be level.

Segment M begins just north of Pablo and ends at Caffrey Road. It is approximately 1.8 miles long and is striped as 35% no passing. The terrain is considered to be rolling.

Segment N is comprised of a three-lane cross section on Polson Hill, and there are two lanes in the southbound direction. The grade is approximately 5.5%.

Segment O in Polson is composed of two subsegments. The first extends from MT 35 to Second Street East. It is a three-lane cross section with the third lane used as a continuous two-way left-turn center median. A short 4.5% grade exists east of the golf course for 0.2 mile. Three streets (Seventh Avenue, Fourth Avenue and Third Avenue) intersect at skews less than 75%, resulting in sight distance problems. Curb and gutter is provided along some of the segment. The posted speed is 35 mph. There are numerous approaches and intersections along this segment.

The second subsegment extends from Second Street East to the Flathead River bridge. Parallel parking is provided on both sides of the roadway. A traffic signal exists at First Street East. The posted speed is 25 mph, with two lanes of traffic and a third lane provided for left turns. Ten approaches and intersections exist along this segment.

Segment P extends between the Flathead River bridge and the end of the proposed action at Milepost 62.8. This segment is posted at 45 mph and 55 mph[8]. It is considered to be a two-lane rural highway.

6.1. TRAFFIC OPERATION AND SAFETY

6.1.1. General Traffic Characteristics

US 93 from Evaro through Polson, along with the parts of US 93 in the Kalispell-Whitefish and Lolo-Hamilton areas, have the highest levels of traffic on rural primary highways in Montana.

The annual average daily traffic (ADT) for US 93 in these areas is more than 5,000 vehicles each day, compared with levels ranging from less than 1,000 to the highest levels of approximately 3,000 vehicles per day. This means the ADT in the area is at least two-thirds higher than ADT on other rural primary highways in the state.

[8]After Congress repealed the national speed limit of 65 mph on interstates and 55 mph on other highways in 1995, Montana automatically reverted to its former law that has the "basic rule." A driver may not drive at speeds exceeding what is "reasonable and prudent" for traffic, road and weather conditions.

US 93 in the area of the proposed action also has a poor level-of-service (LOS) rating. While most rural primary highways have an LOS rating of A, B or C, this highway's LOS is mostly D and E. ~~This means~~ With LOS D, traffic is frequently congested, with long platoons of vehicles that cause time delays as much as 75% of the time a vehicle is on the road. With delays, driver frustration increases causing unsafe driving practices. With LOS E, traffic is delayed more than 75% of the time, passing becomes impossible and platooning becomes intense when slow-moving vehicles are encountered.

Interstate, regional and local travel contributes to the existing and projected future traffic demand on US 93 in the area of the proposed action.

US 93 traverses the United States in generally a north-south direction from near the Mexican border to the Canadian border and passes through the states of Arizona, Nevada, Idaho and Montana.

US 93 in the area of the proposed action, and for its entire length within Montana, is functionally classified as a principal arterial and is part of the National Highway System (NHS)~~, as established by the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)~~.

This highway is part of an extensive system of rural arterial routes that support the interstate highway system for statewide and regional travel. Other highways in the region are: Interstate Highway 90; Montana highways (MT) 28, 35, 135, and 200 in Lake and Sanders counties; MT 83, which is east of the proposed action in the Swan Valley of Lake and Missoula counties; and MTS~~Federal Aid Secondary (FAS)~~ 211, 212, 382 and 559 in Lake and Sanders counties. (Figure 5.1-6)

US 93 is the major north-south transportation route in western Montana providing interstate, regional and local access to natural resources-based industries such as agriculture, forest and mining, tourism, and recreation.

The existing highway is generally a two-lane rural highway with normally uninterrupted traffic flow. In rural areas between communities, there are, on average, approximately 10 approaches or intersections per mile, no designated pedestrian crossings, and no schools located on or near the highway. Approximately 12% of businesses are located along US 93 outside communities~~only a few businesses~~. At Pablo, Two Eagle River School and Salish Kootenai College are adjacent to highway frontage.

Traffic operation on US 93 through existing communities, particularly through Arlee, Ronan and Polson but also through Ravalli, St. Ignatius and Pablo, is different than on rural sections of US 93 and has the following characteristics:

- Speed limits are 35 mph in Arlee, 45 mph in Ravalli, 25 mph in Ronan and 25 mph in Polson as compared with 55 mph on the remainder of the highway. Speed limits have been set by the Montana Transportation~~Highway~~ Commission (MTC~~MHC~~) based on prevailing speeds (the 85th percentile speed) through the area.[9]

- There are high numbers of approaches and intersections -- approximately 18 per mile in Arlee, 26 per mile in Ronan and 50 per mile in Polson compared with an average of approximately 10 per mile, outside communities.

[9]After Congress repealed the national speed limit of 65 mph on interstates and 55 mph on other highways in 1995, Montana automatically reverted to its former law that has the "basic rule." A driver may not drive at speeds exceeding what is "reasonable and prudent" for traffic, road and weather conditions.

- The high traffic volumes in Arlee, Ronan and Polson created by US 93 traffic cause congestion. This results in increased air and noise pollution, pedestrian conflicts and a barrier effect through communities caused by difficulty crossing the highway for pedestrians and vehicles.

- There are pedestrian crossings with signals -- a flashing warning light at "B" (Butch Larsen/Taelman) Street in Arlee; a traffic signal at Round Butte Road in Ronan; a traffic signal at MT 35 in Polson; and a traffic signal at First Street Southeast in Polson.

- There are schools in the communities with a high number of school children crossing the highway both at designated crossings and at other areas.

- Due to the schools, the tribal complex, several businesses and other features along the highway in Pablo, there are high numbers of pedestrian crossings and vehicle approaches with related safety and congestion problems.

- There are concentrations of businesses, particularly highway- oriented businesses. These business areas generate relatively high numbers of pedestrians, vehicle parking, driveways and approaches.

- Left and right turns from the highway and left and right turns onto the highway are frequent.

- The above conditions create an environment in these communities where traffic slows and flow is often interrupted. Conflicts with pedestrians, entering vehicles and turning vehicles are frequent, and problems occur for safety, operation and efficiency.

6.1.2. Existing Highway Conditions

The existing highway is generally a two-lane, two-way highway facility. The year each segment was built, the year most recent improvement occurred, the number of lanes, pavement and shoulder widths, speed limits and percent of no passing zones are listed on Table 6.1-1.

6.1.2.1. Existing Lane Configuration

Some areas have passing lanes and continuous two-way left-turn center medians, as summarized in Table 6.1-2. Separate designated left-turn bays and right-turn deceleration lanes are provided at some important intersections. The roadway is asphalt paved and the roadway surface is generally in good condition and is well maintained by the Montana Department of Transportation (MDT). Signing and pavement markings are in generally good condition and meet current standards.

6.1.2.2. Railroad Interaction

The Montana Rail Link (MRL) railroad crosses or is adjacent to and parallel with US 93 in some areas:

- Milepost 6.5 to 7.3 - Evaro area.

- Milepost 9.7 - US 93 crosses over the railroad on a 174-foot long concrete bridge.

- Mileposts 13.4 to 15.4 - Dirty Corner area.

- Mileposts 19.1 to 27.1 - Jocko River to MT 200.

- Mileposts 56.6 to 59.5 - Polson Hill.

Table 6.1-2 Summary of Existing Auxiliary Lanes

Milepost		Item	Direction
From	To		
12.3	14.1	Passing Lane	Southbound, Evaro Hill
16.6		Left-Turn Bay, Jocko Road	Southbound
27.4		Left-Turn Bay, Montana Highway 200	Northbound
27.5	29.2	Passing Lane	Northbound, Ravalli Hill
29.2	30.0	Passing Lane	Southbound, Ravalli Hill
31.1		Right-Turn Deceleration Lane, Old U.S. Highway 93	Northbound
32.7	33.1	Two Left-Turn Bays	Southbound, St. Ignatius
43.6		Left-Turn Bay, Road to Job Corps Center	Southbound
46.1	47.8	Continuous Two-Way Left-Turn Center Median	Both, Ronan
50.7		Left-Turn Bay, Old U.S. Highway 93	Northbound
51.8	53.6	Continuous Two-Way Left-Turn Center Median	Both, Pablo
56.8	57.8	Passing Lane	Southbound, Polson Hill
59.0	61.0	Continuous Two-Way Left-Turn Center Median	Both, Polson
60.0	60.9	Parallel On-Street Parking	Both, Polson
Morrison-Maierle. 1993.			

This railroad line is designated as a mainline by MRL.

6.1.2.3. Horizontal Geometric Design

Existing geometric design of the roadway is compared with American Association of State and Transportation Highway Officials (AASHTO) guidelines[10] and MDT standards as follows:

- Horizontal degree of curvature of the roadway alignment generally meets the current 60 mph design standard of 4° 45' (a radius of 1,200 feet) with the exceptions listed in Table 6.1-3.[11]

[10]American Association of State Highway and Transportation Officials, A Policy on Geometric Design of Highways and Streets, 1990.

[11]Three of the five horizontal curves listed on Table 6.1-3 are in developed areas in or near the city of Polson. These horizontal curves are not considered substandard because the travel speeds in this area are well below 60 mph.

Table 6.1-3 Summary of Substandard Horizontal Curves

Milepost		Degree Of Curvature	Radius Of Curvature	Design Speed	Location
From	To				
25.3	25.5	5° 30'	1,050 feet	55 mph	In Ravalli Canyon, south of Ravalli
27.5	27.7	7° 00'	820 feet	50 mph	Between MT 200 and the base of Ravalli Hill, just north of Ravalli
59.1	59.2	7° 00'	879 feet	50 mph	Just west of MT 35
59.4	59.6	7° 00'	829 feet	50 mph	Just west of MT 35
59.6	60.0	8° 00'	716 feet	45 mph	In Polson, just east of Flathead River

Morrison-Maierle. 1993.
Substandard horizontal curves, based on a design speed of 60 mph, include those with a degree of curvature of more than 4° 45' (Radius less than 1,200 feet).

Problems associated with substandard horizontal curves include:

- To negotiate the curve, vehicles are required to reduce speeds below normal travel speeds. This increases the chances for rear-end collisions~~, reduces operation levels, or level of service (LOS)~~ and reduces vehicle efficiency.
- Vehicles that do not reduce speed at the curve will be subject to the possibility of losing control and going off the roadway. This problem is increased when the roadway is snow covered or icy.
- Sight distance is reduced or impaired.

6.1.2.4. Vertical Geometric Design

- Vertical grades are generally flatter than the MDT maximum design standard of four percent, except as listed in Table 6.1-4.[12] Vertical grades that are steeper than standard introduce the following problems:
  - In addition to trucks, recreational vehicles (RVs) and other heavy vehicles, grades steeper than standard begin to cause a speed reduction for some passenger cars while others continue at normal highway speeds. This causes additional speed differentials in the traffic stream and increases the chances for rear-end accidents.
  - The passing demand is increased, LOS is reduced and cost increases to operate vehicles.

[12]Four of the eight vertical grades listed on Table 6.1-4 are in developed areas in or near the city of Polson. These grades are not considered substandard because the travel speeds in this area are well below 60 mph.

Table 6.1-4 Summary of Vertical Grades Steeper Than Design Standards

Milepost		Length (Miles)	Percent Grade	Location
From	To			
18.8	19.1	0.3	4.8	Jocko River Crossing
27.7	29.0	1.3	6.0	Ravalli Hill
38.7	39.1	0.4	4.8 to 5.9	Post Creek Hill
57.3	57.8	0.5	5.0 to 5.5	Polson Hill
59.6	59.8	0.5	4.5	Along golf course, in Polson
60.1	60.2	0.1	4.2	East of Super 1 Foods, in Polson
60.6	60.8	0.2	4.6	East of Second Avenue, in Polson
62.0	62.6	0.6	4.3 to 4.8	West of Flathead River Bridge

Morrison-Maierle. 1993.
Design standard for maximum vertical grade is four percent. Grades below maximum are always desirable.

- Vertical curves (a curve in the vertical alignment of the roadway designed to effect a gradual change between different vertical grades) generally meet stopping sight distance requirements (based on 60 mph design speed in rural areas and a 40 mph design speed in communities), except as summarized in Table 6.1-5.[13] Stopping sight distance is defined as the length of roadway ahead, visible to the driver, and required to enable a vehicle traveling at or near the design speed to stop before reaching a stationary object in its path. Vertical curves that do not meet standards provide a lesser sight distance, reduce the time available for a driver to react and avoid the object and, therefore, increase the possibility of collision.

- Paved shoulder width (the area outside the driving lanes), as shown on Table 6.1-1, is generally less than the eight-foot width required for rural arterial highways with high traffic volumes. Space is, therefore, limited for 1) emergency stopping on the roadway, 2) farm equipment, wide loads or other equipment using the roadway, 3) pedestrians and bicyclists (Sections 6.6 and 7.6), 4) a recovery zone for errant or out-of-control vehicles and 5) snow removal and storage. As a result, safety and driving comfort, or convenience, are decreased.

6.1.2.5. Intersections and Approaches

As listed on Table 6.2-4, there are approximately 681 approaches to the existing highway. These include highway and street intersections; residential, commercial and industrial driveways; farm field approaches; and others. The number of private approaches to the highway is increasing steadily as development occurs and as population

[13]Eleven of the 31 vertical curves listed on Table 6.1-5 are in developed areas in or near the city of Polson. These vertical curves are not considered substandard because the travel speeds in this area are well below 60 mph.

Table 6.1-5 Vertical Curves Not Meeting Design Standards

Design Speed	Number of Curves
Less than 60 mph and greater than or equal to 55 mph	20
Less than 55 mph and greater than or equal to 50 mph	6
Less than 50 mph	5
Morrison-Maierle. 1993.	

increases. ~~Access is currently controlled through driveway and approach regulations where access is managed by MDT through application of road approach standards and permit requirements. No formal full or partial access control has been implemented on the existing highway. Land owners desiring to construct a driveway approach need only obtain a permit from the Missoula District Engineer of MDT after demonstrating that it will be constructed properly and will not create a particular safety hazard.~~

Access currently is controlled through driveway and approach regulations where access is managed by MDT through application of road approach standards and permit requirements. Land owners desiring to construct a driveway approach need only obtain a permit from the Missoula District of MDT after demonstrating that it will be constructed properly and will not create a particular safety hazard. Sight distance for safety is the primary factor used to determine if it is appropriate to issue a permit for an approach.

MDT has purchased rights for partial access control for approximately 40% of the land adjacent to highway ROW between Ronan and Polson. Access rights have not been purchased for the remainder of the proposed action. Purchase of partial access control will maintain existing access. It will consider consolidation of approaches, and it will purchase access rights for existing approaches on every parcel of land adjacent to highway ROW.

Some of the existing approaches have undesirable intersection angles with US 93 -- desirable angle of intersection is defined as a driveway or roadway that approaches the main highway at an angle nearly perpendicular (within 15° is desirable). Improper intersection angles create difficulty for drivers to see approaching vehicles and also encourage improper turns and failure to stop or yield. Some of the approaches have grades that are too steep -- approach grades should be three percent or less adjacent to the highway (within 75 feet for public approaches and 25 feet for private approaches) and 10% maximum away from the highway. Grades that are too steep create difficult stopping conditions for vehicles approaching the highway downhill and difficult starting and acceleration for vehicles approaching uphill, particularly on slick surfaces.

The density of junctions to a highway is a major contributor to the accident rate on a rural arterial highway. As indicated on Tables 6.1-6 and 6.1-7, ~~241~~272 (~~34~~36%) of the recorded accidents on US 93 occurred at intersections or were intersection or driveway related. It is likely that approaches contribute to other types of accidents by distracting drivers or by causing them to shy away from the approach and move closer to the roadway centerline.

High junction density also contributes to substantial reductions in the capacity, service level and driving comfort of the highway.

Table 6.1-6 Accidents By Year.

Segment	Location	Length (miles)	1990	1991	1992	1993	1994	Total	Accident Severity	Accident Rate
A	Evaro To Arlee	10.2	33	22	29	24	36	144	1.54	1.17
B	Arlee	1.5	1	8	2	8	7	26	1.35	1.54
C	Arlee to Ravalli Canyon	6.5	19	8	13	9	16	65	1.62	0.89
D	Ravalli Canyon to Ravalli	1.8	5	2	3	4	8	22	1.55	1.09
E	Ravalli	1.0	4	4	1	1	3	13	1.75	1.14
F	Ravalli Hill	3.7	7	7	7	10	4	35	1.73	0.90
G	St. Ignatius	2.3	6	7	5	9	4	31	1.70	1.28
H	St. Ignatius to MTS 212	8.6	12	18	19	15	26	90	1.69	1.00
I	MTS 212 to Ronan	4.0	3	8	5	9	13	38	1.57	.63
J	Ronan	1.5	2	0	1	5	2	10	1.68	.36
K	Ronan to Pablo	3.2	7	5	4	7	5	28	1.43	.56
L	Pablo	3.9	7	12	9	13	19	60	1.61	1.00
M	Pablo to Caffrey Road	1.8	4	1	8	1	6	20	1.65	.68
N	Caffrey Road to MT 35	2.5	6	7	14	12	9	48	1.64	1.16
O	Polson - MT 35 To Flathead River Bridge	2.0	23	9	34	22	17	105	1.43	2.57
P	Polson to End of Proposed Action	1.8	0	2	2	6	5	15	1.79	0.722
Total		56.3	139	120	156	155	180	750	1.57	1.03[1]

Montana Department of Transportation. Accident Records System. ~~1987-91~~1990-94. [1] Weighted average, excluding incorporated cities, Ronan and Polson.

This table has been revised in the final EIS using accidents for 1990-94.

Table 6.1-7 Number of Accidents by Various Factors

For the following categories of accidents, the base of total accidents for the five-year period ~~1987-91~~1990-94 is ~~702~~750. ~~Combined single vehicle and multiple vehicle accidents involved 1,136 drivers.~~

BY MONTH

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
53	57	63	40	62	64	78	81	49	64	66	73

BY DAY OF WEEK

Sat	Sun	Mon	Tue	Wed	Thu	Fri
137	99	106	82	101	118	107

BY TIME OF DAY

0000 to 0600	0600 to 0900	0900 to 1200	1200 to 1500	1500 to 1800	1800 to 2100	2100 to 2400
103	80	93	125	184	101	64

BY LIGHT CONDITIONS

Daylight	Dawn-Dusk	Dark Unlighted	Dark Lighted
482	188	41	39

BY ROAD CONDITIONS

Dry	Wet	Snowy	Icy	Slushy	Natural Debris
555	69	58	50	18	1

BY WEATHER CONDITIONS

Clear	Rain	Snow	Fog	Overcast
427	46	62	11	204

(Continued)

This table has been revised in the final EIS using accidents for 1990-94.

Table 6.1-7 Number of Accidents by Various Factors (Continued)

For the following categories of accidents, the base of total accidents for the five-year period ~~1987-91~~1990-94 is ~~702~~750.

BY COLLISION TYPE

Head-On	Rear-End	Angle	Side-Swipe, Meeting	Side-Swipe, Passing	Backed Into	Other
29	175	141	24	40	4	337

BY DRIVER'S AGE

Under 15	15-19	20-29	30-39	40-49	50-59	60-69	70 & Over
7	168	256	287	219	134	66	91

RELATED TO:

Alcohol	Pedestrians	Animals
88	9	49

BY INJURY SEVERITY AND COST OF ACCIDENTS

Fatal Accidents	Injury Accidents	Property Damage Accidents	Total Accidents	Fatalities	Injuries	Accident Cost[1] ($1000)
24	320	406	750	27	596	89,430

BY RELATIONSHIP TO A JUNCTION

Non-Junction	Intersection	Intersection Related	Driveway Related
478	96	104	72

VEHICLES INVOLVED IN ACCIDENTS BY REGISTRATION

Montana	Other U.S. States	Canada
1047	122	4

Montana Department of Transportation. Accident Records System. 1990-94.

[1] Accident costs are computed based on average costs for each type of accident based on injury severity as reported in: Federal Highway Administration, The Costs of Highway Crashes, FHWA-RD-91-005, June 1991.

This table has been revised in the final EIS using accidents for 1990-94.

6.1.2.6. Bridge Locations

The following is a summary of bridges located on the existing highway:

- Milepost 9.7, 174-foot long concrete bridge over the railroad. This concrete bridge is in relatively good condition and can accommodate up to a 28-foot roadway.
- Milepost 19.0, 104-foot long concrete bridge over the Jocko River. This bridge is in good condition and can accommodate up to a 30-foot roadway.
- Milepost 37.8, 51-foot long concrete bridge over Post Creek. This bridge is in good condition.
- Milepost 40.8, a timber bridge at Ninepipe Reservoir. This bridge is not in good condition.
- Milepost 57.1, concrete bridge over the Pablo Feeder Canal. This bridge is in good condition and can accommodate a 45.5-foot roadway.
- Milepost 61.0, 1,536-foot-long concrete bridge over the Flathead River. This bridge is in good condition.

All other stream and drainage crossings are currently in pipe culverts or box culverts.

6.1.2.7. Public Perception of Existing Highway Conditions

A survey conducted in 1994 for the Confederated Salish and Kootenai Tribes (CSKT), of both tribal members and non-tribal members living on the Flathead Indian Reservation, indicates agreement that serious problems exist with driving conditions on many sections and overall on the highway. Approximately 55% of both groups rated overall driving conditions as having serious problems.[14].

6.1.3. Accident History

Tables 6.1-6 and 6.1-7 summarize accidents reported to the Montana Department of Justice for ~~1987~~ ~~1991~~ 1990-1994 by the various law enforcement agencies that investigate accidents (tribal, county and state).

Table 6.1-8 compares the occurrence of some of the various accident types for the years ~~1987~~1990 through ~~1991~~1994 listed in Table 6.1-7 with statewide averages for all US highways in Montana ~~the primary highway system recorded~~ during the years ~~1979~~1990 through ~~1991~~1994. ~~Occurrence rates on this highway are generally similar to statewide averages with the following exceptions~~The following is a list of some of the differences:

- A higher percentage of accidents involved fatalities -- 3.2% on this highway compared with 2.2% statewide.
- A higher percentage of accidents occurred during daylight hours.
- A smaller percentage of accidents occurred involving slick roads on this highway (snowy or icy) -- ~~20~~14.4% compared with ~~42~~23.0% statewide.

[14]Bioeconomics, Inc. and Boyer Consulting Services, Draft, U.S. Highway 93 Corridor Use and Opinion Survey: Summary Results and Survey Methodology, 10 November 1994. Pages 10-11.

Table 6.1-8, Accident Comparison With Statewide

Category	Item	Total of All Accidents		Percent of All Accidents	
		US 93, Evaro - Polson 1990-1994	NHS Primary Rts. 1992-1994(State)	US 93, Evaro - Polson 1990-1994	NHS Primary Rts. 1992-1994(State)
Light Condition	Daylight	482	3,553	64.3	57.8
	Dawn, Dusk, Dark, Unlit	229	2,397	30.5	39.0
	Dark, Lited	39	197	5.2	3.2
Road Condition	Dry	555	4,100	74.0	66.7
	Wet	69	522	9.2	8.5
	Icy/Snowy	108	1414	14.4	23.0
	Slushy	18	111	2.4	1.8
Weather Condition	Clear	427	3,258	56.9	53.0
	Raining	46	320	6.1	5.2
	Snowing	62	658	8.3	10.7
	Fog	11	49	1.5	0.8
	Overcast	204	1,863	27.2	30.3
Injury Severity	None	406	3,578	54.1	58.2
	Injury	320	2,434	42.7	39.6
	Fatal	24	135	3.2	2.2
Collision Type	Head-On	29	154	3.9	2.5
	Rear-End	175	934	23.3	15.2
	Angle	141	965	18.8	15.7
	Sideswipe Meeting	24	166	3.2	2.7
	Sideswipe Passing	40	264	5.3	4.3
	Backed Into	4	25	0.5	0.4
	Other	337	3,639	45.0	59.2
Relationship to Junction	Non-Junction	478	4,309	63.7	70.1
	Intersection	96	701	12.8	11.4
	Intersection Related	104	830	13.9	13.5
	Driveway Access	72	313	9.6	5.1
	Total Accidents	750	6,147	100.0	100.0
	Length (miles)	56.3	3,859	--	--
	Annual Accidents per Mile	2.66	0.53	--	--

Montana Department of Transportation, Accident Records System, 1990-1994.
This table has been revised in the final EIS using accidents for 1990-94.

~~There were more accidents per mile on this roadway -- 2.49 accidents per mile per year compared with 0.72 statewide.~~

~~A higher percentage of accidents occurred during foggy weather -- four percent compared with one percent statewide.~~

- A higher percentage of accidents were related to driveway access -- ~~eight~~9.6% compared with ~~four~~5.1% statewide.

- A higher percentage of accidents were head-on collisions and rear-end collisions -- 3.9 and 23.3% compared with 2.5 and 15.2%, respectively.

During the period ~~1979-91~~1990-1994, the accident rates (the number of accidents that occur with each million miles of vehicle travel) for ~~various sections of US 93 outside Ronan and Polson, ranging from 0.65 to 2.29, did not vary greatly from the statewide average of 1.72~~US 93 in the area was 1.03 compared with a statewide average of 1.30. Accident severity (measuring injury and fatalities in accidents), ~~ranging from 1.29 to 1.68, did not vary greatly from the statewide average of 1.54~~was 1.57 on this highway compared with 1.52 statewide.[15]

Table 6.1-9 compares accidents by the driver's age and indicates that drivers under age ~~20~~30 were involved in a slightly lower percentage of the accidents on US 93 than on similar highways statewide and that drivers over the age of ~~50~~30 were involved in a slightly higher percentage.

Research by the Montana Traffic Safety Task Force[16] shows this section of US 93 as having an unusual amount of traffic collisions and that about 20% of the accidents involved older drivers, age 60 and over. The research indicated that communities along the corridor "have very high percentages of older citizens" (Section 6.4). Based on this research, further study was completed and a report was prepared[17] to identify improvements and programs to reduce the number of accidents. Recommendations for improvements were made particularly to target and reduce accidents for elderly drivers which should, at the same time, benefit all drivers. Recommendations include:

- Increase the width of all pavement markings, including edge markings and centerlines, from four inches to six inches.

- Replacement of most signs to achieve: 1) proper location and placement; 2) larger, more visible sign faces; 3) correction of incorrectly installed or poorly placed sign supports; and 4) higher reflectivity for greater visibility at night.

- Replacement of existing mailbox posts with breakaway posts.

- Better maintenance of signing, pavement markings and other traffic control devices.

- Installation of additional designated left-turn bays.

- Install lighting at some approaches and intersections.

- Widen the existing paved shoulder in several areas.

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[15]Montana Department of Transportation. Accident Records System. ~~1987-91~~1990-94.

[16]This task force includes representatives from the Montana Department of Transportation, the Montana Highway Patrol, the Highway Traffic Safety Division of the Montana Department of Justice and the Federal Highway Administration.

[17]Multi-disciplinary Traffic Safety Task Force, State of Montana, Highway Traffic Collision Countermeasures on U.S. Highway 93 Corridor, FAP 5 Milepost 0 to Milepost 59.3, January 1992.

- Reduce side slopes of approaches to reduce pitching and rolling of errant or out-of-control vehicles leaving the roadway.

- Increase the size and quantity of roadside delineation.

- Eliminate roadside informational pull-outs and incorporate the information into the newly constructed information center located just north of Ravalli.

- Improve or provide better warning signs and delineation at substandard horizontal curves.

- Install a traffic flasher and additional approach lanes at Division Street in Pablo.

Implementation and construction of some of these recommendations ~~is being planned and construction is scheduled for~~ occurred in 1994. Others are more extensive and expensive and may best be implemented with other highway improvements.

Table 6.1-9 Accidents by Driver's Age, Comparison with Statewide (1990-1994)

Driver's Age	Percent Of All Accidents	
	This Area[1]	US Highways Statewide[2]
Under 15	1%	1%
15 to 19	14%	16%
20 to 29	21%	23%
30 to 39	23%	21%
40 to 49	18%	16%
50 to 59	11%	9%
60 to 69	8%	7%
Over 70	7%	7%
Number of Drivers Involved	1,228	35,244

Montana Department of Transportation. Accident Records System. ~~1987-1991~~1990-1994.

[1] On U.S. Highway 93 during the years ~~1987 through 1991~~1990 through 1994.

[2] On all U.S. Highways and State Highways in Montana during the ~~year 1991~~years 1990 through 1994, Montana Highway Patrol, Annual Traffic Statistical Report, ~~1991~~1990 through 1994

This table has been revised in the final EIS using accidents for 1990-94.

6.1.3.1. Four-Lane/Two-Lane Highway Comparison

An analysis of accidents was completed for US 93 between the DeSmet I-90 Interchange and Evaro, from Mileposts 0.572 to 6.299. This part of US 93 was improved from a two-lane highway to a four-lane highway in 1985-86, and the record of accidents was compared for the five-year periods 1980-84, when it was two lanes, and 1987-91, after it was four lanes. The changes in accident rates and characteristics on this section of highway may be representative of what to expect if sections of the highway between Evaro and Polson are improved to four lanes because:

- Driver characteristics are similar.
- The traffic volume and characteristics are similar to US 93 from Evaro through Polson.
- Weather conditions are similar.
- Terrain on this section, which includes some flat, some rolling and some hilly terrain, is similar.
- The density of junctions to the highway is similar.

The results of the analysis are summarized in Table 6.1-10. The comparison indicates the following changes occurred after the highway was improved from two lanes to four lanes:

- Even though traffic volume increased by 31% (from 4,383 to 5,728 vehicles per day), the total number of accidents decreased by 38% (from 93 to 58).
- There were no fatal accidents, compared with three from 1980 through 1984.
- The number of accidents involving injuries decreased from 46 to 13 and the number of injuries was reduced to one-third of the number before the four-lane highway was constructed -- from 72 to 24.
- The accident severity index decreased from 1.65 to 1.22 as compared with almost no change in the statewide average severity index for rural primary highways.
- The accident rate decreased from 2.03 to 0.97, a 52% decrease. During the same time, the statewide average accident rate for rural primary highways decreased from 2.00 to 1.26, a decrease of 37%.
- There were no head-on accidents and only about one-third as many rear-end accidents. These are generally more serious accidents and the reduction in this type of accident helps explain the above described reductions in fatalities, injuries and the accident severity index.

The results of this comparison indicate that safety improvements and hazard reductions occurred as indicated by the reductions in injuries and fatalities and suggest they may also occur between Evaro and Polson if a four-lane highway is constructed.

6.1.3.2. Comparison of Two-Lane Highway, Passing Lanes and Transition Areas

An analysis of accidents was completed for US 93 from Evaro through Polson, except for Ronan and Polson, to compare segments of two-lane highway with segments of having passing lanes. There are 5.3 miles of the current highway with passing lanes, located at three segments: North of Evaro, north of Ravalli and south of Polson.

Table 6.1-10 Comparison of Accidents, U.S. Highway 93 (Four-Lane): I-90 to Evaro*

U.S. HIGHWAY 93 MILEPOST 0.572 TO MILEPOST 6.299	ACCIDENTS BEFORE 4-LANE 1980 - 1984 Five-Year Period	ACCIDENTS WITH 4-LANE 1987 - 1991 Five-Year Period
Total Number of Accidents	93	58
Accidents per Mile per Year	3.25	2.03
Accident Rate	2.03	0.97
Statewide Average Accident Rate**	2.00	1.26
Severity Index	1.65	1.22
Statewide Average Severity Index**	1.52	1.54
Average Annual Daily Traffic	4,383	5,728
Level-of-Service	D	A
Fatal Accidents	3	0
Fatalities	3	0
Injury Accidents	46	13
Number of Injuries	72	24
Head-On Accidents	3	0
Rear-End Accidents	11	4
Angle Accidents	3	2
Daylight	43	25
Dark	36	31
Icy or Snowy Road	16	25
Related to Intersections or Driveways	14	4

Montana Department of Transportation. Accident Records System. 1980-1991.
*Construction of the improvements to a four-lane highway occurred in 1985 and 1986. For that reason, no analysis is included for those two years. ** Rural primary highways.

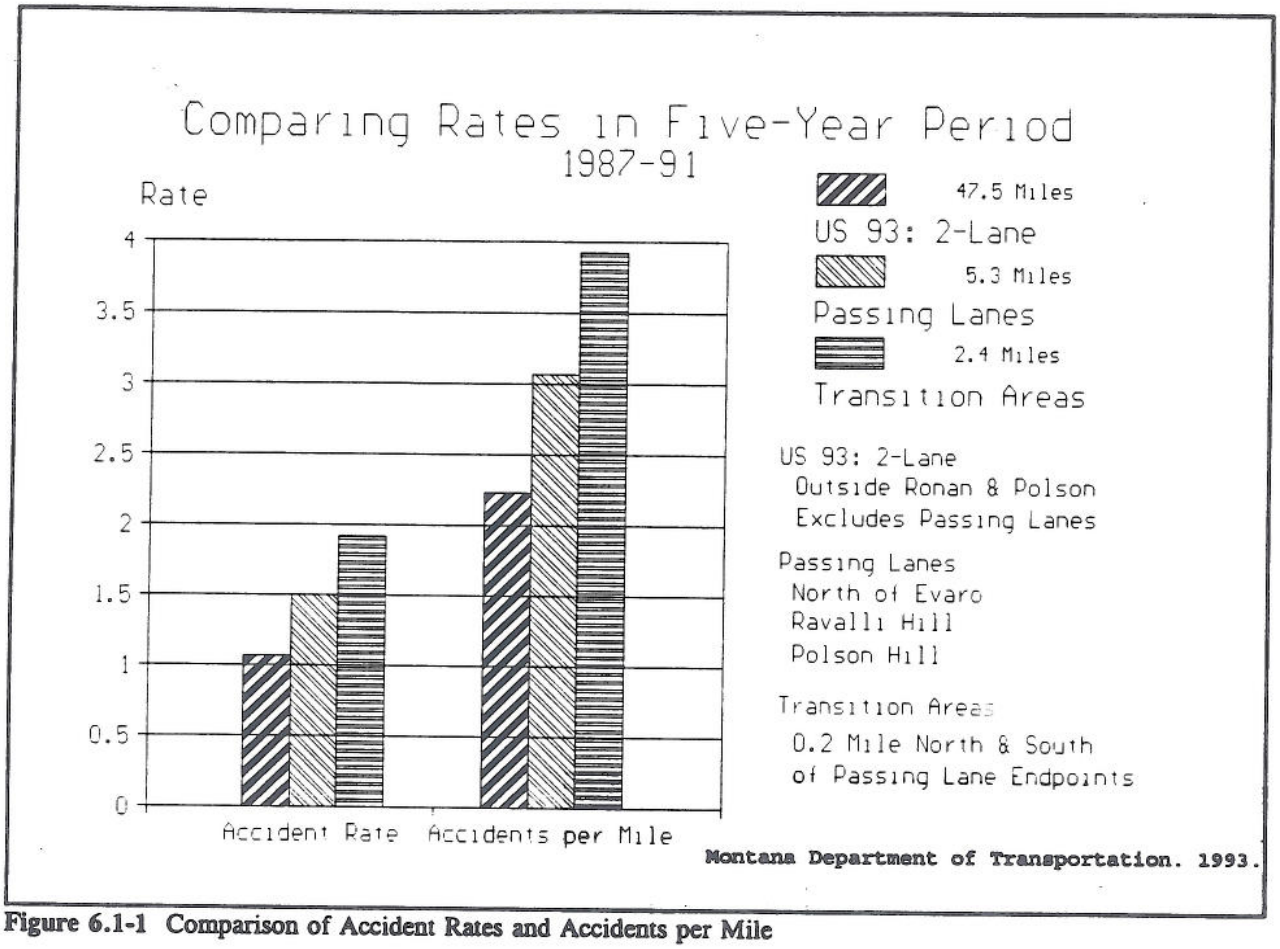


Figure 6.1-1 Comparison of Accident Rates and Accidents per Mile

During 1987-91, and based on the accident rate (accidents that occur with each million miles of vehicle travel) and accident frequency (accidents per mile of highway), accidents were 40% more likely to occur in passing lanes than on two-lane segments of highway. Accidents were 80% more likely to occur in the transition areas, which extend 0.2 mile in both directions from the endpoints of passing lanes, than on the two-lane segments of US 93. (Section 4.5 and Figure 6.1-1)

It should be noted that, where currently there are passing lanes on the existing highway, they have been created by repainting the roadway with narrower shoulders -- no actual pavement widening has been done. As a result, in these areas, shoulder widths have been reduced from approximately eight feet down to two feet.

6.1.4. Historic Traffic Volume

Historic traffic volume and characteristics have been determined using information from the Ravalli Automatic Traffic Recorder (ATR) and various other counts completed by MDT.[18]

[18]The Ravalli Automatic Traffic Recorder (ATR) has been in operation by the Montana Department of Transportation since 1941. It is located just south of Ravalli near Milepost 26.3 which is approximately 20 miles from the beginning of the proposed action (near Evaro) and 36 miles from the end (at Polson). It counts vehicles continuously and provides information by the hour, day, week, month and year.

To appropriately reflect the operating conditions that should be used for design to properly serve traffic, a period of one hour is used. It would not be appropriate to predicate the design on the maximum peak-hour traffic of the year, yet the use of the average hourly traffic (1/24 of the ADT) would result in design with inadequate capacity for current and growing needs. The 30th highest-hourly volume of the year (30 HV) generally reflects the proper balance and should be used in the design of highway facilities (AASHTO, A Policy on Geometric Design of Highways and Streets, 1990). Studies indicate that 30 HV is generally the point that is exceeded by only a few relatively high traffic volumes while there are many hourly volumes during the year that are only slightly less. The 30 HV has been used to represent the design hourly volume (DHV) in all capacity and LOS analyses.

Table 6.1-11 summarizes the ADT, and the 30th highest-hourly volume (30 HV) for various years at the ATR since it has been in use. Statistical analysis of the data indicates that, even though there have been periods of sharper increases and "plateaus" where growth has been slower, approximately a three percent average annual growth rate in traffic volume has occurred during the past 20 years. On the average in the United States, rural arterial 30 HV is about 15% of ADT. Information in Table 6.1-11 indicates that during the past 10 years on US 93 at the ATR, the 30th HV has averaged approximately ~~12.9~~12.6% of the ADT. In communities such as Arlee, Pablo, Ronan and Polson, the percentage that 30 HV is of ADT is generally lower because of a higher volume of local passenger vehicles. Using various traffic counts and references, a factor of 10.7% is estimated in these communities.

Figure 6.1-2 shows the ~~1991~~1994 ADT and 30 HV at various count locations. Table 6.1-12 demonstrates the change in traffic volumes by day and by hour for one week in July and August 199~~4~~1. The highest-hourly traffic volumes occurred during the afternoon and early-evening.

Table 6.1-13 demonstrates the change in traffic volumes by month and by day of the week as recorded by the ATR during one year. This information indicates that during five months (May, June, July, August and September), traffic volumes are above annual average. During these five months, Friday is generally the busiest day followed by Saturday and Sunday.

Table 6.1-14 indicates, by percentage, the counties and states from which vehicles originate.[19]

Based on counts conducted by MDT during the years 1989 to 1991, it is estimated the percentage of trucks in the traffic stream is approximately 13.7% for sections of the highway south of MTS~~FAS~~ 212 at Milepost 42.1 and 10% for sections north of MTS~~FAS~~ 212.

6.1.5. Level-of-Service and Capacity Concepts and Criteria

An analysis of LOS and capacity has been conducted for the existing two-lane highway facility using methods outlined in the ~~1985~~1994 Highway Capacity Manual[20] and design-hourly volume described in the previous section.

The concept of LOS is defined as a qualitative measure describing operational conditions within a traffic stream and the perception by motorists and/or passengers of those conditions. There are six categories of LOS for a given facility segment or intersection. These levels are given letter designations from A to F, with LOS A representing the best operating conditions and LOS F representing the worst.

The following paragraphs provide a general description of each LOS category for two-lane, two-way rural highways.

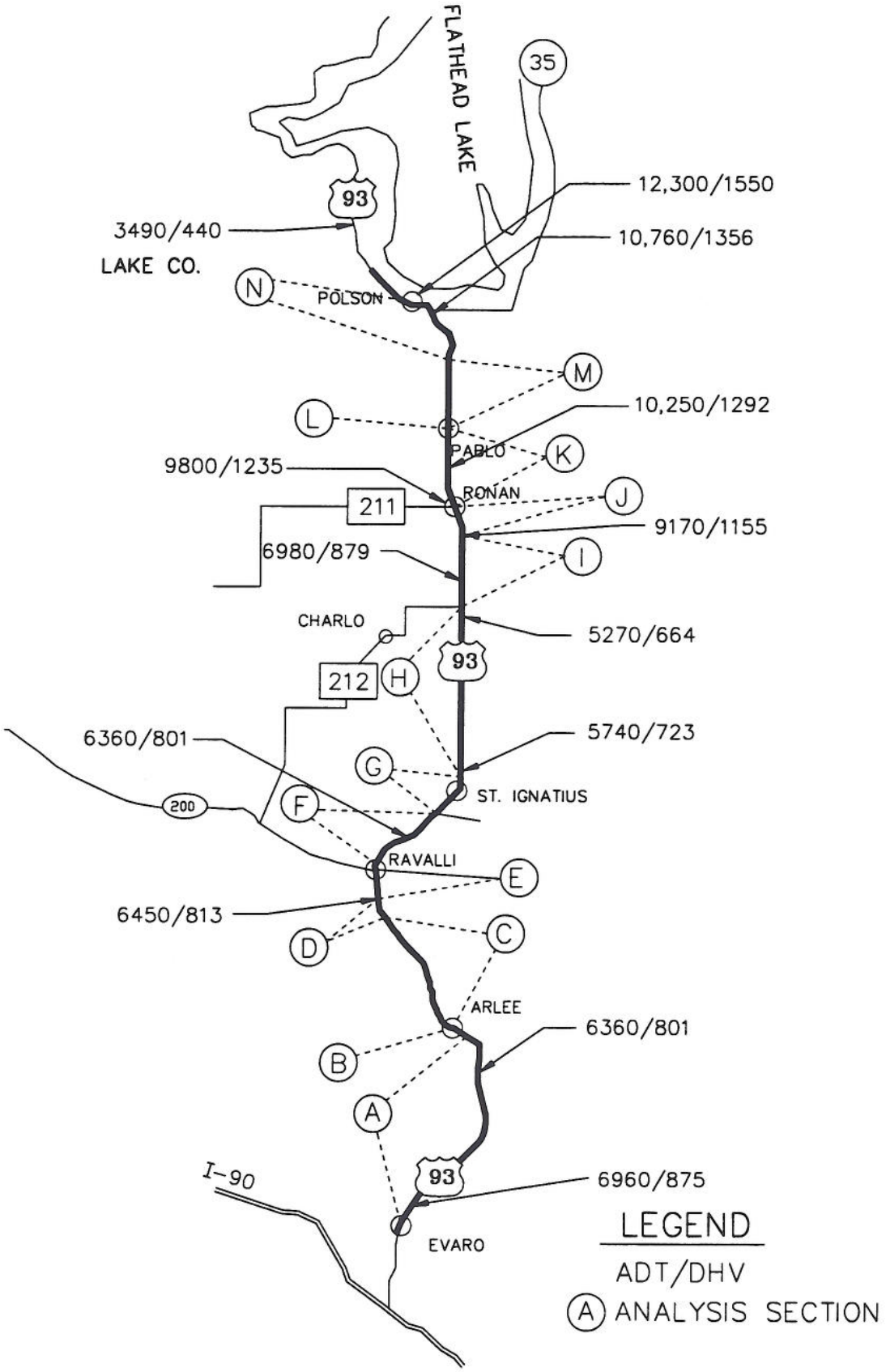
> The highest quality of traffic service occurs when motorists are able to drive at their desired speed. Without strict enforcement, this highest quality, representative of *LOS A,* will result in average speeds approaching 60 mph on two-lane highways. The passing frequency required to maintain these speeds has

[19]Morrison-Maierle, U.S. Highway 93 Origin-Destination Studies, July 1992.
[20]Transportation Research Board, National Research Council, Highway Capacity Manual, Special Report 209, ~~1985~~1994.

not reached a demanding level. Passing demand is well below passing capacity, and almost no platoons of three or more vehicles are observed. Drivers are delayed no more than 30% of the time by slow-moving vehicles.

Table 6.1-11 ADT and 30 HV at Automatic Recorder South of Ravalli
This table has been revised in the final EIS using traffic volumes for the year 1994.

Year	A.D.T.	30th Highest Hour	
		Volume	Percent
1941	850	150	17.6
1951	1360	220	16.2
1961	1810	270	14.9
1971	2920	410	14.0
1981	3930	520	13.2
1982	3910	540	13.8
1983	4340	570	13.1
1984	4440	550	12.4
1985	4300	570	13.3
1986	4570	590	12.9
1987	4910	610	12.4
1988	5070	650	12.7
1989	5120	650	12.7
1990	5280	670	12.7
1991	5180	650	12.5
1992	5810	750	12.8
1993	6110	770	12.6
1994	6450	780	12.2
Montana Department of Transportation. Traffic Records.			



1994 ADT & DHV

FIGURE 6.1-2

Table 6.1-12 Traffic Volume By Day & Hour, One Week In July and August, 1991~~4~~

Hour	Sunday 7/28	Monday 7/29	Tuesday 7/30	Wednesday 7/31	Thursday 8/01	Friday 8/02	Saturday 8/03
1am	100	60	50	60	60	60	90
2am	70	30	40	20	30	50	80
3am	50	30	30	20	20	20	40
4am	30	30	30	30	30	30	30
5am	30	30	30	20	40	30	30
6am	40	80	60	50	60	60	50
7am	60	150	130	140	130	130	90
8am	110	300	270	290	280	270	170
9am	230	340	330	380	310	310	280
10am	350	430	430	420	460	500	440
11am	450	500	480	470	550	520	560
12pm	540	530	510	490	510	540	590
1pm	530	550	430	440	540	560	540
2pm	560	470	470	470	510	580	540
3pm	570	440	460	470	560	650	520
4pm	550	450	430	500	580	590	520
5pm	570	500	490	500	520	640	470
6pm	620	470	490	500	550	700	450
7pm	590	390	350	380	460	580	400
8pm	520	280	270	260	290	500	350
9pm	460	200	200	250	240	400	300
10pm	350	190	180	200	210	290	290
11pm	210	140	130	160	140	220	200
12am	110	100	90	90	80	130	180
Totals	7700	6690	6380	6610	7160	8360	7210

Montana Department of Transportation. Traffic Records System. ~~1987-91~~1990-1994.

This table has been revised in the final EIS using traffic volumes for the year 1994.

LOS B characterizes the region of traffic flow wherein speeds of 55 mph or slightly higher are expected on level terrain. Passing demand needed to maintain desired speeds becomes important and approximately equals the passing capacity at the lower boundary of LOS B. Drivers are delayed up to 45% of the time on the average.

Further increases in flow characterize *LOS C,* resulting in noticeable increases in platoon formation, platoon size, and frequency of passing impediment. Average speed still exceeds 52 mph on level terrain, even though unrestricted passing demand exceeds passing capacity. At higher volume levels, chaining of platoons and major reductions in passing capacity begin to occur. While traffic flow is stable, it is becoming susceptible to congestion due to turning traffic and slow-moving vehicles. Percent time delays are up to 60%.

Unstable traffic flow is approached as traffic flows enter *LOS D.* The two opposing traffic streams essentially begin to operate separately at higher volume levels, as passing becomes difficult. Passing demand is high, while passing capacity approaches zero. Mean platoon sizes of five to 10 vehicles are common, although speeds of 50 mph can still be maintained under ideal conditions.

Table 6.1-13 Ravalli Automatic Recorder Data By Month and Day Of Week, 1991~~4~~

Month	Average Daily Number Of Vehicles							Average Day
	Day of Week							
	Sun	Mon	Tue	Wed	Thu	Fri	Sat	
JAN	3710	4580	4780	4820	4930	5650	4380	4650
FEB	4230	4670	4530	4550	4970	5730	5030	4820
MAR	5290	5140	5350	5450	5780	6490	6370	5680
APR	5600	5670	5630	5800	6060	7060	6550	6100
MAY	6360	6380	6240	6240	6490	7790	7190	6640
JUN	7510	7210	7170	7240	7600	8560	7510	7540
JUL	9290	8850	8490	8340	8690	10320	9260	9090
AUG	8990	8460	7960	8130	8700	9740	8770	8630
SEP	6900	7050	6740	6740	7170	8430	7990	7320
OCT	5690	5780	6070	6320	6380	7460	6400	6270
NOV	4790	5160	5520	5810	5390	6230	5270	5470
DEC	3970	5300	5160	5390	5620	6010	4910	5220
Average	6030	6190	6140	6240	6480	7460	6640	6450

Montana Department of Transportation. Traffic Records System. 1941-199~~0~~4.

This table has been revised in the final EIS using traffic volumes for the year 1994.

Table 6.1-14 Traffic By Geographic Origin

County/State	Percent of Vehicles Counted -- U.S. Highway 93 Intersections (July 1992)				
	Interstate 90	Montana 200	MTS 212	Montana 35	Totals
Lake	20.2	30.3	42.3	53.6	38.5
Missoula	35.9	22.7	14.4	12.4	20.5
Flathead	5.0	5.9	5.2	5.0	5.2
Sanders	3.5	1.6	1.6	1.0	1.9
Ravalli	2.5	1.6	1.3	1.0	1.5
Glacier/Lincoln	0.9	0.7	0.3	0.4	0.6
Other Montana	6.8	6.6	10.9	6.5	7.7
Canada	2.0	3.9	2.4	1.7	2.3
Other States	23.2	26.7	21.4	18.4	21.8
Total Vehicles Counted[1]	4,510	3,218	4,551	6,017	18,296

Morrison-Maierle. License Plate Classification Study. August 1993.
[1] Total vehicles do not include semi-trucks for which licenses are not registered by county.

The fraction of no passing zones along the roadway section usually has little influence on passing. Turning vehicles and/or roadside distractions cause major shock-waves in the traffic stream. The percentage of time motorists are delayed approaches 75%.

LOS E is defined as traffic flow conditions on two-lane highways having a percent time delay of greater than 75%. Under ideal conditions, speeds will drop below 50 mph. Average travel speeds on highways with less than ideal conditions will be slower, as low as 25 mph on sustained upgrades. Passing is virtually impossible under LOS E conditions, and platooning becomes intense when slower vehicles or other interruptions are encountered.

LOS F represents heavily congested flow with traffic demand exceeding capacity. Operations are characterized by stop and go waves and flow is unstable. Vehicles may progress at reasonable speeds for several hundred feet or more, then be required to stop in a cyclic fashion.

LOS E represents the capacity of the highway. As traffic demand exceeds the capacity (LOS E), congestion and unstable conditions occur and the flow rate on the highway decreases (LOS F).

In rural areas, desirable operation is defined as LOS B or better. In communities such as Arlee, Ronan, Pablo and Polson desirable operation is defined as LOS C or better.[21]

A major problem with two-lane highway operations involves the amount of time spent in a platoon behind slow moving vehicles unable to pass. Inability to pass leads to driver frustration and unsafe passing maneuvers. The amount of time spent in platoons rises rapidly as traffic volume increases, because the demand for passing maneuvers increases, while ability to pass decreases. This increases delay for vehicles traveling the highway.

On a multi-lane facility (four-lanes or more), vehicles traveling the highway have more than one lane in each direction so that slower moving vehicles can be overtaken and passed without entering opposing traffic lanes. Traffic in opposing directions operates independently on multi-lane highways. As a result of these differences, the service flow volume and capacity are generally several-times higher on a four-lane highway as compared with a two-lane highway.

When the highway crosses through a developed area or town, the roadway capacity is typically controlled by LOS at intersections. The majority of intersections along US 93 are three- or four-legged intersections with stop-sign control on the crossing street. Intersection capacity and LOS at these intersections are measured by the amount of delay turning vehicles will expect during peak hour conditions. Additionally, a number of intersections within the developed areas are signalized. The roadway capacity/LOS is again measured at the intersection, with respect to the amount of delay incurred by vehicles.

6.1.6. Existing Level-of-Service and Capacity

Results of the LOS analysis for the existing two-lane highway are summarized in Table 6.1-15 and indicate the existing highway is generally operating at LOS D and E.

As explained in Section 6.1.5, at ~~this level of operation~~ at LOS D, passing demand is high while passing capacity is near zero. Platoons are forming in the traffic stream and the percentage of time motorists are delayed approaches 75%. At LOS E, passing is virtually impossible, platooning becomes intense and vehicles are delayed more than 75% of the time.

An analysis of LOS at various intersections along the highway also has been completed and it has been determined that all movements are currently operating at LOS A except left turns from side streets onto US 93. LOS for these left turns ranges from A to E as summarized in Table 6.1-16.

[21] American Association of State Highway and Transportation Officials, A Policy on Geometric Design of Highways and Streets, 1990.

Table 6.1-15 1991~~4~~ Operation - Existing Roadway

Segment	Level-of-Service Year 1994
A - Evaro to Arlee	E(A)*
C - Arlee to Ravalli Canyon	E
D - Ravalli Canyon to Ravalli	E
E - Ravalli	D
F - Ravalli Hill	E(A)*
G - St. Ignatius	D
H - St. Ignatius to MTS 212	D
I - MTS 212 to Ronan	D
K - Ronan to Pablo	E
L - Pablo	E
M - Pablo to Caffrey Road	E
N - Caffrey Road to MT 35	E(A)*
*Level-of-service overall(in direction of passing lane)	

This table has been revised in the final EIS using traffic volumes for the year 1994.

Table 6.1-16 1991~~4~~ Intersection Operation - Existing Roadway

Intersection	Peak Hour Level-Of-Service*
B Street, Arlee (Butch Larsen/Taelman St.)	A
MT 200, Ravalli	B
Main Access to St. Ignatius	B
MTS 212	C
MTS 211, Ronan**	B**
Division Street, Pablo	C
Clairmont Road, Pablo	C
Old U.S. 93, North of Pablo	C
MT 35, Polson**	E*/C***
Unsignalized Streets in Polson	E*/B***
First Street East in Polson** ~~— Signalized~~	B

Morrison-Maierle. 1993
* Left turns from side streets onto U.S. Highway 93. ** Traffic signal currently in operation.
*** Left turn from U.S. Highway 93

This table has been revised in the final EIS using traffic volumes for the year 1994.

6.2. LAND USE

6.2.1. Land Use Plans

Lake County has a general plan, and Missoula County has a comprehensive plan to guide land use and development.[22,23] The Confederated Salish and Kootenai Tribes ~~are preparing, but have not yet adopted,~~ have adopted a comprehensive natural resource plan for protection and development of land-related resources.

CSKT, Lake County and Missoula County have not established zoning regulations in the area of US 93 from Evaro through Polson.

The city of Polson, which is a separate planning unit, is the only community in the area that has an urban comprehensive plan and zoning regulations. Polson's comprehensive plan was revised in 1993. The city of Ronan and the town of St. Ignatius also have zoning regulations, but no comprehensive plans. Ronan has been developing a comprehensive plan since ~~began to develop a comprehensive plan in~~ late-1993.[24]

6.2.2. Intergovernmental Cooperation for Land Use Planning

CSKT, in cooperation with Lake and Missoula counties, is preparing a land use and growth projection study that will provide more detailed information about the area served by US 93. Results of the study should be available for future planning activities, such as developing an access control plan for the proposed action ~~the final environmental impact statement (EIS).~~ CSKT and Missoula County have a memorandum of agreement (MOA) regarding land use planning and resource management concerns for the portion of Missoula County that lies within the Flathead Indian Reservation.

6.2.3. Pattern of Land Use

~~6.2.3.1. Lake County~~

~~The proposed action is in the south county area and city of Polson planning units. In 1988 approximately 50% of Lake County's 1,656 square miles (1.1 million acres) was forest land, 33% was agricultural land, and two percent was built development area.[25] (Table 6.2-1)~~

The Confederated Salish and Kootenai Tribes have divided the reservation into planning units called study areas. Three of the study areas, Jocko Valley, Mission Valley and Polson-Elmo cover the general area of the proposed action.[26] (Figure 6.2-1)

Table 6.2-1 shows land use for the Jocko Valley, Mission Valley and Polson-Elmo study areas. This information provides a general indication of patterns of land use for the area affected by the proposed action.

~~6.2.3.2. Missoula County~~

~~Approximately 8.5 miles of the southern end of the proposed action is located in northern Missoula County. This area of Missoula County is rural and includes the small, unincorporated community of Evaro. Land is mostly~~

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[22] Lake County General Plan. 1988.
[23] Missoula County Comprehensive Plan. 1975.
[24] Montana Code Annotated 76-2-310.
~~[25] Lake County General Plan. 1988.~~
[26] Confederated Salish and Kootenai Tribes. *Flathead Reservation Comprehensive Resources Plan* (November 1994). Page 6-2.

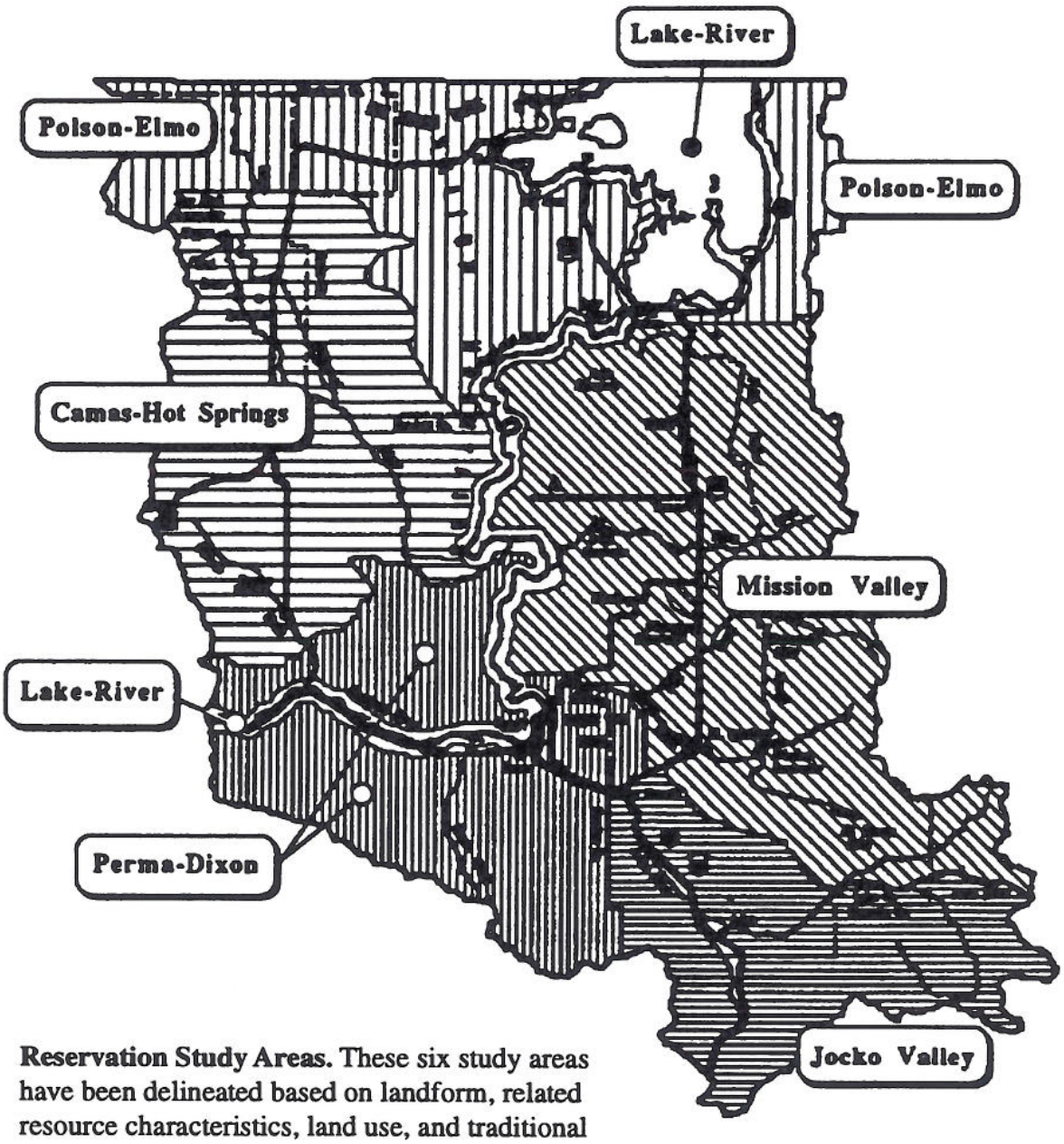

Figure 6.2-1 Flathead Indian Reservation Study Areas
This figure has been added in the final EIS using information for the Flathead Indian Reservation.

Table 6.2-1 Land Use for Jocko Valley, Mission Valley and Jocko Valley Study Areas

Land Use	Area (Acres)	Percent of Total Land Area (%)
Jocko Valley Study Area		
Irrigated Cropland	8,307	5%
Non-irrigated Cropland	760	1%
Rangeland	20,203	13%
Primitive Area (forested)	59,169	27%
Forest	57,261	47%
Rural and Suburban	9,755	6%
Urban and Built-Up	321	<1%
Mission Valley Study Area		
Irrigated Cropland	102,900	30%
Non-irrigated Cropland	91,778	27%
Rangeland	59,916	17%
Mission Mountains Wilderness	48,425	14%
Forest (excluding wilderness)	22,541	7%
Rural and Suburban	15,360	4%
Urban and Built-Up	3,878	1%
Water (major reservoirs)	1,519	<1%
Polson-Elmo Study Area		
Irrigated Cropland	856	<1%
Non-irrigated Cropland	13,003	6%
Rangeland	79,678	35%
Forest	119,492	53%
Rural and Suburban	12,225	>5%
Urban and Built-Up	821	<1%

SOURCE: Confederated Salish and Kootenai Tribes. Flathead Reservation Comprehensive Resources Plan. November 1994. Pages 6-6 through 6-15.
This table has been revised in the final EIS using information for the Flathead Indian Reservation.

~~forested with some agricultural valley bottom lands. As with Lake County and other parts of Missoula County, scattered residential development is increasing throughout forested and open areas.~~

6.2.3.3. Flathead Indian Reservation

US 93 is located in the eastern part of the Flathead Indian Reservation, and it spans approximately three-quarters of the north-south distance of the reservation. Overall, the reservation has 1,938 square miles of land (1.24 million acres) and covers parts of four counties in an area that is roughly 60 miles long and 40 miles wide: Lake (1,012 sq. mi.), Missoula (162 sq. mi.), Sanders (718 sq. mi.) and Flathead (47 sq. mi.). The south half of Flathead Lake also lies within the reservation.[27]

The Confederated Salish and Kootenai Tribes own the majority of land on the Flathead Indian Reservation. There also are hundreds of allotments owned in whole or in part by individuals and the Tribes. Generally, an allotment is a parcel of land assigned to a tribal member as a result of the Flathead Allotment Act in 1908 or 1920, or since inherited or purchased by a tribal member(s). Fee land is land that is not in trust status, nor is it owned by tribal, federal, state or local governments.[28]

The land base of the Confederated Salish and Kootenai Tribes encompasses the majority of forest resources and a substantial portion of the agricultural resources of the reservation. The Tribes administer more than 320,000 acres of rangelands and 62,000 acres of pasture lands. They control a much smaller portion of the cropland; about 10% of acreage irrigated by the Flathead Agency Irrigation Division is tribal or allotted trust lands. Tribal land is the dominant source of timber for the local forest products industry, with almost 46% of timber harvested in Lake County in 1988 being from tribal lands.[29]

The Flathead Indian Reservation has a variety of landforms that support a diversity of ecosystems:[30]

- Forested mountain ranges
- Low, broad valleys
- Drier prairies, having only sparse vegetation
- High and low elevation forested hills with wet and dry vegetation
- Rocky buttes, with shrub and grass communities
- Rivers, streams, lakes and ponds, with companion wetlands and riparian habitats
- Glaciers, surrounded by rock and alpine tundra

The Flathead and Lolo national forests, Burlington Northern and Champion International private timber holdings, individual sections of state land and small parcels of private land border the reservation. Forest, agricultural land, grassland and water are the four major types of land use for the reservation. Logging, cropland development, grazing, irrigation and other land uses have substantially altered the native vegetation.[31]

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[27]U.S. Department of Commerce, Bureau of the Census. Census of Population. 1990.
[28]Ibid. Page 2-13 and 2-14.
[29]Ibid. Page 4-6.
[30]Ibid. Page 2-2.
[31]Ibid. Pages 2-2 and 2-12.

6.2.3.4. US 93

Land use adjacent to the highway is predominantly agricultural, interspersed with residential, commercial and industrial activities.

There is scattered residential development with 681 approaches to the highway. Commercial development outside communities is mostly highway-oriented, with lodging, gas station-convenience stores, restaurants and tourism specialty shops. (Tables 6.2-2 through 6.2-5)

Land use in communities combines residential, commercial, industrial and open areas with recreation facilities. Agricultural lands are located adjacent to municipal boundaries. Government and school property in Pablo is adjacent to the existing alignment of the highway. Open space used for recreation is adjacent to the highway at St. Ignatius and Ronan. A senior citizen's center is adjacent to the existing alignment in Ronan. Church property is adjacent to the existing alignment of the highway in Arlee, Ravalli, Ronan and Polson. Church property and a residential center for senior citizens is adjacent to the alignment alternative for a one-way couplet in Ronan. A railroad line generally runs parallel to the highway in some areas. (Section 6.4)

At the southern end of the proposed action, land is mountainous and forested, with some agricultural valley-bottom lands. There is abundant wildlife habitat. There is scattered residential development with numerous approaches to the highway. The Evaro and Schley areas are the largest residential developments, and individual homesites are located throughout the area. A one-mile segment of land along US 93 south of Schley, which CSKT manages as a wildlife corridor, is the only segment of undeveloped land in the area. Approximately 8.5 miles of the southern end of the proposed action is located in northern Missoula County. This area of Missoula County is rural and includes the small, unincorporated community of Evaro. As with Lake County and other parts of Missoula County, scattered residential development is increasing throughout forested and open areas.

The middle part of the proposed action, between Arlee and Ronan, is mostly open agricultural land with areas of rolling hills. There is a lumber mill and some commercial development adjacent to the highway in the Post Creek area. The National Bison Range is adjacent to the highway north of Ravalli. The Ninepipe National Wildlife Refuge also is adjacent to the highway and provides extensive open space for wildlife and recreation south of Ronan.

The northern part of the proposed action, between Ronan and Polson, has open and forested land, with areas of rolling hills. A lumber mill at Pablo and a concrete plant at Polson create the heaviest concentration of industrial activity, with commercial strip development scattered between the two communities. ~~Lumber mills at Pablo and Polson create the heaviest concentration of industrial activity.~~ (Figure 6.2-2)

6.2.3.5. Communities: Arlee, Ronan and Polson

Land use in the Arlee area is influenced by US 93 and agricultural development of the Jocko Valley. US 93 has commercial and scattered residential development on the route through the town. Areas east and west of Arlee include open agricultural land and vacant land with scattered, rural residential development. The schools, powwow and rodeo grounds, a ballfield and a state fish hatchery are located on the east edge of Arlee. (Table 6.2-3)

US 93 and the forested slopes extending from the Mission Mountains into the Mission Valley influence land use in the Ronan area. US 93 has commercial and residential development along its route through Ronan. The highway has become an extension of the original central business district (CBD). (Table 6.2-3)

Table 6.2-2 Percent of Land Use* Based on Miles of Highway Right-of-Way Frontages: Existing Alignment

Highway Segment on Existing Alignment	Milepost	Forestland (%)	Rockland (%)	Agricultural Land (%)	Water/ Wetland (%)	Wildlife Refuge/ Recreation[2] (%)	Railroad Right-Of-Way[2] (%)	Built Development			TOTAL (%)**
								Commercial/ Industrial (%)	Residential (%)	Total (%)	
		Total	Total	Total	Total	Total	Total	Total	Total	Total	Total
A: Evaro to Arlee	6.5 - 16.7	44	5.5	47	0	0	13	3	.5	3.5	100
B: Arlee[3]	16.7 - 18.2	0	0	63	0	0	0	27	10	37	100
C: Arlee to Ravalli Canyon	18.2 - 24.7	0	0	84	10	0	42	0	6	6	100
D: Ravalli Canyon to Ravalli	24.7 - 26.5	2.5	27.5	5	65	0	50	0	0	0	100
E: Ravalli	26.5 - 27.5	0	11	11	28	0	39	6	44	50	100
F: Ravalli Hill	27.5 - 31.2	0	46	46	7	28	0	0	1	1	100
G: St. Ignatius	31.2 - 33.5	4	8	84	0	0	0	0	4	4	100
H: St. Ignatius to MTS 212	33.5 - 42.1	0	4	71	24	6	0	1	0	1	100
I: MTS 212 to Ronan	42.1 - 46.1	0	0	45	53	0	0	2	0	2	100
J: Ronan[3]	46.1 - 47.6	0	0	30	0	0	0	53	17	70	100
K: Ronan to Pablo	47.6 - 50.8	0	9	81	6	0	0	2	2	4	100
L: Pablo	50.8 - 54.7	4	0	47	0	0	0	2	47	49	100
M: Pablo to Caffrey Road	54.7 - 56.5	0	3	67	0	0	0	19	3	21	100
N: Caffrey Road to MT 35	56.5 - 59.0	0	9	67	0	0	50	20	4	24	100
O: Polson[3]	59.0 - 61.0	0	0	0	10.5	10	4	61.5	18	79.5	100
P: Polson to End of Project	61.0 - 62.8	0	0	15	22	0	0	37	26	63	100
TOTAL: Existing Alignment		9	7	55	13	.5	11	8	7.5	15.5	100

Morrison-Maierle 1993. [1] Total is for east and west sides of the highway. [2] Underlined percentages represent types of land use that have a relatively narrow strip of direct highway frontage, but which are not the dominant land use in the corridor extending away from the highway. They are counted in other types of land use. [3] Land use for Arlee, Ronan and Polson are within the developed areas along the existing alignment. Refer to Table 6.2-3 for land use along the existing alignment that is adjusted to the lengths of the longest alternate highway alignments for each of the communities. * Dominant land use extending away from the highway. ** Totals do not include underlined percentages.

Table 6.2-3 Land Use: Arlee, Ronan and Polson Alignments

Highway Segment and Alignment Alternatives	Milepost	Forest-land (%)	Rockland (%)	Agricultural Land (%)	Water/ Wetlands (%)	Wildlife Refuge/ Recreation (%)	Railroad Right-Of-Way[3] (%)	Built Development			TOTAL (%)**
								Commercial/ Industrial (%)	Residential [3](%)	Total (%)	
		Total[1]	Total	Total	Total	Total	Total	Total	Total	Total	Total
B: Arlee[4]											
Existing Alignment #1	15.0 - 22.4	0	1	80	4	0	24	11	4	15	100
West Alignment #2	15.0 - 22.4	0	1	94	2	0	4	3	4	3	100
East Alignment #3	15.0 - 22.4	0	1	88[2]	4	1[2]	23	6	0	6	100
Jocko Valley Align. #4	15.0 - 22.4	0	0	84	16	0	0	0	0	0	100
J: Ronan[4]											
Existing Alignment #1	45.1 - 48.8	0	0	72	0	0	0	23	5	28	100
One-Way Couplet #2	45.1 - 48.8	0	0	75	0	0	0	19	6	25	100
West Alignment #3	45.1 - 48.8	0	0	93	3	0	0	1	3	4	100
West Alignment #4	45.1 - 49.0	0	0	97	0	0	8	3	0	3	100
O: Polson[4]											
Existing Alignment #1	56.5 - 62.8	0	3	32	10	3	22	37	15	52	100
Alignment #2	56.5 - 62.8	0	0	71	5	5	0	4	15	19	100
Alignment #3	56.5 - 62.8	0	3	83	3	2	0	0	9	9	100

Morrison-Maierle. 1993. [1] Total is for east and west sides of highway. [2] Includes 0.1 miles for recreation. [3] Underlined percentages represent types of land use that have a relatively narrow strip of direct highway frontage, but which are not the dominant land use in the corridor extending away from the highway. They are counted in other types of land use. [4] Land use is for the length of roadway along each alignment, beginning at the southern end of the longest alignment. * Dominant land use extending away from the highway. **Totals do not include underlined percentages.

Table 6.2-4 Highway Approaches To Highway Right-Of-Way Frontage: Existing Alignment

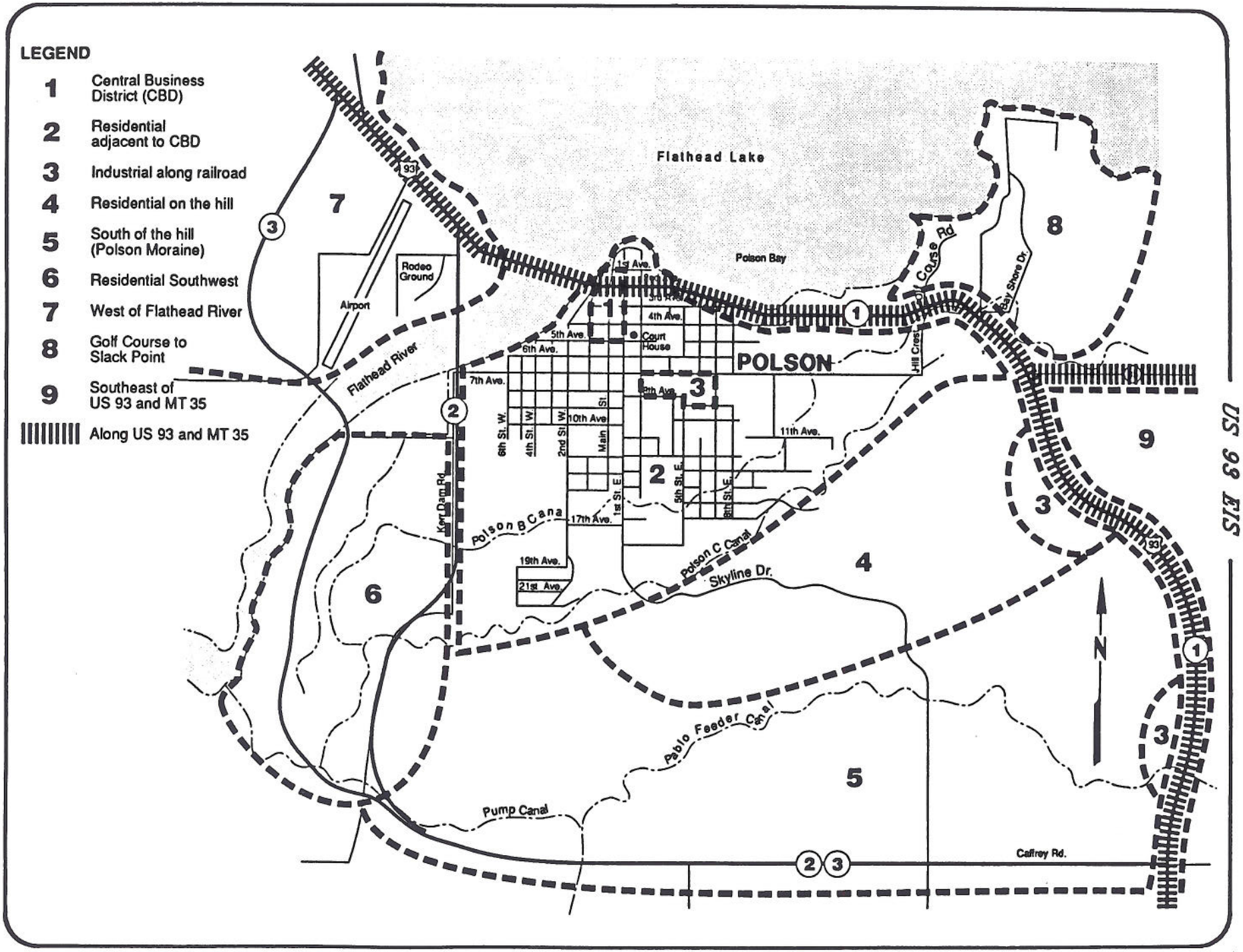
Highway Segment on Existing Alignment	Milepost	Residential	Commercial/ Industrial	County Road	State Highway	Trail/ Service Road	Field Approaches	Railroad Access	Public Use[3]	Turnouts[4]	City Streets	TOTAL
		Total	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total
A: Evaro to Arlee	6.5 - 16.7	61	12	19	0	2	12	0	4	8	0	118
B: Arlee[2]	16.7 - 18.2	10	2	4	1	0	1	0	0	1	8	27
C: Arlee to Ravalli Canyon	18.2 - 24.7	10	7	8	0	0	5	2	0	6	0	38
D: Ravalli Canyon to Ravalli	24.7 - 26.5	3	0	1	0	1	3	2	0	3	0	13
E: Ravalli	26.5 - 27.5	0	0	0	0	0	0	0	0	0	0	0
F: Ravalli Hill	27.5 - 31.2	3	0	2	1	0	5	0	4	3	0	18
G: St. Ignatius	31.2 - 33.5	6	3	2	1	0	3	0	1	0	0	16
H: St. Ignatius to MTS 212	33.5 - 42.1	36	10	12	0	2	50	0	3	3	0	116
I: MTS 212 to Ronan	42.1 - 46.1	16	5	6	1	0	12	0	3	1	0	44
J: Ronan[2]	46.1 - 47.6	1	20	0	2	0	4	0	0	0	12	39
K: Ronan to Pablo	47.6 - 50.8	8	0	6	0	0	23	0	0	0	0	37
L: Pablo	50.8 - 54.7	23	9	9	0	0	11	0	2	0	5	59
M: Pablo to Caffrey Road	54.7 - 56.5	5	8	6	0	1	6	0	0	2	0	28
N: Caffrey Road to MT 35	56.5 - 59.0	2	6	2	0	0	2	0	0	2	0	14
O: Polson[2]	59.0 - 61.0	29	50	1	1	1	0	0	2	2	14	100
P: Polson to End of Project	61.0 - 62.8	5	5	3	0	1	0	0	0	0	0	14
TOTAL: Existing Alignment		218	137	81	7	8	137	4	19	31	39	681

Morrison-Maierle. 1993 [1] Total is for east and west sides of the highway. [2] Approaches for Arlee, Ronan and Polson are within the developed areas along the existing alignment. Refer to Table 6.2-5 for approaches along the existing alignment that are adjusted to the lengths of the longest alternate highway alignments for each of the communities.

Table 6.2-5 Approaches: Arlee, Ronan and Polson Alignments

Highway Segment and Alignment Alternative:	Milepost	Residential	Commercial/ Industrial	County Road	State Highway	Trail/ Service Road	Field Approaches	Railroad Access	Public Use[2]	Turn-outs[3]	City Streets	TOTAL
		Total[1]	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total
B: Arlee[4]												
Existing Alignment #1	15.0 - 22.4	21	12	17	1	0	6	1	0	6	8	72
West Alignment #2	15.0 - 22.4	12	7	17	0	0	15	1	0	4	0	56
East Alignment #3	15.0 - 22.4	17	7	15	1	0	8	1	2	4	0	55
Jocko Valley Align. #4	15.0 - 22.4	11	0	12	0	0	40	0	0	0	0	63
J: Ronan[4]												
Existing Alignment #1	45.1 - 48.8	7	18	6	2	0	13	0	2	1	12	61
One-Way Couplet #2	45.1 - 48.8	9	5	6	2	0	18	0	1	1	13	55
West Alignment #3	45.1 - 48.8	9	4	5	2	0	15	0	0	1	3	39
West Alignment #4	45.1 - 49.0	8	2	6	2	1	6	2	1	0	2	30
O: Polson[4]												
Existing Alignment #1	56.5 - 62.8	36	61	6	1	2	2	0	2	4	14	128
Alignment #2	56.5 - 62.8	29	1	7	0	5	7	2	2	0	0	53
Alignment #3	56.5 - 62.8	10	1	9	0	13	12	2	0	0	0	47

Morrison-Maierle. 1993. [1] Total is for east and west sides of the highway. [2] Public use includes picnic, camping, and rest areas. [3] Turnouts include historic/scenic, school bus, mail, and recreation. [4] Land use is for the length of roadway along each alignment, beginning at the southern end of the longest alignment.



LAND USE IN THE POLSON AREA

FIGURE 6.2-2

US 93 EIS

Residential development extends east, south and west of the CBD. Schools are located adjacent to the north side of the CBD, and the hospital is located in the residential area west of the CBD. West of Ronan there is open land use with a wastewater treatment facility, ballfield and scattered residential and industrial development.

Land use in the Polson area is influenced primarily by Flathead Lake and River, the hills to the south, MRL, US 93 and MT 35. Commercial, residential and agricultural land use are the major forms of development. (Figure 6.2-~~12~~ and Table 6.2-3)

US 93 has commercial development along the route between its intersection with MT 35 and the downtown CBD. The municipal golf course and waterfront property, which includes multi-unit senior citizen housing, is adjacent to the highway east of the CBD. Residential development with medium density (four to eight dwelling units per acre) extends east, south and west of the CBD. Schools are located adjacent to the east side of the CBD, and schools and the hospital are located in the residential area southwest of the CBD.

Land use is primarily agricultural south of the hills in the Polson Moraine, and residential development with low density (one to four dwelling units per acre) occurs in the hills southwest of Polson. West of Polson, between the Flathead River and the residential area adjacent to the CBD, there is open land use with a wastewater treatment facility, ballfield and scattered residential and industrial development.

The municipal airport and rodeo grounds are adjacent to the west side of the river. West of the river there is scattered commercial and low-density residential development mixed with vacant and agricultural land.

6.2.3.6. Confederated Salish and Kootenai Tribes Policies and Objectives for Management of Land and Resources

The Confederated Salish and Kootenai Tribes have developed a set of policies and objectives to manage land and resources of the Flathead Indian Reservation. The *Flathead Reservation Comprehensive Resources Plan* identifies the resources and major goals:[32]

Air: Maintain the clean, Class I air quality status of the reservation.

Water: Protect and enhance the quality and quantity of reservation water resources.

Fisheries: Foster and maintain wild, self-sustaining fish populations to meet cultural, subsistence and recreational needs.

Wildlife: Manage wildlife resources and habitats for viable populations of all wildlife species.

Forest: Enhance forest values and maintain a perpetual source of forest resources and opportunities.

Range: Enhance and maintain multiple range resource values and opportunities.

Agriculture: Manage agricultural resources for sustainable levels of production that are environmentally sound, economically viable and socially acceptable.

Minerals and Energy: Wise use of mineral and energy resources, with appropriate environmental safeguards and cultural protection.

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[32]The Confederated Salish and Kootenai Tribes. The Flathead Reservation Comprehensive Resources Plan. Volume II. Policies. November 1994.

Wilderness and Primitive Areas: Preserve specially designated areas for cultural, spiritual and recreational pursuits.

Land-Based Cultural Resources: Preserve and perpetuate tribal histories, cultures and languages.

Recreation and Scenic Areas: Protect and promote the recreational resources of the Confederated Salish and Kootenai Tribes.

Residential Areas: Encourage housing development and maintenance that considers human resource values while protecting natural resource qualities and minimizing effects for community infrastructure.

Commercial and Industrial Areas: Provide areas for commercial and industrial development that are easily accessible but minimally affect infrastructure and the surrounding environment.

Transportation, Communication and Utilities: Promote a transportation system, communications network and utility infrastructure that support existing and potential resource development and use and that is consistent with the protection of cultural and natural resources.

Government and Institutional Facilities: Provide government facilities/services that ensure protection of public health, welfare and safety and the environment and that improve educational opportunities.

The Confederated Salish and Kootenai Tribes have identified major planning issues, some of which concern these resources and the proposed action in the Jocko Valley, the Mission Valley and the Polson-Elmo study areas:[33]

- Water issues, which include the protection of groundwater and surface water from pollution.
- The effects of Missoula's suburban sprawl on infrastructure, farmland, air and water quality, cultural resources, and wildlife.
- Strip development along US 93.
- Rural residential growth.
- Effects on wildlife travel corridors from residential and highway development.
- Lack of public fishing access on major streams in the Jocko and Mission valleys.
- Tribal-federal-state interagency cooperation.

6.2.3.7. Major Land Use Considerations

A community opinion survey conducted as a part of the Lake County General Plan (1988), identified agriculture, US 93, floodplain development, wildlife and community growth as the major land use considerations in the south county planning area.[34]

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[33]Confederated Salish and Kootenai Tribes. Flathead Reservation Comprehensive Resources Plan. November 1994. Pages 6-6 through 6-15.
[34]Lake County General Plan, July 1988.

Agriculture

Agriculture is the major resource use in Lake County, and the south county area is the principal farming area, with irrigated land that is considered prime or good by the U.S. Natural Resources~~Soil~~ Conservation Service (NRCS). Agriculture is based on irrigated forage crop production to support livestock. Agriculture also produces small grains, tree fruits, field crops, and some dairy and vegetable production. Scattered ranches and farms grow hay or grain.

Residential development that replaces production on agricultural land was a concern of local residents who responded to the community opinion survey. Most residents believe agricultural land should be protected. Residents of some areas expressed support for measures such as density guidelines on good farmland and conservation easements, which provide tax incentives to landowners in exchange for protection of land. Residents in all areas supported development of standards to protect agriculture from problems caused by residential development. There are several livestock underpasses on the existing roadway. Landowners have indicated some of these are used regularly and will continue to be needed.[35]

US 93

US 93 was a concern for respondents to the community opinion survey because of conflicts in safety, commercial development and scenic values. Most local residents were not in favor of restricting commercial development along the highway, but there was concern about "strip development" causing an undesirable pattern of growth. Generally, local residents favored control of commercial development through measures such as setbacks and design standards for building height, parking, highway signs and highway approaches.[36]

Public comment for ~~the~~this ~~draft~~ EIS indicates there is a need to control signage and growth of residential, commercial and industrial development outside communities. There is support for development of vacant land within communities to achieve compact, rather than scattered pattern of development. More development within communities is considered to be important for utilizing public utility systems and facilities/services, while avoiding further proliferation of individual utility systems. Public comments associate improvement of the highway with commercial strip development and residential sprawl on the edges of communities and in scattered locations between communities. Public comments also indicate there is a need to coordinate land use planning and regulation with access control and other transportation planning activities. (Chapter 10)

Floodplain Development

The Flathead and Jocko rivers, along with Post, Crow and Mission creeks, are flood hazard areas along parts of the route of US 93. Information from NRCS indicates Mud Creek, Ronan Spring Creek and Agency Creek, as well as other areas, have potential for flood hazard. Generally, residents support control of development in floodplains through measures such as locating new subdivisions outside flood hazard areas, setbacks from rivers and streams, anchoring new structures within flood hazard areas and requiring buildings to be above flood elevation of 100-year frequency.[37]

Wildlife

Wildlife habitat is intermingled with landholdings that are affected by population growth and economic development. Two 1992 surveys conducted by the CSKT Wildlife Management Program and a survey conducted by the Bureau of Indian Affairs (BIA), independent of the community opinion survey in the Lake County General Plan, found local

[35]Ibid.
[36]Ibid.
[37]Ibid.

residents support measures to protect wildlife.[38,39] ~~A poll conducted by the Bureau of Indian Affairs (BIA), independent of the community opinion survey in the Lake County General Plan, found local residents support measures to protect wildlife, especially bears.~~ Wildlife protection measures related to highway development include density guidelines to limit development in affected areas, conservation easements, which provide tax incentives to landowners in exchange for protection of habitat, and site design criteria to protect critical habitat areas.[40]

Community Growth

Most population growth has occurred in rural areas outside communities. Respondents to the community opinion survey favored locating residential, commercial and industrial development in or next to existing communities. The Lake County General Plan indicates residential development probably will continue to occur outside communities, while more commercial and industrial development will be located either in or near existing communities.

The Lake County General Plan identifies measures, which could be affected by improvement of US 93, to plan for growth and development:[41]

- Improve roads, water and sewage systems.
- Development of appearance standards to improve attractiveness of communities.
- Designate preferred areas with eased regulations for commercial and industrial development.
- Restrict or limit commercial and industrial growth in areas outside communities.

The Missoula County Comprehensive Plan identifies measures similar to those of Lake County for planning growth and development.

6.2.4. Land Status

~~In 1988 approximately 45% of land in Lake County was held in private ownership, and 31% of the land was held in tribal trust and allotment.~~[42] The pattern of land ownership of the Flathead Indian Reservation is mixed, but most tribal land is located in the forested, mountainous areas along the edges of the county. The majority of private land is located at lower elevations of the Mission and Jocko valleys, which has more economically valuable irrigated cropland and grazing land. ~~(Table 6.2-2)~~

Figure 6.2-3 identifies patterns of land ownership on the Flathead Indian Reservation in 1992.[43]

Lands with frontage on US 93 have mixed ownership among tribal, trust/allotment, private (fee), state and federal interests. Small blocks of each type of ownership are interspersed along the highway. There are concentrations of tribal ownership in the mountainous area north of Evaro, as well as the Ninepipe refuge and Kicking Horse Reservoir areas south of Ronan. State ownership is concentrated in the Ninepipe and Kicking Horse areas, and the National Bison Range is federal land. Private ownership is predominant through the remainder of the area.

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[38]Non-Indian Bird Hunters on the Flathead Reservation: Patterns of Use and Wildlife Management Scoping Issues. David Rockwell and Dale Becker. Unpublished report prepared by the Tribal Wildlife Management Program, Confederated Salish and Kootenai Tribes, Pablo, Montana, October 1992.

[39]Patterns of Use and Wildlife Management Scoping Issues: Tribal Member Hunting on the Flathead Indian Reservation. David Rockwell and Dale Becker. Unpublished report prepared by the Tribal Wildlife Management Program, Confederated Salish and Kootenai Tribes, Pablo, Montana, October 1992.

[40]The Border Grizzly Project, University of Montana. Living with the Grizzly, Perceptions of Mission Valley Residents. Frost, J.R. Prepared for Bureau of Indian Affairs, Pablo Agency. November 1984.

[41]Lake County General Plan. July 1988.

[42]Ibid.

[43]Ibid. Page 2-13.

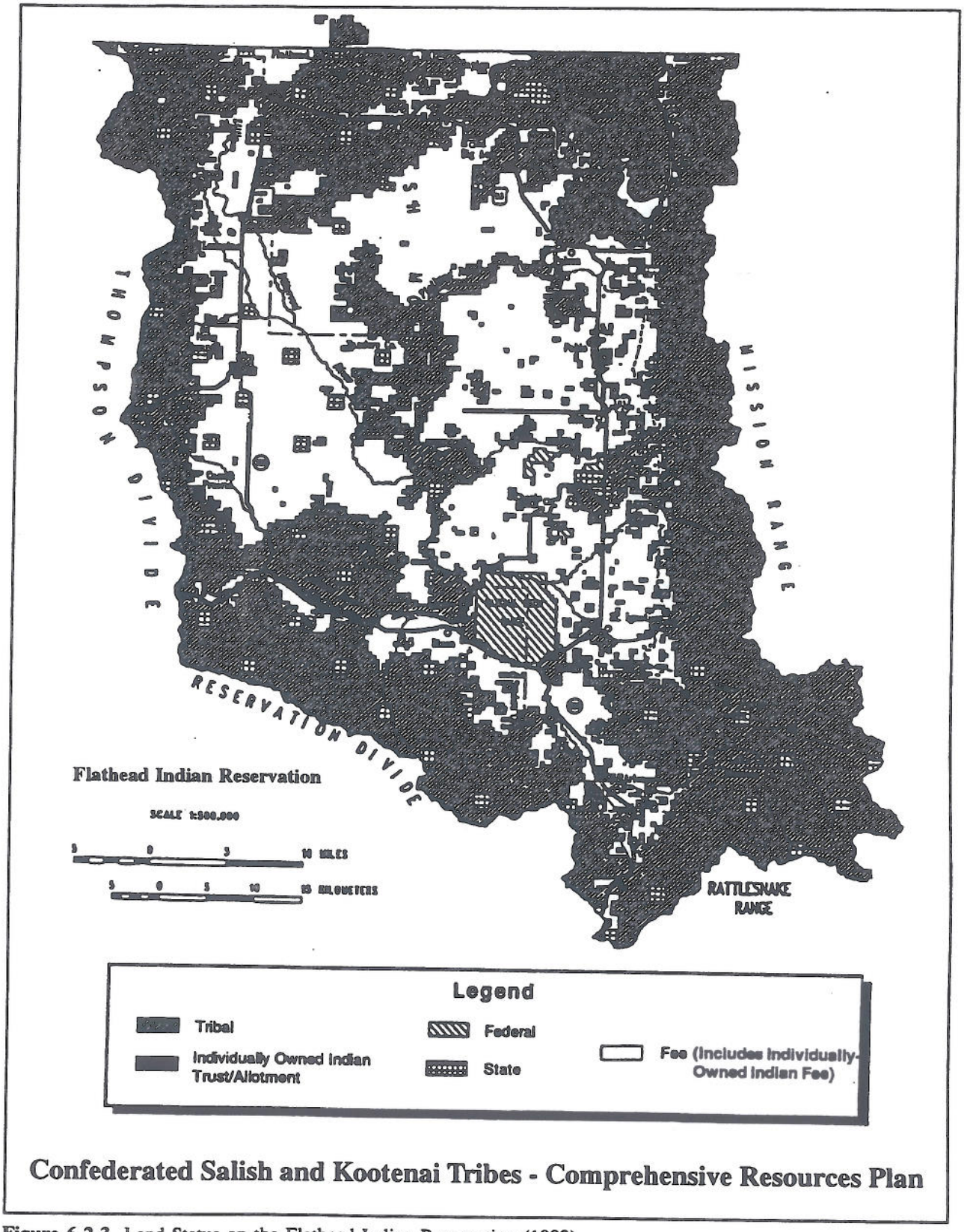

Figure 6.2-3 Land Status on the Flathead Indian Reservation (1992)
This figure has been added in the final EIS using information for the Flathead Indian Reservation.

6.2.5. Residential Development

6.2.5.1. Land Subdivision

Until 1904, all land in this area was owned in common by the Salish, Pend d'Oreilles and Kootenai tribes. The Flathead Allotment Act then forced tribal people to become enrolled and take land allotments. Amendments to the act gave several hundred acres of land to church organizations and thousands of acres to the state of Montana for school purposes. Thousands more were set aside for townsites, power reserves, the National Bison Range, general government needs and two-to-five acre lots around Flathead Lake. In spite of tribal protest, the federal government opened the Flathead Reservation to settlement in 1910.

From the early-1900s until~~Until~~ the late-1960s, land areas remained in larger blocks of 40 to 200 acres. Many of these parcels of land were originally settled under the Homestead Act. Beginning in the 1970s, land values began to increase due to outside public interest for recreation land. Many original homestead sites were subdivided, which has resulted in smaller lots and tracts of three to five acres.

Extensive subdivision of land has occurred in the area. Since 1973, 3,719 tracts have been created in Lake County. Of these, 16% were 20-40 acre tracts, 34% were occasional sales, seven percent were family transfers, and 44% were reviewed as subdivisions. There were 26,997 acres of land subdivided since 1973, of which 47% of the acreage was 20-40 acre exemptions, 28% was acreage in occasional sales, four percent was acreage in family transfers, and 20% was acreage reviewed as a subdivision.[44]

6.2.5.2. Residential Development

According to the Lake County General Plan, subdivision of land has been the major land use change in Lake County since 1970. Residential development outside communities has caused dispersed pattern of growth and reliance on individual, rather than municipal systems for facilities/services. Residential development has occurred in unincorporated communities such as Arlee and Pablo, and there has been development scattered throughout rural areas.

Between 1970 and 1990 the population density for Lake County increased from 10 to 14 persons per square mile (40%). During the same period population density for Montana increased from approximately 4.8 to 5.5 persons per square mile (15%).[45]

Ongoing growth and development in recent years has increased demand for and value of land. Total taxable value of land in Lake County increased by 46.2%, compared with a statewide increase of 13.6%, between 1990 and 1994.[46] (Table 6.2-6)

According to the U.S. Census, approximately 71% of the 10,970 housing units in Lake County were occupied in 1990. The rate of occupied housing units in Lake County is lower than the rate (85%) for the state of Montana in 1990. This is because a larger portion of Lake County's housing units are for seasonal/recreation/occasional use; they are considered to be vacant by the U.S. Census if persons who reside there have a permanent residence elsewhere. Approximately 76% of the 10,400 housing units in the Flathead Indian Reservation were occupied in 1990.[47] (Table 6.2-7)

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[44]Lake County Land Services. 1992.
[45]Bureau of Indian Affairs, Portland Area Office. Flathead Reservation Transportation Plan. September 1988.
[46]Montana Department of Revenue. Taxable Value By Class, By County. 1990-94.
[47]U.S. Department of Commerce, Bureau of the Census. 1990 Census of Population and Housing.

Table 6.2-6 Taxable Value (1990-94)

Years	Annual Rate of Growth of Total Taxable Value[1]	
	Lake County	State of Montana
1990 to 1991	6.4%	1.4%
1991 to 1992	3.0%	2.3%
1992 to 1993	27.7%	6.1%
1993 to 1994	4.5%	3.2%
Subtotal: 1990 to 1994[2]	46.2%	13.6%
Annual average: 1990 to 1994	11.5%	3.4%

State of Montana. Taxable Value by Class, by County. 1990-94.
[1]Total taxable value for Lake County increased from $28.7 million in 1990 to $41.9 million in 1994. Total taxable value for Montana increased from $1.6 billion in 1990 to $1.8 billion in 1994.
[2]Annual increments do not sum to equal the subtotal for 1990 to 1994.
This table has been added to the final EIS.

In 1990, approximately 52% of housing units in Lake County were homeowner units, 24% were rental units, and 24% were used for seasonal, recreational, occasional or migrant use. The homeowner and rental vacancy rates for Lake County were 2.2 and 9.8%, respectively. The county's homeowner vacancy rate was lower than the state's rate of 2.9%, but the county's rental vacancy rate was higher than the state's rate of 9.6%.[48] (Table 6.2-8)

According to the 1990 U.S. Census, approximately 90% of housing units in Lake County and the Flathead Indian Reservation are single family units, including mobile homes and trailers. Approximately 40% of the housing units in Lake County obtained water from a public system, and 30% of the county's housing units were connected to a public sewer system.[49] (Table 6.2-9)

CSKT has built and maintains several community water and sewer systems for homesites in areas of the Flathead Indian Reservation outside communities.

Housing units used for seasonal, recreational, and occasional use are an indication of the growth of tourism and recreation throughout the Flathead region. Between 1970 and 1990, seasonal housing units increased from 1,550 to 2,300 (48%) in Lake County. North of the proposed action, seasonal housing units in Flathead County increased from 1,680 to 2,520 (50%).[50]

Residents of Missoula and other places inside and outside Montana travel US 93 for access to seasonal housing throughout Lake and Flathead counties.

[48]Ibid.
[49]Ibid.
[50]Ibid.

Table 6.2-67 Occupied and Vacant Housing Units (1990)

Location	Total Housing Units			Vacant Housing Units			
	Total	Occupied (%)	Vacant (%)	Total	For Rent (%)	For Sale (%)	Seasonal/ Recreational/ Occasional/ Migrant/Other (%)
State of Montana	361,160	85%	15%	54,990	21%	16%	63%
Lake County	10,980	71	29	3,160	9	6	85
Polson Division[1]	4,960	64	36	1,770	6	5	89
City of Polson	1,560	90	10	160	38	18	44
Ronan Division	2,290	90	10	220	33	20	47
City of Ronan	720	90	10	70	45	20	45
Pablo CDP	500	88	12	60	45	17	38
St. Ignatius Division	1,440	88	12	170	32	15	53
Town of St. Ignatius	340	89	11	37	34	9	57
Arlee (CDP)	210	88	12	25	43	17	40
Charlo Division	500	83	17	80	16	9	75
Charlo (CDP)	160	93	7	11	55	--	45
Big Fork-Swan Rv. Division	1,790	49	51	920	4	5	91
Northern Missoula County							
Evaro Place (Off Reservation)	27	96	4	1	NA	NA	NA
Flathead Indian Reservation	10,400	76	24	2,530	11	18	71
Lake County Part	9,190	76	24	2,240	10	4	86
Missoula County Part	270	88	12	30	21	3	76
Sanders County Part	930	75	25	250	21	6	73
Flathead County Part	10	73	27	3	--	--	100

U.S. Department of Commerce Bureau of the Census; Census of Population 1970-1990. CDP is Census Designated Place. CDPs are unincorporated communities with distinct populations identified in the U.S Census. NA is Not Available. Numbers are rounded to the nearest ten. [1]Census county subdivisions are geographic areas identified by the U.S. Census for Lake County. The census county subdivisions include incorporated communities unincorporated census designated places, and other unincorporated places.

Table 6.2-~~7~~8 Homeowner and Rental Occupancy (1990)

Location	Housing Units				Vacancy Rates	
	Total	Home-owner (%)	Rental (%)	Other[1] (%)	Home-owner Vacancy Rate (%)	Rental Vacancy Rate (%)
State of Montana	361,160	59%	31%	10%	2.9%	9.6%
Lake County	10,980	52	24	24	2.2	9.8
Polson Division[2]	4,960	45	23	32	2.0	7.8
City of Polson	1,560	49	46	5	2.0	8.0
Ronan Division	2,290	64	31	5	1.9	9.5
City of Ronan	720	56	38	6	3.2	9.6
Pablo CDP	500	63	33	4	2.3	15.2
St. Ignatius Division	1,440	64	29	7	1.4	12.0
Town of St. Ignatius	340	59	35	6	--	8.3
Arlee (CDP)	210	49	46	5	1.9	10.0
Charlo Division	500	66	21	13	1.2	11.7
Charlo (CDP)	160	67	26	7	--	11.4
Big Fork-Swan Rv. Division	1,790	41	13	46	4.6	15.7
Northern Missoula County						
Evaro Place (Off Reserv.)	30	85	15	NA	NA	NA
Flathead Indian Reservation	10,400	54	26	20	1.8	10.4
Lake County Part	9,190	54	26	20	1.8	9.2
Missoula County Part	270	78	19	3	0.1	18.4
Sanders County Part	930	56	27	17	2.9	20.1
Flathead County Part	10	70	10	20	--	--

U.S. Department of Commerce Bureau of the Census; Census of Population 1970-1990. CDP is Census Designated Place. CDPs are unincorporated communities with distinct populations identified in the U.S Census.
Numbers are rounded to the nearest ten. NA is Not Available. [1]Includes housing units for seasonal, recreational, occasional, and migrant use. [2]Census county subdivisions are geographic areas identified by the U.S. Census for Lake County. The census county subdivisions include incorporated communities unincorporated census designated places,and other unincorporated places.

Table 6.2-89 Type of Housing Units and Water and Sewer Facilities (1990)

Location	Type of Housing Unit			Water Systems			Sewer System	
	Total	Single Family/ Mobile Home	Multi-Family	Total	Public System/ Private Company (%)	Indiv. System/ Other Source (%)	Public System (%)	Septic Tank/ Cesspool/ Other (%)
Lake County	10,980	10,170	810	10,980	40%	60%	30%	70%
Polson Division[1]	4,960	4,450	510	4,960	43	57	34	66
City of Polson	1,560	1,130	430	1,560	98	2	99	1
Ronan Division	2,290	2,120	170	2,290	60	40	47	53
City of Ronan	720	590	130	720	99	1	98	2
Pablo CDP	500	470	30	500	60	40	45	55
St. Ignatius Division	1,440	1,370	70	1,440	32	68	28	72
Town of St. Ignatius	340	300	40	340	93	7	89	11
Arlee (CDP)	210	200	10	210	20	80	15	85
Charlo Division	500	480	20	500	26	74	22	78
Charlo (CDP)	160	140	20	160	84	16	70	30
Big Fork-Swan River Div.	1,790	1,750	40	1,790	15	85	1	99
Northern Missoula County								
Evaro Place (Off Reserv.)	30	30	--	30	--	100	--	100
Flathead Indian Reserv.	10,400	9,560	840	10,400	44	56	36	64
Lake County Part	9,190	8,420	770	9,190	44	56	35	65
Missoula County Part	270	270	--	270	5	95	2	98
Sanders County Part	930	820	110	930	56	44	54	46
Flathead County Part	10	10	--	10	--	100	--	100

U.S. Department of Commerce Bureau of the Census; Census of Population 1970-1990. CDP is Census Designated Place.
CDPs are unincorporated communities with distinct populations identified in the U.S Census.
NA is Not Available.
Numbers are rounded to the nearest ten.
[1]Census county subdivisions are geographic areas identified by the U.S. Census for Lake County. The census county subdivisions include incorporated communities unincorporated census designated places,and other unincorporated places.

6.2.6. Pattern of Land Use and Development

Residential, commercial and recreational development have been the most recent major forms of new development in areas with frontage on highway ROW. KwaTaqNuk Resort, which was built by CSKT on the waterfront of Flathead Lake in Polson, is one of the larger land developments in the area. ~~the largest land use development in recent years for the area.~~ New development also includes an expansion of the golf course at Polson. New commercial development in Polson includes a grocery store and a department store. The golf course and department store may cover larger land areas than KwaTaqNuk. New recreation fields adjacent to the highway have been built recently at St. Ignatius and Ronan. A new waste water treatment facility is planned adjacent to the highway at the north end of Arlee. A new furniture store was built in Ronan in 1993, and new grocery stores were built in Pablo and Ronan in 1995. ~~New grocery stores are planned for Ronan and Pablo.~~

CSKT also built the People's Center, a tribal cultural complex, ~~plans to build a cultural center~~ north of Pablo in 1995. The CSKT Housing Authority also moved north of Pablo, near Salish and Kootenai Electronics. A 60-unit housing development has been constructed east of Salish Kootenai College in Pablo. Other planned developments include expansion of the elementary school at Pablo, expansion of Salish Kootenai College, ~~a 60 unit housing development east of the college at Pablo,~~ construction of a new maintenance and operations center for Mission Valley Power at Pablo, and a recreation center near the southern edge of Arlee. A new golf course with adjacent residential development of up to 249 dwelling units is planned for Polson. The new and planned developments throughout the area are located adjacent to or near US 93.

6.3. FARMLANDS

This section is completed in accordance with the Farmland Protection Policy Act (FPPA) of 1981 which has as its purpose "to minimize the extent to which federal programs contribute to the unnecessary and irreversible conversion of farmland to nonagricultural uses, ...". FPPA requires that before implementing any action that will result in conversion of farmland, the effects of the action should be examined and, if there are adverse effects, action to lessen them should be considered.

Farmland, as defined by FPPA, refers to land in any of four different categories: 1) prime farmland; 2) unique farmland; 3) farmland other than prime or unique that is of statewide importance; or 4) farmland other than prime or unique that is of local importance. Farmland in these categories is referred to as FPPA farmland.

The following FPPA farmland exists in the counties in which the proposed action is located:

- In Missoula County, approximately 60,000 acres. Major crops on the FPPA farmland in the vicinity of the highway located in Missoula County (from the beginning of the proposed action near Milepost 6.5 to Dirty Corner near Milepost 15.1) include alfalfa, pasture and spring wheat.

- In Lake County, approximately 47,000 acres.[51] Major crops on the FPPA farmland in the vicinity of the highway located in Lake County (from Dirty Corner near Milepost 15.1 to the end of the proposed action northwest of Polson) include hay, potatoes and spring and winter wheat.

The location of FPPA farmland adjacent to the existing alignment and alignments under consideration is listed on Table 6.3-1. Most of the FPPA farmland that may be affected by the proposed action is located:

- In northern Missoula County between Mileposts 12 and 15 (Dirty Corner).

- East of Arlee in the area where Alignment 4 is being considered.

- West of Ronan in the area where Alignments 3 and 4 are being considered.

- West of Polson in the area where Alignment 2 and 3 are being considered.

[51]This represents the FPPA Farmland identified in soil surveys completed to-date. Not all of Lake County has been surveyed. Areas not surveyed include the Mission Mountains and the Swan Valley.

Table 6.3-1 Location of FPPA Farmland

Location (Milepost)		West or East Side of Highway	Prime Or Unique	Of State-Wide Or Local Importance
From:	To:			
Existing Alignment:				
6.5	7.2	Both		X
7.9	8.2	East		X
8.2	8.3	Both	X	
11.9	12.2	Both	X	
12.3	12.4	Both	X	
12.5	14.8	Both	X	
15.3	15.4	East	X	
47.2	47.4	Both	X	
47.6	47.9	Both	X	
48.1	48.2	Both	X	
48.3	48.4	East	X	
48.8	49.0	East	X	
49.5	49.6	Both		X
49.7	49.8	Both		X
50.0	50.1	Both		X
50.5	50.7	Both		X
55.9	56.3	Both	X	
Arlee, Alignment 4, Only:				
15.3	15.5	East	X	
18.3	18.5	Both	X	
18.6	18.8	Both	X	

Table 6.3-1 Location of FPPA Farmland - Continued

Location (Milepost)		West or East Side of Highway	Prime Or Unique	Of State-Wide Or Local Importance
From:	To:			
RONAN, ALIGNMENT 3, ONLY				
46.5	46.6	Both	X	
47.5	47.7	Both	X	
48.0	48.1	Both	X	
48.2	48.9	Both		X
RONAN, ALIGNMENT 4, ONLY				
46.2	46.3	Both	X	
47.7	47.9	East	X	
48.0	48.1	Both	X	
48.3	48.4	Both	X	
48.6	49.0	Both		X
POLSON, ALIGNMENT 1, ONLY				
58.4	58.4	Both		X
58.7	58.9	Both		X
POLSON, ALIGNMENT 2, ONLY				
57.6	57.8	Both		X
58.4	58.4	Both		X
58.5	58.5	Both		X
58.6	58.6	Both		X
58.7	58.8	Both		X
59.0	59.2	Both		X
59.6	60.5	Both		X
60.9	60.9	Both	X	

Table 6.3-1 Location of FPPA Farmland - Continued

Location (Milepost)		West or East Side of Highway	Prime Or Unique	Of State-Wide Or Local Importance
From:	To:			
POLSON, ALIGNMENT 2, CONTINUED				
60.9	61.4	Both	X	
61.4	61.6	Both	X	
POLSON, ALIGNMENT 3, ONLY				
57.6	57.8	Both	X	
58.4	58.4	Both	X	
58.5	58.5	Both	X	
58.6	58.6	Both	X	
58.7	58.8	Both	X	
59.0	59.2	Both	X	
59.6	60.5	Both	X	
60.4	60.5	Both		X
60.9	61.1	Both		X
61.2	61.6	Both	X	
61.7	61.7	Both	X	
62.1	62.3	Both		X
62.4	62.4	Both		X
Morrison-Maierle. 1993.				

6.4. SOCIAL

6.4.1. Setting

The Flathead Indian Reservation is the social setting for the proposed action. The social setting of the reservation ~~The social setting, which covers parts of Lake and Missoula counties,~~ is related to conditions throughout a broad geographic region of western Montana. In addition, the people and communities of northern Idaho, eastern Washington and southern Alberta, Canada interact with the area.

Polson, Ronan and St. Ignatius are incorporated communities in the area. Evaro, Arlee, Ravalli and Pablo are smaller, unincorporated communities located along the proposed action. Polson is the seat of Lake County, and Pablo is the center of government for CSKT. Charlo and Moiese, in Lake County, and Dixon in Sanders County, are other small, unincorporated communities in the vicinity of US 93.

Activities of Native Americans are the foundation for the social setting of the Flathead Indian Reservation. Communities, and areas around communities -- Arlee in the southern part, St. Ignatius and Pablo in the middle part, and Elmo in the northern part of the reservation are considered important centers of activity by Native Americans.

CSKT, federal and state agencies, Lake, Missoula, Sanders and Flathead counties, and the incorporated communities provide elected governments. Growth of the population and response by governments to provide public facilities/ services have resulted in intergovernmental relations among tribal, federal, state and local governments being an important part of the social setting.

Residents of the Flathead Indian Reservation live in small communities and in dispersed residential developments outside communities. Native American and non-Native American residents of the Flathead Indian Reservation hold the rural character of the area and the natural environment as important aspects of lifestyle. Growth of the population and management of growth and development are sources of conflict for traditional values held by longtime residents of the reservation.

Residents of the Flathead Indian Reservation support and participate in a full range of traditional civic, cultural, religious and educational organizations and activities. Communities support schools, churches, community organizations and recreational facilities. Centers for senior citizens are important places for meetings in the communities. Integration of social and cultural perspectives of Native American and non-Native American people in these organizations is an important issue that influences the social setting.

The Flathead and Kootenai culture committees gather for meetings and traditional wakes at the *Longhouse* in St. Ignatius and the community center in Elmo. The elders also coordinate special projects such as language and plant gathering at these locations. The Salish and Kootenai people also gather at places such as the senior citizen's center in Arlee, Two Eagle River School in Pablo and Salish Kootenai College in Pablo.

6.4.2. Lifestyle

The population is rural with a unified lifestyle that is similar throughout lower Flathead, Mission and Jocko valleys. Residents have strong ties to the land and the small communities throughout the area. Population growth reflects people moving to the area because they are attracted by the rural lifestyle, with the natural environment and small town atmosphere. The rural areas are growing at a more rapid rate than the towns. Outside communities, development is more dispersed and individual homesites are located on multi-acre tracts of land.[52]

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[52]U.S. Environmental Protection Agency and Flathead Basin Commission, Flathead River Basin Environmental Impact Study Final Report, June 1983. Pages 1-36.

Communities experiencing growth are concerned about problems associated with expansion due to the arrival of new permanent and seasonal residents. New residents, who are employed in the area or who commute to employment outside the area, and retirees have been sources of growth in the permanent population. There is a continuous influx of tourism- and recreation-related newcomers during the summer. These groups regard their stay as temporary and do not expect to become permanent residents or participate as an integral part of community activities. Long-time residents identify "newcomers" as a cause of concern about land use and development, particularly the loss of agricultural lands.[53]

Residents have expressed desires for reasonable growth; but they also want to preserve natural resource values, such as clean air, pure water, productive soils, fish and wildlife populations, recreation and spectacular scenery.[54]

Residents of the area would like to improve and possibly expand industry, making communities less vulnerable to regional and national economic trends. There is interest in developing "clean" industries, with concern about the unwanted costs of development such as crowding and population growth. People choose to live in the area for reasons that go beyond availability of job opportunities; these include "quality of life" considerations such as a clean environment, recreational opportunities and small town and rural conditions. Residents are interested in environmental and land use-related problems, together with tourism and the scenic attractions. Concern about pollution and resource management reflects interest in maintaining the tourist economy and preserving stable industries in the region's economy.[55]

6.4.3. Population and Demographic Characteristics

6.4.3.1. Total Population

The reliability of the U.S. Census counts in rural areas and, in particular, on Indian reservations, has been the subject of much concern. Officials of local governments and CSKT have indicated the 1990 U.S. Census counts for Lake County and the Flathead Indian Reservation are less than the actual population.

6.4.3.1.1. Lake County and Western Montana

Lake and Missoula counties, the Flathead Indian Reservation and western Montana have a high rate of population growth. Between 1970 and 1990 the population of Lake County increased from 14,400 to 21,100 (47%). During the same period, the populations of Missoula and Flathead counties grew by 35 and 50%, respectively, while Montana's population increased by 15%. Population in eight counties of western Montana increased by 37% between 1970 and 1990. Population growth in Lake, Missoula, Flathead and Sanders counties was 46% of total growth for Montana between 1970 and 1990. The population of the four-county area increased from 17 to 21% of Montana's population between 1970 and 1990.[56] (Tables 6.4-1 and 6.4-2)

6.4.3.1.2. Flathead Indian Reservation

The population of the Flathead Indian Reservation, which contains parts of Lake, Missoula, Flathead and Sanders counties, increased from 15,490 in 1970 to 21,260 in 1990 (37%). In 1990, 89% of the reservation's population was located in Lake County, and 90% of the population of Lake County was located within the boundaries of the Flathead Indian Reservation.[57]

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[53]Ibid.
[54]Ibid.
[55]Ibid.
[56]U.S. Department of Commerce, Bureau of the Census. Census of Population. 1950-1990.
[57]Ibid.

Table 6.4-1 Population: Montana and Study Area

Location	1950	1960	1970	1980	1990
State of Montana	591,000	674,800	694,400	786,700	799,100
Western Montana[1]	114,500	128,500	157,400	202,300	216,000
Four-County Area[2]	87,800	97,700	119,300	155,700	167,600
Flathead Reservation	NA	NA	15,490	19,630	21,260
Lake County	13,800	13,100	14,400	19,100	21,100
Missoula County	35,500	44,700	58,300	76,000	78,700
Missoula	22,500	27,100	29,500	33,400	43,000
Flathead County	31,500	33,000	39,500	52,000	59,200
Kalispell	9,700	10,200	10,500	10,600	11,900
Sanders County	7,000	6,900	7,100	8,700	8,700

U.S. Department of Commerce, Bureau of the Census; Census of Population, 1950-1990. NA is Not Available. [1]Western Montana eight-county area, including: Lake, Missoula, Flathead, Sanders, Ravalli, Mineral, Lincoln, and Granite counties. [2]Four-county area in proximity to Proposed Action, including: Lake, Missoula, Flathead, and Sanders counties.

Table 6.4-2 Population: Flathead Indian Reservation

Location	Total Population			American Indian Population		
	1970	1980	1990	1970	1980	1990
Flathead Reservation	15,490	19,630	21,260	2,660	3,770	5,130
Lake County Part	NA	17,060	18,900	NA	3,140	4,470
Missoula County Part	NA	650	700	NA	280	280
Flathead County Part	NA	30	20	NA	10	10
Sanders County Part	NA	1,890	1,640	NA	340	370

U.S. Department of Commerce, Bureau of the Census; Census of Population, 1970-1990. NA is Not Available.

6.4.3.1.3. Communities in the Area of the Proposed Action

Between 1970 and 1990, Ronan and Pablo had the highest population growth (70%), while population in the Polson and St. Ignatius-Arlee areas increased by 40 and 28%, respectively. Population growth in Lake County has been highest in rural areas outside incorporated communities. The population of the three incorporated communities, Polson, Ronan and St. Ignatius, decreased from 33 to 27% of Lake County's total population.[58] (Table 6.4-3)

The pattern of increase in population has caused a change in the distribution of the total population for Lake County. Between 1970 and 1990, the population of the Polson Census Subdivision declined from 40 to 38% of the county's total population, while the Ronan Census Subdivision increased from to 25 to 29% of the population.[59]

In the part of northern Missoula County between Evaro and Lake County, the population within the borders of the Flathead Indian Reservation increased from 570 to 700 (23%) between 1970 and 1990. In 1990, the population was 70 at Evaro, which is outside the southern edge of the reservation.[60]

6.4.3.2. Race, Age and Sex Characteristics

6.4.3.2.1. Lake County

The population of Lake County is predominantly white and American Indian. In 1990, whites were 78% and American Indians were 21% of the county's population. Between 1970 and 1990, American Indians increased from 15 to 21% of the population.[61]

The population of Lake County is older than the overall population of Montana and younger than the population throughout western Montana. In 1990, the median age in Lake County was 34.7 years, compared with 33.8 years for Montana. Between 1980 and 1990, Lake County's median age increased from 30.1 to 34.7 years, and the percentage of people 65 years and older increased from 11 to 13% of the population. The population of the northern part of Lake County is older than the population of the southern part of the county.[62]

In 1990, the population of Lake County was evenly distributed between females and males, but females were the larger part of the population in communities. Females were 54% of the population in the cities of Polson and Ronan.[63]

6.4.3.2.2. Flathead Indian Reservation

As with Lake County, the population of the Flathead Indian Reservation in 1990 was predominantly white (75%) and American Indian (24%). American Indians increased from 17 to 19% of the population between 1970 and 1980, then increased from 19 to 24% of the population between 1980 and 1990. Between 1970 and 1990, American Indians increased from 2,660 to 5,130 (93%).[64] (Tables 6.4-1 and 6.4-2)

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[58]Ibid.
[59]U.S. Department of Commerce, Bureau of the Census. Census of Population. 1950-1990.
[60]Ibid.
[61]Ibid.
[62]Ibid.
[63]Ibid.
[64]Ibid.

Table 6.4-3 Population: Census County Subdivisions and Communities

Location	1950	1960	1970	1980	1990
Lake County	13,800	13,100	14,400	19,100	21,100
Polson Division[1]	NA	5,330	5,730	7,490	8,000
City of Polson	2,280	2,310	2,460	2,800	3,280
Ronan Division	NA	3,250	3,610	4,880	6,140
City of Ronan	1,250	1,330	1,350	1,530	1,550
Pablo CDP	NA	NA	NA	NA	1,300
St. Ignatius Division	NA	2,660	2,800	3,450	3,590
Town of St. Ignatius	780	940	930	870	780
Arlee (CDP)	NA	NA	NA	NA	490
Ravalli place	NA	NA	NA	NA	90
Charlo Division	NA	1,190	1,110	1,240	1,170
Charlo (CDP)	NA	NA	NA	NA	360
Big Fork-Swan River Division	NA	680	1,190	2,000	2,150
Northern Missoula County	NA	NA	NA	NA	NA
Flathead Res. Part	NA	NA	570	650	700
Evaro place (Off Res.)	NA	NA	NA	NA	70
Evaro area (Off Res.)[2]	NA	NA	NA	NA	120

U.S. Department of Commerce, Bureau of the Census; Census of Population, 1950-1990.
CDP is Census Designated Place. CDPs are unincorporated communities with distinct populations identified in the U.S Census. NA is Not Available. [1]Census county subdivisions are geographic areas identified by the U.S. Census for Lake County. The Census county subdivisions include incorporated communities, unincorporated Census designated places, and other unincorporated places. [2]Includes Evaro place. Numbers are rounded.

The American Indian population is younger than the total population. Among American Indians living on the Flathead Indian Reservation in 1990, 39% were younger than 18 years. The median age of American Indians was 23.7 years, compared with a median age of 34.2 years for the total population of the reservation.[65]

In 1990 the total population of the Flathead Indian Reservation was evenly distributed between females and males, but males were 52% of the American Indian population.[66]

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[65]Ibid.
[66]Ibid.

6.4.3.3. Patterns of Natural Increase and Migration

The population growth in Lake County during 1980-1990 was approximately one-third of the growth during 1970-1980. As population growth slowed, the part of growth due to people moving into the county declined relative to natural increase of the county's population.

While the rate of population growth in Lake County decreased from 4,700 (33%) during the decade 1970-1980 to 1,900 (10%) during 1980-1990, the part of the growth in Lake County's population due to natural increase (births versus deaths) increased from 24% during 1970-1980 to 69% during 1980-1990. The part of the growth in population due to net migration (in-migration versus out-migration) decreased from 76% during 1970-1980 to 31% during 1980-1990.[67] (Section 6.4.4.2)

6.4.3.4. Population Projections ~~for Lake, Missoula and Flathead Counties~~

6.4.3.4.1. Flathead Indian Reservation

An estimate was made for population growth on the Flathead Indian Reservation for the 30-year period 1990-2020. The estimate was based on population projections available from the Montana Department of Commerce, Census and Economic Information Center (CEIC) for Lake, Missoula, Sanders and Flathead counties; parts of each of these counties are contained within the boundaries of the reservation. The estimate indicates the population of the reservation will increase from 21,260 in 1990 to 24,000 in 2000, 26,200 in 2010 and 28,600 in 2020.[68,69]

The Flathead Indian Reservation, including the area served by US 93, has experienced a recent increase in growth and development since 1990. Information is not available for 1991-94 about the distribution of population growth for the parts of Lake, Missoula, Sanders and Flathead counties that are on the Flathead Indian Reservation.[70]

6.4.3.4.2. Lake, Missoula, Sanders and Flathead Counties

Population projections for Lake County indicate there will be a rate of increase similar to the period 1980-1990. Information available from ~~the Montana Department of Commerce, Census and Economic Information Center (CEIC)~~CEIC estimates the population of Lake County will grow at a rate between nine and 13%, to a level between 22,900 and 23,800 during the period 1990-2000. During the period 2000-2010 the rate of growth is expected to be between seven and nine percent, resulting in a population between 24,400 and 25,900.[71] With continuation of a seven to nine percent rate of growth after 2010, Lake County's population would be between 26,100 and 28,200 in 2020~~25,300 and 27,100 in 2015~~.[72]

In 2020, population projections available from CEIC indicate the populations of Missoula, Sanders and Flathead counties will increase to 81,200, 10,700 and 101,300, respectively.[73,74]

Information available from the U.S. Census for the period 1991-94 indicates there was a higher rate of population growth throughout western Montana, including the Flathead Indian Reservation, during the first four years of this decade than during the past decade (1980-90). The populations of the counties that have lands within the reservation, Lake, Missoula, Sanders and Flathead, increased at annual rates of 3.1, 2.2, 3.1 and 3.4%,

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[67]U.S. Department of Commerce, Bureau of the Census. Census of Population. 1950-1990.
[68]Montana Department of Commerce, Census and Economic Information Center. Population Projection Information.
[69]Morrison-Maierle.
[70]Ibid.
[71]Montana Department of Commerce, Census and Economic Information Center. Population Projection Information.
[72]Morrison-Maierle.
[73]Montana Department of Commerce, Census and Economic Information Center. Population Projection Information.
[74]Morrison-Maierle.

respectively. For the 10-year period 1980-90, annual population growth for Lake, Missoula, Sanders and Flathead counties was approximately one percent.[75]

The population projections reflect estimates of long-term patterns of growth and development. It should be expected there will be brief periods when the rate of growth will be higher or lower than the long-term rate. ~~Officials in Lake County indicate population growth in 1991 and 1992 was higher than during recent years. The U.S. Census estimates the county's annual rate of population growth was 2.4% between 1990 and 1992, compared with one percent between 1980 and 1990.~~ If the rate of growth in 1991-1994~~2~~ continues, the long-term rate of growth could be similar to the rate of growth between 1970 and 1980, when the populations of Lake, Missoula and Flathead counties increased by more than 30%~~ population of Lake County increased by 33%~~.[76]

~~Information available from CEIC estimates the population of Missoula County will grow by 10% between 1990 and 2000 and seven percent between 2000 and 2010, increasing from its 1990 level of 78,700 to 86,600 in 2000 and 92,900 in 2010. Estimates are for Flathead County's population to grow by 15% between 1990 and 2000 and nine percent between 2000 and 2010, increasing from its 1990 level of 59,200 to 68,100 in 2000 and 74,500 in 2010. Estimates of population growth for the state of Montana are five percent for the periods 1990-2000 and 2000-2010. Population projections are unavailable for the part of Missoula County that includes the area from Evaro northward to Lake County.~~[77]

6.4.4. Community Cohesion

Community cohesion is described as the level of commitment to a community, as demonstrated by the amount of interaction among individuals, groups and institutions. Traffic and physical features associated with the highway affect community cohesion as an aspect of social well-being that involves individual perceptions of communities or rural areas.[78]

Population growth, with a high level of in-migration, affects social stability and mobility, and it is an indicator of community cohesion. The rural lifestyle of the area is affected by population growth throughout the Flathead region. Communities in the area share a high degree of interdependence. Each community has distinctive attributes with varying conditions of lifestyles, occupations, land use patterns and concerns about land management.[79] (Section 6.4.2)

Arlee, Ronan and Polson are the communities for which there will be consideration of alignments. In public scoping meetings, residents of the three communities have identified the highway as a prominent physical feature that influences perceptions of their communities and interaction within the communities. Residents identify the traffic using the highway as being important for business activity in the community. The vitality of the community is considered to be dependent on businesses.

The effect of the highway as a barrier from Evaro through Polson was indicated by the results of a 1992-voting-day survey conducted in Polson. Nearly 75% of 1,400 Polson area respondents to the survey identified traffic on US 93 through Polson as a serious problem, and 60% of the respondents identified traffic on highways throughout the Flathead Valley as a serious problem.[80]

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[75]U.S. Bureau of the Census. Estimates of Montana's Resident Population: Counties. 1990-94. January 1995.

[76]U.S. Department of Commerce, Bureau of the Census. Census of Population and Housing. 1980-1990.

[77]U.S. Department of Commerce, Bureau of the Census. Census of Population. 1950-1990.

[78]U.S. Department of Transportation, Federal Highway Administration, Social Considerations in Highway Project Development, Page 5-8. 1992.

[79]U.S. Department of Transportation, Federal Highway Administration, Social Considerations in Highway Project Development, Page 5-8. 1992.

[80]Carter-Burgess. Polson Area Citizens Survey on Transportation Issues. November 1992.

Information available in the 1990 Census indicates the extent to which the highway may be a barrier to residents as they travel among residential, commercial, industrial, recreational and other open areas. In Arlee, 190 people live west and 300 people live east of the highway, while in Ronan 970 people live west and 580 people live east of the highway. In Arlee and Ronan, businesses and public and private services are located on either side of the highway, requiring residents to cross traffic on a regular basis. In Polson, 360 people live north of the highway and 2,960 live south of the highway. Much of the recreational activity in Polson is focused on the lakeshore and requires the residents living south of the highway to cross traffic on a regular basis.[81]

Residents of Arlee, Ronan and Polson recognize the disruption of community conditions caused by traffic congestion. Senior citizens regularly cross the highway for activities such as shopping, postal service and attending gatherings at senior citizens centers. Students cross the highway walking from residential areas to schools. The highway's physical presence and high traffic volume impede people from having direct, unobstructed access to stores, public and private facilities/services, recreational areas and residential areas in the main parts of the communities. The majority of residents support using more traffic controls, especially traffic signals, signing and enforcement, to decrease the disruption of traffic congestion and manage the flow of traffic. Residents of the communities believe highway improvement on the existing alignment will decrease traffic congestion, improve the physical appearance and function of the business districts and preserve the rural areas outside the communities.[82,83]

The Federal Highway Administration (FHWA) reports that half or more of traffic in smaller communities is through traffic that does not stop in the community. Observation of traffic in Arlee and Ronan during September and October of 1992 indicates 84% of vehicles in Arlee and 55% of vehicles in Ronan traveled through the communities without stopping. Vehicles stopping at businesses were 11% in Arlee and 22% in Ronan.[84,85] (Table 6.4-4)

Social conditions related to population growth, level of income, property ownership versus rental, poverty status, labor force participation and rate of unemployment have been used to provide indications of social stability.[86] In 1990, Lake County's median family income and per capita income were 17% below the statewide average. Population with income below poverty level was five percent higher and unemployment was two percent higher in Lake County than for all of Montana. For the American Indian population living on the Flathead Indian Reservation in 1990, per capita income was 43% lower than the average for Montana; persons with income below poverty level was 23% higher and unemployment was 10% higher than for all of Montana.[87,88]

6.4.4.1. Social Stability

Lake, Sanders and Flathead counties have been designated by the U.S. Department of Labor as *labor surplus areas* since 1989 because the average rate of unemployment has been six percent or greater for two previous calendar years.[89] (Tables 6.4-5 and 6.4-6)

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[81]U.S. Department of Commerce, Bureau of the Census. Census of Population and Housing. 1990.

[82]Carter-Burgess. Polson Area Citizens Survey on Transportation Issues. November 1992.

[83]Morrison-Maierle. Results of public involvement process. 1993.

[84]National Cooperative Highway Research Program. Comparative Analysis of Highway Bypass Impact Studies. Nancy L. Bennett and Martin M. Stein. 1973.

[85]Morrison-Maierle. Results of public involvement process. 1992.

[86]Social Considerations In Highway Project Development, Chapter 5, from the Federal Highway Administration, describes social well-being and community cohesion as conditions that involve group social interactions and individual perceptions of common interests that affect their places of residence.

[87]U.S. Department of Commerce, Bureau of the Census. Census of Population. 1950-1990.

[88]Morrison-Maierle. Technical Report for Social Conditions: Supplement to U.S. Highway 93 Environmental Impact Statement. 1993.

[89]U.S. Department of Labor, Area Trends In Employment And Unemployment; 1989-1992.

Table 6.4-4 Vehicle Traffic Patterns

Geographic Origin	Total Vehicles Counted	Pass Through Without Stopping	Turn on Street	Stop at Highway-Oriented Business	Stop at Nonhighway-Oriented Business	Stop at Business: Total
ARLEE:						
(Weekend Traffic: End Peak Season)						
Northbound	111	92%	4%	5%	--	5%
Southbound	127	91%	3%	6%	1%	7%
TOTAL:	238	217 Veh. (91%)	8 Veh. (3%)	12 Veh. (5%)	1 Veh. (1%)	13 Veh. (6%)
(Weekday Traffic: End Peak Season)						
Northbound	517	81%	6%	11%	2%	13%
Southbound	464	83%	5%	9%	2%	11%
TOTAL:	981	808 Veh. (82%)	59 Veh (6%)	97 Veh. (10%)	17 Veh. (2%)	114 Veh. (12%)
TOTAL:	1,219	1,025 Veh. (84%)	67 Veh. (6%)	109 Veh. (9%)	18 Veh. (1%)	127 Veh. (11%)
Northbound	628	523 Veh. (83%)	38 Veh. (6%)	58 Veh. (9%)	9 Veh. (1%)	67 Veh. (11%)
Southbound	591	502 Veh. (85%)	29 Veh. (5%)	51 Veh. (9%)	9 Veh. (2%)	60 Veh. (10%)
RONAN						
(Weekend Traffic: End of Peak Season)	121	65%	21%	14%	--	4%
Northbound	157	11%	11%	24%	3%	27%
Southbound	278	178 Veh. (64%)	42 Veh. (15%)	54 Veh. (20%)	4 Veh. (1%)	58 Veh. (21%)
TOTAL:						
(Weekday Traffic: End of Peak Season)	163	43%	28%	18%	10%	28%
Northbound	168	33%	45%	17%	4%	22%
Southbound	331	159 Veh. (48%)	96 Veh (29%)	55 Veh. (17%)	21 Veh. (6%)	76 Veh. (23%)
TOTAL:						
TOTAL:	609	337 Veh. (55%)	138 Veh. (23%)	109 Veh. (18%)	25 Veh. (4%)	134 Veh. (22%)
Northbound	284	157 Veh. (55%)	68 Veh. (24%)	46 Veh. (16%)	13 Veh. (5%)	59 Veh. (21%)
Southbound	325	180 Veh. (55%)	70 Veh. (22%)	63 Veh. (19%)	12 Veh. (4%)	75 Veh. (23%)
Morrison-Maierle. 1993.						

The social stability of the area has been affected by conflict associated with population growth. As discussed in Sections 6.4.2 and 6.4.4, residents of this area, as a part of the region covering Flathead, Mission and Jocko valleys, desire to maintain the rural lifestyle, natural environment and small town atmosphere, which are perceived as being important to social well-being and a high quality of life. Simultaneously, there is a desire to have a reasonable level of economic growth to raise the area's relatively low level of income. Conflict occurs when population growth, consisting of permanent and seasonal new residents, exceeds what is considered to be reasonable by established local residents. Over time, population growth results in change and conflict, with the benefits of

Table 6.4-5 Social Stability Characteristics

Montana And Lake County 1990 Characteristics Of The Total Population			
Location	Median Family Income ($)	Per Capita Income ($)	Percent Of Persons With Income Below Poverty Level (%)
State of Montana	28,000	11,200	16
Lake County	23,300	9,300	21
Flathead Indian Reservation 1990 Characteristics Of The American Indian Population			
Location	Median Family Income ($)	Per Capita Income ($)	Percent Of Persons With Income Below Poverty Level (%)
Reservation Total	NA	6,400	39

U.S. Department of Commerce, Bureau of the Census; 1990 Census of Population and Housing, Montana. U.S. Department of Commerce, Bureau of the Census; 1990 Selected Labor Force and Commuting Characteristics, Montana.
NA is Not Available.

Table 6.4-6 Labor Force Characteristics

Montana And Lake County 1990 Characteristics Of The Total Population			
Location	Civilian Labor Force	Percent Of Persons 16 Years And Older In The Labor Force (%)	Percent Of Labor Force Unemployed (%)
State of Montana	376,940	64	7
Lake County	9,100	59	9
Flathead Indian Reservation 1990 Characteristics Of The American Indian Population			
Location	Civilian Labor Force	Percent Of Persons 16 Years And Older In The Labor Force (%)	Percent Of Labor Force Unemployed (%)
Reservation Total	2,000	59	17

U.S. Department of Commerce, Bureau of the Census; 1990 Census of Population and Housing, Montana. U.S. Department of Commerce, Bureau of the Census; 1990 Selected Labor Force and Commuting Characteristics, Montana.
NA is Not Available.

increased economic activity a means to increase income and reduce poverty balanced against the values and traditions of a sparsely populated rural area with desirable aesthetic qualities. (Section 6.14)

6.4.4.2. Social Mobility

Two types of information have been used from the U.S. Census to describe social mobility: 1) place of residence for persons five years prior to the census; 2) the number of employed persons who commute to work outside their place or county of residence.

Since 1980, people moving to Lake County from places outside the county and outside Montana have been an important part of the growth of population. The number of people who moved to Lake County from another county in Montana or from outside Montana in the five-year period before the decennial U.S. Census decreased from 32 to 22% of the population between 1980 and 1990. In 1990, Lake County and Montana had similar percentages of the population that moved into the area from another county in Montana or from outside Montana.[90]

There has been an increase in the number of workers commuting between communities, both inside and outside Lake County. The number of workers commuting between places inside Lake County increased from approximately 145 (two percent of total employment) in 1980 to 1,500 (18%) in 1990.[91]

With population growth there has been increased commuter travel between the area of the proposed action and Missoula and Kalispell, which are the region's major trade centers. Between 1980 and 1990, the rates of population growth for Lake, Flathead and Missoula counties were 10, 14 and four percent, respectively. During that time, the number of workers commuting outside Lake County to other Montana counties increased from 710 to 1,200 (69%), and the percentage of workers commuting outside Lake County increased from 12 to 15% of all workers.

With the higher rates of population growth in Flathead and Lake counties, the growth in commuters from Lake County was toward Flathead County, which increased by 118%, rather than Missoula County, which did not change.[92]

Between 1980 and 1990, growth in workers commuting outside Lake County was concentrated in the northern part of Lake County. The number of commuters increased from 60 to 190 (217%) in the Polson area, while the number of commuters decreased from 230 to 220 (minus four percent) in the Arlee-St. Ignatius areas. Flathead County was the major destination for the increase in workers commuting outside Lake County. Commuters to Flathead County increased from 340 to 740 (88%), while commuters to Missoula County did not change from 260 workers. Workers commuting to Flathead County increased from 48 to 62% and workers commuting to Missoula County decreased from 37 to 22% of the total number of commuters from Lake County.[93]

In the Polson area, estimates of workers commuting to Flathead County increased from fewer than 10 in 1980 to 70 in 1990 (600%), and workers commuting to Missoula County increased from 40 in 1980 to 90 in 1990 (125%). Commuters to Missoula County increased by approximately 50 in the Polson area and decreased by 50 in the Ronan and St. Ignatius-Arlee areas.[94,95]

The increase in commuters consists of established residents of Lake County who obtained work outside Lake County, as well as new residents who moved into the county. Information is unavailable to identify what portions of the new commuters are established or new residents. However, for purposes of general comparison, if it is

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[90]U.S. Department of Commerce, Bureau of the Census. Census of Population. 1950-1990.
[91]Ibid.
[92]Ibid.
[93]Ibid.
[94]Ibid.
[95]Morrison-Maierle. Interpretation of U.S. Census Information. 1993.

assumed the increase in commuters consisted entirely of new residents in the county, the increase in commuters between 1980 and 1990 was 26% of the growth in population for Lake County. In contrast, if it is assumed all new commuters in the Polson area were new residents of that area, the increase in commuters between 1980 and 1990 was 10% of the growth in population for the Polson area. These estimates of commuters contributing to population growth are high, because, as noted above, long-time residents who obtained employment outside the county would have been a part of the new commuters.[96] (Tables 6.4-3 and 6.4-7)

Table 6.4-7 Workers Commuting Outside Lake County

Estimates of Commuter Travel From Lake County Census Subdivisions to Locations Outside Lake County						
Lake County Census Subdivision	Work Destinations of Lake County Commuters					
	1980			1990		
	Flathead County	Missoula County	Other Montana County	Flathead County	Missoula County	Other Montana County
Big Fork-Swan River	325	10	5	670	10	20
Polson	15	40	5	70	90	30
Ronan	--	20	30	--	10	35
Charlo	--	10	20	--	10	35
St. Ignatius	--	180	50	--	140	80
TOTAL	340	260	110	740	260	200
U.S. Department of Commerce, Bureau of the Census. Census of Population. 1960-1990.						

Generally, the number and percentage of workers who live in Lake County and commute to the Missoula area decrease as the distance increases between Missoula and locations in the area. In 1990, seven percent of all workers living in the area between Arlee and Polson commuted to work outside Lake County; 28% of workers living between 15 and 35 miles from Missoula commuted to work outside Lake County. In contrast, eight to 10% of workers living between 45 and 50 miles from Missoula and six percent of workers living between 60 and 70 miles from Missoula commuted to work outside Lake County. However, the extreme southern (Arlee-St. Ignatius areas) and northern (Polson area) parts of the area have the highest numbers of workers commuting to the Missoula area.

In 1990, the number of workers commuting outside Lake County ranged from approximately 150 in the Arlee area to 45 in the Ronan area.[97]

The majority of commuters to Missoula live within 30 miles of Missoula. (Figure 6.4-1)

Between 1970 and 1990, more workers who commuted to Missoula chose to live in Ravalli County than on the Flathead Indian Reservation, and there was low growth in the commuter-related population (i.e., the sum of

[96]Ibid.
[97]Ibid.

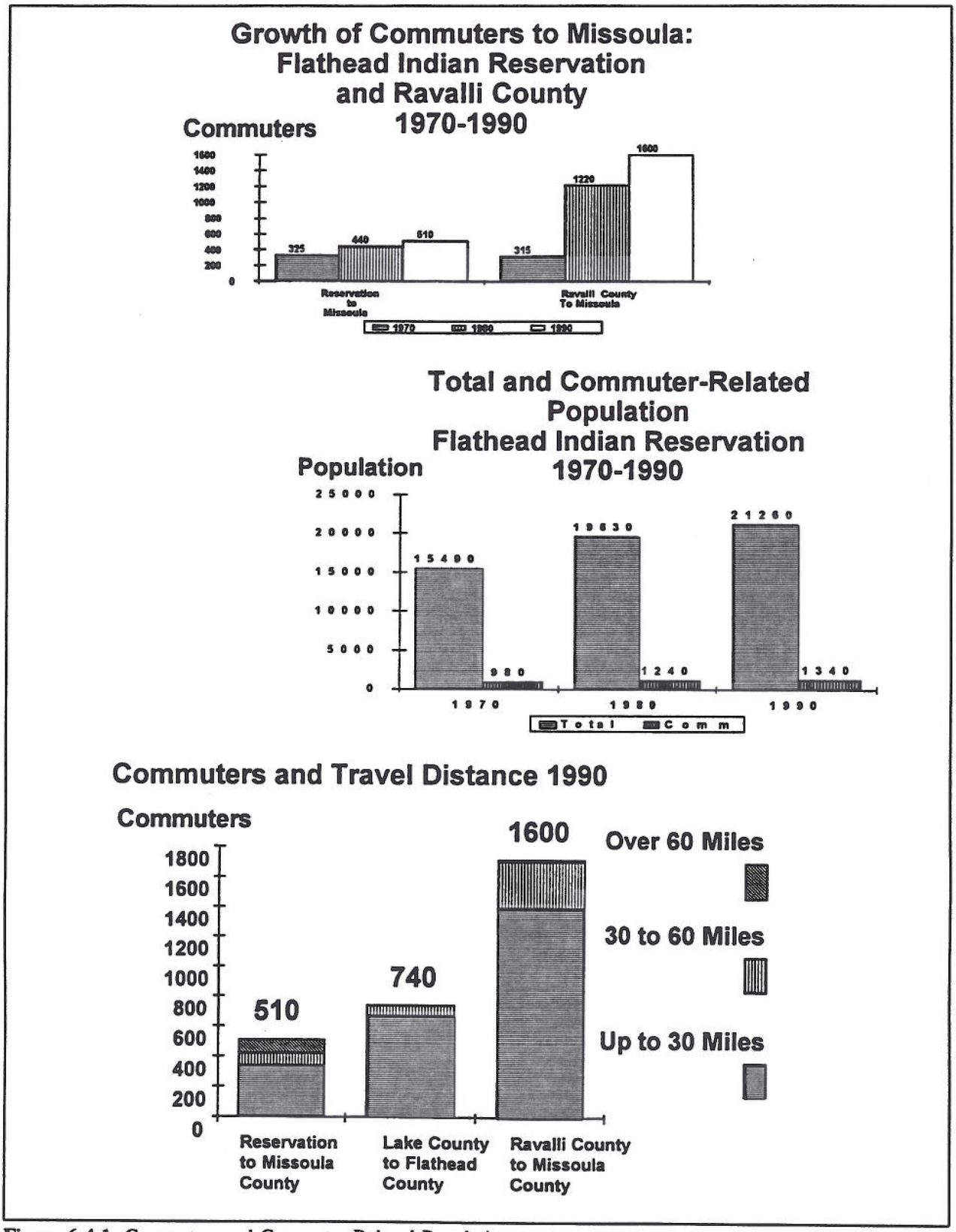

Figure 6.4-1 Commuters and Commuter-Related Population
This figure has been added to the final EIS.

commuters and their families) of the reservation. On the Flathead Indian Reservation, most of the increase in commuters has been from the Missoula County part of the reservation.

- Of the 510 commuters to Missoula in 1990, more than 90% were from the Lake (260 commuters) and Missoula (210) county parts of the reservation. The other 40 commuters were from the Sanders and Flathead county parts of the reservation.

  - Commuters from the Lake County part of the reservation increased from 210 in 1970 to 260 in 1980, then did not increase between 1980 and 1990.

In 1990, 20% of commuters to Missoula from the Flathead Indian Reservation were Native Americans.

In the extreme southern part of the Flathead Indian Reservation~~proposed action~~, past improvement of US 93 has occurred when there also was population growth. In the northern part of Missoula County, US 93 between the I-90 DeSmet Interchange and Evaro was widened to four lanes in 1986. That portion of highway borders the southern part of the proposed action and provides access to the part of the Flathead Indian Reservation that is located in Missoula County.

In the part of northern Missoula County between Evaro and Lake County, the 1990 population was 820 for the Evaro area, which includes lands both within and outside the Flathead Indian Reservation. Between 1980 and 1990 the population of the part of the Flathead Indian Reservation in Missoula County increased from 650 to 700 (eight percent), which is double the rate of population increase for all of Missoula County. Persons not American Indians increased from 370 in 1980 to 420 in 1990 (14%), and the entire increase for the area was persons who were not American Indians.[98]

Information currently is not available to determine the prior residential locations of new residents in this part of northern Missoula County between Evaro and Lake County. Information also is not available to determine how many workers from this part of northern Missoula County commute to the Missoula area or Lake County. For all of Missoula County, workers who commute to work in Lake County increased from 105 in 1980 to 160 in 1990. Most workers would be expected to travel on US 93 between Missoula and Lake counties.[99]

Some students at the University of Montana in Missoula and Flathead Community College in Kalispell travel on US 93, either daily or several days each week. Information is not available from the schools about the number of students who live outside Missoula and Kalispell.

6.4.5. Facilities/Services

CSKT, federal, state and local governments, and community groups provide facilities/services throughout the area. US 93 is the primary travel route for residents of the area to utilize available facilities/services.

There are five public high school districts and five public elementary school districts. Each school district operates school bus routes that require travel and stops on US 93. Between 1970 and 1990, total enrollment in the public and elementary school districts increased from approximately 3,650 to 4,250 (16%). High schools in Ronan, St. Ignatius and Polson and elementary schools in Ronan and St. Ignatius report enrollment is approaching capacity. Enrollment in Arlee schools is not approaching capacity. Salish Kootenai College (with 900 students) and Two Eagle River School, a private high school (with 100 students), are located adjacent to US 93 at Pablo. Two Eagle River School serves approximately 10 students who require wheelchair access.[100]

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[98]Morrison-Maierle, based on information from Summary Tape File 3 of the 1980 and 1990 U.S. Census.
[99]U.S. Department of Commerce, Bureau of the Census. Census of Population and Housing. 1990.
[100]Lake County Superintendent of Schools.

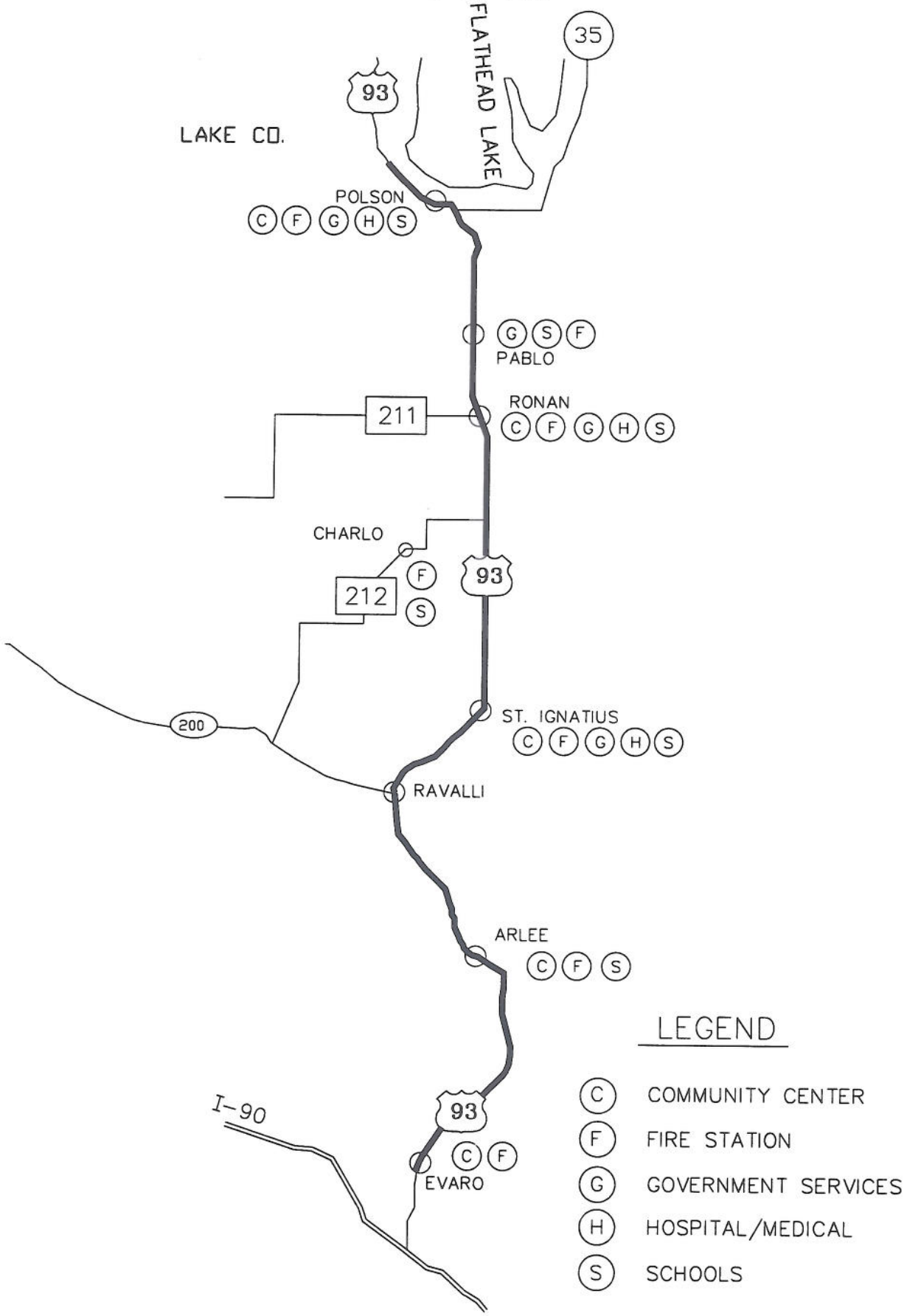
The incorporated communities of Polson, Ronan and St. Ignatius operate municipal water and wastewater treatment facilities. Water and wastewater treatment systems in Charlo and Pablo are operated with rural special improvement districts. A community wastewater treatment system is planned for development in Arlee. Residential, commercial and industrial developments in rural areas outside the communities use individual water wells with septic tanks and drain fields for sewage disposal.[101]

CSKT operates community water and sewer systems at Turtle Lake (east of Polson), St. Ignatius Southside and three homesites east of Ronan. There also are tribal community water systems in Arlee, Schley, Evaro, the Mission Dam area east of St. Ignatius and in areas that are more distant from US 93.

Hospitals are located in Polson and Ronan, and the CSKT Health and Human Services Department~~Indian Health Service Center~~ is located in St. Ignatius. Mental health and social services offices, operated by the state, Lake County, CSKT and municipal governments, are located in Polson, Pablo, Ronan, St. Ignatius and Arlee. There are nursing homes in Polson, Ronan and St. Ignatius. Community and senior citizen centers are located in Polson, Ronan, St. Ignatius, Arlee and Evaro. Churches of many denominations are located in all of the communities; several churches have direct approaches to US 93, while others are in areas away from the highway. There is a cemetery with a direct approach to US 93 south of St. Ignatius. Other cemeteries are located near the communities of Arlee, St. Ignatius, Ronan, Pablo and Polson, but they do not have direct approaches to US 93.

Municipal and volunteer fire departments are located near US 93 in all of the communities. The highway is the major route of travel for law enforcement agencies, such as the Montana Highway Patrol, Lake County Sheriff, CSKT police and police from communities. Emergency ambulance services are located in Polson, Ronan and St. Ignatius. Missoula area ambulance services also travel on US 93 to respond to emergencies. Municipal airports are operated by the communities of Polson, Ronan and St. Ignatius. MRL operates a railroad freight line between Missoula and Polson. Passenger bus service is available, but no passenger rail service is available between Missoula and Kalispell. (Figure 6.4-2 and Appendix A, aerial photographs and maps)

[101] The Lake County Overall Economic Development Plan, 1990 Update; P. 14.



FACILITIES/SERVICES IN COMMUNITIES **FIGURE 6.4-2**

6.5. ECONOMICS

6.5.1. Employment And Personal Earnings In The Area Economy

Western Montana and Lake County

Natural resources generate a major portion of business activity, employment and earnings for the economy of Lake County and other counties in western Montana. These resources include forest products, agricultural livestock and crop production and water and wildlife. Water and wildlife provide tourism and outdoor recreation opportunities, hydroelectric power and irrigation. Irrigated cropland is used for growing seed potatoes. Seed potatoes are one of Montana's crops with highest value per acre. Dryland and irrigated hay, wheat, and barley production also occurs on farmlands. Area rangeland is used for grazing cattle and horses. The orchards in the Polson area are a major part of the agricultural economy.

Between 1970 and 1990, total employment for Lake County increased from 4,540 to 9,130, and employment in retail trade and services increased from 34 to 46% of total employment. Farm employment decreased from 23 to 14% of total employment. Manufacturing employment increased from eight to nine percent, but employment in the wood and lumber products segment of manufacturing went down from six to four percent of total employment.[102,103] (Table 6.5-1)

Employment in Lake County is subject to seasonal variation because of the importance of natural resources and tourism in the economy. In 1991, reports from the Montana Department of Labor and Industry showed that average monthly total employment for non-farm wage and salary workers was five percent higher during the summer months than the winter months. Levels of employment in 1991 for the retail trade, services and construction industries was higher during the summer months than the winter months by amounts of 23, 12 and 94%, respectively.[104]

In 1990, the services sector had the largest amount of personal earnings with 28% of the total, followed by government (19%), retail (14%) and manufacturing (12%). Wage and salary personal earnings for retail trade and services increased from 30 to 42%, while farm personal earnings decreased from 18 to eight percent of total personal earnings between 1970 and 1990. Manufacturing personal earnings increased from 11 to 12%, but wood and lumber products manufacturing decreased from 10 to nine percent of total personal earnings. Missoula, which is the region's major trade center, provides retail trade and services that compete with local businesses in the area of the proposed action.[105,106]

The economies of counties in western Montana, stretching from the Canadian border in the north to the Idaho and Wyoming borders in the south, have grown at rates three to five times faster than the statewide average. The expansion has occurred despite a decline in the region's traditional extractive industries.[107]

Flathead Indian Reservation

Unlike many Indian reservations, the Flathead Indian Reservation is not isolated from the larger state and regional economies. The reservation contributes to the region's development, just as change in the regional economy influences the economic health of the reservation.[108]

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[102]U.S. Department of Commerce, Bureau of Economic Analysis; Regional Economic Information System, 1970-1990.

[103]Morrison-Maierle. Technical Report for Social Conditions: Supplement to U.S. Highway 93 Environmental Impact Statement. 1993.

[104]Montana Department of Labor and Industry, Covered Employment and Wages in Montana By Standard Industrial Classification for Quarters Ending March 31, June 30, September 30, and December 31, 1991.

[105]Ibid.

[106]Morrison-Maierle. Technical Report for Social Conditions: Supplement to U.S. Highway 93 Environmental Impact Statement. 1993.

[107]Flathead Reservation Comprehensive Resources Plan. Volume I, Existing Conditions. 1994. Page 4-3.

[108]Flathead Reservation Comprehensive Resources Plan. Volume I, Existing Conditions. 1994. Page 4-2.

Table 6.5-1 Lake County Total Employment (1970-1990)

Category	Employment		Rate of Growth	Percent of Total	
	1970	1990	1970-1990 (%)	1970	1990
By Industry:					
Total	4,540	9,130	101	--	--
Farm	1,040	1,270	22	23	14
Construction	250	530	112	6	6
Manufacturing Wood Products Mfg.[1]	370 270	800 360	116 33	8 6	9 4
Retail Trade	760	1,680	121	17	18
Services	790	2,530	220	17	27
Government	920	1,290	40	20	14
Other	410	1,030	151	9	12

U.S. Department of Commerce, Bureau of Economic Analysis; Regional Economic Information System, 1970-1990.
Numbers have been rounded. Other includes agriculture/forestry/fishery, mining, construction, transportation/public utilities, wholesale trade, and finance/insurance/real estate.
[1]Wood products mfg. is a subset of manufacturing.

The Confederated Salish and Kootenai Tribes are the most important actor on the reservation. They spend tens of millions of dollars locally, and they own most of the timber, range and recreation resources, as well as the lands that are the origins of irrigation waters. Tribal members own and operate over 130 local businesses (primarily in construction, retail trade and services sectors). Indian businesses represented 14% of retail businesses and seven percent of service businesses in Lake County in 1992. The tribal organization also operates businesses, schools and the reservation's electric utility.[109]

Indians participate less in the reservation money economy than non-Indians. The 1990 Census reports that, on average, annual income of Indians was 36% less than non-Indians. The difference is due in part to the types of jobs held by Indian people.[110]

For Lake County, most of which is contained within the Flathead Indian Reservation, Indian people have an unemployment rate approximately double that of the total population. (Table 6.4-6)

[109]Ibid. Pages 4-2 and 4-6.
[110]Ibid. Page 4-17.

Economic growth for the Flathead Indian Reservation is expected to be concentrated in the corridor of US 93 from Evaro northward to the southern end of Flathead Lake.[111]

The Flathead Reservation Comprehensive Resource Plan (1994) identifies several factors that are expected to contribute to continued expansion of the economy of the Flathead Indian Reservation:[112]

- The reservation is between Missoula and Kalispell, both of which are large, growing population and economic centers
- Economic activity in Montana is shifting to western Montana
- Expansion is planned for US 93, which links Missoula and Flathead counties

6.5.2. Highway-Oriented Businesses And Nonhighway-Oriented Businesses

FHWA identifies highway-oriented and nonhighway-oriented categories of retail businesses for which highway development is related to economic conditions. Traffic-serving retail businesses, such as gasoline service stations/convenience stores, lodging and eating establishments and tourism specialty stores, are considered to be primarily highway-oriented. Gasoline service stations may have automotive repair facilities and convenience stores. Lodging includes hotels, motels, campgrounds, resorts and bed-and-breakfast. Eating establishments include restaurants, cafes and drive-ins. Generally, restaurants also sell alcoholic beverages. Tourism specialty stores include souvenirs and gifts, arts and crafts and antiques.[113,114]

Some types of nonhighway-oriented businesses, such as automotive repair/parts/dealers, grocery, sporting goods, recreation and entertainment are considered to have traffic-serving commercial activity, but purchases not related to travel and traffic from residents of the local area are the primary source of their trade.[115]

Between 1980 and 1990 in Lake County, employment in eating and drinking establishments, lodging establishments, and gasoline service stations increased from 360 to 540 (50%). Employment in these highway-oriented businesses increased from 22 to 26% of total employment for retail trade and services in Lake County.[116,117]

There are 543 businesses in the vicinity of US 93 from Evaro through Polson, with 254 (47%) located adjacent to US 93. The other 53% of businesses are located away from the highway, either in business districts or in areas with dispersed residential, commercial and industrial development. There are 126 highway-oriented businesses; of these, 92% are located adjacent to the highway, and eight percent are located away from the highway. Of the 417 nonhighway-oriented businesses, 38% are located adjacent to the highway. Highway-oriented businesses are 23% of all businesses. The percentages of highway-oriented businesses outside towns range from 15% between Pablo and Polson to 59% between St. Ignatius and Ronan.[118] (Tables 6.5-2 and 6.5-3)

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[111]Ibid. Page 4-17.

[112]Ibid. Page 4-19.

[113]National Cooperative Highway Research Program, Community Consequences of Highway Improvement, P. 8; 1965.

[114]National Cooperative Highway Research Program, Comparative Analysis of Highway Bypass Impact Studies, Nancy L. Bennett and Martin M. Stein, January 1973.

[115]National Cooperative Highway Research Program, Community Consequences of Highway Improvement, P. 8; 1965.

[116]U.S. Department of Commerce, Bureau of the Census; County Business Patterns; 1980 and 1990.

[117]National Cooperative Highway Research Program, Comparative Analysis of Highway Bypass Impact Studies, Nancy L. Bennett and Martin M. Stein, January 1973.

[118]Morrison-Maierle. Inventory of businesses along U.S. Highway 93 between Evaro and Polson. 1991-1992.

Table 6.5-2 Highway-Oriented And Nonhighway-Oriented Businesses (1991-1992)

Location	Business Establishments			Percent Of Businesses	
	Highway-Oriented	Nonhighway-Oriented	Total	Highway-Oriented (%)	Nonhighway-Oriented (%)
Evaro	3	2	5	60	40
Evaro to Arlee	3	7	10	30	70
Arlee	6	24	30	20	80
Arlee to Ravalli	--	1	1	--	100
Ravalli[1]	9	5	14	64	36
St. Ignatius U.S. Highway 93 Corridor Other Business District	16 14 2	28 7 21	44 21 23	36 66 9	64 34 91
St. Ignatius to Ronan	10	7	17	59	41
Ronan U.S. Highway 93 Corridor Other Business District	19 12 7	169 31 138	188 43 145	10 28 5	90 72 95
Ronan to Pablo	4	1	5	80	20
Pablo U.S. Highway 93 Corridor Downtown Business District	6 5 1	30 3 27	36 8 28	17 62 4	83 38 96
Pablo to Polson	5	29	34	15	85
Polson (North of Caffrey Road) U.S. Highway 93 Corridor Downtown Business District	45 33 12	114 42 72	159 75 84	28 44 14	72 56 86
Total	126	417	543	23	77

Morrison-Maierle. 1991-1992. [1]No businesses were identified between Ravalli and St. Ignatius.

Table 6.5-3 Highway-Oriented And Nonhighway-Oriented Businesses In Communities (1991-1992)

Business Establishments*									
Location	Highway-Oriented				Nonhighway-Oriented				
	Gas Service Station & Convenience Store	Eating	Lodging	Tourism Specialty	Automotive Services	Entertainment[1] & Recreation	Grocery & Pharmacy	Sporting Goods & Hardware	Other Retail & Services
Evaro	--	1	--	2	--	1	--	--	1
Arlee	1	2	--	3	3	3	2	1	15
Ravalli	2	3	--	4	2	1	--	--	2
St. Ignatius	3	4	4	5	1	4	2	2	19
US 93	3	3	3	5	1	--	--	--	6
Other Areas	--	1	1	--	--	4	2	2	13
Ronan	6	9	2	2	8	7	7	5	142
US 93	6	4	2	--	5	1	4	2	19
Other Areas	--	5	--	2	3	6	3	3	123
Pablo	2	2	1	1	3	4	1	1	21
US 93	2	2	1	--	1	1	--	--	1
Other Areas	--	--	--	1	2	3	1	1	20
Polson (North of Jct. 93 & 35)	5	17	8	15	6	16	5	11	76
US 93	5	11	5	12	2	9	3	3	25
Other Areas	--	6	3	3	4	7	2	8	51

Morrison-Maierle. 1991-1992. [1]Bars are included in entertainment. * Refer to Table 6.5-2 for total businesses in communities.

6.5.3. Economic Characteristics Of Communities Considered For Highway Alignments

6.5.3.1. Arlee

Arlee is the southern most community in Lake County, and the local economy is strongly influenced by its proximity to the larger Missoula economy. Most businesses on US 93 are oriented to serving highway travelers and local tourists (tourists purposely staying in Arlee).

In 1990, of the 180 persons who lived in Arlee and were employed, 110 (60%) were employed outside the community; 72% of Arlee residents were employed in retail trade and services establishments, with 17% employed in manufacturing and 11% employed by other types of businesses.[119]

Arlee residents regularly purchase goods and services in Missoula; this inhibits development and expansion of local commercial businesses and the creation of secondary jobs and earnings for Arlee's local business sector.[120]

Economic activity in Arlee is concentrated along the route of US 93. In 1992, there were 30 businesses located in Arlee, of which 20% were highway-oriented establishments. In 1990 businesses in Arlee were estimated to have 100 employees, with the highest level of employment occurring during the summer tourist season.[121] (Tables 6.5-2 and 6.5-3)

According to the results of a 1993 survey of Arlee businesses, 57% of retail sales are generated by Lake County residents. Drive-through travelers and local tourists account for 37 and six percent, respectively. Similarly, 55% of receipts for services in the survey are due to Lake County residents, with 40 and five percent of services receipts generated by drive-through travelers and local tourists, respectively. Drive-through traveler expenditures are important and occur mainly at retail businesses.[122]

Other findings of the Arlee business survey are listed below:

- Arlee business operators consider Arlee's trade area to extend into southern Lake County and Missoula, and 69% believe they have a competitive advantage because of their location. Major competitors are viewed as being in Missoula and located outside Arlee on US 93.
- Through traffic on US 93 tends to be seasonal. Arlee's highway traveler and tourism-oriented businesses tend to be more busy in the summer months.
- Traffic congestion interferes with customer access to businesses on US 93 during summer months; 44% of businesses cited summer highway congestion as "frequently" or "occasionally" restricting access.
- Compared with Ronan, Arlee indicated less growth in the local economy; fewer than 50% reported 1992 was at least an above average year, and 25% said 1992 was the best year ever.
- Arlee businesses are optimistic about the future; 63% expect to grow by at least five or 10% a year in the next five years; 25% of businesses said sales in 1992 were the best ever.

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[119]U.S. Department of Commerce, Bureau of the Census. Census of Population. 1950-1990.
[120]Morrison-Maierle, based on information from Summary Tape File 3 of the 1980 and 1990 U.S. Census.
[121]Morrison-Maierle, Inc., Social and Economic Field Research at Arlee, Montana; April 1990.
[122]Jim Boyer. Ronan Business Operators Survey. 1993.

In 1990, a study that included 22 Arlee businesses found that retail trade generated 59% of sales and 51% of employment. The study also found that 62% of sales by retail trade businesses were made to Arlee residents, with the remaining 38% of sales made to people who did not live in Arlee.[123]

6.5.3.2. Ronan

Ronan benefits from being the largest community in the central part of Lake County. Economic activity in Ronan is concentrated along the route of US 93 and on Main Street, the original business district. Many businesses on US 93 are oriented to serving highway travelers and local tourists.

In 1990, of the 560 persons who lived in Ronan and were employed, 200 (36%) were employed outside the community; 68% of Ronan residents were employed in retail trade and services establishments, with seven percent employed in manufacturing and 25% employed by other types of businesses.[124,125]

In 1992, there were 188 businesses located in Ronan, of which 10% were highway-oriented establishments. There were 12 highway-oriented businesses located along US 93. Overall, 23% of total businesses in Ronan were located along US 93.[126] (Tables 6.5-2 and 6.5-3)

According to the results of a 1993 survey of Ronan businesses, 75% of retail sales are generated by Lake County residents. Drive-through travelers and local tourists account for 20 and five percent of retail sales, respectively. Similarly, 92% of receipts for services in the survey are due to Lake County residents, with six and two percent of services receipts generated by drive-through travelers and local tourists, respectively. As with Arlee businesses, drive-through traveler expenditures are important and occur mainly at retail businesses.[127]

Other findings of the Ronan business survey are listed below:

- Most businesses identify Ronan's trade area as south and central Lake County, from Ravalli to Polson. Ronan's role as the county's agricultural service center is especially important to the local economy.

- Eighty-six percent of businesses located on US 93 believe they have a competitive advantage because of their location, and 81% identify major competitors as other businesses on the highway in Ronan. Polson and Missoula businesses also are important competitors.

- Businesses on US 93 have higher sales and more employees than businesses located in the central business district (CBD) on Main Street.

- Ronan's highway traveler and tourism-oriented businesses are more busy in the summer months, the period when those businesses indicate they must achieve most sales. Seasonality of trade is reflected in higher employment in retail trade and services in the summer months.

- Businesses in the CBD are less oriented to serving travelers and tourists and more oriented to the area's local and regional populations. Only 36% of CBD businesses believe they have a competitive advantage because of their location. Businesses in the CBD most frequently identified Polson and Missoula as the locations of major competitors.

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[123]Estimated Economic Impact on Arlee of Rerouting U.S. Highway 93; Paul Polzin; 1990.

[124]U.S. Department of Commerce, Bureau of the Census, Census of Population, 1990.

[125]National Cooperative Highway Research Program, Comparative Analysis of Highway Bypass Impact Studies, Nancy L. Bennett and Martin M. Stein, January 1973.

[126]Morrison-Maierle, Inc., Social and Economic Field Research at Arlee, Montana; April 1990.

[127]Jim Boyer. Ronan Business Operators Survey. 1993.

- During summer months traffic congestion interferes with customer access to businesses on US 93; 72% cited summer highway congestion as "frequently" or "occasionally" restricting access.

- Only 10% of CBD businesses cited congestion as a problem.

- The Ronan economy is growing; 71% of businesses reported that 1992 was at least an above average year, and 38% reported 1992 was the best year ever.

- Ronan businesses are optimistic about the future; 67% expect to grow by at least five or 10% in the next five years.

6.5.3.3. Polson

Polson benefits from being the southern most community on Flathead Lake, as well as the largest community in the area. Polson serves as a local and regional trade center for Lake County. Drive-through travelers and local tourists also are important for Polson businesses.

Polson's trade area is northern and central Lake County, and Polson's role as the county seat and a tourism destination are especially important to the local economy. Polson retail trade and services are concentrated on US 93 and in the city's CBD. Many businesses on US 93 are oriented to serving highway travelers and local tourists.

In 1992, there were 159 businesses located in Polson, of which 28% were highway-oriented establishments. There were 33 highway-oriented businesses located along US 93. Overall, 47% of total businesses in Polson were located along US 93.[128] (Tables 6.5-2 and 6.5-3)

According to the results of a 1993 survey of Polson businesses, 85% of retail sales are generated by Lake County residents. Drive-through travelers and local tourists account for nine and six percent of retail sales, respectively. In comparison, only 44% of receipts for services in the survey are due to Lake County residents, with 23 and 34% of services receipts generated by drive-through travelers and local tourists, respectively.[129]

Other findings of the Polson business survey are listed below:

- Eighty-eight percent of businesses located on US 93 feel they enjoy a competitive advantage because of their locations, and 60% identify major competitors as other businesses on the highway in Polson.

- Businesses on US 93 have higher sales and more employees than CBD businesses.

- As with Ronan, businesses in Polson's CBD are less oriented to serving travelers and tourists, and more oriented to providing goods and services to local and regional populations. Only one-third of downtown businesses believe they have a competitive advantage because of their locations.

- Drive-through traffic on US 93 and local tourism tend to be seasonal. Polson's highway traveler and tourism-oriented businesses are more busy in the summer. The offseason downturn in the local economy is further intensified by the winter out-migration of many of Polson's retired residents. Seasonality of trade is reflected by reductions of workforce and payroll in the offseason.

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[128]Morrison-Maierle, Inc., Social and Economic Field Research at Arlee, Montana; April 1990.
[129]Jim Boyer. Ronan Business Operators Survey. 1993.

- During summer months traffic congestion on US 93 interferes with customer access; 64% cited summer traffic congestion as frequently or occasionally restricting customer access, compared with 44% for CBD businesses.

- In the summer months, for businesses on US 93, 20% experience frequent restrictions of customer access, 44% experience occasional restrictions and 36% do not experience a problem. In the winter months, for businesses on US 93, 12% experience frequent restrictions of customer access, 16% experience occasional restrictions and 68% do not experience a problem. In the summer months for downtown businesses, 11% experience frequent restrictions, 33% experience occasional restrictions and 47% do not experience a problem. In the winter months for downtown businesses, zero percent experience frequent restrictions, 14% experience occasional restrictions and 81% do not experience a problem.

- The Polson economy is growing; 60% of businesses reported 1992 was at least an above average year, and 25% reported 1992 to be their best year ever.

- Polson business operators are optimistic about the future; 62% expect business to grow by at least five or 10% a year in the next five years. Local tourism is expected to make an increasingly positive contribution to Polson's local economy; 68% of businesses expect local tourism to grow at least five or 10% annually.

6.5.4. Tourism

According to the *Lake County Overall Economic Development Plan: 1990 Update*, tourism, with its emphasis on sales and employment in retail trade and services, is one of Lake County's four major industries.[130] The scenic attractions of the region make it a destination for the travel and tourism industry. (Section 6.5.1)

US 93 is the major north-south route for tourism and recreation traffic between Missoula and the Flathead Valley-Glacier National Park region. Between 1980 and 1991, annual visits to Glacier National Park increased by 36%.[131] Similarly, between 1985 and 1991, winter skier visits at Big Mountain Ski Resort north of Whitefish increased by 20%.[132]

The highway also is important for tourism travel between Glacier and Yellowstone National Parks. In 1990, 36% of nonresidents traveling on US 93 also visited Yellowstone National Park, and 21% of all nonresidents traveling on the highway visited both national parks.[133]

Between 1988 and 1991 the amount of revenue (not adjusted for inflation) collected by the accommodations tax in Lake County increased by 69%. The tourism industry has seasonal variations in activity. In 1990 and 1991, 83% of revenue from the accommodations tax was collected from June to December.[134] (Figures 6.5-1 and 6.5-2)

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[130]Lake County Overall Economic Development Committee. Lake County Overall Economic Development Plan: 1990 Update. 1990.
[131]Bureau of Business and Economic Research, University of Montana, Montana Business Quarterly: Outlook Winter 1991; P. 22.
[132]Flathead Convention and Visitors Association, 1991.
[133]Montana Department of Commerce, Montana Promotion Division and Institute for Tourism Research, University of Montana, 1992.
[134]Ibid.

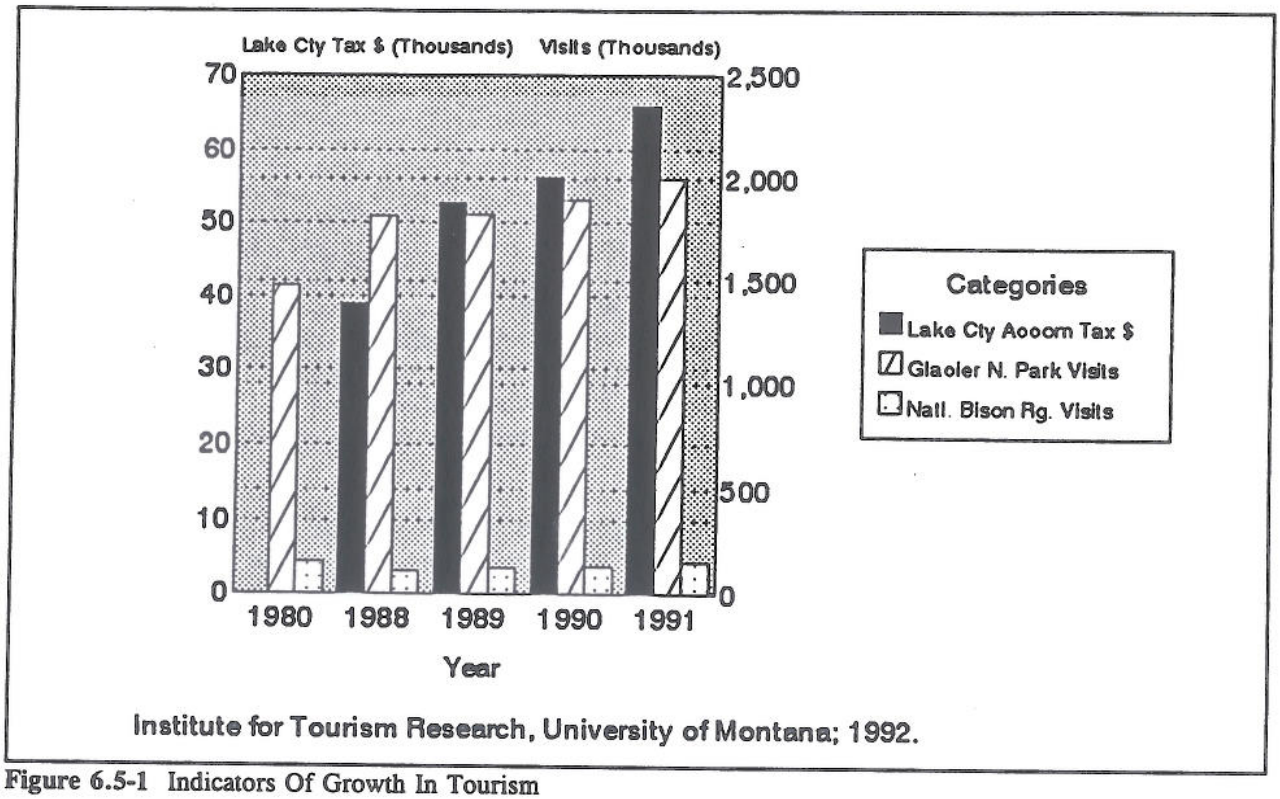

Figure 6.5-1 Indicators Of Growth In Tourism

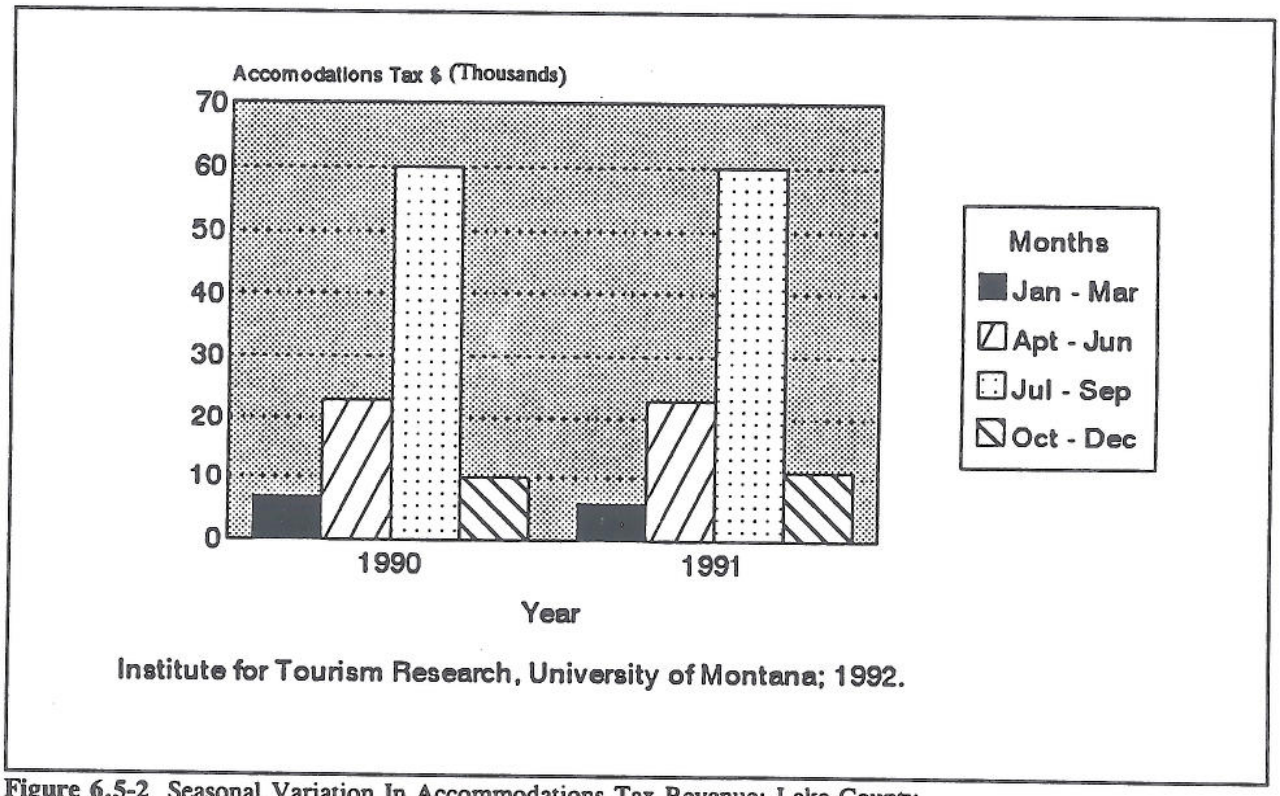

Figure 6.5-2 Seasonal Variation In Accommodations Tax Revenue: Lake County

6.6. PEDESTRIANS AND BICYCLISTS

Most pedestrian travel is concentrated in Evaro, Arlee, Ravalli, St. Ignatius, Ronan, Pablo and Polson. Only limited numbers of pedestrians travel along or cross US 93 in rural areas -- distances between communities are generally too long.

School age (under 16) bicycle travel is also mostly concentrated in and around these communities. Travel along the highway in rural areas between the communities occurs but volumes are currently not high. Table 6.6-1 summarizes bicyclists counted during eight-hour periods during the summer of 1992 (July) at four separate locations along US 93.[135] A growing number of bicyclists (mostly adults) are traveling greater distances along the highway and bicycle touring is increasing. The route is becoming known as a high quality bicycle touring area. Nine known tour groups pass through the area each year. Local agencies and business groups have indicated they expect the numbers and size of these tours to increase. Residents have indicated that once a year a tour of 500 to 600 bicyclists goes through the area. Because of the existing narrow shoulders, vehicles are hesitant to pass them and traffic backs up, causing a safety problem.

In a letter to the Montana Department of Transportation dated August 26, 1992, the Federal Highway Administration states: *"It is important to keep in mind the needs on Indian Reservations. Indian homes are often spread out along a major road, not grouped together in a subdivision...The exposure rate is high and separate bike paths need to be considered between housing developments and local communities on Indian Reservations."*

There are no existing designated facilities for pedestrians or bicyclists in rural areas of the highway between the communities. As indicated on Table 6.1-1, existing paved shoulder widths are generally two- to four-feet wide with short areas of six, eight and 10-foot shoulders. Shoulder width of four feet or less will accommodate some of the utilitarian[136] type bicycle trips, but they are not considered desirable for most pedestrian or bicycle traffic. The AASHTO Bicycle Guide[137] indicates that if motor vehicle speeds exceed 35 mph or if the percentage of trucks and recreational vehicles is high, then additional width is particularly desirable.

School children are picked-up and dropped-off at various locations along the length of the proposed action. There are currently no special pullouts or pavement widening for school buses. School officials have indicated that there is a policy, and school children and parents are advised that children should enter and leave the buses on the same side of the roadway on which they live. The school officials indicate, however, that the policy is not currently strictly enforced and some school children cross US 93.[138]

In the Evaro, Ravalli and Post Creek areas, pedestrian and bicycle crossings occur, but no particular problems have been identified during the public scoping process. There are no active public schools in the these areas. There are no existing designated pedestrian or bicycle facilities.

At the "Mule Palace" area near Milepost 9.9, a complex which includes an outdoor arena and a convenience store/gasoline station, owners of the property and other participants in the public scoping process have indicated

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[135]Morrison-Maierle, License Plate Classification and Count Study, August 1992

[136]In general, bicycle trip purposes can be divided into two broad types, utilitarian and recreational. For a bicyclist on a utilitarian trip, the primary objective is reaching a specific destination quickly with few interruptions. The utilitarian bicyclist has the ability to ride safely and confidently in heavy traffic and commonly does so because the route is more direct and saves time. A recreational bicyclist is riding primarily for pleasure and the destination is of less importance. Recreational bicyclists commonly avoid busy streets and highways because they perceive the route as less aesthetically pleasing and less safe, and they are willing to go out of their way to ride on residential streets or paths. In actual practice, most trips will have some utilitarian and some recreational purpose. Bicyclists touring the length of the proposed action, or segments of the highway between communities, in some cases, have a recreational purpose to their trip, but for analysis in this document, they are considered principally utilitarian because they are experienced and confident travelling along a busy highway.

[137]American Association of State Highway and Transportation Officials, Guide for the Development of Bicycle Facilities, August 1991.

[138]Lake and Sanders County Superintendents Meeting, 11 September 1995, conducted by Joyce Decker Wegner, County Superintendent of Schools.

Table 6.6-1 Bicycles Counted within the Study Area

Location	Total Bicycles Counted
U.S. Highway 93, North of I-90	2
Intersection, U.S. Highway 93 and Montana 200	5
Intersection, U.S. Highway 93 and Secondary Highway 212	1
Intersection, U.S. Highway 93 and Montana Highway 35	7
Morrison-Maierle. License Plate Classification Study. August 1993.	

that substantial numbers of vehicles park on both sides of the highway during large events. Substantial numbers of highway crossings by pedestrians occur. Many of these crossings occur at night. There were no recorded accidents involving pedestrians or bicyclists at the site during the 1987 - 1991 period, but individuals have indicated they feel the area is dangerous for pedestrians, and there have been several "near misses."

In Arlee, there is currently one designated pedestrian crossing which consists of a painted crosswalk, advance warning signs and a flashing, amber colored warning light mounted over the highway at "B" Street. This street is the main route from US 93 to the Arlee Schools (elementary, middle and high schools) located two blocks to the east. Many pedestrians, particularly students, use this crossing, but a large number do not and instead cross at various locations where it is most convenient. Most of the crossings occur during the lunch hour and after school as a result of students crossing from the schools on the east to homes and convenience stores, restaurants and other businesses located on the west side of the highway. School representatives have indicated that many students, who are close enough to walk, choose to be bussed to school instead of crossing the busy highway.

Representatives of the schools and other individuals have indicated the "B" Street flashing light should be upgraded. Pedestrian counts, studies and analyses that have been conducted indicate that, based on guidelines of FHWA,[139] a full traffic signal (a signal with red, green and amber indications as opposed to the existing amber colored warning light) is not yet warranted by pedestrian patterns and volume at "B" Street but may be in the near future.

There are no sidewalks in Arlee. Pedestrians and bicyclists travel along both sides of the existing highway through the business and residential areas. The existing, mostly unpaved space between the highway and business fronts is generally more than 25-feet wide. Pedestrians and bicyclists also travel along residential streets paralleling and intersecting US 93. There is one recently constructed eight-foot asphalt paved bicycle/pedestrian path paralleling the east side of the highway from "A" Street (Whitworth/Morigeau) at Milepost 17.8 to Finley Creek Road at Milepost 18.1.

The existing highway in Arlee includes two driving lanes (one for each direction of travel) with no designated left-turn bays. The highway is straight and level, and the posted speed limit is 35 mph with most drivers traveling at this speed but a few driving faster. Participants in public scoping meetings have indicated that some people ignore the speed limit and some ignore crosswalks.

Members of the staff of the Confederated Salish and Kootenai Tribes have indicated that they have witnessed pedestrians and bicyclists utilizing highway ROW south of Arlee between town and Jocko Road. A member of the community team in Arlee recommended that a bicycle/pedestrian path be constructed here.

[139]Federal Highway Administration, Manual on Uniform Traffic Control Devices, 1988.

In St. Ignatius, the existing highway is located at the west edge of the city limit and away from schools and most businesses. Pedestrian and bicycle volumes are low and no problems have been identified during the public scoping process. At the public hearings, comment was made about the need for safe pedestrian crossing to and from Doug Allard's store and museum.

In Ronan, one designated crossing exists at Adams Street (two blocks south of Round Butte Road) and consists of a painted crosswalk with no flashing warning light or traffic signals. A full traffic signal, without pedestrian activated phases is in place at Round Butte Road (MTS~~FAS~~ 211), and a flashing amber warning light is in place at Eisenhower Street (six blocks south of Round Butte Road), but no designated crosswalks have been installed. Residents and city officials have indicated the crosswalk at Adams Street is used by some pedestrians, but it is ignored by a large number who cross the highway wherever it is most convenient. A substantial portion of the pedestrians in Ronan are school children -- school representatives have expressed opinions that additional and improved pedestrian crossings are needed. School representatives have indicated that many students, who are close enough to walk, choose to be bussed to school instead of crossing the busy highway.

There are intermittent areas with sidewalks along US 93 in Ronan. There is no designated bicycle path. Generally, pedestrians and bicyclists travel along the sides of the existing highway using the sidewalks and an open area between the existing pavement and business fronts that is generally over 20-feet wide. Pedestrians and bicyclists also travel along residential streets paralleling and intersecting US 93.

The existing highway in Ronan includes two driving lanes (one for each direction of travel) and a continuous two-way left-turn center median. The posted speed limit is 35 and 25 mph with most drivers traveling at these speeds but a few driving faster. Participants in public scoping meetings have indicated that some people ignore the speed limit and some ignore crosswalks.

In Pablo, Two Eagle River School (a private high school) and Salish Kootenai College are located adjacent to the east side of the highway. The tribal complex and other buildings~~, a restaurant and other businesses~~ are located on the west side. Residences are located on both sides of the highway. These conditions have generated substantial numbers of pedestrians crossing the highway and public comments have been received indicating problems, describing many near misses. They express the need for revisions to the existing highway and for proper safety measures to be incorporated in the proposed action. Representatives of the two schools have indicated that a larger than normal number of handicapped students attend the schools and cross the highway -- the schools are handicapped accessible.

The existing highway in Pablo includes two driving lanes (one for each direction of travel) and a continuous two-way left-turn center median. Public comment has reported that drivers often illegally use this median lane for passing. The highway is straight and level, and when the posted speed limit was 55 mph, public comment indicated ~~and the posted speed limit is 55 mph -- public comment has indicated that~~ many drivers travel faster. There are no designated facilities for pedestrians or bicyclists.[140]

In Polson, US 93 is used by both pedestrians and bicyclists for utilitarian and recreational purposes. Bicycle use is intermittent, with usage along US 93 probably owing to the high number of unrestricted access drives, the narrow or lack of shoulders and the narrow sidewalk along the Flathead River bridge. Many Polson residents who are familiar with the difficulties associated with bicycling along the highway use Fourth Avenue instead of US 93.

A gravel pedestrian and bicycle path separated from the highway is located in Polson between Rocky Point Road and the west end of the Flathead River bridge. A local citizens group has plans to extend this path along the

[140]After Congress repealed the national speed limit of 65 mph on interstates and 55 mph on other highways in 1995, Montana automatically reverted to its former law that has the "basic rule." A driver may not drive at speeds exceeding what is "reasonable and prudent" for traffic, road and weather conditions.

lakeshore to the east through Polson. Paved shoulders are located along most of the highway, east of Second Street East, with varying width. Between Bay Shore Drive and MT 35, the north-side shoulder is not well defined and blends into the parking lots for the commercial properties in this location. In the segment directly adjacent to Flathead Lake, Second Street East to Fourth Avenue, a five-foot shoulder is provided on the north side. Although this segment is signed as a designated bicycle route, it is not an official bikeway.

There are sidewalks along Second Avenue (US 93 through downtown Polson) on the north and south sides, and along the south side of the Flathead River bridge. East of the downtown area, however, there are no sidewalks along the highway.

Most pedestrian activity is concentrated in downtown Polson, which extends from the east end of the Flathead River bridge for four blocks to the KwaTaqNuk resort. Although painted crosswalks exist at the intersection of Main Street and Second Avenue, the safest pedestrian crossing is at First Street East, where a traffic signal is installed.

There is a designated pedestrian crossing which consists of a flashing, amber colored warning light and pedestrian crossing sign located near the Super 1 Foods grocery in Polson. Some residents have expressed the need for a pedestrian-activated traffic signal and crosswalk to be located in even closer proximity to Super 1 Foods. Many pedestrians, particularly residents of the senior complex, use this crossing but some do not and instead cross at various locations where it is most convenient.

As expressed by participants at the public meetings in Polson, crossing US 93 can be difficult for residents living both north and south of the highway. Many of the pedestrians are residents of a large senior citizen apartment complex, located north of the highway, who seek access to the shopping, churches and other services south of the highway. The majority of Polson residents, however, live south of US 93. These residents, including children on bicycles or foot, must cross the highway to access Flathead Lake and the several parks located along the lake. Boettcher Park, located north of the highway, is extensively used by Polson children.

~~Accident records on US 93 indicate that, during the five year period including 1987 through 1991:~~

- ~~One fatal pedestrian accident occurred in Arlee.~~
- ~~In Ravalli, one bicycle accident occurred that resulted in a non incapacitating injury.~~
- ~~In St. Ignatius, one bicycle accident occurred that resulted in a non incapacitating injury.~~
- ~~In Ronan, no pedestrian or bicycle accidents occurred.~~
- ~~In the Pablo area, one bicycle accident occurred that resulted in a non incapacitating injury and one pedestrian accident occurred that resulted in an incapacitating injury.~~
- ~~In Polson, one bicycle accident occurred that resulted in a non incapacitating injury, and two pedestrian accidents occurred; one resulted in a fatality and one a non incapacitating injury.~~

~~Individuals have indicated, during the public scoping process, that a bicycle tourist was fatally injured on US 93 near Post Creek Road (Milepost 38.1) during the summer of 1992, and that a pedestrian attempting to cross the highway was struck by an automobile near the senior apartment complex.~~ Several accidents involving pedestrians and bicyclists have occurred during the years 1990 to 1994. These are listed in Table 6.6-2.

Table 6.6-2 Accidents Involving Pedestrians and Bicyclists

Type	Milepost	Date	Injury Severity
Bicycle	27.1	Sep 1990	Non-Incapacitating
Bicycle	45.7	Aug 1990	Incapacitating
Pedestrian	52.8	Oct 1990	Incapacitating
Pedestrian	9.3	Apr 1992	Incapacitating
Pedestrian	27.1	Aug 1992	Fatal
Bicycle	39.1	Aug 1992	Fatal
Pedestrian	4..0	Mar 1992	Incapacitating
Pedestrian	60.9	Jul 1992	Incapacitating
Pedestrian	32.5	Oct 1993	Fatal
Pedestrian	46.3	Oct 1993	Incapacitating
Bicycle	51.9	Jun 1994	Non-Incapacitating
Pedestrian	60.9	Jan 1994	Incapacitating
Pedestrian	60.9	May 1994	Fatal

Montana Department of Transportation. Accident Records System. 1990-94.
This table has been added to the final EIS.

6.7. AIR QUALITY

More detailed information on the affected environment regarding air quality is included in Appendix F.

6.7.1. Regulatory Background

The United States Environmental Protection Agency (EPA) has the primary responsibility of ensuring compliance with the National Ambient Air Quality Standards (NAAQS). This is accomplished by classifying all parts of the country as either 1) "attainment," where existing concentrations are less than the NAAQS limits, 2) "non-attainment," where concentration levels exceed the NAAQS limits more than once or twice a year, or 3) "unclassified," where there are insufficient data to establish a classification. Regulations require that non-attainment areas develop implementation plans to lower the pollutant concentration to less than NAAQS levels.

Ronan and Polson are designated as non-attainment areas for PM_{10}. As a result, a draft Technical Support Document (TSD)[141] has been prepared by EPA Region VIII to address control strategies for these areas prior to the development of a tribal implementation plan. The Polson portion of the draft TSD was finalized in February 1993.[142] Future finalization of the Ronan portion is anticipated.

Remaining areas are currently classified as either "attainment" or "unclassified".

Because the proposed action is almost entirely within the boundaries of the Flathead Indian Reservation, the Montana Ambient Air Quality Standards (MAAQS) are not applicable. EPA regulations and NAAQS regulations apply and are supported by local Tribal Air Quality Program oversight. The federal government maintains enforcement authority. Such authority necessarily recognizes Tribal Class I Air Quality Redesignation for the Flathead Indian Reservation. ~~EPA regulations, the NAAQS regulations and local regulations apply.~~

6.7.2. PM_{10} Violations

Because Ronan and Polson are designated as non-attainment areas for PM_{10}, a draft TSD[143] has been prepared by EPA Region VIII to address control strategies for these areas preliminary to the development of a tribal implementation plan. The Polson portion of the draft TSD was finalized in February 1993.[144] Future finalization of the Ronan portion is anticipated.

6.7.3. PM_{10} Sources

Particulate emissions from mobile sources consist of exhaust or tailpipe emissions of lead, organic compounds, and sulfates, and fugitive emissions from travel on roadways. Tailpipe particulate emissions are approximately three orders of magnitude less than the fugitive emissions and so they were not included in this quantitative study. Fugitive particulate emissions and PM_{10} ambient concentrations arise from the presence of particulate matter, typically soil and winter sanding material, on the roadway. Soil may be deposited on paved roadways by tracking from unpaved areas by vehicle tires. Fugitive emissions may be high for a short period of time in early-spring due to the accumulation of sanding material on highways over the winter months. Some respirable particles are present in the sanding material; in addition, the grinding action of tires on the dry roadway surface creates respirable

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[141]U.S. Environmental Protection Agency, A Technical Support Document to the Confederated Salish and Kootenai Tribes Tribal Implementation Plan for Achieving Attainment of the PM_{10} Standard in Polson and Ronan, Montana, third draft, November 1991, prepared by Mark J. Komp.

[142]Personal communication with Ms. Susan Zazzali, EPA Helena Office, March 4, 1993.

[143]U.S. Environmental Protection Agency, A Technical Support Document to the Confederated Salish and Kootenai Tribes Tribal Implementation Plan for Achieving Attainment of the PM_{10} Standard in Polson and Ronan, Montana, third draft, November 1991, prepared by Mark J. Komp.

[144]Personal communication with Ms. Susan Zazzali, EPA Helena Office, March 4, 1993.

particulates from the larger particles. Ideally, sanding material is removed from streets and highways within two weeks after the last spring snow. The highest PM_{10} concentrations are expected in the areas where large volumes of sanding material are used and where many unpaved streets intersect US 93.

On 10 April 1991, a road dust study was conducted in the non-attainment areas of Polson and Ronan by the Montana Air Quality Division (AQD)[145] to help identify the source of high ambient PM_{10} concentrations measured in those two communities. The study included a turning lane on US 93 in Ronan and a southbound lane on Main Street in Polson. The study measured the amount of small particles found on the roadway and used the data to calculate PM_{10} emission factors. These emissions factors are applicable in a limited area for a limited time, but the AQD was able to demonstrate that fugitive emissions from travel on roadways with these levels of particulate matter can be expected to produce ambient levels of PM_{10} which exceed the standards.

6.7.4. TSD Strategies

The PM_{10} control strategies discussed in the draft TSD[146] for PM_{10} attainment on the Flathead Indian Reservation include: street and highway sweeping on an average of once every five days; the use of "clean" sand which contains fewer smaller particles; and the use of alternative road applicants such as chemical deicer.[147]

The draft TSD recommends a combination of the aforementioned strategies to reduce PM_{10} concentrations by 43% and thus bring the area into compliance. The use of chemical deicer and clean sand since the winter of 1992-93 has resulted in no PM_{10} exceedences at Polson and Ronan between January 1992 and April 1996.

An MOA for the Polson PM_{10} Non-Attainment Area has been developed between CSKT, the city of Polson, Lake County, MDT and EPA. The MOA requires two control measures: 1) the application of only clean sand or chemical deicer to road surfaces and 2) sweeping and cleaning driving lanes, shoulder gutters and drop drains within the Polson city limits. These are current practices for MDT on US 93. A strategy is also presented to determine the frequency of street sweeping activities. Jurisdiction of the various agencies for specific streets within the Polson city limits has not been finalized. A similar MOA is anticipated for the Ronan PM_{10} non-attainment area.

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[145]GeoResearch, Inc., Confederated Salish and Kootenai Tribes of the Flathead Reservation, Air Quality Data Report, Second Quarter 1990 - First Quarter 1991.

[146]U.S. Environmental Protection Agency, A Technical Support Document to the Confederated Salish and Kootenai Tribes Tribal Implementation Plan for Achieving Attainment of the PM_{10} Standard in Polson and Ronan, Montana, third draft, November 1991, prepared by Mark J. Komp.

[147]Komp, pp. 55-63.

6.8. NOISE

6.8.1. Noise Parameters and Criteria

Sound is the result of objects being set into vibration. The range of magnitude from the faintest to the loudest sound humans can hear is so large that sound pressure is expressed on a logarithmic scale in units called decibels (dB). Under the logarithmic decibel scale, a noise source emitting a noise level of 60 dB combined with another noise source of 60 dB yields a noise level of 63 dB, not 120 dB. To simulate how humans hear various frequencies of sounds, the overall frequency spectrum is measured as A-weighted decibels (dBA). Loudness, compared to physical sound measurement, refers to how individual humans subjectively judge a sound.

Noise levels from traffic depend on volume, speed, percentage of trucks, topography, vegetation, and distance from the roadway to receptor. Generally, an increase in volume or speed will increase traffic noise levels. For a line source such as roadway traffic, noise levels will decrease three dBA over hard ground (concrete, pavement) or 4.5 dBA over soft ground (grass) for every doubling of distance between the roadway and receptor. For a point source such as stationary construction equipment, noise levels will decrease six dBA for every doubling of distance.

Environmental noise commonly is expressed as the equivalent sound level (Leq), which can be considered the average noise level. Leq places more emphasis on occasional high noise levels that accompany general background noise levels. Leq measured over a one-hour period is the hourly Leq (Leq(h)), which FHWA uses for roadway noise impact and abatement analyses.

6.8.2. Existing Noise Levels

Land uses in the area along US 93 range from rural farmland to the communities of Evaro, Arlee, Ravalli, St. Ignatius, Ronan, Pablo, and Polson. The primary existing noise source is traffic on US 93. Approximately three trains per week use the railroad tracks that intermittently run parallel to US 93.

Noise measurements were taken along US 93 from 1988 through 1990. At locations between 50 and 100 feet from the centerline of US 93, measured Leq noise levels ranged from 64 to 68 dBA. At locations without roadway noise, measured ambient noise levels were an Leq of 47 dBA.

6.9. WATER QUALITY

6.9.1. Surface Water Hydrology

6.9.1.1. Location and Characteristics of Surface Water Features

Tributaries of the Flathead River, including the Jocko River, have headwaters~~headwater~~ on the west side of the Mission Mountains. The rivers and streams cross US 93 throughout the area. ~~and cross the highway.~~ Surface water runoff is to the Jocko and Flathead rivers, to various creeks crossing the existing highway, to several reservoirs including Ninepipe and Pablo reservoirs and to various other ponds and wetlands. Portions of the city of Polson and surrounding areas drain into Flathead Lake.

Table 6.11-1 lists streams and drainages crossed by US 93 and indicates their drainage areas, 100-year flood flows and crossing type (bridge or culvert). Locations of stream crossings are shown on Figure A-2 in Appendix A.

Appendix A, Figure A-2, Project Map, shows stream locations in relation to highway alignments.

6.9.1.2. Stream Flow and Lake Levels

Surface water is derived from precipitation and runoff. Maximum periods of runoff occur in spring and early-summer, primarily from melting snow in the Mission Mountains. Figure 6.9-1 shows the average pattern of runoff for the years 1970 to 1980 from the North Fork of the Jocko River and the Middle Fork of the Jocko River. Natural patterns of runoff in the valleys have been greatly modified by irrigation facilities which divert water from stream channels to irrigated fields and storage reservoirs.

Surface water discharge on the Flathead River five miles downstream from its outflow from Flathead Lake (Existing US 93 bridge location) has been continually measured since 1907. The drainage area of the Flathead River above this station is 7,096 square miles. The average discharge for this 84-year period has been 11,640 cubic feet per second (cfs). The maximum discharge was 82,800 cfs recorded in 1928, prior to the construction of Kerr Dam.

~~The surface elevation of Flathead Lake has been recorded at Somers, Montana sporadically from 1900 to 1910 and continuously since 1910. Prior to the completion of Kerr Dam in 1938, surface elevations ranged from 2,881 to 2,896 feet above sea level. Lake levels have been more stable since dam completion. During water year 1991, lake levels ranged from 2,885 to 2,893 feet. This represents a range in lake water storage from 843,800 to 1,810,000 acre feet.~~The pool elevations of Flathead Lake are controlled by Kerr Dam which is operated by the Montana Power Company under a license with the Federal Energy Regulatory Commission (FERC). The lake elevations follow a general cycle starting at full pool elevation of 2,893 feet about September 1. From October 1 through late-March or early-April, the lake is drawn down to a low pool elevation of 2,883 feet. Runoff normally begins to refill the lake by mid-April with elevations reaching about 2,890 feet by May 31 and full pool at 2,893 feet by June 15. The lake is operated near full pool elevation throughout the summer recreation season. Some variations of these general operating guidelines are allowed under the FERC license to meet requests for flood control and minimum releases.

6.9.1.3. Frequency and Magnitude of Precipitation Events

Normal mean annual precipitation at the Kalispell, Montana station north of the proposed action is 16.24 inches.[148] June is the wettest month with a mean normal precipitation total of 2.56 inches and a record monthly total of 4.72 inches.

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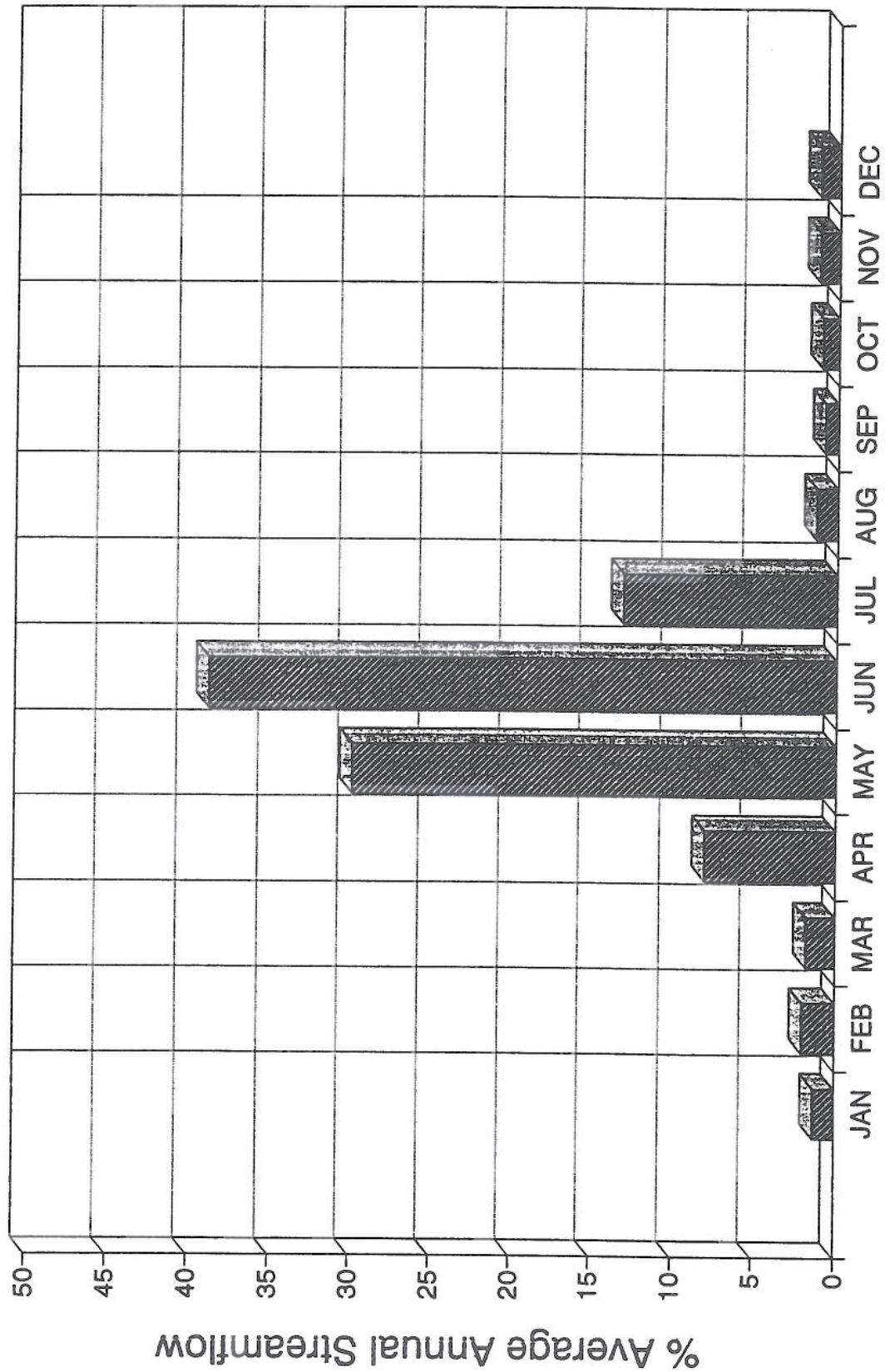
[148]National Oceanic and Atmospheric Administration. 1982. Climate of Montana. Climatography of the U.S. No. 60. National Climate Center, Ashville, North Carolina.



ANNUAL STREAMFLOWS, NORTH FORK JOCKO RIVER FIGURE 6.9-1

Maximum expected precipitation in the Polson area for events of six- and 24-hour duration has been calculated using National Weather Service data.[149] For a 100-year storm, more than three inches of precipitation can be expected in a 24-hour period. (Table 6.9-1)

Table 6.9-1 Maximum Projected Precipitation for Polson

	Return Period (years)					
Event Duration	2	5	10	25	50	100
6 hours	0.8"	1.1"	1.3"	1.5"	1.7"	1.8"
24 hours	1.4"	1.8"	2.1"	2.5"	2.8"	3.1"
Miller, J.F., R.H. Frederick, and R.J. Tracey. 1973. Precipitation-Frequency Atlas of the Western United States, Vol. I-Montana. U.S. Dept. of Commerce, NOAA, National Weather Service.						

6.9.2. Surface Water Quality

6.9.2.1. Water Quality Standards

Three streams, as indicated in Table 6.9-2, have been classified by the Confederated Salish and Kootenai Tribes.[150,151] ~~Water Quality Bureau of the Montana Department of Health and Environmental Sciences (MDHES - WQB), Administrative Rules of Montana (ARM 16.20.606). These classifications have remained unchanged since their designation in 1988. Jocko River and other streams and water bodies in the area of the proposed action have not been classified. CSKT has an ongoing water quality collection program, but information from that program is not available for this document.~~

6.9.2.2. Water Quality Data

In general, water quality is excellent at high elevations, but decreases in the lower elevations due to return flows from irrigated agriculture, drainage from septic tanks and runoff from farm and ranch sites. Water quality analyses of the Jocko River above Tabor Canal near Dixon showed that water quality decreases, but not greatly, between upstream and downstream sampling sites ~~(Table 6.9-3)~~. Data collected for the Jocko River from above Arlee and near Dixon showed that temperature, dissolved solids, fecal coliform, alkalinity, and specific conductance increase between upstream and downstream sites. Water quality for Flathead Lake has been monitored continuously at

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[149]Miller, J.F., R.H. Frederick, and R.J. Tracey. 1973. Precipitation-Frequency Atlas of the Western United States, Vol. I--Montana. U.S. Department of Commerce, NOAA, National Weather Service, Silver Spring, MD. 41 pp.

[150]Confederated Salish and Kootenai Tribes, Surface Water Quality Standards and Antidegradation Policy, effective April 27, 1995. On February 27, 1995, the Environmental Protection Agency approved the TAS (Treatment as a State) application from the Salish and Kootenai Tribes to administer Section 303 of the Clean Water Act. The Tribes have now adopted water quality standards of Reservation-wide applicability.

~~[151]Presented for information only. State of Montana water quality standards do not apply on the Flathead Indian Reservation.~~

Table 6.9-2 Water Quality Classifications

Classification	Description
B-2	Mission Creek (mainstem), from its U.S. Highway 93 culvert crossing near St. Ignatius downstream to its confluence with the Flathead River.
B-2	Crow Creek (mainstem) from the road crossing in Section 16, T20N, R20W, P.M.M. to the Flathead River, including Lower Crow Reservoir.
A-1	That portion of Flathead Lake within the Flathead Indian Reservation.
B-1	Flathead River from the U.S. Highway 93 bridge in Polson downstream to its confluence with the Clark Fork.
Confederated Salish and Kootenai Tribes of the Flathead Nation, Surface Water Quality Standards and Antidegradation Policy, Effective Date: April 27, 1995.	

several stations since 1977 by the Flathead Lake Biological Station.[152] These data indicate a trend of deteriorating water quality (increased nutrient loads) during the period of record due primarily to rapidly increasing human population within the drainage basin. Discharge from the lake to lower the Flathead River at Polson is generally cleaner than water entering the lake since much of the suspended sediment settles out to the lake bed.[153] (Table 6.9-3)

In conclusion, available water quality data indicate a relatively high quality aquatic environment for both lakes and streams in the headwaters and a decreasing water quality in the lower elevation stream valleys.

6.9.2.3. Erosion Rates

Natural sedimentation rates have been estimated using average soil textures, slope, and vegetative cover. For a 10-year, 24-hour storm (the greatest amount of rainfall during a 24-hour period expected during a 10-year period), it is estimated that 0.01 ton of sediment per acre (0.0075 cubic yard) would result.

6.9.2.4. Sole-Source Aquifers and Wellhead Protection Areas

There are no designated sole-source aquifers in the area of the proposed action.[154]

Polson is in the process of delineating a wellhead protection area to the south and east of the town as shown on Figure 6.9-2.[155] The area includes two zones: Zone I is the most sensitive zone as it immediately surrounds the Polson municipal water supply wells; Zone II is a less sensitive buffer area situated farther from the wellhead.

~~A w~~Wellhead protection areas ~~are~~is also proposed in Pablo and on property owned by the public schools on the east side of Arlee. The delineation process either has not begun or has not progressed sufficiently to provide site boundaries or other specific information in these areas.

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[152]Stanford, J.A., B.K. Ellis, D.W. Chess, J.A. Craft, and G.C. Poole. 1992. Monitoring Water Quality in Flathead Lake, Montana. Flathead Lake Biology Station, University of Montana, Open File Report 128-92. Polson, Montana 31 pp.

[153]Flathead Basin Commission. 1993. Flathead Basin Commission 1991-1992 Biennial Report (draft). Kalispell, Montana 64 pp.

[154]Personal communication with Mackin, C., Wellhead Protection Specialist, Water Quality Bureau, Water Resources Division, Montana; National Resources and Conservation Department, 1520 East Sixth Avenue, Helena, Montana. 1992.

[155]Ibid.

Table 6.9-3 Water Quality Parameters In The Jocko River Above Arlee and Near Dixon

Water Quality Parameter	May 18	June 15	July 13	August 24
Temperature (C°)				
Above Arlee	5°	9°	9.5°	9.5°
Above Dixon	8°	13°	14°	13°
Total Suspended Solids (mg/1)				
Above Arlee	1	2	<1	<1
Near Dixon	37	<1	5	2
Fecal Coliform (coliforms per 100 ml)				
Above Arlee	6	1	10	5
Near Dixon	66	18	67	76
Alkalinity (mg/1)				
Above Arlee	104	112	107	83
Near Dixon	99	119	127	141
Specific Conductance (nicromohs per cm)				
Above Arlee	170	190	210	180
Near Dixon	160	210	250	270

U.S. Fish and Wildlife Service. 1976.
Water quality parameters that were similar at both Arlee and Dixon are not presented.

Existing highway ditches intercept very shallow (generally less than 10-feet deep) aquifers at numerous sites, mainly in the Evaro, Post Creek and Ninepipe areas. Narrow wetland strips, most with abundant cattails, have developed along these wet ditches. The aquifers are developed in gravely and sandy alluvial fan deposits in the Evaro/Jocko Valley and St. Ignatius/Post Creek areas, and in gravely and sandy glacial and alluvial deposits in the Ninepipe, Ronan and Polson areas. The aquifers are supplied with water by natural infiltration of rain and snowmelt and, at many sites, by seepage from irrigated areas and nearby canals. ~~None of the shallow aquifers have any commercial or domestic use; existing wells all tap deeper aquifers.~~ These shallow aquifers~~, however,~~ are important water bodies since they can not be separated from the hydrologic unit because of surface-groundwater interaction. It is likely that shallow water is used for domestic purposes at several locations along the route. Wells in Arlee mostly draw water from a shallow aquifer developed in sand and gravel of the alluvial fan deposited by the Jocko River. Pablo has many shallow wells, many of them very old, hand dug wells which are not recorded -- these wells are mostly in the shallow aquifer.

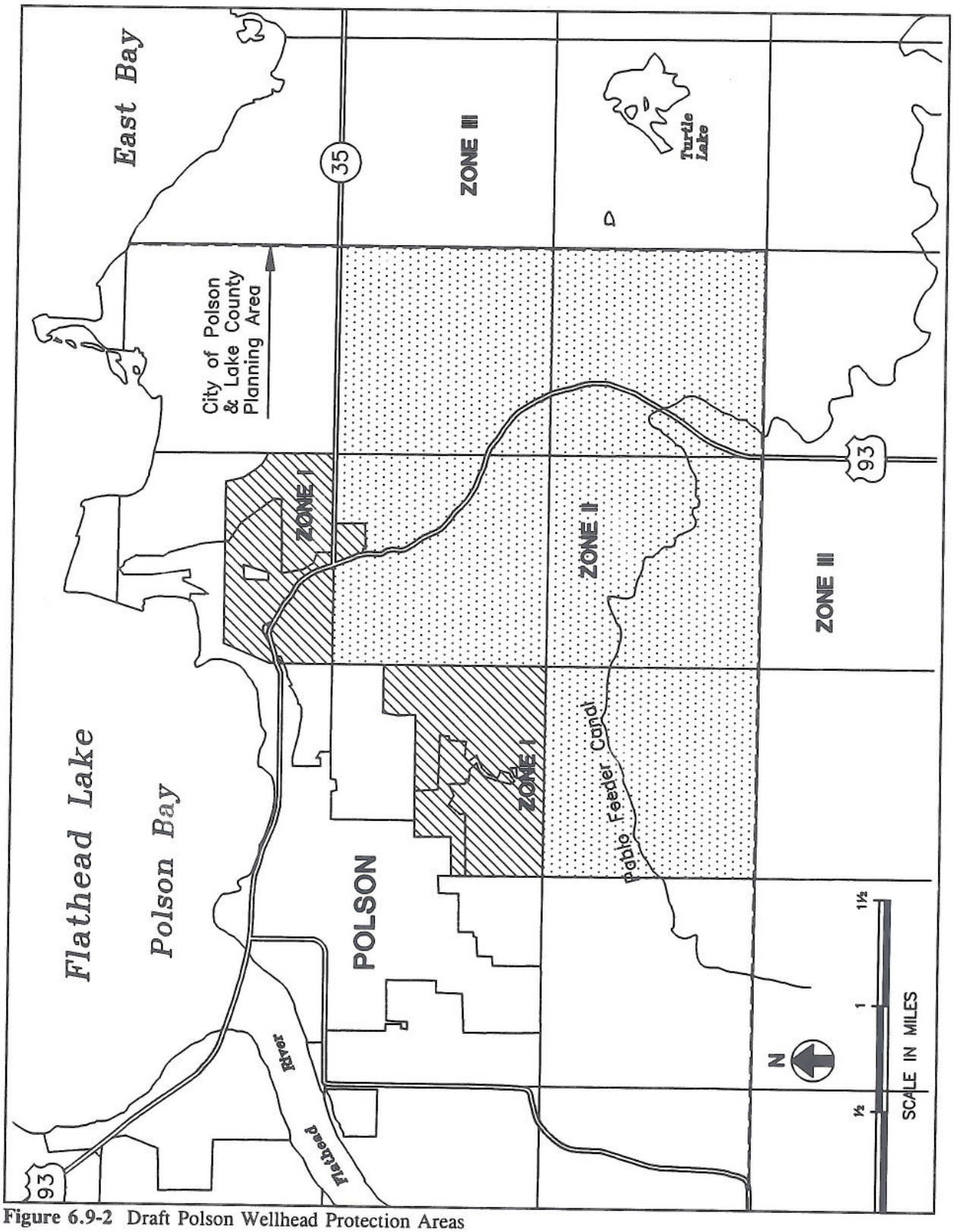

Figure 6.9-2 Draft Polson Wellhead Protection Areas

6.10. WETLANDS

US 93 traverses various wetlands and non-wetland riparian areas on the existing alignment. Additional wetlands and non-wetland riparian areas would be ~~are~~ crossed by the alignments under consideration at Arlee, Ronan and Polson. Wetlands, non-wetland riparian areas, and mixed wetland/riparian areas identified along the existing alignment were mapped on photo sheets and are presented in Appendix A. Each wetland along the existing alignment and Polson Alignments 1, 2 and 3 was delineated ~~mapped and described~~[156,157,158,159,160] ~~using the draft process of the Montana Interagency Wetlands Group[161] and~~ U.S. Army Corps of Engineers 1987 delineation manual ~~guidelines~~.[162] (Appendix A, aerial photographs and maps) Wetlands along the Arlee and Ronan alternative alignments were identified from national wetland inventory maps and color infra-red aerial photographs.

Generally, non-wetland waters of the U.S. occur as narrow perennial or intermittent channels which bisect wetland communities. As such, these channels were generally included within delineated wetland borders to minimize the "piece mealing" of jurisdictional areas. Non-wetland riparian areas were identified using the definition of riparian areas that was developed by CSKT and MDT in an MOA addressing wetland and riparian mitigation on tribal lands.

Each wetland and non-wetland riparian area along the existing and alternative alignments was classified, quantitatively evaluated in terms of its functions and values, and assigned an overall rating of Category I (exceptional value) to IV (low value) using the MDT wetland site evaluation method.[163]

The study complies with the requirements of Executive Order 11990, Section 404 of the Federal Clean Water Act as amended; ~~the Montana Stream Protection Act;~~ and Federal Highway Administration (FHWA) Technical Advisory T6640.8A.

Table 6.10-1, which is presented at the back of Appendix A, identifies a set of characteristics for each wetland and non-wetland riparian area along the existing and alternative alignments: classification; hydrologic type; hydrologic source; estimated size; prominent functions; overall rating; and estimated effects relative to each lane configuration under consideration. Four general wetland types are represented in the area: emergent (dominated by erect herbaceous species); shrub (dominated by woody species less than 20 feet tall); forested (dominated by woody species greater than 20 feet tall); and open water. Although many wetlands consist solely of emergent communities, many are comprised of a combination of these types. Non-wetland riparian areas are dominated by forested and/or shrub communities.

~~There are three types of wetlands in the area: Category I - ponds, Category II - marshes, and Category III - stream (riparian) zones.~~ Most open water areas occur as ~~ponds are in~~oval to circular potholes in the Ninepipe area; a few are in old borrow pits and abandoned river channels. Emergent communities,~~Marshes~~ the most abundant wetland type, occur in association with potholes, in strips along moist valley bottoms and in irregular patches in low springy

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[156]Morrison-Maierle, 1993. Wetland Inventory and Delineation, Project F 5-1(9)6. Unpublished report prepared for Montana Department of Transportation, Helena, Montana.

[157]Reichelt, L.S., 1989. Wetland Inventory and Biological Assessment for Montana Department of Transportation, Project F 5-1(8)6 Evaro - Dirty Corner. Unpublished report prepared for Stensatter Druyvestein & Associates, Missoula, Montana. p. 22

[158]Reichelt, L.S., 1989. Wetland Inventory and Biological Assessment for Montana Department of Transportation, Project F 5-2(34)17 Dirty Corner - Ravalli. Unpublished report prepared for Morrison-Maierle, Helena, Montana. p. 19

[159]Reichelt, L.S., 1989. Wetland Inventory and Biological Assessment for Montana Department of Transportation, Project F 5-2(38)28 Ravalli - North. Unpublished report prepared for Stensatter Druyvestein & Associates, Missoula, Montana. p. 19

[160]Reichelt, L.S., 1990. Wetland Inventory and Biological Assessment for Montana Department of Transportation, Project F 5-2(33)48 Ronan -Polson. Unpublished report prepared for Neil Consultants, Great Falls, Montana. p. 18

~~[161]Montana Interagency Wetlands Group. 1989. Interagency Memorandum of Understanding: Management and Mitigation of Highway Construction Impacts to Wetlands in the State of Montana. Helena, Montana.~~

[162]Environmental Laboratory, U.S. Army Corps of Engineers. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. Department of the Army Waterways Experiment Station. Vicksburg, Mississippi. p. 100

[163]Montana Department of Transportation, Wetlands Site Evaluation Form. Unpublished methodology. Helena, Montana. 1994.

areas. Many of these sites have standing water or unchanneled surface flow during the spring and after rains, but they lack surface flow during the rest of the year. Narrow strips of emergent wetlands ~~marsh~~ also are in highway ditches wherever shallow groundwater is intercepted or surface runoff is blocked. Forested and shrub ~~Riparian~~ wetlands include large, complex areas along major creeks such as Post Creek and narrow, marshy to shrubby strips along small streams and roadside borrow ditches. Forested and shrub wetlands along drainages are often interspersed with non-wetland riparian areas. Similar marshy and shrubby wetland strips lie along canals with reliable water. Forested and shrub-dominated non-wetland riparian areas generally occur along active and historic drainage courses and adjacent to seeps and other wetland areas.

As determined using the MDT wetland site evaluation forms, the overall ~~functional~~ value of ~~each~~ individual wetlands varies from ~~is generally~~ low to exceptional ~~moderate~~, but the cumulative value of all the wetlands is high, especially for the Ninepipe area. Highest ratings were generally assigned to diverse, complex wetlands at Evaro Hill, in the Ninepipe area, and along perennial drainages (Table 6.10-1). Lowest ratings were generally assigned to monotypical roadside ditch wetlands. Prominent functions of wetlands and non-wetland riparian areas ~~values~~ include food chain support, wildlife ~~and plant~~ habitat, potential habitat for threatened and endangered species, flood attenuation and storage ~~of water~~, trapping and filtration of sediment, groundwater discharge/recharge and recreation. Some wetlands are heavily grazed. The Ninepipe area, which has high waterfowl use for both breeding and migration, is an area of national importance.

Wetlands in the Jocko Valley are at Finley Creek and the Jocko River, at crossings of many small streams and several canals with reliable water, and in many roadside ditches which intercept shallow groundwater. Most of the wetlands are comprised of forested/shrub communities associated with seeps and drainages between Evaro and the Schley homesites. In Ravalli Canyon there are a few wetlands in roadside ditches and narrow, low areas with shallow groundwater.

In the Mission Valley south of Post Creek Hill, most wetlands are narrow, forested or grassy strips at crossings of small streams, which have well-defined channels. Near Post Creek are many small springs, wet meadows, and several shallow streams.

Between Mileposts 39.5 and 44.1, the corridor leads directly north through the Ninepipe area of potholes. The potholes are either glacial kettles (shallow, closed depressions left after glacial ice blocks melted) or pingo scars (similar depressions where thick lenses of permafrost ice melted). Marshes, ponds, Ninepipe Reservoir (Milepost 40.8) and the Ninepipe National Wildlife Refuge are in the pothole terrain. Potholes are oval, circular, or irregular ~~in plain view~~, and contain ponds and marshes with cattails and sedges. Some of the pothole ponds are dry in mid- to late-summer.

North of the Ninepipe area, there are only a few wetlands at waterway crossings and along the roadway ditches. There are few ~~no~~ wetlands between Pablo and Polson Hill. Habitat values are high for waterfowl, pheasants, shorebirds, small mammals, furbearers, raptors, passerine birds, reptiles and amphibians. Hydrologic functions of individual potholes are minor because the watershed providing runoff is usually small. Collectively, these wetlands are regionally important for groundwater recharge and flood desynchronization. These wetlands are effective sinks for trapping and retaining sediment and nutrients.

Fish and wildlife use of wetlands and riparian areas are further discussed in Section 6.12.

6.11. FLOODPLAINS AND STREAM CROSSINGS

6.11.1. Flood Peaks

U.S. Geological Survey (USGS) Water-Resources Investigation Report 92-4048 was used to determine the 100-year flood peak.[164] The proposed action is in the West region defined by the USGS report. The regional analysis equations developed to predict flood peaks are based on drainage area and mean annual precipitation. The 100-year flood flows and drainage areas for each stream crossing are listed in Table 6.11-1.

6.11.2. Existing Floodplain Study

Flood insurance studies, under the National Flood Insurance Program (NFIP), have been performed for Missoula and Lake counties. Both counties have adopted the standards for floodplain management and are participating in the NFIP. The standards~~Standards have been which~~ require a floodplain permit for any encroachment or crossing of a designated floodplain.

CSKT is not participating in the NFIP so the floodplain regulations are not in effect on tribal lands. This situation produces a checkerboard pattern of land subject to and not subject to floodplain regulations.

The type of floodplain delineations for the area are summarized in Table 6.11-1.

6.11.3. Existing Culverts and Bridges

Existing stream crossings along the proposed action include culvert and bridge crossings. Most of the existing stream crossings such as Finley Creek, Agency Creek, Spring Creek, Sabine Creek, Mission Creek and Mud Creek are crossed using culvert structures. The Jocko River, Post Creek and the Flathead River ~~and Post Creek~~ are crossed with bridges.

A summary of the existing culvert and bridge crossings for drainage areas greater than one square mile are listed in Table 6.11-1.

6.11.4. Fish Passage

As described in Section 6.12.1, s~~S~~everal streams which cross the highway have fishery values, and design of crossings to provide fish passage will be important. The Bureau of Indian Affairs (BIA) has established interim instream flow requirements for several of these crossings as ~~these streams which include Jocko River, Spring Creek near Ravalli, Finley Creek, Post Creek, Mud Creek, Crow Creek, Sabine Creek, Spring Creek near Ronan and Mission Creek. Fish passage will be required for all crossings~~ listed on Table 6.12-1. (Section 6.12)

6.11.5. Specific Stream Crossings

The following paragraphs describe existing stream crossing problems at specific sites along the highway.

Agency Creek

The highway crosses Agency Creek near Milepost 15.9. Agency Creek flows out from the mountains onto an alluvial floodplain located above the highway crossing. The channel on this fan is perched, or higher than the

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[164]U.S. Geological Survey, Analysis of the Magnitude and Frequency of Floods and the Peak-Flow Gaging Network in Montana, Water-Resources Investigations Report 92-4048, July 1992.

Table 6.11-1 Stream Crossing Summary

Milepost	Stream Name	Drainage Area (Sq. Mi.)	100-Year Flood Flow (CFS)[1]	NFIP Delineation	Culvert	Bridge	Size
7.8	Frog Creek	2.0	35	None	X		36" RCP
9.6	Finley Creek, Left	3.1	80	None	X		72" CSP
9.7	Finley Creek, Right	10.7	230	None	X		72" CSP
10.0	Unnamed Creek	1.8	35	None	X		36" RCP
10.3	Unnamed Creek	2.2	60	None	X		4X4' Box
10.8	Drainage	1.2	37	None	X		36" RCP
11.8	Schley Creek	2.4	66	None	X		60" RCP
12.2	East Fork, Finley Creek	6.6	153	None	X		6X8' Box
14.3	E Canal*	1.7	23	None	X		36" CSP
15.7	Agency Creek	8.4	212	Approx	X		18" CSP
19.0	Jocko River	153.2	2608	Approx		X	59' Span, 36' Wide
23.3	Spring Creek, Ravalli	22.2	371	Approx	X		3X6' Box
28.2	Drainage	1.4	26	None	X		36" RCP
28.3	Drainage	1.3	24	None	X		36" RCP
30.2	Drainage	1.2	22	None	X		4X6'Stockpass
30.5	Pistol Creek	3.1	56	None	X		60" RCP
30.7	Drainage	1.5	31	None	X		36" CSP
31.8	Sabine Creek	15.7	334	Approx	X		84" CSP
32.4	Mission Creek	48.6	994	Approx	X		12.9X8.3' CSPA
34.7	Drainage	1.2	23	None	X		36" RCP
35.4	Drainage	2.5	41	None	X		6X6' Box
37.8	Post Creek	61.1	1209	Approx		X	51' Span, 31' Wide
44.2	Crow Creek	49.3	1009	Approx	X		14'0"x9'8" SSPPA, TWIN
47.0	Spring Creek, Ronan	5.5	157	Approx	X		6'1"X4'7" SSPPA
51.0	Mud Creek	12.9	323	Approx	X		11'5"X7'3" SSPPA
61.1	Flathead River	7,000	77,500	Approx		X	1,536' Span 38.5' Wide

U.S. Geological Survey (USGS) Water-Resources Investigation Report 92-4048. [1]CFS = Cubic Feet Per Second * E Canal is listed because it also is a drainage crossing for an area more than one square mile. Other canals are not listed because they do not carry drainage water, or they serve smaller areas.

surrounding overbank in some areas. Flood water exceeding the channel capacity is lost to overbank flows which spread out over a wide area. There are also irrigation diversions which reduce the flows.

A county road crossing is located approximately 1,600 feet up-stream of the highway crossing. This crossing consists of a 30" corrugated steel pipe (CSP) and a 27" x 43" corrugated steel pipe arch (CSPA). The capacity of this crossing is approximately 75 cfs. The capacity of the channel between this crossing and the highway is no more than 75 cfs. Flood flows more than 75 cfs most likely do not reach the highway culvert by way of the stream channel.

The existing culvert underneath the highway is an 18" CSP. There is little headwater depth available to push water through the culvert. Additionally, the upstream banks are low where they cross the borrow ditch. The capacity of the existing culvert is about eight cfs. Excess water is diverted to the north down the east borrow ditch towards Arlee. Local MDT maintenance personnel report that runoff exceeds the culvert capacity almost every year, and the excess flow is carried in the east borrow ditch.

Water discharged from the existing 18" culvert drops down a steep channel into a gravel pit. Water ponds to a depth of approximately four feet above the pit floor before it overtops the bank elevations at the northwest corner. Water flowing out of the northwest corner of the gravel pit follows along the east side of the railroad tracks and eventually ends up in Finley Creek. Water flowing along this drainage path causes minor flooding of the railroad ROW and adjacent properties.

Spring Creek Near Ravalli

The highway crosses Spring Creek near Milepost 23.3. Spring Creek carries a base flow which is estimated to range from 25 to 50 cfs throughout the year. The existing crossing consists of a double three-feet high by six-feet wide concrete box culvert. Fish passage is a concern at this site. The existing culvert size is inadequate -- it is estimated that minimal roadway overtopping will occur with the 50-year flood. The channel of Spring Creek is parallel with and immediately adjacent to the existing highway for approximately 800 feet in the area upstream and downstream from the crossing. Most of this section of Spring Creek was modified by previous highway and railroad construction and is not in its natural channel.

Spring Creek in Ronan

A 290-feet long, six-feet, one-inch span by four-feet, seven-inch rise structural steel plate pipe arch (SSPPA) culvert currently carries Spring Creek across US 93, across a city block, across First Avenue Southwest and then discharges to a city park. The culvert will not accommodate the estimated 100-year flood flow.

6.12. FISH AND WILDLIFE

US 93 traverses wildlife habitat including aquatic habitat (lakes, streams and rivers), wetlands, riparian areas, agricultural croplands, prairie grasslands, conifer-dominated forests and urban areas. This habitat provides food and cover for fish, reptiles, amphibians, small mammals, birds, furbearers, and big game. Most wildlife species in the area of the proposed action (such as fish, waterfowl, meadow vole, ring-necked pheasant, elk, mountain lion, and grizzly bear) are associated with specific habitats, whereas others (such as magpie, red-tailed hawk, white-tailed deer, deer mouse, and coyote) are nearly cosmopolitan. The following sections describe wildlife-habitat associations.

6.12.1. Aquatic Habitats and Wetlands

Aquatic habitat includes the Flathead and Jocko rivers, Flathead Lake, streams, reservoirs, ponds, and springs. Streams are periodically crossed over the length of the highway. Ponds, reservoirs, and associated wetlands are primarily in the Ninepipe area between St. Ignatius and Pablo.

There are few amphibians in the area. Prior to the 1970s, leopard frogs were common in the Ninepipe-Pablo wetlands; however, since that time, their numbers have been greatly reduced.[165] The cause of the local population decline of this species is not known. Long-toed salamanders, tiger salamanders, spotted frogs and western toads are found in aquatic habitats, particularly during breeding season in the spring. In 1979, Peterson reported the tailed frog from Revais Creek, west of the highway.

Reptiles in the area include ~~rattlesnakes,~~ bull snakes, garter snakes, rattlesnakes and painted turtles. Painted turtles are locally abundant in the Ninepipe area in ponds and reservoirs. Many turtles are killed by vehicles while crossing US 93 between Ninepipe and Crow Creek.

Streams with important fishery values that would be traversed by the highway include the Flathead and Jocko rivers, Jocko Spring Creek (also known as Valley Spring Creek), Finley Creek, Post Creek, Mud Creek, Crow Creek, Sabine Creek, Ronan Spring Creek and Mission Creek. ~~Jocko River provides habitat for brown, rainbow, brook, bull, and westslope cutthroat trout, mountain whitefish, and non-game species such as slimy sculpin, longnose dace, redside shiner, northern squawfish, peamouth chub, longnose sucker, and largescale sucker. Lower Jocko River (between Ronan and Arlee) provides critical spawning and rearing habitat for rainbow and brown trout.[166] Resident trout and trout from Flathead River spawn in lower Jocko River.[167]~~

~~Bull trout are rare in Jocko River and occur primarily in the upper portions of the drainage.[168] The South and Middle forks of Jocko River are managed for native populations of westslope cutthroat trout. Jocko River is managed for catch and release fishing, but limited harvest may be allowed in the future if populations increase sufficiently.~~

The Jocko River, upstream of Arlee, is managed primarily for native species. The Jocko River below Arlee is a non-native rainbow and brown trout fishery. Lake trout have also been recently discovered within this area. Eastern brook trout are scattered throughout this drainage. Fishing regulations are catch-and-release for all species except brook and lake trout.[169]

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[165]Morrison-Maierle; personal communication with West. 1992.

~~[166]DosSantos, J., J. Darling, and D. Cross. 1988. Lower Flathead System fisheries study - Main River and tributaries, Volume II. Final Report FY 1983-1987. Confederated Salish and Kootenai Tribes, Pablo, Montana.~~

~~[167]Morrison-Maierle; personal communication with DosSantos. 1991.~~

~~[168]Ibid.~~

[169]Confederated Salish and Kootenai Tribes, comments on the draft EIS dated 27 June 1995.

The section of the Flathead River crossed by the existing US 93 bridge at Polson, ~~within the area of the proposed action~~ is inhabited primarily by non-game species such as northern squawfish, peamouth chub, and other minnow species.[170] Longnose and largescale suckers are found in this section of the river~~lakes throughout the area~~, and westslope cutthroat and bull trout are occasional seasonal visitors ~~to the South Bay of Flathead Lake and connecting Flathead River~~. However, the area contains no spawning grounds and no critical habitat for any fish species.[171]

Post and Mission creeks also provide spawning habitat for rainbow and brown trout and largescale sucker from the Flathead River, and they have resident spawning populations of rainbow, brown, and brook trout. Mud Creek and Crow Creek are important spawning streams for brown and rainbow trout which migrate upstream from Crow Creek Reservoir. Jocko Spring Creek has resident populations of rainbow, brown, and brook trout and provides spawning habitat for mountain whitefish moving upstream from the Jocko River.[172] Ronan Spring Creek has resident populations of rainbow and brook trout and mountain whitefish. Finley Creek supports populations of brook trout, cutthroat trout, brown trout, mountain whitefish, slimy sculpin, and longnose dace.[173] Westslope cutthroat trout are present in Finley Creek, upper Jocko River (above the proposed action), and Sabine Creek.

Non-game fish species in streams traversed by US 93 include largescale sucker, peamouth chub, northern squawfish, longnose dace, slimy sculpin, longnose sucker, black bullhead, and redside shiner. Ninepipe and Pablo reservoirs have reproducing populations of largemouth bass and yellow perch. Yellow and black bullhead, pumpkinseed sunfish and occasional rainbow trout also occupy Ninepipe Reservoir.

To protect critical fish habitat, the BIA has established instream flows for streams with important fisheries. Instream flows for reaches of streams traversed by US 93 are shown on Table 6.12-1. Fish passage will be required for all crossings listed on the table, except Agency Creek. Tribal biologists have indicated it will not be desirable to provide fish passage from Finley Creek to Agency Creek in order to protect the native cutthroat trout population in Agency Creek. Providing fish passage will also be required in Spring Creek near Ravalli, Sabine Creek and Spring Creek in Ronan.

Wetlands in the Ninepipe-Pablo and Polson areas provide breeding habitat and important resting areas for numerous species of migratory waterfowl and shorebirds. The most numerous nesting species are Canada goose, mallard, redhead, ring-billed gull, red-winged blackbird, yellow-headed blackbird, and California gull. Pintail, American widgeon, shoveler, blue- and green-winged teal, ruddy duck, gadwall, and coot also are common.[174] Waterfowl numbers vary seasonally. As many as 80,000 waterfowl may be present in October and November on the Ninepipe and Pablo National Wildlife Refuges.[175]

During migration, numerous waterfowl and shorebirds are transient visitors in the area. Tundra swans are commonly observed and trumpeter swans are occasional migrants.[176] Nesting colonies of double-crested cormorant and great blue heron are located in trees along the margin of Ninepipe and Pablo reservoirs.

More than 190 bird species have been identified for wetlands in the Ninepipe-Pablo area.[177] Of these species, approximately 75 are known to nest in the area.

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[170]Carter-Burgess; personal communication with DosSantos. 1993.

[171]Carter-Burgess; personal communication with DosSantos. 1993.

[172]Decker-Hess, J. 1989. An inventory of the spring creeks in Montana. Unpublished report. Montana Department of Fish, Wildlife and Parks, Kalispell, Montana.

[173]Riggs, V. and R. Skates. 1978. Acid spill within Flathead Indian Reservation, September 20, 1978. U.S. Fish and Wildlife Service, Kalispell, Montana.

[174]U.S. Fish and Wildlife Service. 1983. Ninepipe and Pablo National Wildlife Refuges. RF 6-61541-1.

[175]Ibid.

[176]Morrison-Maierle; personal communication with Bishop. 1992.

[177]Ibid.

Table 6.12-1 Instream Flows For Streams In the Study Area

Stream	Minimum Instream Flow
Finley Creek	8.5 cfs
Agency Creek	8.0 cfs
Jocko River	43.0 cfs
Mission Creek	20.0 cfs
Post Creek	22.0 cfs
Crow Creek	22.0 cfs
Mud Creek	0.8 cfs

U.S. Department of the Interior, Bureau of Indian Affairs, 1990. Flathead Agency Operating Procedures for Irrigation and Fisheries.

Portions of both the Ninepipe National Wildlife Refuge and Flathead Lake adjacent to US 93 are important feeding areas of shorebirds such as avocet, black-necked stilt, phalaropes, killdeer, and sandpipers. Shallow areas of the reservoir are often exposed mudflats during periods when the reservoir is below full capacity. Alternating periods of inundation and exposure provide optimum feeding habitat for shorebirds where shorelines slope gently down to mudflats and shallow water.

Avocets and other shorebirds and waterfowl are present during migration at a small wetland north of Arlee near Spring Creek ("avocet pond"). This small pond (less than 0.1 acre), created by excavation for gravel or borrow material, is a popular area for viewing birds.

Muskrat, mink, and beaver are common mammals closely associated with wetlands. River otter, infrequent in the area, occur in habitats along the Jocko River and Mission Creek.[178] Raccoon are common and usually associated with wetlands and riparian areas. Striped skunk are common.

6.12.2. Riparian Areas

Riparian or streamside vegetation is composed of plant communities which grow in a transitional zone between aquatic and terrestrial ecosystems. Riparian plant communities have distinctive vegetation and soils and are characterized by the combination of high species diversity, high species density, and high productivity. Riparian areas provide important feeding and breeding habitat for numerous species of birds and other wildlife. Riparian zones along the Flathead River and Lake, Finley Creek, Post Creek, Mission Creek, the Jocko River, and Crow Creek are travel corridors for wildlife because the dense vegetation allows animals to move with greater security

[178]Mack, C., A. Soukkala, D. Becker, and I. Ball. 1990. Impacts of regulated water levels on raptors and semiaquatic furbearers in the lower Flathead drainage, Flathead Indian Reservation, Montana. U.S. Fish and Wildlife Service Cooperative Wildlife Research Unit, Missoula, Montana.

through open grasslands and agricultural areas. Species with affinities for riparian habitat include numerous songbirds, ruffed grouse, ring-necked pheasant, beaver, mink, raccoon, bobcat and white-tailed deer.

6.12.3. Agricultural Lands and Grasslands

Agricultural lands are predominantly irrigated and non-irrigated hay meadows and small grainfields. Hay meadows are interspersed with wetlands in the Ninepipe-Pablo area.

Grasslands include remnants of the native Palouse prairie, but most grasslands are abandoned fields and pastures seeded with non-native species and colonized by invader species. Palouse prairie grasslands are dominated by rough fescue, Idaho fescue, bluebunch wheatgrass, and a variety of forbs, whereas abandoned fields are dominated by grasses such as reed canarygrass, quackgrass, creeping meadow foxtail, Kentucky bluegrass, red-top, and basin wildrye. Remnants of Palouse prairie occur in the Ravalli area near the National Bison Range and south of Polson. However, most of the area south of Polson contains agricultural habitats.

Some grassland and agricultural areas have been purchased by the federal government as waterfowl production areas (WPAs). US 93 ROW is adjacent to the Kicking Horse and Duck Haven WPAs, which are located north of Ninepipe National Wildlife Refuge. Typically WPAs include grassland/wetland complexes, managed to favor nesting waterfowl. Common wildlife species associated with the complex of hay meadows and wetlands are meadow vole, shorttail weasel, longtail weasel, striped skunk, badger, ring-necked pheasant, gray partridge, short-eared owl, long-eared owl, northern harrier, red fox, and white-tailed deer. High densities of nesting short-eared owl were observed on the Duck Haven WPA, abutting the proposed action. Shelterbelts of shrubs and trees in grassland/wetland complexes provide critical nesting and perching sites for a variety of birds. Typically, perching and roosting sites for hawks and owls are limited in grassland/wetland complexes.

A colony of bank swallows has excavated several hundred nests in the silt and clay roadcut south of Ravalli. Bank swallows breed and rear young approximately from early-May through July. They may arrive in the area in mid-April and reside here into August. These colonial birds typically nest in firm soil banks and cliffs. The colony south of Ravalli inhabits steep banks comprised of glacial lake sediments where the existing highway is constructed between the Jocko River and the steep hillside.

6.12.4. Coniferous Forests

Coniferous forests occur primarily in the Evaro area, but small stands also remain near Pablo and Ravalli. The Evaro area may be important to wildlife because of the narrow zone of forest linking isolated montane habitats of the Mission and Rattlesnake mountain ranges to the north and east with the Ninemile-Squaw Peak-Bitterroot Mountains to the west and south. The coniferous forest provides security for wildlife moving between large portions of habitat, isolated by human development in the Evaro area.

Currently expanding subdivision development and past construction of pipelines, powerlines, US 93 and other roads have reduced forest cover and have displaced wildlife species from the area. Species which use the coniferous forests of the Evaro area include elk, mule deer, white-tailed deer, mountain lion, moose, bobcat and black bear. Species which occasionally may be present in this habitat include grizzly bear, wolf, lynx, wolverine, northern goshawk, sharp-shinned hawk, pileated woodpecker, great gray owl and pine marten.

6.12.5. Urban Areas

Most urban habitat is in the city of Polson. This area is predominantly private businesses and residential property. Although wildlife is limited, some species do use the area. A variety of small mammals, including deer mice, house

mice, striped skunks, and raccoons may be found.[179] Depending on the season, a variety of bird species may occur here; common species are American robin, rock dove, blue jay, European starling, evening grosbeak, house finch, and house sparrow.[180]

6.12.6. Species of Special Concern

The Montana Department of Fish, Wildlife and Parks (MDFWP)[181] and the Montana Natural Heritage Program have designated fish and wildlife species of "special concern" in Montana. These species have been designated on the basis of their relative rarity or concern for their continued existence in their current range.[182] Species of special concern, known or suspected to occur in Flathead and Lake counties, are listed in Table 6.12-2.

Of the 17 sensitive species known or suspected to occur in Lake and Flathead counties, two mammals (grizzly bear and gray wolf) are occasionally present in portions of the area (Section 6.13). A nursery colony of Townsend's big-eared bats occurs within 0.25 mile of US 93 in the Ravalli area. This colony is comprised of approximately 60 females.[183]

Four mammals have a low probability to occur in the area--California bat, fisher, wolverine, and lynx. California bats are usually associated with caves, mine tunnels, and bridges; they could occasionally use highway bridges for day roosts. Fisher, wolverine, and lynx are uncommon in Montana. If present in the area of the proposed action, they would be in conifer forests as transients between mountainous habitat on the east and west.

Two sensitive fish are present in streams that would be traversed by the highway--cutthroat trout and bull trout. Cutthroat trout are present in the Jocko River, Sabine Creek, and Finley Creek. Bull trout are present in the Jocko River.

Tailed frog is the only sensitive species of amphibians or reptiles known to be present near the area. In 1979, Peterson found the tailed frog in Revais Creek, several miles west of the highway.

Sensitive bird species known to occur in the area are common loon, harlequin duck, osprey, bald eagle, Cooper's hawk, long-billed curlew, peregrine falcon, prairie falcon, long-eared owl, and clay-colored sparrow. None of these species are known to nest on the area, and most are present for only short periods as seasonal migrants. Bald eagle and osprey nest near Polson on Flathead Lake and near the Flathead River. Bald eagles also are present as winter residents along the Flathead River.

Six occurrence records of plant species of special concern occur in the vicinity of T. 20 N., R. 20 W. These are: California waterwort (Elatine californica), Toothcup (Rotala ramosior), Oregon checker-mallow (Sidalcea oregana), Columbia water-meal (Wolffia columbiana), and spotted water-meal (Wolffia punctata, at two sites). The California waterwort and toothcup sites are beside pothole ponds near Kicking Horse Reservoir; the Oregon checker-mallow is in weedy rangeland south of Ronan; the Columbia water-meal and spotted water-meal are by pothole ponds near Ninepipe Reservoir.

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[179]Ratti, J.T. 1990. Mammals and Birds of the Flathead Indian Reservation. Confederated Salish and Kootenai Tribes of the Flathead Reservation. Pablo, Montana.

[180]Ratti, J.T. 1990. Mammals and Birds of the Flathead Indian Reservation. Confederated Salish and Kootenai Tribes of the Flathead Reservation. Pablo, Montana.

[181]Flath, D. 1984. Vertebrate species of special interest or concern. Montana Department of Fish, Wildlife and Parks, Helena, Montana.

[182]Board of Oil and Gas Conservation. 1989. Programmatic environmental impact statement on oil and gas drilling and production in Montana. Helena, Montana.

[183]Morrison-Maierle; personal communication with Butts. 1992.

Table 6.12-2 Species of Special Concern Known Or Suspected To Occur In Flathead and Lake Counties

Species		Habitat	Probability Of Occurrence in Study Area
MAMMALS	Pygmy shrew	Wooded and open areas	Unknown
	California bat	Tunnels, bridges, and caves	Low
	Townsend's big-eared bat	Caves, mine adits, and bridges	Present
	Grizzly bear	Mountains and adjacent areas	Occasionally present
	Fisher	Mountainous areas	Low
	Wolverine	Mountainous areas	Low
	Wolf	Primarily remote mountainous areas	Occasionally Present
	Lynx	Mountainous areas	Low
	Hoary marmot	Alpine areas	None
	Northern bog lemming	Alpine areas	None
AMPHIBIANS	Coeur d'Alene salamander	Coniferous wetlands and moss	Very low
	Tailed frog	Mountain streams	Present (rare)
	Wood frog	Moist forests	Very low
FISH	Cutthroat trout	Coldwater streams	Present
	Bull trout	Coldwater streams	Present
	Arctic grayling	Coldwater lakes	None
	Shorthead sculpin	Coldwater streams	Unknown
BIRDS	Common loon	Remote lakes	Present as migrants
	Harlequin duck	Turbulent mountain streams	Present as migrants
	Osprey	Lakes and rivers	Present

(Continued)

Table 6.12-2 Species of Special Concern Known Or Suspected To Occur In Flathead and Lake Counties (Continued)

Species		Habitat	Probability Of Occurrence In Study Area
BIRDS (Continued)	Bald eagle	Lakes and rivers	Present
	Cooper's hawk	Riparian and conifer forests	Present
	Northern goshawk	Conifer forests, often old growth	Low
	Ferruginous hawk	Prairies and grassland	Very low
	Long-billed curlew	Prairies and grassland	Present
	Merlin	Riparian and conifer forests	Low
	Peregrine falcon	Cliffs and waterbodies	Present
	Prairie falcon	Cliffs	Present
	Upland sandpiper	Prairies and grasslands	Unknown
	Northern pygmy owl	Conifer forests	Low
	Barred owl	Conifer forests	Low
	Great gray owl	Conifer forests	Low
	Long-eared owl	Forests and prairies	Present
	Northern saw-whet owl	Riparian and conifer forests	Unknown
	Pileated woodpecker	Conifer forests	Present
	Olive-sided flycatcher	Conifer forests	Low
	Swainson's hawk	Riparian forests	Low
	Western bluebird	Open woodlands and grassland	Present (rare)
	Clay-colored sparrow	Prairies and shrublands	Present (rare)
	Brewers sparrow	Sagebrush and alpine meadows	Very Low

Flath. 1984.

6.12.7. Wildlife Movement Corridors

Wildlife crosses US 93 at locations where vegetation, topography, and low levels of disturbance allow relatively secure movement across the highway between portions of suitable habitat. Movement corridors exist near Evaro, and at Ravalli Canyon, Mission Creek, and Post Creek. High levels of local movement by birds, turtles, frogs, waterfowl and other birds, mink, and muskrat occur near Ninepipe Reservoir.

High levels of wildlife mortality have been documented at points where animals regularly cross US 93. Approximately 50 deer per year are killed by vehicles in the Evaro area, and big game is regularly killed at Ravalli Canyon, Mission Creek, and Post Creek.[184] Numerous turtles, waterfowl, and other wetland species are killed by vehicles near Ninepipe Reservoir. There is an unconfirmed report of a grizzly bear being killed by a vehicle at the Post Creek bridge[185] and confirmed reports of road-killed black bears near Evaro.[186]

Although movement of wildlife across US 93 poses mortality risk due to high traffic levels, continued movement across the highway is essential to prevent further fragmentation of habitat, particularly in regard to lynx, wolverine, wolves and grizzly bears. Habitat fragmentation isolates populations and leads to loss of genetic diversity, which in turn can lead to population decline and eventual extinction.[187] Because grizzly bears and wolves are present in such low numbers, inhibition of breeding among population segments could result in reductions in population viability.

The Evaro movement corridor is important when its role as a local and regional wildlife travel corridor and habitat linkage zone is considered relative to plans of the USFWS to reestablish grizzly bears in the Bitterroot Mountains.[188] Evaro Pass would be the most likely linkage for grizzly bears in the Northern Continental Divide Ecosystem and a reestablished population in the Bitterroot Mountains.

If grizzly bears were successful in recolonizing the Bitterroot Mountains, genetic exchange between the Northern Continental Divide Ecosystem and the Bitterroot Mountains would be essential. According to computer simulation models, at least 50 to 90 grizzly bears are necessary for a minimum viable population, defined at 95% probability of survival for 100 years. Although 50 to 90 grizzly bears are considered to be a minimum viable population, this number is much lower than populations needed to prevent loss of genetic diversity. Isolated populations of grizzlies must number from 1,670 to 2,000 bears to maintain adequate genetic diversity over the long term.[189] Evaro Pass would be the linkage through which genetic exchange from the Northern Continental Divide Ecosystem would supplement genetic variation in the Bitterroot Ecosystem.

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[184]Morrison-Maierle; personal communication with Becker. 1992.

[185]Ibid.

[186]Ibid.

[187]Allendorf, F., R. Harris, and L. Metzger. 1990. Estimation of effective population size of grizzly bear by computer simulation. Proceedings of the Fourth International Congress of Systematic and Evolutionary Biology.

[188]Servheen, C. 1992. Grizzly bear recovery plan - Second review draft. U.S. Fish and Wildlife Service, Missoula, Montana.

[189]Allendorf, F., R. Harris, and L. Metzger. 1990. Estimation of effective population size of grizzly bear by computer simulation. Proceedings of the Fourth International Congress of Systematic and Evolutionary Biology.

6.13. THREATENED AND ENDANGERED SPECIES

Four species listed under the Endangered Species Act are present periodically in the area. Listed species are either in danger of extinction (gray wolf and peregrine falcon) or threatened (grizzly bear and bald eagle).

6.13.1. Grizzly Bear

Before extensive settlement and development of agriculture, grizzly bears probably used habitat throughout the Flathead Valley. As a result of habitat alteration and increased mortality due to human encounters, grizzly bears have been restricted to the mountainous habitat of the Mission Mountains and lowlands adjacent to the mountains.

Grizzlies in the Mission and Rattlesnake mountains exhibit patterns of elevational movement with different seasons. Bears spend from five to six months in winter dens, located in the mountainous terrain above 6,600 feet in elevation, and emerge from dens in spring and move to lower elevations when early green vegetation and other food sources, such as carrion and insects, become available. Important spring habitat (April 15 to June 15) exists in the Mission Valley where seeps and riparian areas provide abundant plant species eaten by bears. Heavily used spring habitat several miles to the east of the proposed action is present at the base of the Mission Mountains near Marsh, Mollman, Post, Poison Oak, and Valentine creeks.[190] Grizzlies periodically use habitat to within about one mile of US 93 near Allentown and the Ninepipe National Wildlife Refuge, and may cross US 93 at Post Creek.[191] Grizzly bears may occasionally follow the riparian zone of Post Creek and use habitat near the National Bison Range. A grizzly, observed near the National Bison Range in 1990, possibly followed Post Creek from the Mission Mountains westward.[192] Residents living along Post Creek report relatively frequent sightings of grizzly bears close to US 93.

During summer, grizzlies usually move to higher elevations in the Mission and Rattlesnake mountains where they feed on newly emergent vegetation and insects, such as ladybird beetles and army cutworm moths. In late-summer and early-fall, bears move back to lower elevations on west slopes of the Missions to feed on domestic fruit in orchards and on native fruits and berries.

The Evaro area is marginal grizzly bear habitat due to high levels of human activity (subdivisions, US 93, and numerous roads, pipelines, transmission lines, and small farms and ranches). Geographically, however, it is important as a movement corridor separating the Mission and Swan ranges from the Ninemile-Squaw Peak and Bitterroot Mountains. High levels of human activity, such as at a primary highway, railroad, pipelines, and associated development, are thought to inhibit movement by grizzly bears between adjacent areas of suitable habitat, thereby causing fragmentation of habitat. As bear populations and habitat become smaller and more isolated, grizzlies become more vulnerable to man-induced mortality.

CSKT and Missoula County have recognized the importance of the Evaro area for grizzly bears. As part of their Grizzly Bear Management Plan, CSKT has designated the Evaro area as important habitat where efforts will be made to maintain or improve habitat and minimize human-induced conflict or bear mortality.

Although the highest grizzly bear densities in the area are in the Mission Mountains and adjacent lands in the Mission Valley, grizzlies have been reported periodically in the Evaro ~~area~~, Dixon, Ninepipe and Post Creek areas and west of US 93 near Perma and Magpie Creek. In 1992, Jonkel[193] reported that during the Border Grizzly Project radio-collared grizzlies were traced repeatedly through Evaro Pass. Grizzly bears were observed in the

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[190]Servheen, C. 1981. Grizzly bear ecology and management in the Mission Mountains, Montana. Ph.D. dissertation. University of Montana, Missoula, Montana.

[191]Morrison-Maierle; personal communication with Becker. 1992.

[192]Ibid.

[193]Jonkel, C. 1992. Evaro Pass, wolves and bears. Unpublished report. Ursid Research Center, Institute of the Rockies, Missoula, Montana.

Evaro area in 1978[194] and in the early-1980s.[195] In 1981, a grizzly bear den was inadvertently destroyed in the Finley ~~Flats Logging Unit~~ area by road construction.[196] Two sub-adult grizzlies were observed during July and August of 1978. These bears were relocated into the South Fork of the Jocko River from the west slope of the Mission Mountains where their mother was shot.[197] These young bears used habitat on both the east and west sides of US 93. The pipeline ROW, approximately paralleling the highway on the west, was heavily used as a feeding area by both grizzly and black bears during July, August, and September of 1978. The prolific production of fruit on serviceberry bushes along the pipeline ROW provided a productive and attractive summer food source for bears.

6.13.2. Gray Wolf

Gray wolf populations in Montana have been increasing in recent years. Successful wolf reproduction has been documented in Glacier National Park, near Marion in northwestern Montana, and in the Ninemile area near the southwestern portion of the Flathead Indian Reservation. There have been several reported wolf sightings in the Evaro area over the last two or three years.[198] A female wolf, with a radio collar, moved from Glacier National Park, down Swan Valley, through the Evaro area into the Ninemile area, where she established a territory.[199] Two other wolves also are thought to have used the Evaro area as a travel corridor between habitat in the Mission-Swan area and Ninemile-Bitterroot area. There also were credible reports of wolf sightings near Evaro, Arlee, Dixon, and Ninepipe Reservoir.[200] Information on wolves in the area indicates that wolf sightings are associated with lone wolves that have moved over large areas. There is no evidence the area of the proposed action is part of the home range of packs.

6.13.3. Bald Eagle

Bald eagles nest on Flathead Lake (three nesting pairs), and at Pablo National Wildlife Refuge (one nesting pair). Bald eagles nested at Ninepipe National Wildlife Refuge in 1988-89, but there has been no nesting observed since 1989.[201] Bald eagles also are reported to nest near Kicking Horse Reservoir.[202] Bald eagles are seasonal migrants through the area and winter near ice-free bodies of water, such as Jocko and Flathead rivers. (Figure 6.13-1)

Bald eagles nesting on Flathead Lake and the Flathead River confine their foraging activities during the breeding season to riparian and aquatic habitats associated with these waters. Fish are the most common prey (60%) followed by birds (27%), mammals (11%), and crustaceans (two percent). The most frequently captured fish are suckers, peamouth, and northern squawfish, whereas mallards, common mergansers, and ring-necked pheasants are common birds preyed upon by bald eagles.[203]

The Flathead Valley is a traditional wintering area for bald eagles, typically providing habitat for 43 to 61 birds, with peak numbers being present in December and January.[204] However, only four to 12 eagles may use the area

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[194]Servheen, D. and L. Lee. 1979. An assessment of the grizzly bear population size and status, and a description of important use sites in the Finley Logging Unit, Flathead Reservation, Montana. University of Montana, Border Grizzly Project, School of Forestry, Missoula, Montana.

[195]Morrison-Maierle; personal communication with Becker. 1992.

[196]Ibid.

[197]Servheen, D. and L. Lee. 1979. An assessment of the grizzly bear population size and status, and a description of important use sites in the Finley Logging Unit, Flathead Reservation, Montana. University of Montana, Border Grizzly Project, School of Forestry, Missoula, Montana.

[198]Morrison-Maierle; personal communication with Fontaine. 1992.

[199]Ibid.

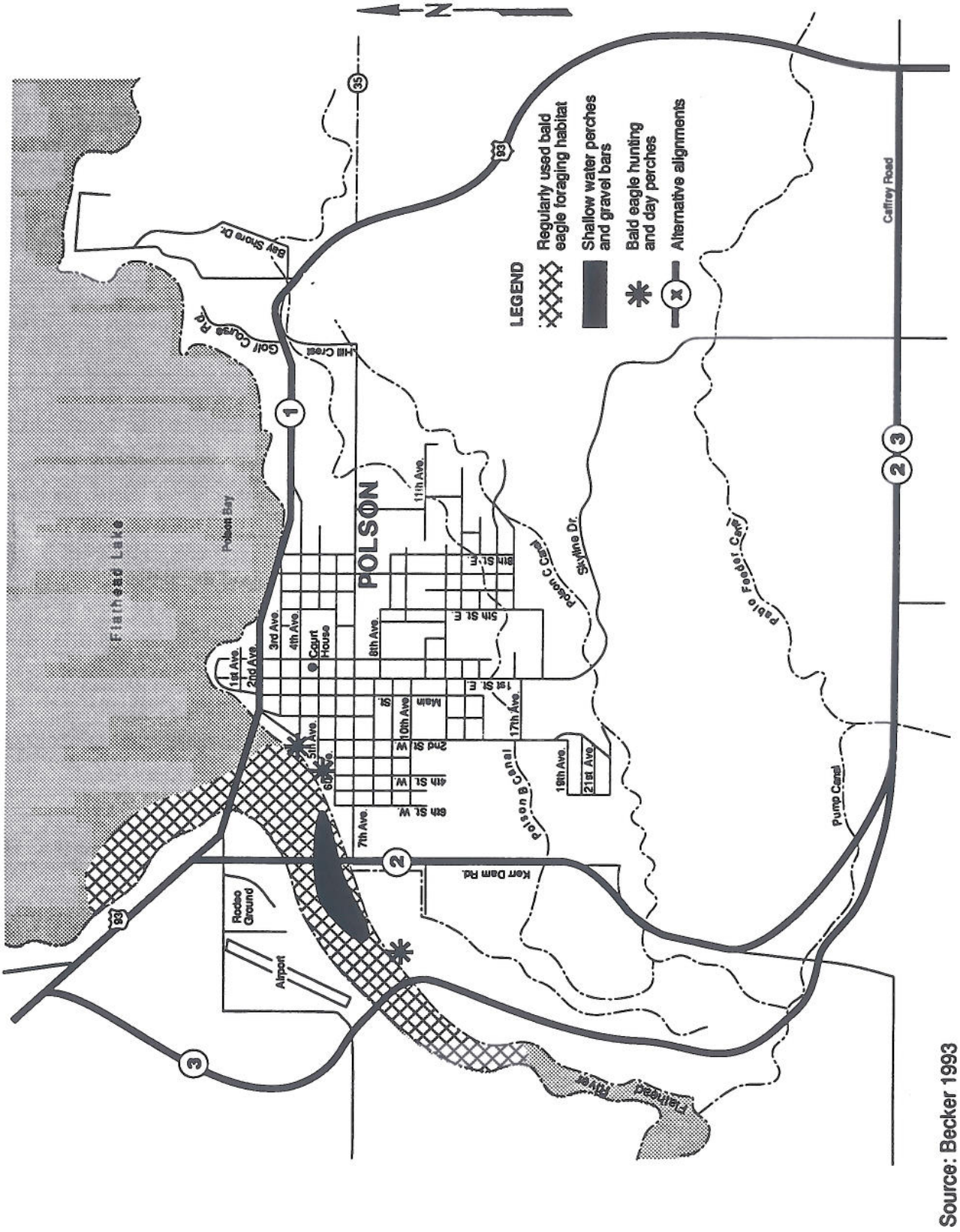
[200]Morrison-Maierle; personal communication with Becker. 1992.

[201]U.S. Fish and Wildlife Service. 1990. Ninepipe and Pablo National Wildlife Refuges. Annual report. Moiese, Montana.

[202]Morrison-Maierle; personal communication with Becker. 1992.

[203]Mack, C., A. Soukkala, D. Becker, and I. Ball. 1990. Impacts of regulated water levels on raptors and semiaquatic furbearers in the lower Flathead drainage, Flathead Indian Reservation, Montana. U.S. Fish and Wildlife Service Cooperative Wildlife Research Unit, Missoula, Montana.

[204]Ibid.



BALD EAGLE HABITAT LOCATIONS ALONG POLSON ALIGNMENTS 1,2 & 3

FIGURE 6.13-1

near Polson at any one time during the winter months. Most wintering eagles forage and perch near open waterbodies, primarily Flathead Lake and the Flathead River. Primary perch sites on the Flathead River are located near the sewage lagoon and on shallow water and gravel bars within the Flathead River[205] (Figure 6.13-1). During winter, primary
prey are birds (mallards and American coot), with fish being the second most frequent prey item. Mammals were a small portion of the winter diet, but carrion from cattle and deer also may be important.[206]

6.13.4. Peregrine Falcon

Peregrine falcons pass through the area as seasonal migrants. They are often seen in the Ninepipe area in the fall when large concentrations of waterfowl and shorebirds are present.[207] There are no known nest sites in the vicinity of the proposed action; however, CSKT has a peregrine falcon reintroduction project in the vicinity of Ninepipe Reservoir. It is likely that reintroduced peregrine falcons will rely heavily on the wetland areas in the Ninepipe-Pablo area as sources of prey.[208] The Flathead River and portions of Flathead Lake near Polson are also used by migrant falcons.[209]

[205]Morrison-Maierle; personal communication with Becker. 1993.
[206]Ibid.
[207]Ibid.
[208]Morrison-Maierle; personal communication with Becker. 1992.
[209]Morrison-Maierle; personal communication with Becker. 1993.

6.14. CULTURAL RESOURCES

6.14.1. Setting and Background Information

Native Americans have occupied western Montana for at least 12,000 years. Evidence of aboriginal occupation is abundant throughout western Montana, and includes campsites, food processing sites and pictographs. Today, the descendants of three main tribal groups occupy the Flathead Indian Reservation, the "Bitterroot Salish" (incorrectly referred to as the "Flathead" by non-Indians during the historical period), the Lower Pend d'Oreille and the Kootenai[210]. The current reservation boundary incorporates only a fraction of the area traditionally used by these tribes. When considered together, their aboriginal territories covered much of what is now known as eastern Washington, the Idaho Panhandle, the southern part of the Canadian provinces of British Columbia and Alberta, and approximately the western one-third of the state of Montana.

People hunted, fished, harvested~~gathered~~ and established campsites throughout their respective territories. Until recently, Indian people obtained whatever they needed directly from the natural environment. This traditional way of life was based upon a primary relationship between people and natural resources. Animals, birds, fish and plants provided food, medicine and clothing--everything needed to sustain life, both physical and spiritually. The Confederated Salish and Kootenai Tribes have indicated that subsistence activities are not just an activity conducted in the past[211].

Today, Salish and Kootenai oral history and cultural traditions maintain the connection between Indian people and their aboriginal territories. In particular, Coyote stories refer to specific landmarks both within and outside the Flathead Indian Reservation boundaries, and explain the origin of "The People" and their relationship to the land.[212]

Tribal members continue to practice their traditional religious beliefs, as well as subsistence activities both within and outside the reservation.

6.14.2. Outline of Reservation History

In 1855, representatives of the Salish[213] and Kootenai Tribes signed the Hellgate Treaty. Their intent was to establish a peaceful relationship with other Native American groups in the area as well as with the ~~Euro-Americans~~Euroamericans who were beginning to settle in the region.

The Hellgate Treaty provided that the Confederated Salish and Kootenai Tribes "ceded, relinquished, and conveyed" to the United States their "right, title, and interest" in much of what is now western Montana, reserving the present Flathead Indian Reservation to the exclusive use and occupancy of the Tribes. Pursuant to the Hellgate Treaty, the Tribes also retained certain specific proprietary and usufructuary rights to the use of their off-reservation aboriginal homelands. The Tribes reserved to themselves hunting, fishing, harvesting and grazing rights in their aboriginal territory, as well as the right of passage through such aboriginal territory, in perpetuity, among other rights. The Tribes reserved as their "permanent homeland" an area of land known today as the Flathead Indian Reservation.

~~In signing the treaty, the Salish and Kootenai agreed to cede to the United States vast tracts of aboriginal territory in western Montana. However a portion of this area was to be reserved and set aside as the Flathead Indian Reservation. The lands within its boundaries were to be reserved for the exclusive use of the Salish and Kootenai people.~~

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[210]The "Bitterroot" Salish and the Pend d'Oreille speak dialects of the same language. The Kootenai speak a language that is unrelated to Salish.

[211]Confederated Salish and Kootenai Tribes, comments on the draft EIS dated 27 June 1995.

[212]Germaine White, telephone communication with Janene Caywood, 1993.

[213]The term "Salish" as used here includes both "Bitterroot" Salish and Lower Pend d'Oreille.

~~The Salish and Kootenai also retained the right to hunt, fish and gather resources according to their traditions on open and unclaimed lands within the ceded territory[214].The Salish and Kootenai retained the exclusive right to hunt, fish, and gather resources according to their traditions within the reservation boundaries. They also retained a right, held in common, to hunt and fish on open and unclaimed lands within their ceded territory.[215] The leaders of the Salish and Kootenai who signed the treaty understood the establishment of the reservation and the right to hunt, fish and gather resources on open and unclaimed lands outside the reservation boundary were meant to guarantee to Native Americans the retention of their traditional way of life.~~

In the ~~138~~141 years since the signing of the Hellgate Treaty, the Salish and Kootenai have faced numerous challenges to the preservation of their traditional cultural values. A major effect on the integrity of the reservation occurred in the early-1880s, when representatives of the Northern Pacific Railroad Company received permission from the federal government to construct the mainline for their railroad through, rather than around, the reservation. Many Indians feared construction of the railroad would bring non-Indians into closer proximity with the reservation, increasing pressure to open the lands within the reservation boundary to non-Indian settlement.

In 1882, Flathead Indian Agent, Peter Ronan convened a council between the Indians and representatives of the railroad. During the council, various Indian leaders expressed their opposition to the railroad. Eneas, one of the Chiefs attending the council, stated the following:

> I wish the Great Father to do me a favor, and consult my wishes, and not let the road go through this reservation. ... This reservation is a small country, and yet you want five depots upon it. These are the best spots on the reservation. What is the reason I should be encouraged when you take the best part of my country? My country was like a flower, and I gave you its best parts. What I gave I don't look for back, and I never have asked for it back. ... What are we doing to do, when you build the road? We have no place to go. That is why it is my wish that you should go down the Missoula river. I am not telling you that you are mean; but this is a small country, and we are hanging on to it like a child on to a piece of candy[216].

In 1883, Peter Ronan wrote:

> A fierce spirit of opposition still prevails on the part of many of the Indians to the construction; they [regard] the road as fatal to their interests, and the sure precursor of the abandonment of their homes and lands to the whites[217].

Clearly, the Salish and Kootenai people were concerned about the ramifications of the presence of a railroad within their reservation. Although a variety of factors ultimately led to the opening of the reservation to non-Indian settlement, the existence of the railroad provided access for both people and goods to a previously isolated area and likely hastened the process.

In 1887, passage of the General Allotment Act (also referred to as the Dawes Act) provided for allotment in severalty for all tribes residing on Indian reservations in the U.S. The act established the legality of assigning individual land allotments to individual Indians[218]. Allotment in severalty would be applied to any tribe the

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~~[214]Charles J. Kappler, Indian Laws and Treaties, 7 Volumes. Volume II Treaties (Washington D.C., Government Printing Office, 1907) pp. 722-725.~~

[215]Treaty of Hellgate, 1855.

[216]Notes of a Council. Held by Hon. Jos. K. McCammon Assistant Attorney General, appointed by the Secretary of the Interior to Negotiate an agreement with the Indians on the Flathead Reservation, for rights-of-way for the Northern Pacific Railroad through the Reservation "NA Aug. 30, 1882. Letters Received by the Office of Indian Affairs, 1881-1907. RG. 75, NA.

[217]Peter Ronan to Commissioner of Indian Affairs, February 1, 1883, Flathead Special Case no. 55. RG 75, NA, as Referenced in Timber, Tribes and Trust; a History of BIA Forest Management On The Flathead Indian Reservation (1855-1975), Historical Research Associates, (NP, 1977) p. 14.

[218]Article 6 of the 1885 Hellgate Treaty contains a provision allowing the assignment of lots to individual Indians residing within the Flathead Indian Reservation. Charles J. Kappler, Indian Laws and Treaties, 7 Volumes. Volume II Treaties (Washington, D.C., Government Printing Office, 1907) pp. 722-725.

President deemed to be "sufficiently civilized to become farmers and its reservation good enough to be cultivated."[219] Surplus lands (those left over after allotments were issued), would be sold by the government and the proceeds used for the benefit of the tribe.

Although Salish and Kootenai leaders opposed allotment in severalty,[220] the U.S. Government had begun "enrolling" Indians living within the Flathead Indian Reservation in 1902--in anticipation of issuing allotments. In 1903, Congressman Joseph Dixon introduced a bill calling for immediate allotment in severalty for the Salish and Kootenai and sale of unallotted lands. The Salish and Kootenai fears were realized in 1904, when Dixon's bill became law.

By 1910, the majority of "enrolled" Indians had been issued allotments, and the remaining reservation lands were opened to non-Indian settlement under existing homestead laws. The initiation of the Flathead Irrigation Project in 1909, which promised the potential for irrigation of dryland sites, made unallotted land within the Flathead Indian Reservation even more attractive to non-Indians[221].

The 1910 opening of the reservation resulted in the current pattern of land ownership within the reservation boundary. The largest consolidated blocks of tribal land occur in mountainous timbered areas, mostly along the borders of the reservation, and the area directly adjacent to the Flathead River. The more economically valuable irrigated cropland and grazing land in the valley bottom is largely owned by non-Indians.

6.14.3. Current Concerns

The concerns expressed by the Flathead (Salish) and Kootenai cultural committees regarding the proposed action are similar ~~in some aspects~~ to those expressed in the early-1880s, when the Northern Pacific Railroad Company proposed construction of a rail line through the Flathead Indian Reservation. Although the Salish and Kootenai people each have their own unique cultural traditions, for both groups, the retention of these values depends in part upon permanency of the natural landscape and ecosystems, and the retention of a real sense of cultural "community." Improved access, such as may result from the proposed action, is a concern since it threatens the primary relationship between people and nature that is the basis for traditional cultural values. Although the representatives of the Flathead and Kootenai cultural committees recognize the need for improving the safety of the existing highway, they believe the proposed action should be balanced with the need to minimize effects on the cultural values of the reservation. Improving the highway may accelerate the changes that already are taking place within the reservation.

As stated by the Flathead Cultural Committee, all of the lands within the reservation continue to be of cultural importance to the Salish and Kootenai people:

> It is not just the rural character of our area that we seek to preserve. It is also what we call the cultural environment. For our culture to survive, our people must live in a place that continues to hold a powerful

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[219]Frederick Merk, History of the Westward Movement (Alfred A. Knopf, New York 1978), p. 425.

[220]See discussion of "Flathead" Indians opposition to allotment in severalty as discussed in John Fahey *The Flathead Indians* University of Oklahoma Press, Norman 1974 pp. 246, 264.

[221]The Flathead Irrigation Project was one of several large-scale irrigation projects undertaken on Indian reservations in the west. The earliest projects fell under the supervision of the reservation agents or superintendents. However, in 1907 the Bureau of Reclamation assumed control of the larger Indian irrigation projects (including the Flathead Project), and was responsible for constructing the improvements. Ultimately, the Indian irrigation projects did not serve either of the purposes for which they were intended; they did not provide employment for, nor improve the agricultural prospects of Indian people. Prucha makes the following statement in assessing the outcome of Indian irrigation projects in general:

> "The overriding question in the end, however, was whether and to what extent the irrigation projects in fact benefited the Indians. Were the Indians actually using the lands for successful irrigated agriculture? The answer was no. It became increasingly clear through the 1920s that irrigation projects were authorized for Indian reservations, not with the primary intent of aiding Indian advance toward self-sufficiency, but to develop the arid West for the benefit of white interests." (p.894). All from Francis Paul Prucha, 1984 The Great Father: The United States Government and the American Indians, Vol. II University of Nebraska Press, Lincoln pp 888-894.

sense of tribal identity, of community, of familiarity. The open spaces need to be kept open, the pristine places that nurture our bodies and souls need to be kept pristine, and the preponderance of tribal people in certain areas of the reservation needs to be protected[222]

In addition to the overall cultural significance of the lands within the reservation boundary, specific sites or areas may possess individual cultural/spiritual significance. Critical characteristics associated with these types of sites may include "purity," "privacy," "isolation" and "permanency." In some instances, the continued use of these areas is dependent upon the site being isolated and unchanged. Although improving the existing roadway is not likely to directly affect specific areas of importance, increased development--especially if it extends into more isolated areas, may threaten sites of spiritual significance to the Salish and Kootenai people.

6.14.4. Recorded Cultural Resource Properties

Cultural resource inventories have resulted in the identification of several types of cultural resource properties[223]. It is important to make the distinction between properties that have been formally recorded and subjected to the Section 106 review process, and those that are of spiritual significance to the Tribes.[224] Information regarding the latter type of site is confidential, thus these properties were not formally recorded, assigned numbers and entered into Montana Statewide Cultural Resource Site Files. The Salish and Kootenai cultural committees prefer to deal directly with construction engineers during project design in order to avoid these types of culturally sensitive sites.

Various formally recorded cultural resource properties are located within or adjacent to the proposed action. The recordation of most of these properties has occurred in conjunction with the completion of specialist reports for the proposed action. In the rural portions of the area, previously recorded properties consist primarily of Indian Allotments and Euro-American homesteads. Physical manifestations of these two activities include clusters of one or more buildings, or the archaeological remains of these resources (concrete foundations, building components, etc.).

Other types of properties recorded in the rural segments of the area include structures and buildings associated with the Northern Pacific Railroad, now operated under MRL, irrigation structures associated with the Flathead Irrigation Project, small commercial establishments, and an abandoned roadway. In addition, one historic Euro-American grave site, and two sites with prehistoric artifacts have been identified. In urban areas, previously recorded cultural resource properties include domestic homesites, community buildings such as schools and commercial buildings.

The built environment for residential housing in the Polson area consists primarily of modest dwellings of pre-World War II construction. Bungalows with numerous variations and small cottages predominate. Common variations on the bungalows include ~~draftsman~~Craftsman style and clipped gables.

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[222]Letter from Flathead Culture Committee to Mr. Michael T. Pablo, Chairman of the Confederated Salish and Kootenai Tribes. June 4, 1992, p.2.

[223]Cultural resource investigations conducted prior to preparation of this document have occurred at two levels of intensity. The existing road corridor from Evaro through Polson has been subjected to intensive pedestrian inventory wherein surface-visible prehistoric and historic properties have been recorded and subjected to review under the Section 106 process. Most of the recorded properties discussed below result from these inventories.

Arlee Alignments 3 and 4 and Ronan Alignments 2, 3, and 4 have received more limited coverage. Drive through surveys of architectural properties (those with standing buildings), coupled with courthouse research have been conducted for Arlee Alignments 3 and 4 and Ronan Alignments 2 and 3. This has resulted in a preliminary inventory of the buildings of historical age that lie adjacent to these alignments, with preliminary recommendations regarding their eligibility to NRHP. For Ronan Alignment 4, all buildings of historical age located adjacent to the alignment have been formally recorded and are in the process of being reviewed. Intensive archaeological inventories of the construction corridors of Arlee Alignments 3 and 4 and Ronan Alignments 2, 3, and 4 have not taken place.

[224]The Salish and Kootenai Culture Committees attribute cultural significance to the two prehistoric archaeological sites recorded during the course of this study. Thus, the distinction between formally recorded properties and those of cultural significance to the Tribes cannot be too finely drawn.

In Polson, commercial buildings date to the period between the late-1910s and late-1940s, and are dominated by brick storefronts. This is the primary style on both Main Street and US 93 as it bisects the central business district. Variations include art deco elements (added in the 1930s), wooden false-front storefronts, converted dwellings and modern commercial buildings of various styles.

The built environment for farm structures in the Polson area has shown an evolution from the initial small frame or log cabins to bungalows or novelty sided cottage farmhouses on more affluent farms. Western Ranch Aggregate style houses, where one or more structures have been relocated to abut a nucleus structure, are not uncommon. Grain bins have evolved from exposed frame, to stacked two-by-four, to round steel bins. Most barns in the area are relatively small frame structures to house small dairy operations or to stable a few horses.

All of the recorded properties have been evaluated against the criteria listed in 36 Code of Federal Regulations (CFR) Part 60, and which determine eligibility or ineligibility for listing in the National Register of Historic Places (NRHP).[225] For a property to be considered for listing in NRHP, it must possess integrity of location, setting, design, materials, workmanship, feeling and association. More importantly, it must be associated with significant historical patterns, events or people; or possess individual architectural/engineering distinction. In addition, archaeological properties may be determined eligible if they have yielded or have the potential to yield significant information regarding the prehistory and/or history of a given area. Individual properties that do not meet these criteria are designated as "ineligible" for listing in NRHP.

Of the various formally recorded properties, most have been determined to be ineligible for listing in NRHP[226]. Some have been determined eligible for listing in NRHP as indicated on Table 6.14-1 and described in following paragraphs.

Evaro School (24MO316)

The Evaro School is located on the north side of US 93, within the small town of Evaro. There are two buildings associated with this site--the one-room school and a small wood shed. The school is one story and has a gable roof and a bell tower. The exterior walls are covered with beveled wood siding, and the building contains one-over-one and six-over-six light double-hung windows.

Local residents constructed the school about 1920. Both Indian and non-Indian students attended the school until 1945. Since then the building has been used as a polling place and as a community center. Modifications associated with the latter use include conversion of the old teacher's quarters to a kitchen, and the addition of a handicapped access ramp. The building has been determined eligible for listing in NRHP under criteria A and C.

Northern Pacific Railroad Grade (24MO319/24LA199)

The main line of the Northern Pacific Railroad parallels the highway corridor between Evaro and Ravalli. In most areas improvements consist of a single grade with track and rails. This alignment has been used and maintained consistently since first constructed in the 1880s. The railroad has been determined eligible for listing in NRHP under criteria A and C.

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[225]The quality of significance in American history, architecture, archaeology, engineering and culture is present in districts, sites, buildings, structures and objects that possess integrity of location, setting, design, materials, workmanship, feeling and association, and:

A. That are associated with events that have made a significant contribution to the broad patterns of our history; and

B. That are associated with the lives of persons significant in our past; or

C. That embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

D. They have yielded, or may be likely to yield, information important to prehistory or history (United States Department of the Interior (USDI), National Park Service (NPS) 1991:37). USDI NPS, National Register Bulletin 16, Guidelines for Completing National Register of Historic Places Forms 1991 US Government Printing Office, Washington.

[226]Site 24LA121 is a Euro-American grave site. Although ineligible for listing in NRHP, this site will either have to be avoided or the grave relocated prior to construction.

Table 6.14-1 NRHP Eligible Properties

Number	Description	Milepost Location
24MO316	Evaro School	6.8
24MO319 24LA199	Northern Pacific Railroad Grade	Crossing at 9.7, parallel from 6.5 to 7.3, 13.4 to 15.4, and 19.1 to 27.1
24LA131	Ravalli School	27.0
24LA133	Salzman Residence	27.2
24LA158	Woods Agricultural Complex	38.5
24LA159	Jenkins/Rungborg Farmstead	39.2
24LA161	Anderson Farmstead - Barn	45.2
24LA211	Lake Flour Mill and Granary	47.1, Alignment 4
24LA89	Northern Pacific Railroad, Dixon-Polson Branchline	56.6 to 59.5
24LA167	Casey Dentist Office	61.0
24LA177	Faunce House	60.6
24LA197	Paul House	59.8
24LA188	Tiddy House	60.3
24LA175	Anderson Cottage	60.8
24LA181	Poage House	60.5
24LA204	Caffrey Place - Barn, Feature 8	59.1, Alignments 2 & 3 (2.6 Miles west of US 93)
Morrison-Maierle and Carter Burgess. 1994.		

Flathead Irrigation Project Canals (24MO327, 24LA122)

The Flathead Irrigation Project E Canal (24MO327) is crossed by US 93 at approximately Milepost 14.3. The R Lateral is located adjacent to the east side of the highway from approximately Milepost 15.7 to 16.7. The K Lateral is adjacent to and crosses US 93 between Mileposts 19.3 and 19.7.

The E Canal and the R and K laterals have not been evaluated for significance and eligibility to NRHP. Rather, they have been treated under the provisions of the Irrigation Ditch Programmatic Agreement among MDT, the Montana Historic Preservation Office (MSHPO), FHWA and the Advisory Council on Historic Preservation

(ACHP). Under this agreement, regular inventory and evaluation under Section 106 is suspended if the ditches are in regular current use. These sites are not evaluated further in this document.

Ravalli School (24LA131)

The Ravalli School, a one-room facility with Italianate design details, is located adjacent to the east side of the highway within the small community of Ravalli. It is a one story wood frame building with an asphalt-shingled hip roof. Exterior walls are covered with beveled siding, and the roof is covered with asphalt shingles. A square bell tower with a hip roof topped by a flag pole is located on the front of the building. A wooden stoop with wood railing provides access to the front of the building.

Missoula County School District 28 funded the construction of Ravalli School in 1913. For the next nine years the building housed grades 1-8, averaging 31 students per year. When Lake County was formed in 1922, the Ravalli School was closed and students were sent to St. Ignatius for schooling. Between 1923 and 1935 the building was used as a polling place and as an informal social center. The Ravalli Community Club purchased the building from School District 28 in 1935, after which it served as the community center for Ravalli until the late-1960s. Ravalli School has been determined eligible for listing in NRHP under criteria A and C.

Salzman Residence (24LA133)

A historically significant property, the Salzman Residence (24LA133) is located adjacent to the existing alignment within Ravalli and has been determined eligible for listing in NRHP under criteria A and C.

Woods Agricultural Complex (24LA158)

The Woods agricultural complex is located approximately 90 feet from the west side of US 93. This complex contains seven buildings and a corral -- the barn has been determined eligible for listing in NRHP under criterion C -- the remainder of the complex has been modified and is not eligible.

Jenkins/Rungborg Farmstead (24LA159)

The Rungborg farmstead is a cluster of eight buildings located approximately 275 feet west of US 93. This agricultural complex consists of a house and garage of log construction, and six frame outbuildings. The outbuildings include a chicken coop, a large barn and several sheds.

Initial development of this property occurred in 1913 when Frazer Jenkins received a patent for the property. Buildings are believed to have been constructed during the 1910s and early-1920s. The property has been determined eligible for listing in NRHP under criterion A -- for its association with non-Indian agricultural development within the Flathead Indian Reservation.

Anderson Farmstead - Barn (24LA161)

Situated immediately west of US 93 and one mile south of Ronan, the Anderson property consists of a house, a garage, a shed, and two barns. The buildings are all in close proximity to one another, and are linked by an asphalt driveway and turn-around. Cultivated grasses, flowers, and a garden, surround the house. The site is protected from the southward expansion of Ronan by a pasture-land buffer. It has been determined the only eligible component of this property is the barn, which is eligible for listing under NRHP criterion C.

Lake Flour Mill and Granary (24LA211)

This flour mill is located adjacent to the Northern Pacific Railroad Dixon/Polson branchline on the western outskirts of Ronan. The building complex includes a large multi-component building that incorporates a granary, flour mill and flour warehouse with several loading platforms. This complex has been determined eligible for listing under NRHP Criteria A and C.

Northern Pacific Railroad, Dixon-Polson Branchline (24LA89)

The Northern Pacific branchline between Dixon and Polson consists of the railroad grade and track. This branch line has been determined eligible for listing in NRHP under criterion A.

Flathead Irrigation Project, Polson Z Canal (24LA90)

The Polson Z Canal is a concrete lined irrigation feature associated with the Flathead Irrigation Project. The ditch was constructed in 1922, and has continued to serve project users to the present.

This canal has not been evaluated for significance and eligibility to NRHP. Rather, it has been treated under the provisions of the Irrigation Ditch Programmatic Agreement among MDT, MSHPO, FHWA and ACHP. Under this

agreement, regular inventory and evaluation under Section 106 is suspended if the ditches are in regular current use. This site is not evaluated further in this document.

Paul Bunyan Tug Boat

The Paul Bunyan Tug Boat currently is housed at the Miracle of America Museum located on the southern outskirts of Polson. This boat has been determined eligible for listing in NRHP. However, ACHP has advised that the boat will not actually be listed until relocated to a more appropriate site. The boat is therefore not evaluated further in this document.

Casey Dentist Office

The Casey Dentist Office (24LA167) is a two story brick tavern on Polson's main thoroughfare (US 93) and retains most of the features associated with a brick-front commercial building. Although the facade windows have been recently in-filled, the basic configuration of the original plate glass windows is easily discernible. The building maintains its integrity of design, workmanship and feeling. It is eligible for NRHP under Criteria A and C.

Faunce House

The Faunce House (24LA177) is a small single story dwelling overlooking US 93 in Polson. Across the highway is the south shore of Flathead Lake. The Faunce House is a good example of a bungalow residence. Because it was apparently constructed at the same time as the other historic-age residences on the block, it is likely associated with the development of Polson immediately after the construction of the railroad branch line to the community. The Faunce House is eligible for NRHP under Criteria A and C.

Paul House

The Paul House (24LA197) is a Cottage Style single story dwelling with a daylight basement and attached garage. It is between US 93 and Flathead Lake in Polson. Constructed in 1942, it is a good example of a vernacular style dwelling. The site has excellent integrity, very good values of feeling, workmanship, materials, association, location and setting. It is in a neighborhood that has escaped strip commercial development despite its proximity to US 93. Based on the site's excellent integrity, it is eligible for NRHP under Criterion C.

Tiddy House

The Tiddy House (24LA188) is a single story duplex (Spanish Mission style) built in 1947 overlooking US 93 in Polson. Across the highway is the south shore of Flathead Lake. The site has excellent integrity, good values of feeling, association, location, setting, material and workmanship. Its values have remained relatively high because it is in an intact neighborhood that has for the most part escaped strip commercial development despite its proximity to US 93. The dwelling is a good example of the Mission Style; one of just two identified Mission Style structures in the town of Polson. Since the site has excellent integrity, it is eligible for NRHP under Criterion C.

Anderson Cottage

The Anderson Cottage (24LA175) is a small single story cottage on US 93 in Polson. It is an excellent example of a Minimal Traditional-style residence that is still located in a residential neighborhood. The residence retains the original features commonly associated with the style including the asbestos siding, windows, board and batten on the gable ends and the configuration. Although a wood deck and sliding doors have been added to the rear of the dwelling, they are not intrusive and keep in character with the property. The property is eligible for NRHP under Criteria A and C.

Poage House

The Poage House (24LA181) is a small single story dwelling overlooking US 93 in Polson. Across the highway is the south shore of Flathead Lake. The Poage House is an excellent example of a small Craftsman-style cottage. It retains all of the architectural features associated with the style, i.e., narrow reveal siding, Chicago-style windows, exposed rafters, brackets and configuration. The clipped gable roof, moreover, is an unusual feature of the residence. Based on the property's association with the early-20th Century development of Polson and its architectural integrity, the residence is eligible for NRHP under Criteria A and C.

Caffrey Place - Barn, Feature 8

The Caffrey Place (24LA204) is located along Caffrey Road south of Polson. The site consists of a large dairy barn, a bungalow dwelling, garage, three granaries, two grain bins, three pole hay barns, three equipment sheds, a potato cellar, a loafing shed, a modern metal shop, two trailer houses, and other assorted small structures.

The 65 x 82-foot dairy barn (Feature 8) is by far the most imposing structure on the farm. It was built around 1919 after the first barn burned down. Originally constructed with only the north shed roof extension, the opposite site shed extension was built around 1929. Because of the site's poor integrity, it is not eligible as a whole for NRHP. Only the dairy barn, Feature 8, is eligible for NRHP. The barn is one of the largest of its type in the Flathead Valley and is a good example of an early-20th Century dairy barn. Because its use ceased around 1970, it has had little modern alteration. Nor have any intrusive structures been built immediately adjacent to it. The dairy barn is eligible individually for NRHP under Criterion C.

6.15. PARKS AND RECREATION

The area has diverse recreation resources for outdoor activity.

Developed recreation occurs typically in community parks and recreation areas that feature picnic grounds, recreation fields for baseball and softball and school athletic fields and playgrounds in Arlee, St. Ignatius, Ronan, Pablo and Polson. The powwow and rodeo grounds at Arlee and the Lake County Fairgrounds at Polson are popular recreation centers located near US 93. Athletic fields for schools in Arlee and Ronan also are located near US 93.

In Polson, the Flathead River and Flathead Lake are the primary focus of recreation. Popular recreation activities include fishing, river rafting, sailing, motor boating, water skiing, wind surfing and canoeing.

Dispersed recreation occurs away from developed sites and includes activities such as hunting, hiking, driving for pleasure, golfing, bicycle touring, picnicking, softball, tennis and nature viewing.[227]

6.15.1. Parks and Recreation in Communities

There are nine parks and community recreation areas that have approximately 0.9 mile of frontage on the highway's existing ROW. The Arlee community park, St. Ignatius ballfield and Ronan ballfield each have approximately 0.1 mile of frontage on existing highway ROW. In Polson, five community parks/recreation areas combine to have 0.3 mile, and the Polson municipal golf course has approximately 0.3 mile of frontage on highway ROW.[228] (Appendix A, aerial photographs and maps)

Alignment alternatives away from the existing alignment also will be located in areas used for parks and recreation. At Arlee, Alignment 3 will be located between the community and the powwow and rodeo grounds, but the powwow and rodeo grounds will not have frontage on highway ROW. Alignment 3 also will be located near the school's athletic field, but without frontage on highway ROW. The Jocko River Trout Hatchery, located between Arlee and the Jocko River, provides land open to public recreation in the area of Alignment 3. Land between the hatchery and the schools is used by the schools to conduct athletic activities and science education studies and observations and is considered important by the schools.[229]

At Ronan, Alignment 2 (one-way couplet) will border the city park, the school's athletic field, and a ballfield. Ronan Alignments 3 and 4 will border another ballfield. At Polson, Alignment 2 (Caffrey Road - Kerr Dam Road) will pass along the west edge of the Seventh Avenue ballfield.[230]

6.15.2. Recreation Outside Communities

US 93 provides transportation services that support the goal of recreation management in providing a broad spectrum of recreation experience opportunities for the benefit and enjoyment of the public.

The scenic attractions in the region are prime destinations for tourism and recreation. According to a survey of persons who were from outside Montana and traveled US 93 in 1990, scenery was the major attraction for vacation visitors. Scenery was an attraction for 92% of visitors, while wildlife (48%), camping (38%), history (33%), local events (25%) and fishing (17%) were other important attractions.[231]

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[227]Carter-Burgess. 1993.

[228]Morrison-Maierle. 1993.

[229]Crane, Gayle, Superintendent, Joint School District No. 8, letter dated 28 March 1994 and Ron Snyder, Montana Department of Fish, Wildlife and Parks, letter dated 24 March 1994.

[230]Carter-Burgess, 1993.

[231]Institute for Tourism and Recreation Research, The University of Montana. Nonresident Visitor Profile, U.S. Highway 93 Travelers. September 1992.

Photography, viewing wildlife, visiting historic sites, museums and visitors centers, and day hiking were the most popular activities for vacation visitors who traveled US 93 in 1990.[232] (Table 6.15-1)

There are popular recreation sites in the area. Fishing and birding occurs at the Ninepipe National Wildlife Refuge, with 8,000 annual visitors, and the Pablo Wildlife Refuge receiving 2,000 annual visitors.[233] USFWS also operates the Kicking Horse and Duck Haven waterfowl production areas. (Sections 6.12 and 7.12)

The National Bison Range near Ravalli is visited by 160,000 persons, approximately 33% from the surrounding area, 33% from other western states, 16% from eastern states and 16% from foreign countries.[234]

In 1991, Flathead Indian Reservation conservation use permits were issued to 5,805 residents and 11,538 non-residents. In addition, there were issued a total of 12,529 fish stamps and 2,432 bird stamps. Kicking Horse Reservoir, which is on the reservation and has access from US 93, receives 11,000 annual visitors who participate in picnicking, fishing, bird hunting, bird watching and training bird hunting dogs.[235]

There are nine scenic/historic turnouts and 20 recreation sites adjacent to the highway.[236] The recreation sites include formal sites, such as a fishing access site operated by MDFWP in the area of Ninepipe National Wildlife Refuge. Other less-formal sites are located where rivers, such as the Jocko River north of Arlee, and creeks, such as Mission and Post Creeks, cross the highway. There is a concentration of sites used for recreation in the Ninepipe area. In the Polson area recreation activities occur at mostly undeveloped, dispersed sites along roads. Informal turnouts, which generally are wide areas along the road with sufficient room to park a vehicle, provide access to many of the dispersed recreation sites. There are 32 roads that intersect with US 93 and provide access to recreation sites away from the highway.[237] (Appendix A, aerial photographs and maps)

MDFWP manages four state parks and four state recreation areas near Flathead Lake. Visitation at state parks during the month of July 1992 was: Big Arm 9,905; Wayfarers 15,404; West Shore 6,204 and Elmo 8,247.[238]

6.15.3. Section 4(f) and Section 6(f) Properties

Chapter 12 identifies parks, recreation areas and wildlife and waterfowl refuges that are subject to Section 4(f) of the 1966 U.S. Department of Transportation Act, 49 U.S.C. 303 and Section 6(f) of the Land and Water Conservation Fund Act.

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[232]Ibid.

[233]Montana Department of Fish, Wildlife and Parks. 1992.

[234]U.S. Department of the Interior. National Bison Range. 1992.

[235]The Confederated Salish and Kootenai Tribes. 1992.

[236]The Confederated Salish and Kootenai Tribes have requested a change in wording for the Ravalli Hill historical sign. The Montana Department of Transportation, the Montana State Historical Preservation Office, the Confederated Salish and Kootenai Tribes and local governments will coordinate this change and any other changes of historical signs.

[237]Confederated Salish and Kootenai Tribes, Natural Resources Department. Planning information. 1993.

[238]Montana Department of Fish, Wildlife and Parks. Planning information. 1993.

Table 6.15-1 Activity Participation By Travel Groups

Activity	Percent
Photography	48
Viewing Wildlife	41
Visitor Centers	38
Day Hiking	37
Historic Sites & Museums	35
Auto/RV Camping	29
Picnicking	27
Fishing	16
Swimming	11
Naturalist Led Hikes	10
Powerboating	6
Special Events	5
Golf	5
Gambling	4
Horseback Riding	4
River Floating	4
Canoeing - Lake	2

Institute for Tourism and Recreation Research, The University of Montana. Nonresident Visitor Profile, U.S. Highway 93 Travelers. September 1992.

6.16. HAZARDOUS MATERIALS

6.16.1. Hazardous Material Assessments

A Phase I hazardous material assessment has been completed for the proposed action.[239] Phase I assessment involves conducting records research through local, state, and federal agencies for sites containing known releases of hazardous substances, generators of hazardous waste, underground storage tanks (UST), and other potential sources of hazardous materials. Also included in the Phase I assessment is a site walk-through and discussion with local property owners or residents, as necessary to identify additional potential sources.

Potential hazardous material sources adjacent to the highway were evaluated based on the use, storage and disposal practices observed from the public ROW. Residual contamination from past spills and releases on the highway also were considered in the evaluation. The primary contaminants identified during the assessment included petroleum hydrocarbons, agricultural products (fertilizer, herbicides and pesticides), solvents and degreasers and the unknown contents of observed drums. Most of the commercial facilities located adjacent to the existing highway ROW are connected to septic systems which, if used for waste disposal other than sanitary, also are considered a threat.

Areas of potential environmental concern were identified as listed on Table 6.16-1. As indicated on the table, areas of concern are ranked high, medium or low with regard to the likelihood that existing or new ROW has been adversely affected by hazardous materials or petroleum substances.

US 93 from Evaro through Polson has commercial vehicle traffic that carries petroleum products, fertilizers, pesticides and other materials. As indicated on Table 6.16-1, and as explained by tribal and local governments, several highway related hazardous material spills have occurred during recent years. Some have resulted in contamination of soils, streams and groundwater. Though no incidents resulting in human injury have occurred, the potential exists particularly where the highway passes through the communities of Arlee, Ronan and Polson and other populated areas.

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[239]Chen-Northern, Inc., Phase I Hazardous Material Assessment, U.S. Highway 93 Right-of-Way Corridor; Evaro to Polson, February 1993 and Chen-Northern, Inc., Phase I Hazardous Material Assessment, U.S. Highway 93 Polson Bypass Study, June 1993.

Table 6.16-1 Areas of Hazardous Materials Concerns

MILEPOST INVERVAL	FACILITY NAME	POTENTIAL CONTAMINANT	LIKELIHOOD THAT RIGHT-OF-WAY HAS BEEN AFFECTED	REMARKS
6.75	Abandoned gasoline station	Petroleum hydrocarbons	Low	Possible location of USTs are out of ROW.
6.90	Former post office/17095 US 93	Petroleum hydrocarbons	High to Moderate	USTs are located adjacent to highway ROW. Owner has received permit to remove tanks. Montana Department of ~~Environmental Quality~~~~Health and Environmental Sciences~~ (~~MDEQ~~~~MDHES~~) will require soil sampling to document whether tanks have leaked. Risk based on results of closure samples.
7.05	MDT maintenance yard	Petroleum hydrocarbons, solvents, waste oil	Low	Location of USTs and maintenance activities are not immediately adjacent to ROW.
9.95	Joe's Smoke Ring gas station	Petroleum hydrocarbons	High	USTs are located adjacent to ROW. Spills and overfills may have affected soil adjacent to ROW.
16.05	Kelly's Auto Glass & Salvage yard	Unknown	Low	Facility is too far from highway to affect soil adjacent to ROW.
16.70	Mission Valley Power Arlee substation	PCBs	Low	Transformers have reportedly never contained PCBs at this substation.
16.80	Unnamed Post & Pole business	Copper napthenate, petroleum hydrocarbons	High	Treated post storage yard in ROW. Facility also concern of Alignment 2 through Arlee.
Arlee, Alignment 1				
17.40	Vacant lot south end of Arlee (formerly McClures service station)	Petroleum hydrocarbons	High	Two USTs located approximately 25 feet east of ROW during metal detector survey. Location of USTs may affect construction activities.
17.50	Sanders Automotive	Petroleum hydrocarbons, solvents, waste oil	Low	Facility is too far from highway to affect soil adjacent to ROW.
	Auto parts store (former gas station)	Petroleum hydrocarbons	High	Locals indicate USTs were removed; however, no soil testing was done to document whether tanks had leaked. Disturbed area observed approximately 10 feet west of ROW.
17.55	Longhorn Cafe (formerly Arlee Mercantile gas station)	Petroleum hydrocarbons	High	Possible UST fill port observed approximately 3 feet from existing highway. No hits with metal detector. UST may be located in ROW.

Table 6.16-1 Areas of Hazardous Materials Concerns (continued)

MILEPOST INVERVAL	FACILITY NAME	POTENTIAL CONTAMINANT	LIKELIHOOD THAT RIGHT-OF-WAY HAS BEEN AFFECTED	REMARKS
17.60	Vacant lot north of Stockmans Bar (former gas station)	Petroleum hydrocarbons	High	Possible UST fill ports observed in pavement along highway. No permission to perform metal detector survey of lot. Construction activities may be affected.
	Longhorn Bar (former gas station)	Petroleum hydrocarbons	High	No evidence of USTs observed and no hits with metal detector, though USTs may be close to ROW.
17.65	Jocko Medical Center (formerly CENEX gas station)	Petroleum hydrocarbons, solvents, waste oil	High	Documented petroleum contamination of soil and groundwater. Site being invested under DHES LUST Program.
	Arlee Station Auto Repair	Petroleum hydrocarbons, solvents, waste oil	Low	Facility is too far from highway to affect soil adjacent to ROW.
17.70	Star Movies (former gas station)	Petroleum hydrocarbons	High	No evidence of USTs but locals indicate two tanks are still in ground. No permission to conduct metal detector survey.
17.80	Joe's Food Farm and Conoco Station	Petroleum hydrocarbons	High	USTs are located approximately 25 feet west of ROW.
17.85	Fuel spill north of Joe's Food Farm	Petroleum hydrocarbons	High	Incident occurred on highway and affected ROW. Cleanup may not have been adequate.
18.90	Jocko Hollow Campground (formerly Jocko Mercantile gas station)	Petroleum hydrocarbons	Low	Owner indicated one tank removed from site. No USTs detected during metal detector survey. Former location of UST too far to affect soil near ROW.
No likely hazardous materials sites have been identified on **Arlee, Alignments 2, 3 and 4**				
22.00	Truck wreck fuel spill	Petroleum hydrocarbons	High	Incident occurred on highway and affected ROW. Cleanup may not have been adequate.
23.30	Midway Store gas station	Petroleum hydrocarbons	High	Gas pumps located on border of ROW.
	Midway Store dump	Volatile organic compounds	Low	Dump out of ROW. Not likely that effects to soil have occurred along highway.
26.70	Residential dumping in Ravalli	Unknown	Low	Dump out of ROW. Not likely that effects to soil have occurred along highway.

Table 6.16-1 Areas of Hazardous Materials Concerns (continued)

MILEPOST INVERVAL	FACILITY NAME	POTENTIAL CONTAMINANT	LIKELIHOOD THAT RIGHT-OF-WAY HAS BEEN AFFECTED	REMARKS
26.75	4-Star Bar (former gas station)	Petroleum hydrocarbons	High	Concrete pedestal with protruding pipe west of building. Survey plans indicate gas pumps south of building (former fruit stand). No hits with metal detector at either location. Locals say USTs beneath building addition.
26.85	Rocky Mountain Pellet Mill	Solvents, waste oil	High	ROW at edge of building.
26.90	Keith's Ag Equipment	Solvents, waste oil	High	ROW at edge of building.
27.00	Former Mission Feed and Grain and bulk fuel plant	Petroleum hydrocarbons, agricultural chemicals	Low	No indication of former development.
27.05	DuMontier Oil Company Sinclair Station	Petroleum hydrocarbons	High	Product lines in ROW.
27.10	MDT maintenance yard	Petroleum hydrocarbons, solvents, waste oil	Low	USTs out of ROW. Not likely that effects to soil have occurred along highway.
27.25	Jocko Trading Post (formerly Blue Bell Antiques & gas station)	Petroleum hydrocarbons	High	Site under investigation through MDEQ~~MDHES~~ LUST Program.
27.30	Ravalli Cash Store	Petroleum hydrocarbons	High	ROW close to pump islands.
27.35	Goods Muffler (formerly Brown's Texaco)	Petroleum hydrocarbons	Moderate	USTs removed with no soil contamination. Spills and overfills may have affected ROW soil.
27.40	Bison Inn and Cafe (former gas station)	Petroleum hydrocarbons	Moderate	Locals indicate USTs are beneath new building addition and close to ROW.
27.55	Mission Valley Power Ravalli substation	PCBs	Low	Transformers have reportedly never contained PCBs.
32.45	Mission Creek diesel spill	Petroleum hydrocarbons	High	Incident occurred on highway and affected ROW. Cleanup may have not been adequate.

Table 6.16-1 Areas of Hazardous Materials Concerns (continued)

MILEPOST INVERVAL	FACILITY NAME	POTENTIAL CONTAMINANT	LIKELIHOOD THAT RIGHT-OF-WAY HAS BEEN AFFECTED	REMARKS
32.65	Doug Allard's Indian Museum and Trading Post (gas station)	Petroleum hydrocarbons	High	Product lines and USTs in ROW.
33.00	Starvin Marvin's (abandoned gas station and auto repair)	Petroleum hydrocarbons, solvents, waste oil	High	USTs in ROW.
33.55	Mission Valley Power St. Ignatius substation	PCBs	Low	Transformers have reportedly never contained PCBs.
37.00	Post Creek Store (R & R Auto Repair)	Solvents, waste oil	Moderate	USTs have been removed and petroleum not detected in soil samples. Facility within ROW. Spills and overfills from past fuel dispensing or automotive maintenance activities may have affected soil.
42.05	MDT maintenance yard	Petroleum hydrocarbons, solvents, waste oil	Moderate	USTs have been removed and petroleum not detected in soil samples. ROW through yard of facility. Spills and overfills from past fuel dispensing or equipment maintenance activities may have affected soil.
42.15	Countryside Cafe & Truck Stop	Petroleum hydrocarbons, solvents, waste oil	High	USTs have been removed but results from closure samples not yet received by ~~MDHES~~MDEQ. ROW through former tank area. Spills and overfills from past fuel dispensing activities may have affected soil.
42.25	Long's Livestock and Trucking	Petroleum hydrocarbons	Low	UST out of ROW. Not likely that soil adjacent to highway has been affected.
45.55	Western Ag Sales and Service	Petroleum hydrocarbons, pesticides and other agricultural chemicals	High	Fertilizer tanks close to ROW. Areas of stressed vegetation observed on premises.
Ronan, Alignment 1				
46.25	CENEX Farm & Home Supply Store	Petroleum hydrocarbons	High	Tanks close to ROW. Documented petroleum contamination to groundwater beneath highway. Site under investigation through ~~MDHES~~MDEQ LUST Program.
46.25	CENEX bulk plant	Petroleum hydrocarbons	High	ROW through yard of bulk plant. Documented petroleum contamination to soil and groundwater. Site under investigation through ~~MDHES~~MDEQ LUST Program.

Table 6.16-1 Areas of Hazardous Materials Concerns (continued)

MILEPOST INVERVAL	FACILITY NAME	POTENTIAL CONTAMINANT	LIKELIHOOD THAT RIGHT-OF-WAY HAS BEEN AFFECTED	REMARKS
46.30	Scott Lynch Fencing	Copper napthenate, penta, petroleum hydrocarbons	High	ROW close to post storage yard. Surface runoff of wood treating compounds may affect ROW soil.
46.40	Abandoned New Holland Ford Dealership	Petroleum hydrocarbons	Low	USTs removed and petroleum not detected in soil samples.
46.50	George's Exxon	Petroleum hydrocarbons	Moderate	Tanks far enough away from ROW but spills and overfills may have affected ROW soils (staining visible)
46.75	Exxon Town Pump	Petroleum hydrocarbons	High	Tanks and pumps close to existing ROW.
46.85	Jensen Oil Company and Conoco Station	Petroleum hydrocarbons	High	Pumps close to existing ROW. Tanks located about 25 feet west of ROW.
47.00	Ronan State Bank (former gas station)	Petroleum hydrocarbons	Moderate	Tanks all removed from site but spills and overfills from fuel dispensing activities may have affected ROW soils.
47.10	Arnie's Gas and Tire Center	Petroleum hydrocarbons	High	Tanks and pumps close to existing ROW.
47.20	Don Aadsen Ford Dealership	Petroleum hydrocarbons, solvents, waste oil	Moderate	Location of UST not close to ROW but 1983 spill of crank case oil from UST to sewer may have affected ROW soil.
47.30	J's Convenience Store and gas station	Petroleum hydrocarbons	Low	Tanks not below ground and away from ROW. New piping installed and soil remediation performed.
Ronan, Alignment 2				
46.25	CENEX Bulk Plant	Petroleum hydrocarbons	High	See Alignment 1 remarks above.
46.30	Scott Lynch Fencing	Copper napthenate, penta, petroleum hydrocarbons	High	See Alignment 1 remarks above.
ND	Hodge Radiator (former gas station)	Petroleum hydrocarbons, solvents, waste oil	High	Possible fill port at northeast corner of property may be in ROW. Fifty years of auto maintenance may have affected soil.

Table 6.16-1 Areas of Hazardous Materials Concerns (continued)

MILEPOST INVERVAL	FACILITY NAME	POTENTIAL CONTAMINANT	LIKELIHOOD THAT RIGHT-OF-WAY HAS BEEN AFFECTED	REMARKS
ND	Ronan Power Products (former gas station)	Petroleum hydrocarbons	High	Pump island at southeast corner of property. Tanks may still be in ground and close to ROW.
ND	Mission Valley Power maintenance yard	PCBs, penta, solvents, petroleum hydrocarbons	Moderate	Treated poles stored in yard and soil staining evident on property. According to power company official, no pole treating performed or PCB-containing equipment stored on site.
ND	School District vehicle maintenance yard	Petroleum hydrocarbons, solvents, waste oil	Low	No evidence of UST fill ports or vent lines. No hazardous material storage observed in yard.
47.20	Don Aadsen Ford Dealership	Petroleum hydrocarbons, solvents, waste oil	High	UST near proposed ROW. See Alignment 1 remarks above.
47.30	J's Convenience Store and gas station	Petroleum hydrocarbons	Low	See Alignment 1 remarks above.
Ronan, Alignment 3				
ND	Lake County road maintenance yard	Petroleum hydrocarbons, solvents, waste oil	High	Treated poles stored in yard. Stained soil observed on property.
ND	Ronan City Shop	Petroleum hydrocarbons, solvents, waste oil	Low	Site is far enough away from potential ROW. Effects to soil not likely.
ND	Automotive garage	Solvents, waste oil	Moderate	Stained soil and drums observed on property. Facility not on ROW.
ND	Post and Pole storage yard	Copper napthenate, penta, petroleum hydrocarbons	High	Treated poles stored on site.
Ronan, Alignment 4				
ND	MLS Feeds	Pesticides	Low	Facility west of railroad tracks and out of ROW.

Table 6.16-1 Areas of Hazardous Materials Concerns (continued)

MILEPOST INVERVAL	FACILITY NAME	POTENTIAL CONTAMINANT	LIKELIHOOD THAT RIGHT-OF-WAY HAS BEEN AFFECTED	REMARKS
ND	CENEX/Co-op Supply Store	Petroleum hydrocarbons, agricultural chemicals	Low	Main facility on west side of railroad tracks. Material storage east of tracks mostly lumber. No hazardous material observed on east side of tracks.
ND	Westland seed plant west of substation	Agricultural chemicals, pesticides	High	Evidence of chemical (fertilizer) spillage observed in and around building. Plant near potential ROW.
ND	Mission Valley Power Ronan substation	PCBs	Low	No PCB equipment reportedly used or stored at the site.
ND	Lake County Weed District	Herbicides	High	Documented soil contamination on property. Potential ROW close to site.
ND	Bulk fuel plant	Petroleum hydrocarbons	High	Potential ROW close to site.
47.55	Ronan Auto Body & Chrysler Dealership	Petroleum hydrocarbons, solvents, waste oil	Low	Repair bays and UST not close to ROW.
51.90	Joe's Jiffy Stop	Petroleum hydrocarbons	High	Tanks near highway. Vapor extraction system in place near ROW. Site under investigation through ~~MDHES~~MDEQ LUST Program.
52.00	Tribal Fish and Game	Solvents, waste oil	Low	Sufficiently distant from highway.
	BC Auto Center	Petroleum hydrocarbons	High	Pumps and USTs near highway.
52.10	Road maintenance yard	Solvents, waste oil	Low	ROW not near tanks.
52.30	Mission Valley Power Pablo substation and storage yard	PCBs, penta, petroleum hydrocarbons	Low	No ROW into yard.
53.20	Bob's Auto Mart	Solvents, waste oil	Low	Maintenance activities not near ROW.
53.2-53.4	Plum Creek Lumber Manufacturing Company	Solvents, waste oil	Low	Maintenance activities and chemical storage not near ROW.

Table 6.16-1 Areas of Hazardous Materials Concerns (continued)

MILEPOST INVERVAL	FACILITY NAME	POTENTIAL CONTAMINANT	LIKELIHOOD THAT RIGHT-OF-WAY HAS BEEN AFFECTED	REMARKS
53.40	Jim & Wanda's Country Store	Petroleum hydrocarbons	High	Tanks and pumps close to ROW.
54.60	Castlio Drilling and waste pit	Solvents, waste oil	Moderate	Stained soil observed near ROW.
54.70	Unnamed construction company	Petroleum hydrocarbons, solvents, waste oil	High	Maintenance shop close to ROW.
54.80	Tire's-R-Us	Petroleum hydrocarbons	High	Maintenance activities close to ROW.
54.85	Mikesell's Auto and Equipment	Solvents, waste oil	Low	Maintenance activities not near ROW.
54.90	Polson Auto Salvage	Unknown	Moderate	ROW goes through part of yard.
54.8-55.0	Lake County wood waste disposal pit (old Polson landfill)	Petroleum hydrocarbons, volatile organic compounds	Low	UST and waste disposal activities away from ROW.
Polson-Alignment 1				
56.5-56.6	Pioneer Chevrolet Dealership US 93 & Caffrey Road	Petroleum hydrocarbons, solvents, waste oil	Low	Automotive maintenance and USTs at site. ROW does not include site. Also concern of Alignments 2 and 3.
56.6	AT & T Repair 56605 US 93 South	Solvents, waste oil	Low	Automotive maintenance performed at site. ROW does not include site.
57.1-57.2	Polson Ready-Mix Concrete 57093 US 93 South	Petroleum hydrocarbons, solvents, waste oil	Low	Equipment maintenance performed at site. ROW does not include site.
57.8	Automobile wreck and gasoline spill Bottom of Polson Hill	Petroleum hydrocarbons	Low	Most of spill recovered.

Table 6.16-1 Areas of Hazardous Materials Concerns (continued)

MILEPOST INVERVAL	FACILITY NAME	POTENTIAL CONTAMINANT	LIKELIHOOD THAT RIGHT-OF-WAY HAS BEEN AFFECTED	REMARKS
58.2	Mechanics Mall 58116 US 93 South	Solvents, waste oil	Moderate	Automotive maintenance performed at site. Soil staining evident but not on ROW.
58.4-58.7	Pack River Lumber Company 58719 US 93 South	Petroleum hydrocarbons, solvents, waste oil	Low	Documented release from UST also equipment maintenance performed on premises. ROW does not include site.
58.4	Asphalt oil spill Lumber company driveway	Petroleum hydrocarbons	Moderate	Most of oil spilled on lumber company driveway and highway ROW. Bentonite chips spread to absorb spill.
59.00	Tradewinds Realty (formerly Gulf Oil gas station) Junction US 93 & 35	Petroleum hydrocarbons	High	ROW through area currently occupied by USTs.
59.05	ReMax Realty (formerly Standard Oil gas station) Junction US 93 & 35	Petroleum hydrocarbons, solvents, waste oil	High	Fill port visible in concrete. ROW within 20 feet of tanks.
59.65	Cherry Hill Motel 1810 US 93	Petroleum hydrocarbons	High	Documented soil contamination within 10 feet of ROW due to releases from old refinery or leaking heating oil USTs.
59.72	Polson Town Pump 1714 US 93	Petroleum hydrocarbons	High	Documented soil and groundwater contamination in ROW. Probable contamination beneath highway. ~~MDHES~~MDEQ LUST Program has requested further investigation of this site.
59.75	Video Station (formerly Sloan's Appliance and Town Pump) 1702 US 93	Petroleum hydrocarbons	High	Documented soil and groundwater contamination in ROW. ~~MDHES~~MDEQ LUST Program has requested further investigation of site.
59.95	Polson Bay Grocery and gas station US 93	Petroleum hydrocarbons	Moderate	Highway ROW may be affected due to spills and overfills. No documented release from USTs.
60.17	Driftwood Restaurant (former gas station) US 93	Petroleum hydrocarbons	High	Tanks closed in place during mid-1970s. Location of tanks thought to be within 20 feet of existing highway ROW. Spills, overfills, or releases from USTs may have affected highway ROW.
60.75	KwaTaqNuk Resort (formerly Roy's Bayview 76) 303 US 93	Petroleum hydrocarbons	Moderate	Southwest corner of resort property formerly occupied by gas station. Spills, overfills, or releases from USTs may have affected highway ROW.

Table 6.16-1 Areas of Hazardous Materials Concerns (continued)

MILEPOST INVERVAL	FACILITY NAME	POTENTIAL CONTAMINANT	LIKELIHOOD THAT RIGHT-OF-WAY HAS BEEN AFFECTED	REMARKS
60.80	Car Wash (formerly Flathead Lake Chevron) 209-2nd Avenue East	Petroleum hydrocarbons	Moderate	Soil testing during UST closure indicate tank systems did not leak; however, spills and overfills may have affected highway ROW.
60.87	93-Exxon 107-2nd Avenue East	Petroleum hydrocarbons, solvents, waste oil	High	No documented release from USTs but spills and overfills may have affected existing highway ROW. Property has been used for automotive repairs.
60.92	Safeway Store 104-2nd Avenue East	Petroleum hydrocarbons	High	Documented soil and groundwater contamination associated with site. ~~MDHES~~MDEQ LUST Program has requested further investigation of this site.
60.93	Denesen Gallery 13-2nd Avenue East	Petroleum hydrocarbons	High	Documented soil and groundwater contamination associated with site. Soil removal has been performed in conjunction with tank removal but residual soil contamination may exist in highway ROW. ~~MDHES~~MDEQ LUST Program has requested further monitoring of site.
60.93	Beacon Tire Center 14-2nd Avenue East	Petroleum hydrocarbons, solvents, waste oil	High	Documented soil and groundwater contamination associated with site. Soil removal has been performed in conjunction with tank removal but residual soil contamination may exist in highway ROW. ~~MDHES~~MDEQ LUST Program has requested further monitoring of site.
61.00	Tanstaafl & Company (formerly Bigfoot Alpha Discount) 1-2nd Avenue East	Petroleum hydrocarbons	Moderate	Near-surface soil contamination associated with tank excavation below building. Deep soil contamination (15-18 feet below ground surface) (bgs) in highway ROW from migration of petroleum products on top of groundwater from north Polson release sites. ~~MDHES~~MDEQ LUST Program has requested further investigation of site.
61.02	Former Salish Hotel 110 Main Street	Petroleum hydrocarbons	Moderate	Soil contamination associated with tank excavation. Deep soil contamination (15-18 feet bgs) in highway ROW from migration of petroleum products on top of groundwater from north Polson release sites. ~~MDHES~~MDEQ LUST Program has requested further investigation of site.
61.02	Pier 93 9-2nd Avenue West	Petroleum hydrocarbons	High	Documented release from this facility is not considered to have contributed to groundwater contamination in north Polson area. However, spills and overfills may have affected soil within 20 feet of existing highway ROW. Deep soil contamination (15-18 feet bgs) in highway ROW from migration of petroleum products on top of groundwater from north Polson release sites.
61.03	Glacier Bank 14-2nd Avenue West	Petroleum hydrocarbons	Moderate	Suspected soil contamination at 15 to 18 feet below ground surface in highway ROW related to migration of petroleum products on top of groundwater from north Polson release sites.

Table 6.16-1 Areas of Hazardous Materials Concerns (continued)

MILEPOST INVERVAL	FACILITY NAME	POTENTIAL CONTAMINANT	LIKELIHOOD THAT RIGHT-OF-WAY HAS BEEN AFFECTED	REMARKS
61.46	MDT maintenance facility and Lake County shop West of Polson	Petroleum hydrocarbons, solvents, waste oil	High	Historic use of site for equipment maintenance and fuel dispensing may have caused adverse effects to soil within 50 feet of existing highway ROW. This site is also a concern of Alignment 2.
61.50	3-Dog Down & Dixie Antiques (former Cenex gas station) 61541 US 93	Petroleum hydrocarbons	High	Spills, overfills or releases from USTs may have affected soil within 30 feet of existing highway ROW.
Polson, Alignment 2				
ND	Pioneer Chevrolet Dealership US 93 & Caffrey Road	Petroleum hydrocarbons	Low	See description under Alignment 1 above. Also concern of Alignment 3 alignment.
ND	Gravel pit Caffrey Road, 0.25 miles west of Skyline Drive	Petroleum hydrocarbons	Moderate	Spills and overfills from fuel storage and dispensing activities may have affected soil near new highway ROW. Also concern of Alignment 3.
ND	Wastewater treatment plant Kerr Dam Road	Nutrients, Bacteria. Metals	Moderate	Unlikely that soil would be adversely affected by potential contaminants.
ND	MDT maintenance facility and Lake County shop West of Polson	Petroleum hydrocarbons, solvent, waste oil	High	See description under Alignment 1 above.
Polson, Alignment 3				
ND	Pioneer Chevrolet Dealership US 93 and Caffrey Road	Petroleum hydrocarbons	Low	See description under Alignment 1 above. Also concern of Alignment 2 alignment.
ND	Gravel pit Caffrey Road, 0.25 miles west of Skyline Drive	Petroleum hydrocarbons	Moderate	See description under Alignment 2 above.

Chen-Northern, Inc., Phase I Hazardous Material Assessment, U.S. Highway 93 Right-of-Way Corridor; Evaro to Polson, February 1993 and Chen-Northern, Inc., Phase I Hazardous Material Assessment, U.S. Highway 93 Polson Bypass Study, June 1993.
ND = Not Determined
ROW = Right-of-way

6.17. VISUAL

6.17.1. Landscape Character and Visual Quality

The landscape of the area of the proposed action is typical of northwest Montana, characterized by forested mountain ranges and the valleys that separate them. US 93 passes through the Rattlesnake Mountains and Evaro Canyon at the south end of the area, into the Jocko Valley bounded by the Jocko Hills on the east and the reservation divide on the west. Passing through Ravalli Canyon and the National Bison Refuge, the highway then travels through the Mission Valley bounded on the east by the Mission Mountain Range and on the west by the Salish Mountains~~Ranges~~.

In communities, the most important visual resource is the existing streetscape and community character and identity. The streetscape is comprised primarily of built structures and associated site development arranged linearly along the corridor. The quality scale and texture of development including building styles and materials, parking lots, landscaping, signage, overhead utilities and natural features all contribute to visual character and image. In all of communities, (less so in Ronan and Polson) the texture of the development is small and fragmented. Existing setbacks are minimal and pedestrian amenities limited. Undefined access, signage, overhead utilities and parked vehicles visually encroach on the corridor.

In general, the visual quality viewed from US 93 is above average, encompassing canyons and valleys. Five landscape units, each with distinct characteristics, include Evaro Canyon, Jocko Valley, Ravalli Canyon, Mission Valley and Polson. Figure 6.17-1 identifies the areas of the landscape units, along with the topographic viewshed. Unique characteristics of each landscape unit and existing visual quality are described below.

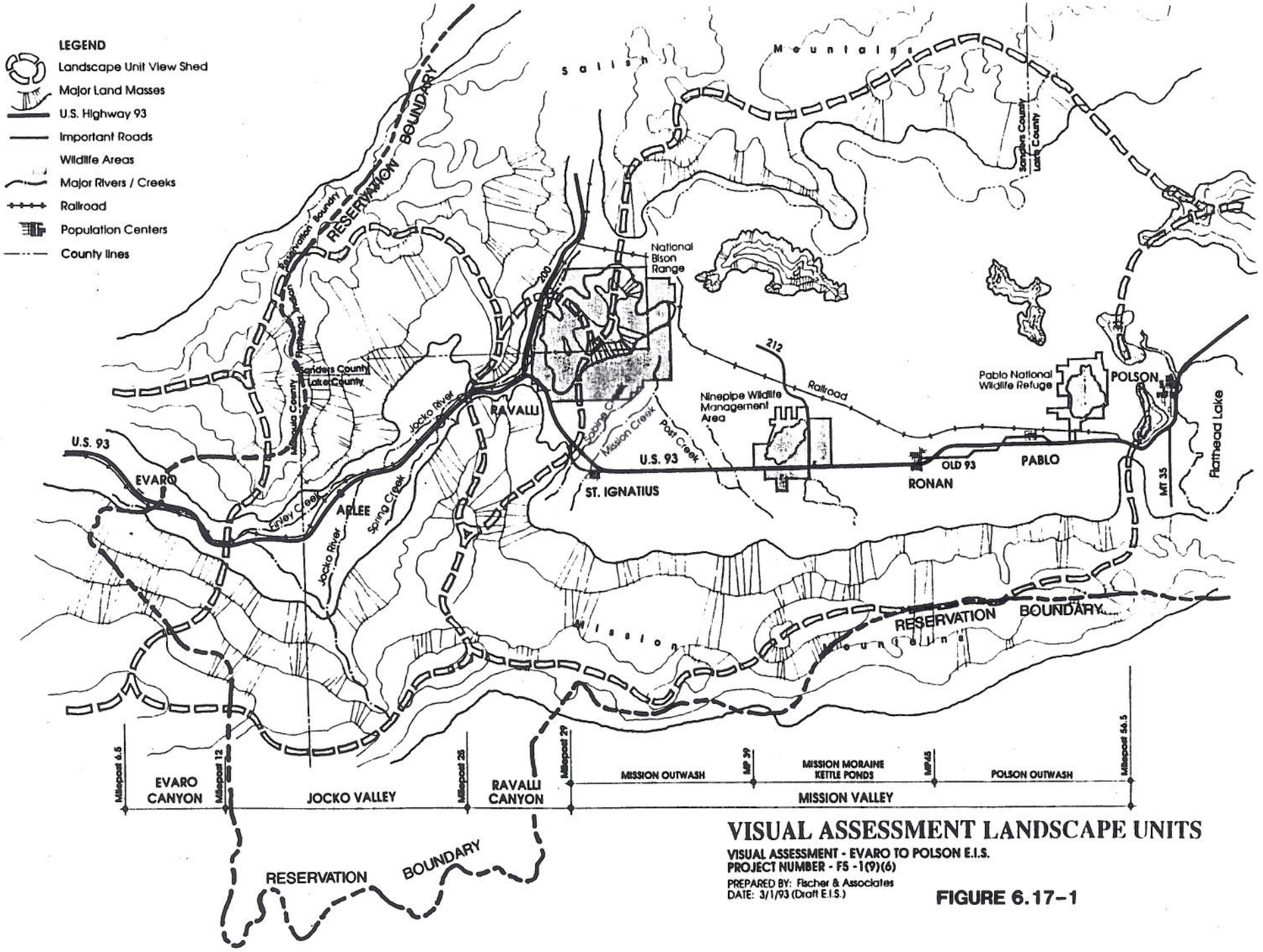
Evaro Canyon

The Evaro Canyon Landscape Unit is exceptionally scenic, with many majestic mountain views in the background framed by mature foreground conifers along most of the roadside. Views from the road display diversity as the curvilinear road alignment reveals a dramatic sequence of changing views with contrasting colors, texture, line and form. Foreground and high background views dominate this unit because nearly continuous mature conifers along the roadside eliminate mid-distance views. Strong color, texture and vertical form in the foreground contrast dramatically with the rough land mass of the mountains against the sky. Land use is mixed including undeveloped and forested natural areas, agriculture, scattered residential, limited strip commercial and the Evaro townsite. Existing visual quality is high offering diversity in views, landform and land cover. The scenic quality of the natural environment in the highway corridor is visually encroached upon by man-made development and an occasionally awkward interface, or connection, of the road with the landscape.

The Jocko Valley

The Jocko Valley presents wide views of an open, agricultural river valley surrounded by steep hills and mountains. The predominant land use is pasture and agriculture with scattered residences. Limited vegetation consist of mixed conifers and deciduous species. Deciduous species dominate low areas along drainages, roadside ditches, canals and the Jocko River,introducing strong lines and an occasional interruption to otherwise long, and distant views. The valley's outstanding natural setting is encroached upon by man-made development, most noticeably overhead utilities, signs, billboards and scattered development, located along the existing highway route. The scenic valley setting and encroachments from development combine to provide only a slightly above average rating of existing visual quality.

The town of Arlee occupies a visually closed position approximately midway through the Jocko Valley, snug between the toe of the slopes west of Finley Creek and the tall tree line along the Jocko River east of town. The southern entrance is defined by the abrupt curve and super elevation at Dirty Corner. The northern entrance is identified by the Jocko River crossing and the vertical tree mass in the wetlands. While Arlee has a distinctive setting with well defined natural perimeters, the town itself lacks visual definition along US 93. Views of small scale development, large overhead-utilities poles, parked vehicles and signs, combined with uncontrolled access and



VISUAL ASSESSMENT LANDSCAPE UNITS

VISUAL ASSESSMENT - EVARO TO POLSON E.I.S.
PROJECT NUMBER - FS -1(9)(6)
PREPARED BY: Fischer & Associates
DATE: 3/1/93 (Draft E.I.S.)

FIGURE 6.17-1

inadequate highway drainage, negatively affect visual quality. Some attempt has been made to coordinate building character with a rustic theme. Cedar siding on several buildings and a split rail fence at the community center provide rustic character to Arlee.

Ravalli Canyon

The Ravalli Canyon Landscape Unit is exceptionally scenic, presenting a dramatic sequence of changing views, which are striking in diversity and unique in character. The unit "bridges" two valleys, framing intermittent mountain views with mixed riparian vegetation of the Jocko River on the southern end and simple rolling hills of the National Bison Range grasslands on the northern end. Land use is mixed including the conservation lands of the National Bison Range, undeveloped pastureland, and the community of Ravalli located near the intersection of MT 200, encompassing scattered residential, agriculture and strip commercial. The elevated railroad, river vegetation and highways are dominant lines at the southern end of this narrow valley. At the northern end, with the exception of overhead utilities, the relative lack of development emphasized by the simplicity of land forms, contrasting with the open sky, is striking.

The existing visual quality of the natural landscape of Ravalli Canyon is outstanding, offering unusual diversity in views, landform and land cover. The exceptional scenic quality of the natural environment is visually encroached upon by man-made development including highways, railroad, commercial sprawl and overhead utilities. The connection of the road and natural forms is awkward, particularly near the Jocko River floodplain and occasionally where it abruptly cuts into hills.

The Mission Valley

The Mission Valley presents panoramic views of an open valley nearly 30 miles in length and width. Bordered by the Salish Mountains to the west and the Mission Mountains to the east, it includes three distinct geological units, described as The Mission Outwash (Mileposts 29 to 39), the Mission Moraine Kettleponds (Mileposts 39 to 45) and the Polson Outwash (Mileposts 45 to 56.5).

The Mission Valley's scenic setting is encroached upon by man-made development, most noticeably overhead utilities, signs, billboards, community commercial sprawl and scattered development, located along the existing highway route. The Mission Valley's mountain scenery combines an uninteresting highway alignment and man made encroachments, to provide only a slightly above average rating of the existing visual quality.

Lines of mixed, primarily deciduous vegetation traverse the Mission Outwash following creeks and drainage courses, adding foreground interest and occasionally framing distant views in this otherwise open landscape. A three-mile stand of scattered, mature lodgepole pine frames intermittent views of the mountains from the existing highway corridor and defines the east edge of the town of Pablo, adding a distinctive identity to the community.

Kettleponds and two large reservoirs are features unique to the Mission Moraine area. High ground water has noticeably limited development and agricultural use of this zone. The predominant use is recreation and wildlife conservation. These interesting landscape features go unnoticed by travelers as the road elevation and alignment preclude visual access.

Although development has affected the viewshed in many areas, the majority of the Mission Valley corridor remains outstanding aesthetically, especially in the undeveloped agricultural and wildlife management areas. The Mission Mountains, which are devoid of forest clearcuts due to CSKT wilderness status, and kettleponds along the roadside attract tourists and local residents for their photogenic appeal.

Ronan is located in the center of the Mission Valley where the rolling land exposes views of prosperous agricultural lands. Spring Creek diagonally bisects the town of Ronan providing a strong line of vegetation, serving as the towns linear open space and crossing under the highway near its intersection with Main Street. Development along the existing highway corridor through Ronan consists of small to medium scale conventional highway commercial

with minimal setbacks. Visually the highway divides the town, and commercial sprawl, overhead utilities and encroachment of signs detract from the overall character of this intact western town.

The Mission Valley ends near the top of Polson Hill, with dramatic views of the Flathead Valley and Flathead Lake. Land use, which varies in response to groundwater, soils, land ownership and settlement patterns, encompasses fertile agriculture, wildlife refuges, pastureland, scattered residences and the communities of St. Ignatius, Ronan and Pablo. With the exception of Pablo, vegetation is sparse through most of this unit, a large portion of the land has been previously harvested for timber.

Polson

The Polson Landscape Unit is part of a broad valley with surrounding mountains and several drainages feeding bodies of water within the valley. It is characterized by Polson Bay (part of Flathead Lake) immediately north of Polson, the Mission Mountains to the east, CSKT forest lands~~Flathead National Forest~~ to the west, and the Flathead River which flows southwest from Polson Bay. US 93, ~~climbs~~ drops into Polson from prominent hills on both ends of the city.

The landscape unit as a whole consists of Flathead Lake, the Flathead River, several manmade canals, croplands, the developed urban environment of Polson, rural areas with ranches and scattered homesites, and existing vegetation - mostly native grasses, deciduous trees along waterways and scattered groups of evergreen trees on hilly outcrops. The most dominant visual characteristic of the area is Flathead Lake. The hilly terrain surrounding the area provides a variety of opportunities for viewing the lake. There are also views of the lake from the highway as it passes through Polson, adjacent to the lake.

Visual quality along the proposed action ranges from open vistas of distant peaks to views of Flathead Lake and the Flathead River.

6.17.2. Viewers

Viewers from the Road

Groups of viewers from the road include local traffic, commuters, commercial traffic, and tourists. Viewer groups share common characteristics that determine how they evaluate visual quality:

- Local traffic may coincide with other user groups, but for analysis, local traffic refers to short trip users making connections within the community. Safe and convenient connection with US 93 is the main concern for this group, especially during periods of peak traffic load. Community connections are critical to their lives and must be maintained; the visual quality of the view from the road shapes part of their community image.

- Commercial traffic is most concerned with the speed and efficiency of the through traffic movement. For them, visual quality means the road is "easy to read" for safe travel with maximum efficiency. Visual driver expectation focuses on normal highway standards with clear community connection opportunities for necessary facilities/services in all seasons.

- Commuters are frequent users of the route and, therefore, familiar with likely hazards. They travel during peak periods in all seasons, and winter driving is often in the dark. Commuters' visual concerns focus on maximum speed, efficiency and safety of the through traffic movement, but without the need for community connection for services. The scenery is a primary asset for living and working in the Mission Valley.

- The scenic quality of views from the road is most important to tourists, often determining the route selected to reach a destination. At the present time, most tourists visit the area during the warm weather months. Tourists are usually unfamiliar with the route traveled, therefore, highway

standards for design and safety must be "easy to read" and are critical for safe visual decision making. Community connection must be visually well defined to provide needed facilities/services of highway- and tourism-oriented businesses. Their visual quality demands are different than other viewer groups. Their travel pace is more leisurely; they can be delayed by attractions along the way and may travel at a slower speed, particularly if there is high visual quality. (Sections 6.5 and 7.5)

Viewers of the Road

Viewers of the road consist of residents, commercial neighbors, travelers and communities.

Residents are scattered in rural settings or concentrated in small communities adjacent to the highway. Residential viewers will be most sensitive to changes in their view of the road, including higher traffic volume, road widening that brings traffic closer to their dwellings, and construction activities that reduce existing spacial, landform, or vegetative buffers between them and the highway. Visual quality for scattered rural viewers of the road is variable depending on their proximity to the highway and how well the highway fits into the setting at each location. In general, negative visual effects increase as the highway encroaches on private space, because of traffic volume, speed and associated audio cues. If the highway grade is higher than adjacent property, it may intercept views of the community.

Commercial neighbors of US 93 are less sensitive to highway views because of daily activity levels in the business place. Commercial neighbors are concerned that foreground visual quality is adequate to attract business and to provide safe and convenient access.

Travelers become viewers of the highway when they stop to take advantage of commercial services and tourist attractions of highway related roadside facilities, including scenic turnouts, road side parks, and interpretive facilities. Travelers are concerned with the quality of roadside facilities, which may influence their length of stay, frequency of use and overall enjoyment of the experience.

The communities of Evaro, Arlee, Ravalli, St. Ignatius, Ronan, Pablo and Polson provide small concentrations of viewers of the road. In general, these communities have negative views of the highway. Where US 93 is a town's main street, development has occurred along the highway, starting when traffic volume was small, with a greater percentage of local traffic.

6.17.3. Visually Sensitive Resource Areas

Several Visually Sensitive Resource areas, namely the National Bison Range and the Ninepipe National Wildlife Refuge and the Mission Mountains, exist along the highway route where users/viewers are engaged in activities negatively affected by highway views.[240]

[240]Identification of visually sensitive resource areas is based on FHWA visual impact assessments for highway projects. Visual impact assessment considers qualities of vividness, intactness and unity. FHWA-HI-88-054

6.18. RELOCATIONS

Residences, businesses and other buildings located within 200 feet of the centerline of the existing highway or of each of the alignment alternatives under consideration are summarized on Table 6.18-1. Structures near the existing highway are affected by highway traffic operation and resulting safety, air quality, noise, visual and other highway-related conditions, as described in other sections of the final EIS.

Table 6.18-1 Residences and Buildings, Distance from the Highway

Segment	Distances From Highway Centerline to Face of Building (Feet)								
	Less Than 100 Feet			100 Feet to Less Than 150 Feet			150 Feet to 200 Feet		
	Residence	Business	Other	Residence	Business	Other	Residence	Business	Other
A	4	2	0	15	6	1	31	6	2
B1	8	13	10	10	1	9	18	0	12
B2	0	0	0	0	0	1	1	0	5
B3	0	0	1	0	0	2	1	0	1
B4	1	0	1	0	0	0	3	0	1
C	1	0	0	0	2	1	3	4	4
D	0	0	0	0	0	0	0	0	0
E	3	6	0	5	6	12	1	1	0
F	1	0	0	0	0	2	0	2	1
G	0	2	0	0	1	2	0	5	3
H	2	0	10	1	2	5	3	2	17
I	0	0	0	1	1	2	1	1	6
J1	0	3	0	0	0	0	0	0	0
J2	0	5	0	0	0	0	0	0	0
J3	1	0	5	0	0	1	0	0	0
J4	0	2	9	0	0	5	0	0	5
K	0	0	0	0	0	0	0	0	0
L	0	1	0	3	0	8	3	2	12
M	0	1	1	0	0	3	0	0	9
N-O-P1	11	60	6	17	25	5	27	14	12
N-O-P2	10	3	5	3	0	1	9	2	2
N-O-P3	8	1	3	2	0	0	4	0	1
Total	50	99	51	57	44	60	105	39	93

Morrison-Maierle. 1993.

TABLE OF CONTENTS

7. ENVIRONMENTAL CONSEQUENCES AND MITIGATION 7.1-1

7.1. TRAFFIC OPERATION AND SAFETY 7.1-1
7.1.1. Impacts Common To All Alternatives 7.1-1
7.1.2. No Action 7.1-4
7.1.2.1. Roadway Geometrics 7.1-4
7.1.2.2. Level-of-Service 7.1-4
7.1.3. Existing Alignment (Except Arlee, Ronan and Polson) 7.1-4
7.1.3.1. Roadway Geometrics 7.1-4
7.1.3.2. Intersections and Driveways 7.1-6
7.1.3.3. Safety 7.1-8
7.1.3.4. Level-of-Service 7.1-10
7.1.4. Arlee, Ronan and Polson Alignments 7.1-14

7.2. LAND USE 7.2-1
7.2.1. Impacts Common to All Alternatives 7.2-1
7.2.1.1. Pattern of Land Use 7.2-1
7.2.1.2. Pattern of Access to Residential Areas 7.2-1
7.2.1.3. Partial Access Control 7.2-2
7.2.2. Existing Alignment (Except Arlee, Ronan and Polson 7.2-4
7.2.2.1. Conversion of Land to Highway Right-of-Way 7.2-4
7.2.2.2. Influence of Traffic on Land Use 7.2-4
7.2.3. Arlee Alignments 7.2-10
7.2.3.1. Conversion of Land to Highway Right-of-Way 7.2-10
7.2.3.2. Influence of Traffic on Land Use 7.2-10
7.2.4. Ronan Alignments 7.2-11
7.2.4.1. Conversion of Land to Highway Right-of-Way 7.2-11
7.2.4.2. Influence of Traffic on Land Use 7.2-11
7.2.5. Polson Alignments 7.2-11
7.2.5.1. Conversion of Land to Highway Right-of-Way 7.2-11
7.2.5.2. Influence of Traffic on Land Use 7.2-11

7.3. FARMLANDS 7.3-1

7.4. SOCIAL 7.4-1
7.4.1. Impacts Common to All Alternatives 7.4-1
7.4.1.1. Overview of Barrier Effect for Community Cohesion and Access to Neighborhoods and Facilities/Services 7.4-1
7.4.1.2. Discrimination: Isolation of Neighborhoods and Facilities/Services 7.4-1
7.4.1.3. Environmental Justice Executive Order 12898 and Title VI of the Civil Rights Act of 1964 . . . . . 7.4-2
7.4.1.4. Population Growth 7.4-3
7.4.1.5. Population Growth and Workers Who Commute Outside the Area 7.4-4
7.4.1.5.1. Flathead Indian Reservation 7.4-4
7.4.1.6. Shifts in Population: Workers Who Commute Inside the Area 7.4-8
7.4.1.7. Students Who Commute to Colleges in Missoula and Kalispell 7.4-8
7.4.1.8. Population Impacts of Highway Alignments at Arlee, Ronan and Polson 7.4-8
7.4.2. No Action 7.4-8
7.4.3. Existing Alignment (Except Arlee, Ronan and Polson) 7.4-9

7.4.3.1. Barrier Effect for Community Cohesion and Access to Neighborhoods and Facilities/Services 7.4-9
7.4.4. Arlee Alignments 7.4-9
7.4.4.1. Alignment 1: Existing Alignment 7.4-9
7.4.4.2. Alignments 2, 3 and 4 . . . . . 7.4-10
7.4.5. Ronan Alignments 7.4-11
7.4.5.1. Alignment 1: Existing Alignment 7.4-11
7.4.5.2. Alignment 2: One-Way Couplet 7.4-11
7.4.5.3. Alignments 3 and 4 . . . . . 7.4-12
7.4.6. Polson Alignments 7.4-13
7.4.6.1. Alignment 1: Existing Alignment 7.4-13
7.4.6.2. Alignments 2 and 3 . . . . . 7.4-14

7.5. ECONOMICS 7.5-1
7.5.1. Impacts Common to All Alternatives 7.5-2
7.5.1.1. Regional Economic Development and Tourism 7.5-2
7.5.1.2. Reductions of Taxable Valuation, Property Taxes and Agricultural Production Value with Conversion of Land to Highway Right-of-Way. 7.5-2
7.5.2. No Action 7.5-4
7.5.3. Existing Alignment (Except Arlee, Ronan and Polson) 7.5-5
7.5.4. Arlee Alignments 7.5-6
7.5.4.1. Business Sales, Earnings and Employment To Drive-Through Travelers and Local Tourists for All Arlee Alignments 7.5-6
7.5.4.2. Alignment 1: Existing Alignment 7.5-7
7.5.4.3. Alignments 2, 3 and 4 . . . . . 7.5-7
7.5.5. Ronan Alignments 7.5-8
7.5.5.1. Business Sales, Earnings and Employment To Drive-Through Travelers and Local Tourists for All Ronan Alignments 7.5-8
7.5.5.2. Alignment 1: Existing Alignment 7.5-9
7.5.5.3. Alignment 2: One-Way Couplet 7.5-9
7.5.5.4. Alignments 3 and 4 . . . . . 7.5-10
7.5.6. Polson Alignments 7.5-11
7.5.6.1. Business Sales, Earnings and Employment To Drive-Through Travelers and Local Tourists for All Polson Alignments 7.5-11
7.5.6.2. Alignment 1: Existing Alignment 7.5-12
7.5.6.3. Alignments 2 and 3 . . . . . 7.5-12

7.6. PEDESTRIANS AND BICYCLISTS 7.6-1
7.6.1. Impacts Common to All Alternatives 7.6-1
7.6.2. No Action 7.6-1
7.6.3. Existing Alignment 7.6-1
7.6.4. Arlee and Ronan Alternate Alignments 7.6-5
7.6.5. Pablo, Specific Concerns 7.6-7
7.6.6. Polson Alternate Alignments 7.6-8

7.7. AIR QUALITY 7.7-1

7.8. NOISE 7.8-1
7.8.1. Impacts Common to All Alternatives 7.8-1
7.8.1.1. Noise Levels Associated with Population Growth 7.8-4
7.8.2. No Action 7.8-5
7.8.3. Existing Alignment (Except Arlee, Ronan and Polson) 7.8-5
7.8.4. Arlee Alignments 7.8-6

7.8.5. Ronan Alignments 7.8-8
7.8.6. Polson Alignments 7.8-9

7.9. WATER QUALITY 7.9-1
7.9.1. No Action 7.9-1
7.9.2. Existing Alignment (Except Arlee, Ronan and Polson) 7.9-1
7.9.2.1. Indirect Effects 7.9-5
7.9.3. Arlee Alignments 7.9-6
7.9.4. Ronan Alignments 7.9-8
7.9.5. Polson Alignments 7.9-9

7.10. WETLANDS
7.10.1. No Action 7.10-1
7.10.2. Existing Alignment 7.10-1
7.10.3. Arlee, Ronan and Polson Alignments 7.10-5
7.10.4. Cumulative Impacts 7.10-6

7.11. FLOODPLAINS AND STREAM CROSSINGS 7.11-1
7.11.1. Impacts Common to All Alternatives 7.11-1
7.11.1.1. Floodplain Encroachments 7.11-1
7.11.1.2. Permit Requirements 7.11-1
7.11.2. No Action 7.11-1
7.11.3. Existing Alignment 7.11-2
7.11.4. Arlee Alignments 7.11-4
7.11.5. Ronan Alignments 7.11-4
7.11.6. Polson Alignments 7.11-4

7.12. FISH AND WILDLIFE 7.12-1
7.12.1. No Action 7.12-1
7.12.2. Existing Alignment (Except Arlee, Ronan and Polson) 7.12-1
7.12.2.1. Fish 7.12-2
7.12.2.2. Reptiles and Amphibians 7.12-4
7.12.2.3. Birds 7.12-4
7.12.2.4. Mammals 7.12-5
7.12.2.5. Vegetation 7.12-9
7.12.3. Arlee Alignments 7.12-10
7.12.4. Ronan Alignments 7.12-10
7.12.5. Polson Alignments 7.12-10
7.12.6. Cumulative Impacts 7.12-11

7.13. THREATENED AND ENDANGERED SPECIES 7.13-1
7.13.1. No Action 7.13-1
7.13.2. Existing Alignment (Except Arlee, Ronan and Polson) 7.13-1
7.13.2.1. Peregrine Falcon 7.13-1
7.13.2.2. Bald Eagle 7.13-1
7.13.2.3. Grizzly Bear 7.13-1
7.13.2.4. Gray Wolf 7.13-4
7.13.3. Arlee and Ronan Alignments 7.13-4
7.13.4. Polson Alignments 7.13-4
7.13.5. Cumulative Impacts 7.13-6
7.13.6. Determination of Effect 7.13-6

7.14. CULTURAL RESOURCES 7.14-1
7.14.1. Impacts Common to All Alternatives 7.14-1
7.14.2. No Action 7.14-4
7.14.3. Impacts at Eligible Sites 7.14-4

7.15. PARKS AND RECREATION 7.15-1
7.15.1. Impacts Common To All Alternatives 7.15-1
7.15.2. Existing Alignment (Except Arlee, Ronan and Polson) 7.15-1
7.15.3. Arlee Alignments
7.15.4. Ronan Alignments 7.15-2
7.15.5. Polson Alignments 7.15-2
7.15.6. Section 4(f) and Section 6(f) Properties 7.15-3

7.16. HAZARDOUS MATERIALS 7.16-1
7.16.1. No Action 7.16-1
7.16.2. Existing Alignment (Outside Arlee, Ronan and Polson) 7.16-1
7.16.3. Arlee, Ronan and Polson Alignments 7.16-2

7.17. VISUAL 7.17-1
7.17.1. Visual Impacts Common to All Alternatives 7.17-1
7.17.2. No Action 7.17-4
7.17.3. Existing Alignment (Except Arlee, Ronan, and Polson) 7.17-4
7.17.3.1. Evaro Canyon Landscape Unit 7.17-5
7.17.3.2. Jocko Valley Landscape Unit 7.17-6
7.17.3.3. Ravalli Canyon Landscape Unit 7.17-7
7.17.3.4. Mission Valley Landscape Unit 7.17-9
7.17.4. Arlee Alignments 7.17-10
7.17.5. Ronan Alignments 7.17-13
7.17.6. Polson Landscape Unit 7.17-15
7.17.7. Visual Impacts of Highway Design Options 7.17-17

7.18. RELOCATIONS 7.18-1
7.18.1. No Action 7.18-1
7.18.2. Existing Alignment (Except Arlee, Ronan and Polson) 7.18-1
7.18.3. Arlee, Ronan and Polson Alignments 7.18-2

7.19. ENERGY AND COMMITMENT OF RESOURCES 7.19-1
7.19.1. No Action 7.19-1
7.19.2. Existing Alignment (Except Arlee, Ronan and Polson) 7.19-1
7.19.3. Arlee, Ronan and Polson Alignments 7.19-1
7.19.4. Transportation Demand Management 7.19-2

7.20. CONSTRUCTION 7.20-1
7.20.1. No Action 7.20-1
7.20.2. Existing Alignment (Except Arlee, Ronan and Polson) 7.20-1
7.20.3. Arlee, Ronan and Polson Alignments 7.20-4
7.20.3.1. Economic Impacts of Project Construction 7.20-7

LIST OF FIGURES

Figure 7.1-1 Average Daily Traffic (ADT) and Design Hourly Volume (DHV) for Design Year ~~20152020~~ 7.1-2
Figure 7.3-1 AD 1006 Missoula County 7.3-3
Figure 7.3-2 AD 1006 Lake County; Evaro to Polson 7.3-4
Figure 7.3-3 AD 1006 Lake County; Polson Area 7.3-5
Figure 7-6.1 Bicycles on Shoulders 7.6-2
Figure 7.17-1 Excavation in Ravalli Canyon 7.17-8
Figure 7.17-2 Arlee Lane Configurations 7.17-11
Figure 7.17-3 Ronan Lane Configurations 7.17-14
Figure 7.17-4 Visual Characteristics of Views and Grade Changes 7.17-16

LIST OF TABLES

Table 7.1-1 2020 Intersection Operation 7.1-3
Table 7.1-2 LOS of Existing Highway 7.1-5
Table 7.1-3 LOS of CSKT Preferred Alternative, Lane Configuration A, Improved Two-Lane Highway 7.1-11
Table 7.1-4 LOS of CSKT Preferred Alternative, Lane Configuration A, Improved Two-Lane Highway, with TDM 7.1-12
Table 7.1-5 LOS of MDT Preferred Alternative, a Four-Lane Highway 7.1-13
Table 7.2-1 Right-of-Way Requirements for Lane Configuration A (Two-Lane) By Land Use and Status 7.2-5
Table 7.2-2 Right-of-Way Requirements for Lane Configuration B (Four-Lane) By Land Use and Status 7.2-6
Table 7.2-3 Right-of-Way Requirements for Lane Configuration C (Four-Lane with Continuous Two-Way Left-Turn Center Median) By Land Use and Status 7.2-7
Table 7.2-4 Right-of-Way Requirements for Lane Configuration D (Four-Lane) with Divided Center Median By Land Use and Status 7.2-8
Table 7.2-5 Right-of-Way Requirements for the Preferred Alternative By Land Use and Status 7.2-9
Table 7.3-1 FPPA Farmland Converted to Right-of-Way 7.3-6
Table 7.4-1 Commuters and Commuter-Related Population: Flathead Indian Reservation 7.4-5
Table 7.8-1 Predicted Design Hourly Volume Leq(h) Traffic Noise Levels (dBA) For The Existing Alignment 7.8-2
Table 7.8-1 Predicted Design Hourly Volume Leq(h) Traffic Noise Levels (dBA) For The Existing Alignment (Continued) 7.8-3
Table 7.8-2 Predicted Noise Levels of Lane Configuration Alternatives 7.8-4
Table 7.8-3 Predicted Design Hourly Volume Leq(h) Traffic Noise Levels (dBA) For Alignment Alternatives 7.8-7
Table 7.9-1 Estimate of Potential Sediment Yield for Existing Alignment (Except Arlee, Ronan, and Polson) During Construction 7.9-2
Table 7.9-2 Estimate of Potential Sediment Yield for Arlee, Ronan and Polson Alignments, During Construction 7.9-7
Table 7.10-1 Summary of Wetland and Riparian Area Impacts (Acres). 7.10-2
Table 7.10-2 Estimated Wetland Impact Acreage of the Existing Alignment and Polson Alignment 3 ~~Preferred Alignment~~ and Alternative Lane Configurations 7.10-3
Table 7.10-3 Proposed Wetlands Affected by MDT Preferred Alternative versus Replacement Wetlands 7.10-4
Table 7.10-~~42~~ ~~Proposed~~Potential Wetland Avoidance Sites 7.10-8
Table 7.11-1 Bridge and Culvert Extensions 7.11-2

Table 7.14-1 Effect on NRHP Eligible Properties 7.14-5
Table 7.16-1 Summary of Potential Hazardous Material Sites 7.16-2
Table 7.18-1 Removal of Structures~~Relocations~~ 7.18-3
Table 7.18-1 Removal of Structures~~Relocations~~ - Continued 7.18-4
Table 7.18-1 Removal~~Relocations~~ - Continued 7.18-5
Table 7.18-1 Removal of Structures~~Relocations~~ - Continued 7.18-6
Table 7.18-1 Removal of Structures~~Relocations~~ - Continued 7.18-7
Table 7.18-2 Summary of Removal of Structures: Existing Alignment and Poison Alignment 3
Table 7.20-1 Summary of Construction Types 7.20-3
Table 7.20-2 Summary of Major Construction Quantities 7.20-5
Table 7.20-3 Summary of Construction Costs 7.20-6

7. ENVIRONMENTAL CONSEQUENCES AND MITIGATION

7.1. TRAFFIC OPERATION AND SAFETY

Alternatives for alignments, lane configurations and design options are described in detail in Section 5.1. The Montana Department of Transportation's (MDT) Preferred Alternative and the Confederated Salish and Kootenai Tribes' (CSKT) Preferred Alternative, which consist of combinations of alignments, lane configurations and design options, are described in detail in Sections 5.3 and 5.4.

7.1.1. Impacts Common To All Alternatives

With or without highway improvement, traffic demand is expected to continue to increase at an annual rate of three percent, which is the average annual rate of increase since 1970. By the design year ~~2015~~2020 (approximately 20 years after the earliest year portions of the proposed action are expected to be implemented), traffic will be slightly more than double the existing volume.~~, with average daily traffic (ADT) ranging from 10,510 at the permanent counter south of Ravalli to 13,110 in the Arlee area, 16,050 in the Ronan area and 21,700 in the Polson area~~. Truck traffic is expected to continue to be 13.7% of total traffic south of Montana Secondary (MTS)~~Federal Aid Secondary Highway (FAS)~~ 212 and 10% north of MTS~~FAS~~ 212.

Figure 7.1-1 shows the projected design year ~~2015~~2020 ADT and design hourly volume (DHV) at various locations along the highway. The historic 30 HV factors of ~~12.9~~12.6 and 10.7% for rural and community sections of the roadway (Section 6.1.4) have been applied to projected ADT to determine the DHV.

~~It is estimated that, for 1991 traffic volume, travel time will be reduced slightly on four lane highways as compared with the existing highway. As projected increases in traffic volume occur, travel time will then increase, on a four-lane highway, to near 1991 travel time on the existing two lane highway.~~Major increases in travel times are expected, as projected ~~2015~~2020 traffic volumes occur, with No Action or Lane Configuration A. Travel times on any of the four-lane configurations (Lane Configuration B, C or D) will be reduced only slightly as projected year 2020~~2015~~ volumes occur. There are no measurable differences in travel times among Lane Configurations B, C and D, each of which is a four-lane highway. ~~(Table 7.1-1)~~

[Table 7.1-1 in the draft EIS has been removed, and tables have been renumbered in the final EIS.]

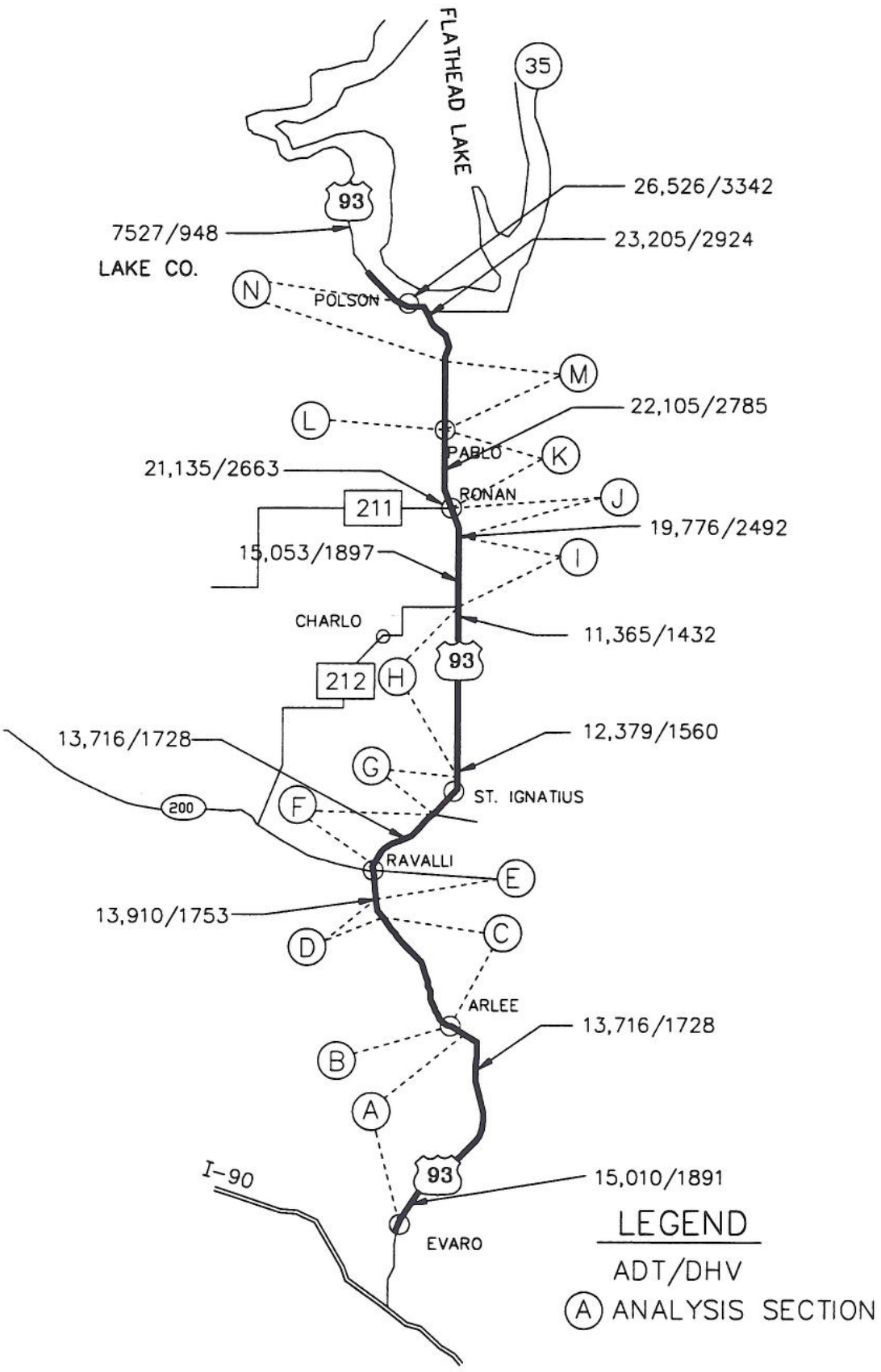
With any of the proposed lane configurations or alignment alternatives, safety benefits will occur due to improved alignments, grades, sight distance, shoulders, signing, left-turn bays, right-turn lanes and other related highway improvements.

Also, with any of the proposed lane configurations or alignment alternatives, substantial safety improvements will occur by the implementation of partial access control (also called limited access control) which will reduce the number of existing and future intersections and driveways on the highway.

Intersections and Signals

With all of the alternatives under consideration, including No Action, left turns from some side streets onto U.S. Highway 93 (US 93) will become more difficult as traffic volume increases. As indicated on Table ~~7.1-2~~7.1-1, LOS for this movement is projected to deteriorate to ~~D and~~ E by the design year 2020~~2015~~, at most intersections. At these service levels, long delays can be expected. At Round Butte Road (MTS~~FAS~~ 211) in Ronan and at Montana Highway (MT) 35 in Polson, where traffic signals are~~is~~ already in-place, LOS is projected to be B and C.

In addition to Round Butte Road in Ronan and MT 35 in Polson, it is estimated that signals may be warranted, and should be considered, at "B" Street (Butch Larsen/Taelman Street) in Arlee and Division Street in Pablo before the



2020 ADT & DHV

FIGURE 7.1-1

Table 7.1-1 2020 Intersection Operation

Intersection	Peak Hour Level-Of-Service*
B Street, Arlee (Butch Larsen/Taelman St.)***	D
MT 200, Ravalli	D
Main Access to St. Ignatius	D
MTS 212	E
Round Butte Road (MTS 211), Ronan***	B**
Division Street, Pablo	E
Clairmont Road, Pablo	E
Old U.S. 93, North of Pablo	E
MT 35	C**
Unsignalized streets in Polson***	E/F*
First Street East - Signalized***	B**

Morrison-Maierle. 1993.
* Left turns from side street onto U.S. Highway 93. ** With a traffic signal. *** If alternative alignments are constructed around these communities, traffic volumes will decrease substantially, and the LOS will be improved at these intersections.
This table has been revised in the final EIS using traffic volumes for the year 2020.

design year ~~2015~~2020. Signals may also be warranted at other locations. Where signals are installed, it is anticipated that LOS for left turns from side streets onto US 93 will be ~~B~~C or better through the design year.

Local governments, schools and other community organizations have expressed opinions that additional signals are needed on US 93, particularly as a means to assist and improve safety for school children and other pedestrians crossing the highway. As traffic volume increases, these intersections should be monitored and evaluated to determine if signals should be considered based on warrants specified by the Federal Highway Administration (FHWA).[1] The warrants take into consideration traffic characteristics such as traffic volume, vehicle type, pedestrian volume, pedestrian age, school crossings, vehicle speed, accident experience, interruptions and delays.

If warrants are met and before signals are installed, a complete study and intersection evaluation must be conducted to ensure the installation will improve safety overall and not create a safety problem of a different type or in a different location.

[1]Federal Highway Administration, Manual on Uniform Traffic Control Devices, 1988.

7.1.2. No Action

7.1.2.1. Roadway Geometrics

No Action will not correct the deficiencies in the existing geometric design of the highway, as described in Section 6.1.2. Substandard horizontal curves, vertical grades, vertical curves and shoulder width will not be improved and the resulting improvements in safety will not occur. As traffic volume continues to increase, the number of accidents are also expected to continue to increase.

If the highway is not improved, the large number of existing approaches will not be improved or reduced and the resulting reduction in intersection related accidents will not occur.

The highway will continue to pass through Arlee, Ronan and Polson, and existing adverse effects on traffic operation and safety, and the community, will not be improved.

7.1.2.2. Level-of-Service

An analysis of level-of-service (LOS) and capacity has been conducted for the design year ~~2015~~2020 for the existing highway and for alignment and lane configuration alternatives under consideration using methods outlined in the ~~1985~~1994 Highway Capacity Manual[2] and design hourly volumes described in the previous section.

Results of the LOS analysis for the existing, two-lane highway for the design year ~~2015~~2020 are summarized in Table ~~7.1-3~~7.1-2. The existing highway will operate generally at LOS ~~E or~~ F. In areas where passing lanes exist in one direction, the highway will operate at LOS B in the direction of the passing lane~~, LOS F in the opposing direction~~ and LOS ~~E~~F overall.

LOS F represents heavily congested flow with traffic demand exceeding capacity (LOS E). As the capacity of the highway is exceeded, operations are characterized by stop and go waves, and flow is unstable, which further reduces the number of vehicles the highway can carry.

7.1.3. Existing Alignment (Except Arlee, Ronan and Polson)

The following sections describe traffic operation and safety impacts if Lane Configuration A, B, C or D is constructed on the existing US 93 corridor.

7.1.3.1. Roadway Geometrics

With any of the lane configurations under consideration, geometric design standard deficiencies (Section 6.1.2) will be corrected to achieve current 60 miles per hour (mph) design standards. The radius of the curve at Mileposts 25.3 to 25.5 in Ravalli Canyon will be increased from 1,050 feet to 1,200 feet (degree of curvature of 4°45') which will provide for a 60 mph design speed. The radius of the curve at Mileposts 27.5 to 27.7 at the base of Ravalli Hill will be increased from 820 feet to 950 feet (degree of curvature of 6°00') which will provide for a 55 mph design speed. Increasing the radius of this curve further, to meet 60 mph design standards, will cause substantial additional excavation and embankment with related environmental impacts that may outweigh the benefits to be gained.

Substandard vertical grades at the Jocko River crossing, Mileposts 18.8 to 19.1 will be improved to four percent to meet design standards for 60 mph. This will require reconstruction of the existing bridge over the river. As indicated in Section 7.11, the replacement of the bridge is also required to adequately accommodate expected flood flows.

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[2]Transportation Research Board, National Research Council, Highway Capacity Manual, Special Report 209, ~~1985~~1994.

Table 7.1-2 LOS of Existing Highway

Segment	Level-of-Service Year 2020
A - Evaro to Arlee	F(B)*
C - Arlee to Ravalli Canyon	F
D - Ravalli Canyon to Ravalli	F
E - Ravalli	E
F - Ravalli Hill	F(B)*
G - St. Ignatius	F
H - St. Ignatius to MTS 212	F
I - MTS 212 to Ronan	F
K - Ronan to Pablo	F
L - Pablo	F
M - Pablo to Caffrey Road	F
N - Caffrey Road to MT 35	F(B)*

*Level-of-service overall(in direction of passing lane)
This table has been revised in the final EIS using traffic volumes for the year 2020.

The grades on Post Creek Hill (Mileposts 38 to 40) that currently exceed four percent are for short lengths and can be improved to meet 60 mph standards without excessive additional excavation and embankment.

Improvement of the existing six-percent grades on Ravalli Hill (Mileposts 27.7 to 29.0) and on Polson Hill (Mileposts 57.3 to 57.8) is probably not desirable because it will cause substantial additional excavation and embankment with related environmental impacts that may outweigh the benefits to be gained.

All vertical curves (a curve in the vertical alignment designed to effect a gradual change between different vertical grades) will be constructed to meet 60 mph design standards. To achieve this, only minor revisions of the existing vertical alignment will be required.

All of the lane configurations will have eight-foot shoulders to meet design standards for the existing and projected future traffic volume. The wider shoulders will provide additional width for 1) emergency stopping on the roadway; 2) farm equipment, wide loads or other equipment using the roadway; 3) pedestrians and bicyclists (Sections 6.6 and 7.6); 4) a recovery zone for errant or out-of-control vehicles and 5) snow removal and storage. As a result, safety and driving comfort will improve.

The bridge over the railroad at Milepost 9.7 will require widening or reconstruction to accommodate any of the lane configurations.

The Jocko River bridge at Milepost 19.0 will require reconstruction because it is not wide enough to accommodate any of the lane configurations, will not accommodate estimated flood flows if it is widened (Section 7.11) and is too low to allow improvement of the existing substandard vertical grades.

The bridge over Post Creek will require widening or reconstruction because it is not wide enough to accommodate any of the lane configurations. As discussed in Section 7.12, a proposed mitigation measure for possible wildlife impacts is to increase the span of this structure to allow wildlife traveling along Post Creek to cross under the highway.

The bridge at Ninepipe Reservoir is not in good condition and is not wide enough to accommodate any of the lane configurations. It must be reconstructed.

Any of the lane configurations under consideration will require widening or reconstruction of the railroad bridge at Milepost 9.7. Portions of the railroad line near Polson between Mileposts 58.4 and 59.2 will require relocation. Other than these areas, construction will generally not affect the railroad. There will be some areas where temporary construction permits may be required to construct fill slopes, particularly if Lane Configuration B, C or D is constructed. Portions of the existing highway are constructed on easements granted to MDT by the railroad. To avoid additional impacts on the railroad if Lane Configuration B, C or D is constructed, the centerline of the new roadway must be adjusted away from the railroad in some areas to avoid encroachments closer to the railroad and outside the existing highway easements. The railroad has indicated that it cannot allow additional encroachments and will not grant additional easements in these areas.

7.1.3.2. Intersections and Driveways

With all of the lane configurations, intersections and approaches to the highway will be improved to provide angles of intersection with US 93 near perpendicular -- this will improve sight distance. Approach grades will be improved to three percent or less near the highway (within 75 feet on public approaches and within 25 feet on private approaches) and 10% or less away from the highway -- this will reduce problems with stopping as vehicles approach US 93 on down grades and with starting and accelerating on up grades. The number of approaches will be reduced as much as practical by eliminating unused approaches, consolidating approaches and by using frontage roads -- this will help improve safety, capacity, service level and driving comfort.

On most of the existing US 93 in the area, access currently is controlled through driveway and approach regulations where access is managed by MDT through application of road approach standards and permit requirements. Land owners desiring to construct a driveway approach need only obtain a permit from the Missoula District of MDT after demonstrating that it will be constructed properly and will not create a particular safety hazard. Sight distance for safety is the primary factor used to determine if it is appropriate to issue a permit for an approach.

MDT has purchased rights for partial access control (also called limited access control) for approximately 40% of the land adjacent to highway ROW between Ronan and Polson. Access rights have not been purchased for the remainder of the proposed action.

Implementation of partial access control is considered to be desirable for all of the lane configurations for most areas along the roadway except in the existing communities such as Arlee, Ravalli, St. Ignatius, Ronan, Pablo and Polson. Partial access control allows access at selected public roads and at private driveways as identified in deeds and other legal documents. Partial access control will be purchased from affected landowners along the highway. As part of the implementation of partial access control, approaches to US 93 will be eliminated where alternative access can be provided and consolidated with other approaches as much as practical. This will serve to reduce the number of existing and future approaches to the highway and thereby preserve and enhance safety, capacity and driving comfort.

Implementation of full control of access, which allows access only at specified road connections or interchanges, would create major adverse impacts for property owners adjacent to the highway, or it would require the construction of extensive sections of frontage road, which would have substantial additional right-of-way (ROW) requirements and related adverse environmental impacts. It is not recommended.

Access Management Plan

MDT will prepare and implement a specific access control plan for the proposed action. The plan will be site specific to consider a broad range of access, safety, traffic and land use factors on a parcel-by-parcel basis for determining numbers and types of approaches. The factors will be based on, but not limited to, the following:

- Character of traffic.
- Adjacent land use.
- Adjacent land division and ownership.
- Geometrics and design standards.
- Cost of special design features.
- Cost of future accidents.
- Cost of purchasing access rights.
- Public safety.
- Future development.
- Balance with needs for growth and economic well being.
- Environmental values

MDT will use information in the final EIS and other information available from the Confederated Salish and Kootenai Tribes and Lake and Missoula counties to develop the access control plan for US 93.

This plan also will be based on the 1992 MDT Access Management Plan (which is currently used by MDT as a guide for access management throughout Montana) and on a modified MDT access management plan that is currently being prepared based on recommendations of the statewide intermodal transportation plan, TranPlan 21. These plans are described in following sections.

1992 MDT Access Management Plan

The current MDT Access Management Plan (April 1992) has provisions of general policy about access management approved by the Montana Transportation Commission (MTC). Access management is the process of managing points of access to the highway through the use of access control or a permitting system.

The 1992 MDT Access Management Plan establishes the purpose of access management:

- Maintain the flow of traffic and the functional integrity of the highway.
- Enhance public safety.
- Preserve the public's investment in the highway.
- Reduce future maintenance costs.
- Permit highway expansion on existing locations.

The 1992 access management plan also recognizes the need to be responsive to changing patterns of land use.

Access control limits the rights of owners or occupants of abutting land or other persons to access, light, air or view in connection with the highway. It applies to private approaches, entering directly onto through lanes of the highway, and public street or road intersections with the highway.

Partial access control allows access at selected public roads and private driveways. Full access control allows access only at specified road connections or interchanges.

The plan indicates that generally, access rights will not be purchased within cities or at locations where the existing pattern of ownership and density of use results in a density of approaches having an average spacing of 200 feet or less measured on one side of the road. The access management plan recognizes topographic, land use and traffic conditions in situations such as the proposed action do require purchase of access rights, despite high density of approaches.

Once partial access control is established, new public and private access cannot be constructed without approval of MTC.

Access control on established or reconstructed highways may be acquired by purchase -- the value of property to be acquired for access rights is to be determined by an appraisal process and as a part of an access control plan.

Revocable farm field approaches may be permitted for use only as access to agricultural property. Farm field approaches will be revoked if they are used for any purpose other than agriculture.

Abutting property owners have no legal right of access to highways constructed in new locations. No compensation is paid for imposing access control on highways in new locations. Appropriate compensation will be paid for land and improvements acquired for ROW and for other legally compensable damages.

Modified Access Management Plan

MDT has completed a statewide multimodal transportation plan, *TranPlan 21*. It outlines policy goals and actions to provide uniform standards to govern access currently not available in the 1992 MDT Access Management Plan.

A modified access management plan is being prepared, using recommendations of TranPlan 21, that will provide more clear guidance to maintain the functional integrity and safety of the state highway system. It will have a classification system for management of access to transportation corridors. The classification system will consider existing level and character of land use to be coordinated with the existing highway functional classification system. In conjunction with the access classification system, MDT also will develop a list of technical methods for managing access. Implementation of new technical methods may require additional legislative authority.

As they become available, the provisions of the modified access management plan will be incorporated into the specific access management plan for the proposed action.

7.1.3.3. Safety

~~In areas~~With any of the proposed lane configurations, including ~~where~~ Lane Configuration A (an improved two-lane highway), ~~is constructed, some~~ improvement in safety ~~reduction in accident rates~~may occur due to the eight-foot shoulder to replace the existing four to six-foot shoulders. This will provide additional area for recovery of errant or out-of-control vehicles and for emergency stopping with less effect on through traffic traveling at highway speeds. Additional safety improvements will occur where additional designated left-turn bays and passing lanes are provided -- rear-end accidents and left-turn accidents, in particular, should be reduced.

Lane Configuration B, which includes four traffic lanes with no median to separate opposing traffic flows, is considered a multi-lane undivided arterial highway. The American Association of State Highway and Transportation Officials (AASHTO) reports the accident rate for all reported accidents on multi-lane undivided arterials, as an average for all volumes, is higher than that on two-lane arterials. AASHTO indicates that this occurs because of

heavier volumes, more intersections and more development along multi-lane undivided arterials as compared with two-lane arterials.

When traffic volumes, intersection density and development remain approximately the same~~However~~, experience in ~~the State of~~ Montana and in the area of the proposed action indicates that accident rates and severity ~~rates~~ drop substantially when a two-lane highway is replaced by a four-lane highway.

For example, as indicated in Section 6.1.3.1, when the nearly six-mile-long section of US 93 from Interstate Highway 90 to Evaro was improved from two lanes to four lanes, substantial reductions in accidents, particularly fatal and injury accidents, occurred even though traffic volume increased. This six-mile-long I-90 to Evaro section of US 93 has similar drivers and weather conditions, and it has traffic volume, terrain and junction density similar to US 93 in the area of the proposed action. Indications are that this reduction in the frequency and severity of accidents may also occur between Evaro and Polson if Lane Configuration B, C or D (four-lane highways) is constructed.

AASHTO also indicates that, if traffic volume requires the construction of multi-lane arterials in rural areas where speeds are apt to be high, the consensus is that opposing traffic should be separated and that improvement of an existing two-lane arterial to a multi-lane facility preferably should include a median. According to AASHTO, an arterial highway is considered to be divided if two full lanes are provided in each direction of travel and the median is four feet or more wide and constructed or marked in a manner to preclude its use by moving vehicles except in emergencies or for left turns. The advantages of dividing the multi-lane arterial highway are increased safety, comfort and ease of operation. Of importance is the reduction of head-on collisions -- these accidents are usually more serious than other accidents.[3]

~~To help further improve safety where Lane Configuration B is constructed, at least a four-foot wide painted median should be considered.~~ However, a four to six feet wide painted median is not considered wide enough to be effective for achieving the safety and operational advantages listed above and does not justify the construction costs that would be incurred nor the environmental impacts that would result.

AASHTO indicates that a four-lane rural facility should have adequate median width to provide for protected left turns and that vehicles making a left turn should not be required to stop in the passing lane of a roadway designed for high volume and speed. When adequate median width for left turns is provided, rear-end collisions and inconveniences to through traffic resulting from left-turn movements are greatly reduced. Lane Configuration C will meet these criteria and provide width for protected left turns. An arterial highway with a continuous two-way left-turn center median (Lane Configuration C) is generally considered a safer facility.[4]

FHWA refers to a continuous two-way left-turn center median as a continuous two-way left-turn lane (C2WLTL). The following information on C2WLTLs is from a literature search provided to the Interdisciplinary (ID) Team by FHWA[5]:

> *"Considerable evidence shows that a C2WLTL is a cost-effective method of increasing the operational efficiency and safety of a highway where there is a demand for left-turns off of and onto the major roadway."*
>
> *"Speed limits from 25 to 55 mph will accommodate C2WLTLs."*

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[3]Ibid.

[4]American Association of State Highway and Transportation Officials, A Policy on Geometric Design of Highways and Streets, 1990.

[5]Federal Highway Administration, Montana Division, Studies on Safety Concerns of 5-lane C2WLTL vs. 4-Lane Divided Highway, letter, with attachments, dated 22 July 1991. Copies of the letter and attachments were distributed to the project Interdisciplinary Team and the Tribal Staff in August 1991.

"Accident reductions averaging about 35% have been attributed to C2WLTLs."

"C2WLTLs also increase capacity and are well accepted by the driving public."

Further safety improvement can be achieved by the use of a wide median such as is provided with Lane Configuration D. With a wide median, head-on accidents can be virtually eliminated. Pedestrians crossing the divided arterial are required to watch traffic in only one direction at a time and are able to pause in the median before crossing the remaining lanes of traffic. Crossing and left-turning vehicles can slow down or stop between the one-way pavements to take advantage of breaks in traffic and cross when it is safe to do so. Headlight glare can be almost eliminated by wide medians.

7.1.3.4. Level-of-Service

~~In rural areas, desirable operation is defined as LOS B or better.[6] As described in Section 6.1.5, LOS B characterizes the region of traffic flow wherein speeds of 55 mph or slightly higher are expected on level terrain. Passing demand needed to maintain desired speeds becomes important and approximately equals the passing capacity at the lower boundary of LOS B. Drivers are delayed up to 45% of the time on the average.~~

~~As indicated in Table 7.1-3, Lane Configuration A will operate similarly to the existing highway, generally at LOS E or F, in the design year. In areas where passing lanes are added in one direction (Post Creek Hill, for example), the highway will operate at LOS B in the direction of the passing lane and LOS F overall. Refer to LOS descriptions in Section 6.1.5. Addition of the passing lane will substantially improve the operation in the direction of the additional lane, but will not improve the operation in the opposing lane and may degrade the operation because no passing will be allowed.~~

~~As explained in Section 6.1.5, traffic operation on a multi-lane highway (four lanes or more), varies substantially from operation on a two-lane highway because of the method of passing. As a result of these differences, the service flow volume and capacity are generally several times higher on a four-lane highway as compared with a two-lane highway. Lane Configurations B, C and D will each include four traffic lanes and will provide LOS B through the design year 2015, except on the uphill lanes of Ravalli Hill.~~

~~LOS E may be considered acceptable on the uphill lanes on Ravalli Hill because it is in mountainous terrain; improvement to LOS B will require expanding the highway to more than four lanes or extensive leveling of the grade, which will be difficult, expensive and cause more severe environmental impacts.~~

LOS of an Improved Two-Lane Highway (Lane Configuration A)

An improved two-lane highway would include improvements as follows: eight-feet wide shoulders; improved alignments and grades; a northbound passing lane on Post Creek Hill; and left-turn bays at important intersections. For the purpose of this LOS analysis, sufficient grade improvements, alignment improvements and additional passing lanes are assumed to provide zero percent no-passing zones[7] on all segments.

Results of the LOS analysis for an improved two-lane highway are summarized in Table 7.1-3 and indicate that, though some improvement in operation will occur, the highway will still generally operate at LOS F in the year 2020 except for short distances where passing lanes are provided.

A major problem with two-lane highway operations involves the amount of time spent in a platoon behind slow moving vehicles unable to pass. Inability to pass leads to driver frustration and unsafe passing maneuvers. The

[6]Ibid. Page 495.

[7]Zero percent no-passing occurs when physical conditions of the roadway are such that passing is not prohibited anywhere on the highway.

amount of time spent in platoons rises rapidly as traffic volume increases because the demand for passing maneuvers increases while ability to pass decreases. This increases delay for vehicles traveling the highway.

Table 7.1-3 LOS of CSKT Preferred Alternative, Lane Configuration A, Improved Two-Lane Highway

Segment	Level-of-Service
	Year 2020
A - Evaro to Arlee	F(B)*
C - Arlee to Ravalli Canyon	F
D - Ravalli Canyon to Ravalli	F
E - Ravalli	E
F - Ravalli Hill	F(B)*
G - St. Ignatius	F
H - St. Ignatius to MTS 212	F(B)*
I - MTS 212 to Ronan	F
K - Ronan to Pablo	F
L - Pablo	F
M - Pablo to Caffrey Road	F
N - Caffrey Road to MT 35	F(B)*

*Level-of-service overall(in direction of passing lane)
This table has been revised in the final EIS using traffic volumes for the year 2020.

LOS of an Improved Two-Lane Highway with Transportation Demand Management Measures

Table 7.1-4 shows LOS of an improved two-lane highway, as described in the previous section, in the year 2020 if very aggressive transportation demand management (TDM) measures (Appendix B) are implemented to reduce traffic volumes on US 93 including:

- A very strong car-pooling program sufficient to remove five percent of the traffic from US 93.
- A program to shift traffic away from peak traffic hours such as offset work shifts sufficient to reduce traffic volumes an additional 10%.
- A very strong transit program sufficient to remove 100 vehicles per hour from US 93.
- A program to shift at least 50% of existing truck traffic to rail, air or other modes.

- Some method, not yet identified, to discourage use of the highway by tourists and cap tourist traffic at current levels.

Table 7.1-4 LOS of CSKT Preferred Alternative, Lane Configuration A, Improved Two-Lane Highway, with TDM

Segment	Level-of-Service Year 2020
A - Evaro to Arlee	E(A)*
C - Arlee to Ravalli Canyon	E
D - Ravalli Canyon to Ravalli	E
E - Ravalli	D
F - Ravalli Hill	E(A)*
G - St. Ignatius	E
H - St. Ignatius to MTS 212	E(A)*
I - MTS 212 to Ronan	E
K - Ronan to Pablo	F
L - Pablo	E
M - Pablo to Caffrey Road	F
N - Caffrey Road to MT 35	F(A)*

*Level-of-service overall(in direction of passing lane)
This table has been revised in the final EIS using traffic volumes for the year 2020.

As shown on Table 7.1-4, these measures would improve the LOS on the improved two-lane highway but operation would still not approach desired LOS B or even C.

LOS of a Four-Lane Highway (Lane Configuration B, C or D)

On a multi-lane facility (four-lanes or more), vehicles traveling the highway have more than one lane in each direction so that slower moving vehicles can be overtaken and passed without entering opposing traffic lanes. Traffic in opposing directions operates independently on multi-lane highways. As a result of these differences, the service flow volume and capacity are generally several-times higher on a four-lane highway as compared with a two-lane highway.

Results of the LOS analysis for four-lane highways are summarized in Table 7.1-5 and indicate that substantial improvements will occur -- the highway is projected to operate at LOS B or better in all segments through the design year, 2020.

Also, as shown on Table 7.1-5 and assuming that traffic volumes will continue to grow at currently projected rates, the highway will generally operate at LOS B and C through the year 2030.

Table 7.1-5 LOS of MDT Preferred Alternative, a Four-Lane Highway

Segment	Level-of-Service	
	Year 2020	Year 2030
A - Evaro to Arlee	B	B
C - Arlee to Ravalli Canyon	B	B
D - Ravalli Canyon to Ravalli	B	B
E - Ravalli	A	B
F - Ravalli Hill	B	B
G - St. Ignatius	B	B
H - St. Ignatius to MTS 212	B	B
I - MTS 212 to Ronan	B	B
K - Ronan to Pablo	B	C
L - Pablo	B	C
M - Pablo to Caffrey Road	B	C
N - Caffrey Road to MT 35	B	C

This table has been revised in the final EIS using traffic volumes for the year 2020.

Conclusions

Desirable operation on a rural highway such as US 93 between Evaro and Polson is LOS B.

Traffic operation on the existing highway is currently at LOS D and E. Traffic operation in the design year, 2020, is projected to be at LOS F with No Action.

Construction of an improved two-lane highway will produce a slight improvement. However traffic will remain at LOS D and E with current traffic volumes and is projected to be at LOS F in the year 2020.

Construction of passing lanes will improve traffic operation only for a short distance within the passing lane. Overall LOS will not improve substantially as a result of the construction of passing lanes.

Implementation of aggressive TDM measures, in addition to the construction of an improved two-lane highway, will improve traffic operation in the design year, 2020, to generally LOS E. Desirable LOS B operation will not be achieved with this strategy.

A four-lane highway will accommodate existing (year 1994) and future (year 2020) traffic volumes at LOS A and B.

7.1.4. Arlee, Ronan and Polson Alignments

Alignment 1 in Arlee, Ronan and Polson will include leaving the highway in its existing alignment through these communities. With all lane configurations, the following conditions will remain:

- The speed limits are expected to remain at 35 mph in Arlee and 25 mph in Ronan and Polson.
- With the roadway passing through the communities, there will be little or no opportunity to improve grades and alignments of approaches and intersections, nor to reduce their numbers.
- Conflicts with pedestrians, particularly school children, will remain with related safety and operational problems. It is expected that additional pedestrian crossings and traffic signals will be required in the future.
- Conflicting traffic movements (left turns, right turns and crossing traffic) which are common in these communities will continue to affect and be affected by through traffic on US 93.
- There will be little or no opportunity to eliminate, consolidate or otherwise reduce the number of approaches to the highway in these communities on the existing alignment.
- An environment will remain where through traffic on US 93 is required to slow to pass through the community and where interruptions in traffic flow are frequent. Operation and efficiency levels will be less than on rural sections (between the communities) of the highway.

A continuous two-way left-turn center median will be desirable if Lane Configuration A is constructed along the existing alignment through Arlee or Ronan (this lane already exists through Ronan and Polson). This will reduce some of the conflicts related to vehicles turning left from US 93; but with or without this additional lane, Lane Configuration A will not substantially improve LOS on US 93 through these communities -- LOS is expected to remain at D in the near future and will deteriorate to LOS E by the design year 20202~~2015~~.

Lane Configuration B, a four-lane highway, on the existing alignment through Arlee and Ronan will provide a substantial improvement in LOS on US 93 and will operate at LOS B through the design year 20202~~2015~~. Traffic through these communities will then have an additional lane in each direction in which to pass turning vehicles.

Because of the substantial number of left turns from US 93 in Arlee, Ronan and Polson, a four-lane highway with a continuous two-way left-turn center median (Lane Configuration C) will be highly desirable. This will eliminate most conflicts with turning vehicles and provide LOS B through the year 20202~~2015~~.

Because of the width required and the limited area in which to construct a new roadway without numerous relocations of businesses and homes, Lane Configuration D is probably not practical and feasible through the communities of Arlee, Ronan and Polson along the existing alignment.

Any of the lane configurations on Alignments 2, 3 or 4 through the Arlee area, Alignments 3 or 4 through the Ronan area or Alignments 2 or 3 through Polson, will create substantial beneficial changes in the flow of traffic including:

- Normal highway speeds can be maintained through the area -- these alignments will be designed to meet 60 mph design standards, and it is anticipated the posted speed limit will be 55 mph.[8]

- Deficiencies in design standards on the existing highway will be corrected and resulting benefits will occur, as explained in Section 7.1.3.

- Fewer pedestrian crossings will be required. Businesses and schools (except Alignment 3 in Arlee which passes just east of the school) will no longer be located adjacent to or near the roadway, and the roadway will not pass through business and residential areas. Conflicts with pedestrians and related safety, operational and barrier problems will be substantially reduced.

- The number of intersections and approaches to the highway will be substantially reduced. There will be many opportunities to consolidate or eliminate approaches. Partial access control will be purchased from adjacent land owners for the highway, and future approaches will not be allowed except with the approval of MTC~~the Montana Highway Commission~~. This should result in a reduced accident rate, increased capacity, improved operation, efficiency and driving comfort on the highway.

- Interruptions to the flow of traffic will be eliminated or reduced with related improvement in capacity and safety.

- The roadway that will remain in Arlee, Ronan and Polson will have substantially less traffic, particularly truck traffic, and resulting benefits will include: Less congestion, less conflicts with pedestrians and reduced barrier effects.

LOS, if Lane Configuration A (two-lane) is constructed around Arlee or Ronan (Alignments 2, 3 and 4 in Arlee and 3 and 4 in Ronan), will improve slightly over existing conditions because of improved alignment; substantially reduced influence from and conflict with crossing pedestrians and vehicles; and increased travel speeds. It is projected, however, that LOS will remain near D for the near future and deteriorate to F by the year 20202~~015~~ for Arlee and Ronan. For Polson, LOS will remain near D through the year 20202~~015~~.

If Lane Configuration B, C or D is constructed on alignments around Arlee, Ronan and Polson (Alignments 2, 3 and 4 in Arlee, 3 and 4 in Ronan, and 2 and 3 in Polson), LOS is expected to improve to desired levels, and it will be similar to LOS projected for rural portions of the highway as described in Section 7.1.3.

Alignment 2 in Ronan will include leaving the highway in its existing location and using it only for northbound traffic. Southbound traffic will be carried on a new roadway to be constructed on First Avenue Southwest, one block west of the existing highway. The one-way couplet, with two lanes in each direction, will have the following effects on traffic operations in Ronan:

- Since the highway (both directions) will remain in developed residential and commercial areas of the community, it is expected the speed limit will remain at 25 mph.

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[8]After Congress repealed the national speed limit of 65 mph on interstates and 55 mph on other highways in 1995, Montana automatically reverted to its former law that has the "basic rule:" A driver may not drive at speeds exceeding what is "reasonable and prudent" for traffic, road and weather conditions.

- With the roadway still passing through the communities, there will be little or no opportunity to improve grades and alignments of approaches and intersections, nor to reduce their numbers. Approaches and intersections on the southbound portion of the couplet are expected to be approximately the same as those that currently exist on the existing highway.

- Conflicts with pedestrians, particularly school children, will remain with related safety and operational problems. It is expected that additional pedestrian crossings and traffic signals will be required in the future, as they will be with Alignment 1. Some improvement will occur, however, as a result of spreading the highway traffic over two roadways instead of one. Pedestrians (and crossing or entering vehicles) can cross one portion of the couplet at a time, with approximately one-half the traffic that will be on a single roadway and only with traffic in a single direction.

- Conflicting traffic movements (left turns, right turns and crossing traffic) which are common in these communities will continue to affect and be affected by through traffic on US 93.

- An environment will still remain where through traffic on US 93 is required to slow to pass through the community and where interruptions in traffic flow are frequent. Operation and efficiency levels will be less than on rural sections (between the communities) of the highway.

- With the one-way couplet, it is estimated that LOS will be substantially improved and will operate at LOS B or better through the year 20202~~2015~~.

Additional lanes for left or right turns may be desirable with this alignment in some areas to reduce some of the conflicts related to vehicles slowing or stopping to turn from US 93.

7.2. LAND USE

Alternatives for alignments, lane configurations and design options are described in detail in Section 5.1. The MDT Preferred Alternative and the CSKT Preferred Alternative, which consist of combinations of alignments, lane configurations and design options, are described in detail in Sections 5.3 and 5.4.

7.2.1. Impacts Common to All Alternatives

7.2.1.1. Pattern of Land Use

The pattern of land use and development that converts agricultural and other types of open land to residential, commercial, industrial and other types of built development will continue with all alignment alternatives and lane configuration alternatives, including No Action.

Highway improvement is one of many factors[9] that will contribute to the rate and pattern of land use and development. Land use in areas with frontage along the highway's ROW will be influenced by the rate and patterns of residential, commercial and industrial development. Design options for highway improvement, such as left-turn bays, continuous two-way left-turn center median, limited access control, billboard and signing policies will influence, but not govern, pattern of land use and development along the highway. (Sections 6.4, 6.5, 7.4, and 7.5)

With or without highway improvement, continued population growth and economic development will increase pressure for residential, commercial and industrial development in areas outside the developed areas of communities. Without land use planning and regulation, more strip development will occur along the highway.

7.2.1.2. Pattern of Access to Residential Areas

There will be limited opportunity with any of the alignment or lane configuration alternatives to reduce local traffic on US 93 from residential areas by shifting traffic to local roads. There is not an extensive, developed system of paved arterial and collector roads that run parallel to US 93 and connect roads that intersect with US 93 in the area of the proposed action.

All alignment and lane configuration alternatives will perpetuate access for right turns and left turns to existing local roads (minor arterials, major collectors and minor collectors) with right-turn deceleration lanes and left-turn bays at major intersections with US 93. Roads leading from the existing major intersections will continue to be used as the routes to provide access to areas with all substantial existing and expected future residential areas.

With all lane configurations, there will not be substantial change in pattern of access to residential areas located away from US 93 because the most important arterials and collectors that intersect with US 93 will continue to have direct access from the highway for right and left turns. Lane Configurations A, B and C will provide direct access between major intersections for right turns and left turns at locations that are mostly private driveways to single residences or businesses, but which do have a small number of short roads that lead to areas with limited current development and limited potential for future development. Lane Configuration D either will provide frontage roads with convenient access to US 93 in both directions from most smaller intersections, or vehicles will use major intersections to reverse directions in areas that provide no direct left-turn access.

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[9]Factors include: Local land use planning and regulation; access control and other transportation planning activities; the Confederated Salish and Kootenai Tribes (CSKT), Bureau of Indian Affairs (BIA), state, county and municipal road and street maintenance and construction policies affecting local arterial and collector roads and streets; state subdivision regulation; availability of land; financial market factors; public and private utilities; and land owner, developer and general public attitudes and activities that influence growth and development.

The cumulative effects of the proposed action and other highway projects[10] will result in a regional highway system for which there is planning for land use and access control similar to the proposed action. The Confederated Salish and Kootenai Tribes and local governments (Lake and Missoula counties and the incorporated municipalities Polson, Ronan and St. Ignatius) will be confronted with issues having complex jurisdictional relationships, and these governments will have the legal authority to develop land use policy.

7.2.1.3. Partial Access Control

All lane configurations, including No Action, will continue to allow right turns from traffic lanes at approaches for access to residential, commercial and industrial areas. No Action and Lane Configurations A, B and C will allow traffic to make uncontrolled left turns across opposing traffic lanes to areas with residential, commercial and industrial development.

Lane Configuration D, with an unpaved divided median, will require left turns from traffic lanes to occur at major intersections with left-turn bays for access to residential, commercial and industrial areas. Lane Configuration D will result in more "U-turn" movement at major intersections, and traffic will "double back" to make right turns at approaches.

Lane Configurations A, B, C and D will provide left-turn bays at major intersections, and Lane Configuration C, with a continuous two-way left-turn center median, will provide the most safety for left turns away from major intersections. Lane Configurations B, C and D will reduce congestion and provide more safety for turning than Lane Configuration A.

For all lane configurations, including No Action, without land use planning and regulation, it is likely commercial strip development will continue to spread in a dispersed, rather than compact, pattern along the highway away from established, developed areas of communities.

Because Lane Configuration C will allow safe left turns in most areas along the highway, it is expected to be the lane configuration most conducive to strip development, in the absence of land use planning and regulation and access control. Lane Configuration D will prohibit left turns between major intersections, but it also will result in more "U-turn" movement at the major intersections.

With all alignment alternatives and Lane Configurations A, B and C, building left-turn bays to improve safety at intersections of US 93 with state highways and county roads also will improve access for highway traffic to areas that abut highway ROW, are outside existing developed areas and have potential for future development. If there is access control by MDT, but no accompanying land use planning and regulation, new development will be expected to concentrate in the vicinity of the intersections with left-turn bays. This will result in a limited form of strip development, with new development outside existing developed areas, but less likely to be scattered between major intersections.

None of the lane configurations will cause the underlying conditions that result in residential or business strip development. With partial access control, none of the lane configurations will provide regulation of land use and development on land abutting highway ROW. In the absence of land use planning and regulation, strip development will be expected to occur, and that will be a reason to consider Lane Configuration C, which will provide the most safety in managing the conflict between turning traffic and through traffic. While none of the lane configurations will regulate land use, access control, if applied comprehensively, will have some effect on access to and development of new residences and businesses.

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[10]Such projects include the four-lane segment of US 93 abutting the proposed action between I-90 and Evaro built in 1985-86, improvement during the late-1980s of US 93 north of Polson, and the proposed improvement of US 93 from Somers to Whitefish, which is approximately 50 miles north of the proposed action.

Strip development will create traffic conditions that are best managed with Lane Configuration C. Then the rate of strip development will be expected to increase as more approaches are allowed to have access to the highway. This is because Lane Configuration C will provide the best traffic conditions with which to consider existing access, safety, traffic counts and local land use planning and regulation in developing new approaches.

Mitigation

Land use planning and regulation, coordinated with ~~and~~ access control are the major mitigation measures to control land use growth and development and traffic ~~into~~ developed areas.

Land use planning and regulation is the legal method to control signage and residential, commercial and industrial development on land abutting highway ROW.[11] Partial access control is the legal method to control access to land abutting highway ROW. Partial access control~~It~~ will improve the safety and efficiency of access to the highway, but it will not preclude development of land where approaches currently exist, and it will not totally preclude development of future approaches for new access to the highway. (Section 5.3.4)

Partial access control will be a method to limit conflict between through traffic and traffic turning either at public streets and road intersections or private approaches entering directly onto the through traffic lanes of the highway.

Under partial access control, with Lane Configurations A, B, C and D, MDT will ~~attempt to~~ acquire access rights for all lands abutting highway ROW. MDT will implement partial access control for the full length of the highway (except in communities) to minimize conflict between through traffic and turning traffic by consolidating, improving or closing approaches wherever it is possible do so without disrupting legal access to lands abutting highway ROW.

An access control plan will develop recommendations on the number and spacing of public and private approaches that will be able to enter directly upon the highway. Details as to the number and location of specific at-grade approaches to be allowed will be determined considering existing access, safety, traffic counts and local land use planning and regulation. ~~New approaches to the highway may be considered after access rights have been acquired by MDT. Application for new approaches will be reviewed by MDT for safety, effect on highway capacity, legality and physical feasibility of construction. MDT will submit the application to MHC for consideration of approval.~~ Partial access control will not be implemented with No Action.[12]

Partial access control will not substitute for land use planning and regulation to control patterns of growth and development that will result in residential, commercial and industrial strip development. Partial access control applies to approaches to the highway from land abutting highway ROW. ~~Partial access control does not apply to either the type or amount of development that may occur on land served by approaches.~~ Partial access control is meant to be a method to manage traffic and access to the highway in cooperation with local land use planning and regulation. Partial access control will not prohibit new residential, commercial or industrial development along the highway, and none of the lane configurations will restrict the type of development or the amount of land to be developed.

Land use planning and regulation will allow partial access control to be more effective in limiting new approaches with all lane configurations and all alignments. The combination of land use planning and regulation and partial access control will be important for prohibiting new development along any of the alignments at Arlee, Ronan and Polson. New commercial and industrial development along any of the new alignments will compete with existing businesses in the communities for sales to highway traffic.

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[11]The Montana Code Annotated, 76-2, Planning and Zoning, identifies local governments, which along with CSKT - a sovereign government - have legal jurisdiction for controlling land use and development in Montana.

[12]Montana Department of Transportation. Access Management Plan. April 1992.

CSKT and local governments have authority to control effects of growth and development on land use. Comprehensive land use planning and regulation under the authority of CSKT, Lake County, Missoula County and the incorporated communities Polson, Ronan and St. Ignatius should establish local policies that provide consistency in review and reduce land-use conflicts associated with residential, commercial and industrial development. CSKT and local governments should develop cooperative planning policies and procedures to address the current and expected future patterns of growth and development.

MDT and the Montana Transportation Commission (MTC)~~MHC~~, through their legal jurisdiction to develop and adopt partial, or limited, access control, should coordinate with tribal, county and city planning efforts to affect the transportation system by controlling access to land abutting highway ROW. However, partial or full access control can not in itself prohibit development. FHWA and MDT support and will continue to coordinate transportation planning for US 93 with land use planning and regulation activities, which are initiated by CSKT and local governments, and which are related to US 93.

Land use planning and regulation will be considered and incorporated in MDT transportation planning and highway design and development activities. The coordination of land use planning and regulation with transportation planning should include access management, highway billboard and signing policies, and other appropriate transportation planning activities of MDT and FHWA. The coordination should identify locations in communities and outside communities along the highway that will provide compatible patterns of residential, commercial, industrial and public land use, while allowing development for local and through traffic to provide access to needed business services and public facilities/services. The efforts by CSKT, in cooperation with local governments, to develop a land use growth and projection study~~a land use and growth projection study~~ could be the basis for continued cooperation on land use planning and access management~~control~~. CSKT has commented that ongoing litigation in lawsuits that have the state and Lake County in opposition to CSKT may discourage cooperation on issues such as land use planning and regulation.

MDT and MTC~~MHC~~ will~~should~~ develop and adopt an access control~~management~~ plan to provide a consistent policy of partial access control for the highway. The access management plan should provide specific guidelines for numbers of access locations, distances between access locations, distances for setbacks of development abutting highway ROW and other appropriate factors.

Jurisdiction to develop land use planning and regulation is complex in the area of the proposed action. Regardless of the complicated relations, with potential conflicting purposes and actions, it is important to recognize the legal jurisdiction of MDT and FHWA does not extend to controlling land use and development on land abutting highway ROW.

7.2.2. Existing Alignment (Except Arlee, Ronan and Polson)

7.2.2.1. Conversion of Land to Highway Right-of-Way

Tables 7.2-1 through 7.2-45 identify requirements for new ROW with lane configurations and alignments. All lane configurations will result in a wider ROW than currently exists for the highway.

7.2.2.2. Influence of Traffic on Land Use

As the Missoula and Kalispell areas continue to grow as major centers of employment, the rate and pattern of land use and development likely will be accelerated with Lane Configurations B, C or D. Development will continue to convert open agricultural and forest lands to residential, commercial, industrial and recreational uses.

Table 7.2-1 Right-of-Way Requirements for the CSKT Preferred Alternative, Lane Configuration A, Improved Two-Lane Highway, By Land Use and Status

Segment	Right-of-Way Summary (Acres)			New Right-Of-Way Required (Acres) -- Land Use							New Right-Of-Way Required (Acres) -- Land Status					
	Existing	Total Required	New Required	Agriculture	Commercial	Residential	Forest	Water/ Wetland*	Railroad	Public	Fee	Tribal	Allot	Federal	State	Railroad/ Local
A: Evaro to Arlee	188.4	195.8	7.4	7.3	.1	---	---	---	---	---	5.9	---	1.3	---	.2	---
B: Arlee	13.6	19.2	5.6	5.1	.1	.4	---	---	---	---	3.8	---	1.8	---	---	---
C: Arlee to Ravalli Canyon	100.6	105.0	4.4	3.8	.1	.5	---	---	---	---	3.1	---	1.3	---	---	---
D: Ravalli Canyon to Ravalli	47.1	52.3	5.3	5.3	---	---	---	---	---	---	5.3	---	---	---	---	---
E: Ravalli	15.7	16.5	.8	.6	.2	---	---	---	---	---	.8	---	---	---	---	---
F: Ravalli Hill	90.6	90.6	0.1	---	---	---	---	---	---	0.1	---	0.1	---	---	---	---
G: St. Ignatius	46.7	48.0	1.3	.9	.2	---	.2	---	---	---	.3	.4	.6	---	---	---
H: St. Ignatius to MTS 212	133.9	188.8	2.97	25.9	0.3	---	---	3.5	---	---	24.8	---	1.8	---	3.1	---
I: MTS 212 to Ronan	79.4	104.5	25.1	11.8	.2	---	---	13.1	---	---	12.8	5.0	---	5.4	1.9	---
J: Ronan	20.8	20.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---
K: Ronan to Pablo	90.1	90.5	.3	.3	---	---	---	---	---	---	.3	---	---	---	---	---
L: Pablo	94.1	96.9	2.8	1.7	.4	.6	.1	---	---	---	1.8	1.0	---	---	---	---
M: Pablo to Caffrey Road	34.9	39.9	5.0	4.9	.1	---	---	---	---	---	5.0	---	---	---	---	---
N-O-P: Caffrey Road - Polson	102.0	102.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL:	1,057.9	1,170.9	87.8	67.6	1.7	1.5	.3	16.6	---	0.1	63.9	6.5	6.8	5.4	5.2	---
Arlee Alignment 1[1]	100.8	117.1	16.3	15.1	.3	.9	---	---	---	---	11.7	---	4.4	---	.2	10.3[3]
Arlee Alignment 2[1]	73.0	123.8	50.8	50.0	.1	.7	---	---	---	---	42.8	---	7.8	---	.2	---
Arlee Alignment 3[1]	79.1	122.8	43.8	34.8	.1	2.3	---	---	---	6.6[2]	21.3	6.1	9.8	---	6.6[2]	---
Arlee Alignment 4[1]	3.6	142.8	139.2	139.2	---	---	---	---	---	---	139.2	---	---	---	---	---
Ronan Alignment 1[1]	68.9	73.7	4.7	4.7	---	---	---	---	---	---	4.7	---	---	---	---	---
Ronan Alignment 2[1]	129.0	139.5	17.7	13.8	1.7	1.8	---	---	---	0.4**	15.3	2.0	---	---	---	0.4**
Ronan Alignment 3[1]	19.9	74.2	54.3	37.8	---	16.5	---	---	---	---	54.3	---	---	---	---	---
Ronan Alignment 4[1]	9.9	77.4	67.5	59.3	1.7	1.8	---	---	4.6[3]	0.1**	67.4	---	---	---	---	0.1**/4.6[4]
Polson Alignment 1[1]	102.0	102.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Polson Alignment 2[1]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polson Alignment 3[1]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Morrison-Maierle. 1993. [1] Land use for Arlee, Ronan and Polson are within the developed areas along the existing alignment. [2] Jocko River Trout Hatchery. [3] Railroad Acquisition. [4]Included in Fee. NA - Not Applicable. * Water/wetland indicates predominant land use adjacent to highway right-of-way. Refer to Section 7.10 for detailed analysis of impact to wetlands. ** Park/Ballfield/School Athletic Field.

Table 7.2-2 Right-of-Way Requirements for Lane Configuration B (Four-Lane) By Land Use and Status

Segment	Right-Of-Way (Acres)			New Right-Of-Way (Acres) -- Land Use							New Right-Of-Way (Acres) -- Land Status					
	Existing	Total Required	New Required	Agriculture	Commercial	Residential	Forest	Water/ Wetland*	Railroad	Public	Fee	Tribal	Allot	Federal	State	Railroad/ Local
A: Evaro to Arlee	188.4	232.2	43.8	21.5	.6	1.7	20.0	---	---	---	19.0	17.1	7.4	---	.3	---
B: Arlee	13.6	21.7	8.1	7.3	.1	.7	---	---	---	---	5.3	---	2.8	---	---	---
C: Arlee to Ravalli Canyon	100.6	108.1	7.5	6.4	.3	.8	---	---	---	---	4.2	---	3.3	---	---	---
D: Ravalli Canyon to Ravalli	47.1	55.5	8.4	8.4	---	---	---	---	---	---	8.4	---	---	---	---	---
E: Ravalli	15.7	16.9	1.2	.9	.1	.2	---	---	---	---	1.2	---	---	---	---	---
F: Ravalli Hill	90.6	104.1	13.5	6.1	---	---	---	2.4	---	5.0	8.5	3.7	---	1.3	---	---
G: St. Ignatius	46.7	53.6	6.7	5.1	.3	---	1.3	---	---	---	3.3	2.2	1.2	---	---	---
H: St. Ignatius to 212	133.9	209.7	48.6	39.8	0.7	---	---	8.1	---	---	38.7	1.2	2.6	---	6.1	---
I: MTS 212 to Ronan	79.4	114.3	34.9	16.5	.4	---	---	18.0	---	---	18.1	6.7	---	7.3	2.8	---
J: Ronan	20.8	20.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---
K: Ronan to Pablo	90.1	91.3	1.2	1.2	---	---		---	---	---	1.1	.1	---	---	---	---
L: Pablo	94.1	99.9	5.8	3.3	.6	1.7	.2	---	---	---	4.1	1.7	---	---	---	---
M: Pablo to Caffrey Road	34.9	42.8	7.9	7.7	.2	---	---	---	---	---	7.9	---	---	---	---	---
N-O-P: Caffrey Road - Polson	102.0	118.8	16.8	14.8	1.0	---	---	---	---	1.0	12.3	---	4.5	---	---	---
TOTAL	1,057.9	1,289.5	204.4	139.0	4.3	5.1	21.5	28.5	---	6.0	132.1	32.7	21.8	8.6	9.2	---
Arlee Alignment 1[1]	100.8	126.3	25.5	23.4	.7	1.4	---	---	---	---	18.2	.3	6.7	---	.3	---
Arlee Alignment 2[1]	73.0	133.8	60.8	59.5	.3	1.0	---	---	---	---	50.5	.3	9.7	---	.3	11.6[4]
Arlee Alignment 3[1]	79.1	132.6	53.6	43.1	.3	2.8	---	---	---	7.4[2]	27.4	7.1	11.4	---	7.7	---
Arlee Alignment 4[1]	3.6	160.4	156.9	156.9	---	---	---	---	---	---	138.4	6.3	12.2	---	---	---
Ronan Alignment 1[1]	68.9	76.1	7.1	7.1	---	---	---	---	---	---	7.1	---	---	---	---	---
Ronan Alignment 2[1]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ronan Alignment 3[1]	19.9	82.8	62.9	44.3	---	18.6	---	---	---	---	62.9	---	---	---	---	---
Ronan Alignment 4[1]	9.9	86.0	76.1	66.7	1.9	2.1	---	---	5.1[3]	0.3**	75.8	---	---	---	---	0.3**/5.1[4]
Polson Alignment 1[1]	102.0	118.8	16.8	14.8	1.0	---	---	---	---	1.0	12.3	---	4.5	---	---	---
Polson Alignment 2[1]	28.0	135.5	107.5	72.5	---	19.0	---	---	---	16.0	79.0	24.5	4.0	---	---	---
Polson Alignment 3[1]	9.9	149.5	139.6	121.2	---	18.4	---	---	---	---	83.5	48.6	7.5	---	---	---

Morrison-Maierle. 1993. [1] Land use for Arlee, Ronan and Polson are within the developed areas along the existing alignment. [2] Jocko River Trout Hatchery. [3] Railroad Acquisition. [4] Included in Fee. NA - Not Applicable. * Water/wetland indicates predominant land use adjacent to highway right-of-way. Refer to Section 7.10 for detailed analysis of impact to wetlands. ** Park/Ballfield/School Athletic Field.

Table 7.2-3 Right-of-Way Requirements for Lane Configuration C (Four-Lane with Continuous Two-way Left-turn Center Median) By Land Use and Status

Segment	Right-Of-Way (Acres)			New Right-Of-Way Required (Acres) -- Land Use							New Right-Of-Way Required (Acres) -- Land Status					
	Existing	Total Required	New Required	Agriculture	Commercial	Residential	Forest	Water/ Wetland*	Railroad	Public	Fee	Tribal	Allot	Federal	State	Railroad/ Local
A: Evaro to Arlee	188.4	250.3	61.9	30.4	.8	2.4	28.3	---	---	---	27.2	23.8	10.5	---	.4	---
B: Arlee	13.6	24.0	10.4	9.2	.2	1.0	---	---	---	0.01	6.7	---	3.7	---	---	---
C: Arlee to Ravalli Canyon	100.6	113.3	12.7	11.4	.4	.9	---	---	---	---	8.0	---	4.7	---	---	---
D: Ravalli Canyon to Ravalli	47.1	57.4	10.3	10.3	---	---	---	---	---	---	10.3	---	---	---	---	---
E: Ravalli	15.7	17.2	1.5	1.1	.1	.3	---	---	---	---	1.5	---	---	---	---	---
F: Ravalli Hill	90.6	110.4	19.8	18.2	---	---	---	1.6	---	---	12.3	5.5	---	2.0	---	---
G: St. Ignatius	46.7	57.9	11.0	8.7	.5	---	1.8	---	---	---	5.7	3.4	1.9	---	---	---
H: St. Ignatius to MTS 212	133.9	228.9	68.6	54.9	1.0	---	---	12.7	---	---	53.6	2.3	3.5	---	9.2	---
I: MTS 212 to Ronan	79.4	124.7	45.3	21.2	.7	---	---	23.4	---	---	23.6	8.3	---	9.2	4.2	---
J: Ronan	20.8	23.0	2.2	1.3	.7	.2	---	---	---	---	1.7	---	.5	---	---	---
K: Ronan to Pablo	90.1	94.4	4.3	3.7	---	---	---	.6	---	---	3.8	.2	.3	---	---	---
L: Pablo	94.1	104.4	10.3	5.7	.8	3.3	.5	---	---	---	7.5	2.8	---	---	---	---
M: Pablo to Caffrey Road	34.9	46.5	11.6	11.2	.4	---	---	---	---	---	11.6	---	---	---	---	---
N-O-P: Caffrey Road - Polson	102.0	125.3	23.3	20.5	1.4	---	---	---	---	1.4	18.2	---	5.1	---	---	---
TOTAL	1,057.9	1,377.5	293.2	207.8	7.0	8.1	30.6	38.3	---	1.4	191.7	46.3	30.2	11.2	13.8	---
Arlee Alignment 1[1]	100.8	136.7	35.9	32.9	1.1	1.9	---	---	---	---	25.8	.3	9.4	---	.4	---
Arlee Alignment 2[1]	73.0	145.6	72.6	70.7	.5	1.4	---	---	---	---	60.2	.3	11.7	---	.4	12.9[4]
Arlee Alignment 3[1]	79.1	144.3	65.3	53.3	.5	3.2	---	---	---	8.3[2]	35.4	8.0	13.3	---	8.6	---
Arlee Alignment 4[1]	3.6	178.1	174.5	174.5	---	---	--	---	---	---	153.9	7.0	13.6	---	---	---
Ronan Alignment 1[1]	68.9	73.7	12.5	11.3	.7	.2	---	.3	---	---	12.0	---	.5	---	---	---
Ronan Alignment 2[1]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ronan Alignment 3[1]	19.9	92.1	72.2	51.5	---	20.7	---	---	---	---	72.2	---	---	---	---	---
Ronan Alignment 4[1]	9.9	94.7	84.8	74.3	2.1	2.3	---	---	5.7[3]	0.4**	84.4	---	---	---	---	0.4**/5.7[4]
Polson Alignment 1[1]	102.0	125.3	23.3	20.5	1.4	---	---	---	---	1.4	18.2	---	5.1	---	---	---
Polson Alignment 2[1]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polson Alignment 3[1]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Morrison-Maierle. 1993. [1] Land use for Arlee, Ronan and Polson are within the developed areas along the existing alignment. [2] Jocko River Trout Hatchery. [3] Railroad Acquisition. [4] Included in Fee. NA - Not Applicable. NA - Not Applicable. * Water/wetland indicates predominant land use adjacent to highway right-of-way. Refer to Section 7.10 for detailed analysis of impact to wetlands. ** Park/Ballfield/School Athletic Field. () Arlee community park impact less than 0.1 acre.

Table 7.2-4 Right-of-Way Requirements for Lane Configuration D (Four-Lane with Divided Center Median) By Land Use and Status

Segment	Right-Of-Way (Acres)			New Right-Of-Way Required (Acres) -- Land Use							New Right-Of-Way Required (Acres) -- Land Status					
	Existing	Total Required	New Required	Agriculture	Commercial	Residential	Forest	Water/ Wetland*	Railroad	Public	Fee	Tribal	Allot	Federal	State	Railroad/ Local
A: Evaro to Arlee	188.4	286.4	98.0	48.8	2.0	3.8	43.4	---	---	---	45.8	34.9	16.2	---	1.1	---
B: Arlee	13.6	24.0	10.4	9.2	.2	1.0	---	---	---	---	6.7	---	3.7	---	---	---
C: Arlee to Ravalli Canyon	100.6	125.9	25.3	23.1	.9	1.3	---	---	---	---	19.5	---	5.8	---	---	---
D: Ravalli Canyon to Ravalli	47.1	61.2	14.1	14.1	---	---	---	---	---	---	13.6	---	.5	---	---	---
E: Ravalli	15.7	17.5	1.8	1.4	---	.4	---	---	---	---	1.8	---	---	---	---	---
F: Ravalli Hill	90.6	118.7	28.1	24.0	---	---	4.1	---	---	---	16.8	8.3	---	3.0	---	---
G: St. Ignatius	46.7	64.2	17.1	14.0	.7	---	2.4	---	---	---	9.2	4.9	3.0	---	---	---
H: St. Ignatius to MTS 212	133.9	260.9	188.1	69.1	1.3	---	---	17.7	---	---	68.3	3.5	3.9	---	12.4	---
I: MTS 212 to Ronan	79.4	139.8	60.4	28.2	1.1	---	---	31.1	---	---	31.7	10.8	---	12.1	5.8	---
J: Ronan	20.8	23.0	2.2	1.3	.7	.2	---	---	---	---	1.7	---	.5	---	---	---
K: Ronan to Pablo	90.1	101.3	11.2	9.8	---	---	---	1.4	---	---	10.0	.4	.8	---	---	---
L: Pablo	94.1	115.4	21.3	10.5	2.1	7.7	1.0	---	---	---	15.5	5.5	.3	---	---	---
M: Pablo to Caffrey Road	34.9	53.1	18.2	17.1	.9	.2	---	---	---	---	18.2	---	---	---	---	---
N-O-P: Caffrey Road - Polson	102.0	142.1	40.1	35.3	2.4	---	---	---	---	2.4	31.3	---	8.8	---	---	---
TOTAL	1,057.9	1,533.1	436.3	305.9	12.3	14.6	50.9	50.2	---	2.4	290.1	68.3	43.5	15.1	19.3	---
Arlee Alignment 1[1]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arlee Alignment 2[1]	73.0	166.4	93.4	90.5	.9	2.0	---	---	---	---	76.7	.6	15.0	---	1.1	14.1[4]
Arlee Alignment 3[1]	79.1	164.8	85.7	72.0	.9	3.8	---	---	---	9.0[2]	50.0	9.0	16.5	---	10.2	---
Arlee Alignment 4[1]	3.6	195.7	192.1	192.1	---	---	---	---	---	---	169.4	7.8	14.9	---	---	---
Ronan Alignment 1[1]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ronan Alignment 2[1]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ronan Alignment 3[1]	19.9	103.6	83.7	61.0	---	22.7	---	---	---	---	83.7	---	---	---	---	---
Ronan Alignment 4[1]	9.9	103.6	93.7	82.1	2.3	2.5	---	---	6.3[3]	0.5**	93.2	---	---	---	---	0.5/**6.3[4]
Polson Alignment 1[1]	102.0	142.1	40.1	35.3	2.4	---	---	---	---	2.4	31.3	---	8.8	---	---	---
Polson Alignment 2[1]	28.0	168.9	140.9	96.4	1.5	23.0	---	---	---	20.0	103.6	32.2	5.1	---	---	---
Polson Alignment 3[1]	9.9	188.8	178.9	157.4	---	21.5	---	---	--	---	107.4	62.2	9.3	---	---	---

Morrison-Maierle. 1993. [1] Land use for Arlee, Ronan and Polson are within the developed areas along the existing alignment. [2] Jocko River Trout Hatchery. [3] Railroad Acquisition. [4] Included in Fee. NA - Not Applicable. * Water/wetland indicates predominant land use adjacent to highway right-of-way. Refer to Section 7.10 for detailed analysis of impact to wetlands. ** Park/Ballfield/School Athletic Field

Table 7.2-5 Right-of-Way Requirements for the MDT Preferred Alternative, Lane Configurations A, B, C and D, By Land Use and Status

Segment	Right-Of-Way (Acres)			New Right-Of-Way Required (Acres) -- Land Use							New Right-Of-Way Required (Acres) -- Land Status					
	Existing	Total Required	New Required	Agriculture	Commercial	Residential	Forest	Water/ Wetland*	Railroad	Public	Fee	Tribal	Allot	Federal	State	Railroad/ Local
A: Evaro to Arlee	188.4	255.1	66.7	23.2	0.8	1.9	21.5	---	---	---	20.6	18.4	7.8	---	0.3	---
B: Arlee	13.6	27.4	13.8	9.2	0.2	1.0	---	---	---	---	6.7	---	3.7	---	---	---
C: Arlee to Ravalli Canyon	100.6	141.1	40.5	7.2	0.3	0.9	---	---	---	---	4.9	---	3.5	---	---	---
D: Ravalli Canyon to Ravalli	47.1	58.5	11.4	8.4	---	---	---	---	---	---	8.4	---	---	---	---	---
E: Ravalli	15.7	24	8.3	1.1	0.1	0.3	---	---	---	---	1.5	---	---	---	---	---
F: Ravalli Hill	90.6	112.8	22.2	6.4	---	---	---	2.3	---	4.9	8.6	3.8	---	1.4	---	---
G: St. Ignatius	46.7	60.2	13.5	5.1	0.3	---	1.3	---	---	---	3.3	2.2	1.2	---	---	---
H: St. Ignatius to MTS 212	133.9	188.2	54.3	41.9	0.9	---	---	8.8	---	---	40.8	1.4	2.7	---	6.4	---
I: MTS 212 to Ronan	79.4	106	26.6	17.7	0.5	---	---	19.4	---	---	19.5	7.1	---	7.8	3.2	---
J: Ronan	20.8	34.6	13.8	1.3	0.7	0.2	---	---	---	---	1.7	---	0.5	---	---	---
K: Ronan to Pablo	90.1	111.5	21.4	1.8	---	---	---	0.2	---	---	1.8	0.2	0.1	---	---	---
L: Pablo	94.1	126.6	32.5	5.1	0.8	2.8	0.5	---	---	---	6.7	2.5	---	---	---	---
M: Pablo to Caffrey Road	34.9	48.4	13.5	9.5	0.3	---	---	---	---	---	9.8	---	---	---	---	---
N-O-P: Caffrey Road - Polson	102.0	123.2	21.2	7.7	0.6	---	---	---	---	---	6.7	---	2.1	---	---	---
TOTAL	1,057.9	1,275.6	217.7	145.6	5.5	7.1	23.3	30.7	---	5.5	141.0	35.6	21.6	9.2	9.9	---
Arlee Alignment 1[1]	13.6	---	8.1	7.3	0.1	0.7	---	---	---	---	5.3	---	2.8	---	---	---
Arlee Alignment 2[2]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arlee Alignment 3[3]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arlee Alignment 4[4]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ronan Alignment 1[1]	20.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Ronan Alignment 2[2]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ronan Alignment 3[3]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ronan Alignment 4[4]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polson Alignment 1[1]	102.0	---	8.9	7.7	0.6	---	---	---	---	0.6	6.7	---	2.1	---	---	---
Polson Alignment 2[2]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polson Alignment 3[3]	9.9	149.5	139.6	121.2	---	18.4	---	---	---	---	83.5	48.6	7.5	---	---	---

Morrison-Maierle. 1993. [1] Land use for Arlee, Ronan and Polson are within the developed areas along the existing alignment. [2] Jocko River Trout Hatchery. [3] Railroad Acquisition. [4] Included in Fee. NA - Not Applicable. * Water/wetland indicates predominant land use adjacent to highway right-of-way. Refer to Section 7.10 for detailed analysis of impact to wetlands. ** Park/Ballfield/School Athletic Field This table has been added to the final EIS.

Mitigation

ROW will be acquired only as required to construct the roadway and its excavation and embankment slopes. Where severe restrictions exist, where substantial environmental impacts may occur, and where safety standards are not compromised, the width of total ROW may be reduced in some areas.Constructing steeper slopes or retaining walls in critical areas may be desirable to reduce the required width of ROW. This may require guardrail in areas where it otherwise might not be needed.

Existing stock passes will be perpetuated or reconstructed at their present locations with any of the lane configurations, where it is determined they are needed and justified for allowing livestock to cross the highway, and where they can be reasonably reconstructed. Where perpetuation of stock passes is not practical, other arrangements or compensation will be made with affected landowners.

7.2.3. Arlee Alignments

7.2.3.1. Conversion of Land to Highway Right-of-Way

Tables 7.2-1 through 7.2-45 describe impacts for ROW by land use and land status.

All alignment alternatives and lane configuration alternatives will increase the amount of highway ROW. Alignments 2, 3 and 4 will require new ROW be acquired in locations away from Alignment 1.

Any new highway alignments that provide new or improved access in undeveloped areas will create the potential to increase the conversion of agricultural and open lands to residential, commercial and industrial uses.

7.2.3.2. Influence of Traffic on Land Use

Alignment 1 will increase local and through traffic in the developed commercial area of Arlee. The traffic will be compatible with commercial development, but it will be incompatible with residential areas and public areas such as parks, recreation and public school property. Highway-oriented and nonhighway-oriented businesses will continue to develop near and be interspersed with residential and public areas along and adjacent to the highway.

Alignments 2, 3 and 4 will divert through traffic away from Alignment 1 to a new roadway through rural areas on the west or east edges of the community. The new alignments will cross rural, undeveloped areas. There will be demand for new commercial and industrial development oriented to through traffic and use of the highway for transportation of goods and services.

Alignments 2 and 3 will improve access for more residential development along the current edges of Arlee, and Alignment 4 will create new highway access in a rural area two miles east of Arlee's developed area. Without land use planning and regulation and access control, residential development will extend existing streets and possibly result in new streets that cross agricultural and open land. Approaches from the highway likely will extend to existing residential streets in Arlee and further intersperse commercial and industrial development with residential and public land uses. New commercial development will include new businesses and existing businesses that move from Alignment 1 to the new route.

Mitigation

Mitigation is similar to Impacts Common to All Alternatives and Existing Alignment (Except Arlee, Ronan and Polson).

7.2.4. Ronan Alignments

7.2.4.1. Conversion of Land to Highway Right-of-Way

Tables 7.2-1 through 7.2-45 describe impacts for ROW by land use and land status. All alignment alternatives and lane configuration alternatives will increase the amount of highway ROW. Alignments 2, 3 and 4 will require new ROW acquired in locations away from Alignment 1.

Any new highway alignments that provide new or improved access in undeveloped areas will create the potential to increase the conversion of agricultural and open lands to residential, commercial and industrial uses.

7.2.4.2. Influence of Traffic on Land Use

Alignments 1 and 2 will increase local and through traffic in the developed commercial area of Ronan. The traffic will be compatible with commercial development, but it will be incompatible with residential areas and public areas such as parks, recreation and public school property. Highway-oriented and nonhighway-oriented businesses will continue to develop near and be interspersed with residential and public areas along and adjacent to the highway.

Alignments 3 and 4 will divert through traffic away from Alignment 1 to a new roadway through rural areas on the west edge of the community. The new alignments will cross rural, undeveloped areas. There will be demand for new commercial and industrial development oriented to through traffic and use of the highway for transportation of goods and services.

Alignments 3 and 4 will improve access for more residential development along the west edge of Ronan. Without land use planning and regulation and access control, residential development will extend existing streets and possibly result in new streets that cross agricultural and open land. Approaches from the highway likely will extend to existing residential streets in Ronan and further intersperse commercial and industrial development with residential and public land uses. New commercial development will include new businesses and existing businesses that move from Alignment 1 to the new route.

Mitigation

Mitigation is similar to Impacts Common to All Alternatives and Existing Alignment (Except Arlee, Ronan and Polson).

7.2.5. Polson Alignments

7.2.5.1. Conversion of Land to Highway Right-of-Way

Tables 7.2-1 through 7.2-45 describe impacts for ROW by land use and land status.

Any new highway alignments that provide new or improved access in undeveloped areas will create the potential to increase the conversion of agricultural and open lands to residential, commercial and industrial uses.

Conversion of allotted land held in trust by the federal government for either CSKT or Native American individuals will be between five and 27% of converted land for alignments.

7.2.5.2. Influence of Traffic on Land Use

Alignment 1 will increase local and through traffic in the developed commercial area of Polson. These include the commercial strip along US 93 and the downtown business district. The traffic will be compatible with commercial

development, but it will be incompatible with residential areas and public areas such as the lakefront senior citizen housing, golf course and parks. Increased traffic on Alignment 1 along Flathead Lake will disrupt any future development that intends to integrate the aesthetic resources of Flathead Lake into the social and commercial activities of the community. Highway-oriented and nonhighway-oriented businesses will continue to develop near and be interspersed with residential and public areas along and adjacent to the highway.

Alignments 2 and 3 will divert through traffic away from Alignment 1 to a new roadway through rural areas on the south and west edges of the community. The new alignments will cross rural, undeveloped areas. There will be demand for new commercial and industrial development oriented to through traffic and use of the highway for transportation of goods and services.

Several sites along US 93 have been identified as having potential for future commercial development that will be compatible with Alignment 1, 2 and 3:

- Caffrey Road north to Polson Hill
- The area near Clearview Heights, south of Caffrey Road
- Montana Highway (MT) 35 east of existing commercial development
- Infill development in scattered sites between MT 35 and Lake Street
- Locations north of Polson where Alignments 2 and 3 will intersect US 93

Without land use planning and regulation and access control on Alignments 2 and 3, new development will have the potential to extend approaches from the highway to existing residential streets in Polson and further intersperse commercial and industrial development with residential and public land uses. New commercial development will include new businesses and existing businesses that move from Alignment 1 to the new route.

Mitigation

Mitigation is similar to Impacts Common to All Alternatives and Existing Alignment (Except Arlee, Ronan and Polson).

7.3. FARMLANDS

Alternatives for alignments, lane configurations and design options are described in detail in Section 5.1. The MDT Preferred Alternative and the CSKT Preferred Alternative, which consist of combinations of alignments, lane configurations and design options, are described in detail in Sections 5.3 and 5.4.

In accordance with the Farmland Protection Policy Act (FPPA) of 1981, the effects of the proposed action on FPPA farmland have been examined. Farmland conversion impact ratings (Form AD 1006 included on following pages) have been completed with the assistance of the Lake and Missoula county offices of the U.S. ~~Soil~~Natural Resources Conservation Service (~~SCS~~NRCS). The total farmland evaluation score (Part VII of the AD 1006 included on the following pages) is below 160 with any of the alignments or lane configurations, except with Alignment 4 at Arlee and Alignment 3 at Ronan with Lane Configuration C. As indicated in 7 Code of Federal Regulations (CFR) 658.4(C),(2), alignments receiving a total score of less than 160 points should be given a minimal level of consideration for protection and no additional alignments need to be evaluated. (Figures 7.3-1, 7.3-2 and 7.3-3)

Table 7.3-1 summarizes FPPA farmland that will be converted to highway ROW with each of the alternatives under consideration.

In Arlee, the new roadway on Alignments 1, 2 or 3 will not require the conversion of any FPPA farmland to highway ROW but construction of Alignment 4 will.

In Ronan, the new roadway on Alignments 1 or 2 will require the least conversion of FPPA farmland (one acre or less depending on the lane configuration). Construction on Alignments 3 or 4 will require the conversion of substantially more -- up to 10.8 acres of prime or unique farmland and up to 6.5 acres of farmland of statewide or local importance.

In Polson, the new roadway on Alignment 1 will require the least conversion of FPPA farmland (1.6 acres or less depending on the lane configuration). Alignments 2 or 3 will require the conversion of substantially more -- up to 26.5 acres of prime or unique farmland and up to 12.5 acres of farmland of local importance.

Also, as shown on Table 7.3-1, Lane Configuration A will require the least conversion of FPPA farmland to highway ROW followed, in order of increasing magnitude, by Lane Configurations B, C and D.

As indicated in Section 7.1.3, Lane Configurations B, C and D (each includes four traffic lanes) will substantially improve LOS and efficiency and desirability of driving the highway. These improvements may encourage increased construction of homes and businesses in the area which may result in additional conversion of FPPA farmland to other uses. (Sections 7.1, 7.2, 7.4 and 7.5)

Cumulative impacts to FPPA farmland may occur as a result of improvement to US 93 in combination with increased industrial activities and facilities, increased recreational and tourist activities and facilities, construction of additional residential areas and related schools, utilities and support facilities.

Mitigation

Mitigation measures to reduce the amount of FPPA farmland converted to other uses will include:

- Acquire only the additional width of ROW needed to construct highway improvements, provide desirable safety recovery areas and maintain the highway slopes.

- Implementation of partial access control by MDT and ~~MHC~~MTC. This type of access control will limit the number of approaches that can be constructed to access the highway and will help to reduce "strip development" and other development adjacent to the highway.

- Implement land use planning and ~~zoning~~ regulations, by Missoula and Lake counties and CSKT, to help steer development away from FPPA farmland to land with less agricultural value.

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request: April 9, 1990
Name Of Project: Evaro-Dirty Corner F5-1(8)	Federal Agency Involved: Federal Highway Administration
Proposed Land Use: Highway Right-of-Way	County And State: Missoula County, Montana.
PART II *(To be completed by SCS)*	Date Request Received By SCS: 04/11/90

Does the site contain prime, unique, statewide or local important farmland? *(If no, the FPPA does not apply – do not complete additional parts of this form)*	Yes ☒	No ☐	Acres Irrigated: 23,930 / Average Farm Size: 535
Major Crop(s): BEEF, ALFALFA, PASTURE, SPRING WHEAT	Farmable Land In Govt. Jurisdiction: Acres: 140,850 % 11.4		Amount Of Farmland As Defined in FPPA: Acres: 59,880 %4
Name Of Land Evaluation System Used: NONE	Name Of Local Site Assessment System: NONE		Date Land Evaluation Returned By: 04/17/90

PART III *(To be completed by Federal Agency)*	Alternative Site Rating: Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	11.0			
B. Total Acres To Be Converted Indirectly	---			
C. Total Acres In Site	11.0			
PART IV *(To be completed by SCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	10.2			
B. Total Acres Statewide And Local Important Farmland	0.8			
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted	0.02%			
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value	N/A			
PART V *(To be completed by SCS)* Land Evaluation Criterion Relative Value Of Farmland To Be Converted *(Scale of 0 to 100 Points)*	100			

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(These criteria are explained in 7 CFR 658.5(b)*	Maximum Points				
1. Area In Nonurban Use	15	15			
2. Perimeter In Nonurban Use	10	10			
3. Percent Of Site Being Farmed	20	6			
4. Protection Provided By State And Local Government	20	0			
5. Distance From Urban Builtup Area (NOT USED)	N/A	N/A			
6. Distance To Urban Support Services (NOT USED)	N/A	N/A			
7. Size Of Present Farm Unit Compared To Average	10	5			
8. Creation Of Nonfarmable Farmland	25	0			
9. Availability Of Farm Support Services	5	5			
10. On-Farm Investments	20	0			
11. Effects Of Conversion On Farm Support Services	25	0			
12. Compatibility With Existing Agricultural Use	10	2			
TOTAL SITE ASSESSMENT POINTS	160	43			
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland *(From Part V)*	100	100			
Total Site Assessment *(From Part VI above or a local site assessment)*	160	43			
TOTAL POINTS *(Total of above 2 lines)*	260	143			

Site Selected: EXISTING CORRIDOR	Date Of Selection: JUNE 9, 1990	Was A Local Site Assessment Used? Yes ☐ No ☒

Reason For Selection: SINCE THE TOTAL SCORE IS LESS THAN 160 NO FURTHER SITES NEED TO BE CONSIDERED AS STATED IN 7 CFR 658.4(C), PART (2) - PAGE 27725 OF VOL. 49 FR #130: "SITES RECEIVING A TOTAL SCORE OF LESS THAN 160 BE GIVEN A MINIMAL LEVEL OF CONSIDERATION FOR PROTECTION AND NO ADDITIONAL SITES BE EVALUATED."

FIGURE 7.3-1

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request: 9-21-92
Name Of Project: Dirty Corner - Polson	Federal Agency Involved: USDOT - FHWA
Proposed Land Use: Highway Right-of-Way	County And State: Lake County, Montana
PART II *(To be completed by SCS)*	Date Request Received By SCS:

Does the site contain prime, unique, statewide or local important farmland? Yes ☒ No ☐
(If no, the FPPA does not apply – do not complete additional parts of this form).

Acres Irrigated	Average Farm Size
125,000	460

Major Crop(s)	Farmable Land In Govt. Jurisdiction	Amount Of Farmland As Defined in FPPA
Hay, potatoes, winter wheat, pasture	Acres: No data %	Acres: 47,000 %
Name Of Land Evaluation System Used: NONE	Name Of Local Site Assessment System: NONE	Date Land Evaluation Returned By SCS: 10-30-92

PART III *(To be completed by Federal Agency)*	Alternative Site Rating: Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	220	435		
B. Total Acres To Be Converted Indirectly	5	5		
C. Total Acres In Site	1427	1675		
PART IV *(To be completed by SCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	2.5	20.8		
B. Total Acres Statewide And Local Important Farmland	0.8	5.9		
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted	<1%	<1%		
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value	6.5%	6.5%		
PART V *(To be completed by SCS)* Land Evaluation Criterion Relative Value Of Farmland To Be Converted *(Scale of 0 to 100 Points)*	NONE AVAILABLE			
PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(These criteria are explained in 7 CFR 658.5(b)*	Maximum Points			
1. Area In Nonurban Use	15	12	15	
2. Perimeter In Nonurban Use	10	8	10	
3. Percent Of Site Being Farmed	20	7	8	
4. Protection Provided By State And Local Government	20	0	0	
5. Distance From Urban Builtup Area	NA	NA	NA	
6. Distance To Urban Support Services	NA	NA	NA	
7. Size Of Present Farm Unit Compared To Average	10	5	5	
8. Creation Of Nonfarmable Farmland	25	5	10	
9. Availability Of Farm Support Services	5	5	5	
10. On-Farm Investments	20	2	2	
11. Effects Of Conversion On Farm Support Services	25	0	5	
12. Compatibility With Existing Agricultural Use	10	5	5	
TOTAL SITE ASSESSMENT POINTS	160	49	65	
PART VII *(To be completed by Federal Agency)*				
Relative Value Of Farmland *(From Part V)*	100	100	100	
Total Site Assessment *(From Part VI above or a local site assessment)*	160	49	65	
TOTAL POINTS *(Total of above 2 lines)*	260	149	165	

Site Selected: | Date Of Selection | Was A Local Site Assessment Used? Yes ☐ No ☒

Reason For Selection:

Site A = Lane configuration "C", existing alignment

Site B = Lane configuration "C", existing alignment except Alt. 4 at Arlee and Alt. 3 at Ronan.

AD 1006 LAKE COUNTY
COUNTY LINE TO POLSON

FIGURE 7.3-2

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request
Name Of Project: Polson	Federal Agency Involved: USDOT - FHWA
Proposed Land Use: Highway Right-of-Way	County And State: Lake County, Montana
PART II *(To be completed by SCS)*	Date Request Received By SCS

Does the site contain prime, unique, statewide or local important farmland? *(If no, the FPPA does not apply – do not complete additional parts of this form).*	Yes: XX	No: ☐	Acres Irrigated: 125,000	Average Farm Size: 460

Major Crop(s): Alfalfa, hay, potatoes, winter wheat, pasture	Farmable Land In Govt. Jurisdiction: Acres: No data %	Amount Of Farmland As Defined in FPPA: Acres: 47,000 %
Name Of Land Evaluation System Used: None	Name Of Local Site Assessment System: None	Date Land Evaluation Returned By SCS

PART III *(To be completed by Federal Agency)*	Alternative Site Rating: Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	23.3	140.9	178.9	
B. Total Acres To Be Converted Indirectly				
C. Total Acres In Site	125.3	168.9	188.8	
PART IV *(To be completed by SCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	0	26.5	23.2	
B. Total Acres Statewide And Local Important Farmland	1.6	3.0	12.5	
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted	1%	1%	1%	
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value	NA	NA	NA	
PART V *(To be completed by SCS)* Land Evaluation Criterion Relative Value Of Farmland To Be Converted *(Scale of 0 to 100 Points)*	100	100	100	

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(These criteria are explained in 7 CFR 658.5(b)*	Maximum Points	Site A	Site B	Site C	Site D
1. Area In Nonurban Use	15	7	12	15	
2. Perimeter In Nonurban Use	10	8	10	10	
3. Percent Of Site Being Farmed	20	3	10	8	
4. Protection Provided By State And Local Government	20	0	0	0	
5. Distance From Urban Builtup Area	NA	NA	NA	NA	
6. Distance To Urban Support Services	NA	NA	NA	NA	
7. Size Of Present Farm Unit Compared To Average	10	5	5	6	
8. Creation Of Nonfarmable Farmland	25	0	1	0	
9. Availability Of Farm Support Services	5	5	5	5	
10. On-Farm Investments	20	0	2	2	
11. Effects Of Conversion On Farm Support Services	25	0	3	2	
12. Compatibility With Existing Agricultural Use	10	5	5	5	
TOTAL SITE ASSESSMENT POINTS	160	33	53	53	
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland *(From Part V)*	100	100	100	100	
Total Site Assessment *(From Part VI above or a local site assessment)*	160	33	53	53	
TOTAL POINTS *(Total of above 2 lines)*	260	133	153	153	

Site Selected:	Date Of Selection	Was A Local Site Assessment Used? Yes ☐ No XX

Reason For Selection:

Site A = Lane configuration "C," existing alignment.
Site B = Lane configuration "D," Alternative 2 (Maximum Area Converted).
Site C = Lane configuration "D," Alternative 3 (Maximum Area Converted).

AD 1006 LAKE COUNTY
POLSON AREA

FIGURE 7.3-3

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Table 7.3-1 FPPA Farmland Converted to Right-of-Way

Segment	Description	Lane Configurations									
		CSKT Preferred Alternative: Lane Configuration A		B		C		D		MDT Preferred Alternative: Lane Configurations A, B, C and D	
		(P)	(I)	(P)	(I)	(P)	(I)	(P)	(I)	(P)	(I)
A	Evaro - Arlee	0	0	9.4	0.7	10.6	0.8	11.8	0.9	9.5	0.7
B1, B2, B3	Arlee, Alignments 1 (Existing Alignment), 2 and 3,	0	0	0	0	0	0	NA	NA	0	0
B4	Arlee, Alignment 4, Jocko Valley Alignment	6.7	0	7.6	0	8.5	0	9.3	0	7.6	0
J1	Ronan, Alignment 1, Existing Alignment	0	0	0.2	0	0.3	0	NA	NA	0.3	0
J2	Ronan, Alignment 2, One-Way Couplet	0	0	0.3	NA	NA	NA	NA	NA	0.3	0
J3	Ronan, Alignment 3, Near-West Alignment	7.8	4.7	8.8	5.4	9.8	5.9	10.8	6.5	8.8	5.4
J4	Ronan, Alignment 4, Far-West Alignment	7.0	4.7	7.9	5.4	8.6	5.9	9.6	6.5	7.9	5.4
K	Ronan to Pablo	0	0	0	0	0.2	0.8	0.6	1.3	0.1	0.2
M	Pablo to Caffrey Road	0	0	0.8	0	1.6	0	2.4	0	1.2	0
N-O-P1	Polson, Alignment 1	0	0	0	1.0	0	1.6	NA	NA	0	0.6
N-O-P2	Polson, Alignment 2	0	0	24.5	2.5	25.5	2.8	26.5	3.0	24.5	2.5
N-O-P3	Polson, Alignment 3	0	0	21.4	11.6	22.2	12.0	23.2	12.5	21.4	11.6
MINIMUM TOTAL*		0.0	0.0	10.4	1.7	12.7	3.2	14.8	2.2	10.8	0.9
MAXIMUM TOTAL**		14.5	4.7	51.1	8.6	56.2	10.3	61.4	11.7	51.7	8.8
TOTAL ON EXISTING ALIGNMENT (EXCEPT ARLEE, RONAN AND POLSON)		0	0	10.2	0.7	12.4	1.6	14.8	2.2	10.8	0.9

Morrison-Maierle. 1993.
NA - Not Applicable (P) Acres of prime or unique farmland to be converted to highway right-of-way.
(I) Acres of farmland of statewide or local importance to be converted to highway right-of-way.
* Total of Existing Alignment (Alignment 1) throughout the project area.
** Total includes Existing Alignment throughout, except numbers for Arlee Alignment 4, Ronan Alignment 3 and Polson Alignment 2 were used.
Segments and alignments not listed will not affect FPPA farmland.
New information has been added to this table in the final EIS.

7.4. SOCIAL

Alternatives for alignments, lane configurations and design options are described in detail in Section 5.1. The MDT Preferred Alternative and the CSKT Preferred Alternative, which consist of combinations of alignments, lane configurations and design options, are described in detail in Sections 5.3 and 5.4.

Population projections indicate western Montana will continue to have a higher rate of population growth than the overall rate of growth for Montana. The expected population growth will continue to be a factor that generates growth of traffic on US 93 from Evaro through Polson. The continued population growth also is expected to continue the trends of increased demand for public facilities/services from CSKT and local governments, including Lake and Missoula counties and the incorporated communities Polson, Ronan and St. Ignatius. Governments will continue to respond to increasing demand for public services associated with population growth and changing patterns of land use and economic development. (Section 6.4)

7.4.1. Impacts Common to All Alternatives

7.4.1.1. Overview of Barrier Effect for Community Cohesion and Access to Neighborhoods and Facilities/Services

Traffic and physical features of the highway will be a barrier that affects social interaction and perception of the aesthetic environment in communities and rural areas outside communities.

The highway and traffic on the highway will affect opportunity for people to circulate among social and business activities that occur in communities and outside communities in open, rural areas.[13]

The severity of the barrier effect for each alternative will depend on the volume and speed of traffic and the highway's operation and capacity, combined with location and width. Traffic volume that exceeds the capacity of the transportation system will result in traffic congestion that affects community cohesion and access to neighborhoods and facilities/services.

The physical presence of the highway, combined with traffic on the highway, will disrupt aesthetic qualities because of effects on air quality, noise, visual and other environmental conditions. Traffic congestion restricts access for vehicular and pedestrian traffic to enter, leave and cross the highway without extended time delay and reduced safety.

Traffic congestion will affect community cohesion by reducing the ability of people to meet casually and associate freely. Reduced association with neighbors disrupts living patterns and reduces efficiency of facilities/services. Traffic congestion reduces opportunity for outside activities by children and adults. The reduced opportunity affects use of facilities/services. Parks and playgrounds becoming inaccessible, access to schools becoming difficult and unsafe, and stores losing customers because of difficulty in access are common concerns caused by traffic congestion.[14]

Sections 7.4.4, 7.4.5 and 7.4.6 discuss the barrier effects for alignment alternatives at Arlee, Ronan and Polson.

7.4.1.2. Discrimination: Isolation of Neighborhoods and Facilities/Services

The highway and traffic on the highway will divide neighborhoods from facilities/services inside and outside communities. None of the alignment alternatives or lane configuration alternatives, including No Action, will isolate, or therefore discriminate against, any racial, ethnic, or other minority groups. No social group will derive

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[13]Highway Bypass Impact Analysis. State of Wisconsin, Department of Transportation. 1982.
[14]Transportation Research Record 858, Elements of Short-Run Marginal Costs of Highway Use, Ralph C. Erickson.

selective benefits or disadvantages from any of the alternatives. No school district, church, cemetery, park, or other public place will be isolated from access to the highway and facilities/services.

7.4.1.3. Environmental Justice Executive Order 12898 and Title VI of the Civil Rights Act of 1964

Information in this section has been added to document that the preferred alternatives of the proposed action are in compliance with Environmental Justice Executive Order 12898 and Title VI of the Civil Rights Act of 1964.

Growth of the population has been identified as an aspect of change that affects social conditions and cultural resources of the area. Highway improvement has not been isolated as a factor that, by itself, will cause increased growth of the population on the Flathead Indian Reservation. Highway improvement has been considered as one of a number of factors that will combine to make the reservation more attractive as a place to live for individuals and families commuting to employment in Missoula.

Growth of the commuter-related population will be part of ongoing, overall population growth that will continue to make it difficult for Native Americans to maintain their traditional tribal values. The Flathead and Kootenai culture committees also have expressed concern that the pressure of increasing population and traffic affects cultural aspects of natural resources, such as wildlife, air and water quality, and noise levels. Mitigation and enhancement measures have been identified to minimize adverse effects, and for some resource values such as wetlands and associated wildlife, improve conditions in the environment along US 93. Mitigation measures have been identified to support cultural preservation.

Overall population growth also will continue to increase demand for land and housing. This will convert more open land to residential and commercial development and increase values for land and housing. MDT has identified coordinating access management for US 93 with tribal and local land use planning and regulation as a mitigation measure to manage growth and development.

There will be benefits with improved transportation operation and safety. Congestion will be reduced, and access will be improved for individuals who use public and private facilities/services along US 93.

In 1990, Native Americans were 24% of the total population. Native Americans are large segments of the populations of Arlee, St. Ignatius, Pablo, Ronan and Polson. Thirty-nine percent of reservation's population, 16 years and older, had incomes below poverty level, compared with 16% for Montana (Tables 6.4-2 and 6.4-5).[15]

The population of the Flathead Indian Reservation has a dispersed pattern of residency. In 1990, approximately 37% of the 10,399 residential dwellings on the Flathead Indian Reservation were located in the communities of Arlee, St. Ignatius, Charlo, Ronan, Pablo, Polson and Hot Springs. The remaining 63% of residential units were in rural areas outside communities. Ninety-one percent of the reservation's housing was located in Lake and Missoula counties, which are the primary areas served by US 93 and the proposed action on the Flathead Indian Reservation. Ninety-three percent of the population of Native Americans live in the Lake and Missoula county parts of the reservation.[16] (Table 6.2-7)

Approximately 9,150 (88%) of the housing units were located in the Lake County portion of the reservation. Seventy-five percent of housing units were occupied, and 25% were unoccupied. Fifteen percent of housing units were unoccupied and used for seasonal, recreational or occasional use. The seasonally vacant units generally are not available for year-round occupancy.[17]

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[15]U.S. Department of Commerce, Bureau of the Census. U.S. Census of Population. 1990.

[16]Ibid.

[17]Confederated Salish and Kootenai Tribes. Flathead Reservation Comprehensive Resources Plan. Volume I, Existing Conditions. Pages 19-2 - 19-3.

Among Native Americans, 60% were in homes owner-occupied and 40% were renter-occupied. For non-Indians, 73% were in homes owner-occupied and 27% were renter-occupied.[18] (Table 6.2-7)

The MDT Preferred Alternative will require removal of 10 buildings and a telephone sub-station on the existing alignment. It will require removal of three buildings on Polson Alignment 3. (Table 7.18-2)

On the existing alignment, five buildings are single-family residential, three are commercial, one is vacant and one is used for undetermined, miscellaneous purposes. The telephone-substation is a facility owned and operated by a public utility. On Polson Alignment 3, all of the buildings are single-family residential.

To protect personal privacy of local residents, specific and detailed demographic and socioeconomic characteristics are not identified for owners, occupants and operators who will be relocated with removal of buildings. All residential dwelling units removed by the proposed action are single-family homes. The residences likely will include owner- and renter-occupied units, primarily moderate and low cost housing.

Information from the 1990 Census indicates some Native American households will be among the five residences to be removed on the existing alignment and three residences to be removed on Polson Alignment 3. This housing also likely will include persons with incomes below poverty level. In the areas that have removal of buildings, the percentages of households with Native Americans and with income below poverty level are similar to the overall patterns of population for the Flathead Indian Reservation. (Tables 6.4-2 and 6.4-5)

The five residences on the existing alignment and three residences on Polson Alignment 3 are a small part of the area's housing stock. According to the U.S. Census, Native Americans occupied 22%, or approximately 2,290, of the 10,399 housing units on the Flathead Indian Reservation in 1990.[19]

The MDT Preferred Alternative will not have a disproportionately high and adverse effect on minority or low-income populations. A small number of residences will be removed, and they are located in areas with race and income characteristics similar to the total population of the Flathead Indian Reservation.

Section 7.18.2 presents information about characteristics of residential and commercial buildings that will be removed with the proposed action.

7.4.1.4. Population Growth

Population growth will continue under all alternatives, including No Action. Most population growth will continue to be due to natural population increases (more local births than deaths) and in-migration, which is expected to include persons who are retired or seasonal residents, persons who live and work in the area and persons who commute to work outside the area. Highway improvement will have an indirect effect with additional population growth due to improved travel conditions for commuters who use the highway to travel to work in the region's major communities, Missoula and Kalispell.

All alternatives, including No Action, will provide a highway transportation system that is used by the growing population. Improvement of US 93, with reduced travel time and improved driving conditions and convenience, will combine with factors such as the rural lifestyle, natural environment and small town atmosphere to further increase the desirability of the area as a place to live.

With or without highway improvement, continued population growth will make it more difficult for CSKT to maintain their homeland on the Flathead Indian Reservation. Their traditional language, customs and religious

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[18]U.S. Department of Commerce, Bureau of the Census. U.S. Census of Population. 1990.
[19]Ibid.

beliefs have required special attention to maintain and utilize in everyday life. Any increase in the non-tribal population will increase competition for land CSKT prefers to acquire for tribal ownership. (Section 7.14)

With or without highway improvement, continued population growth also will continue to adversely affect those among the area's long-time residents who view their social well-being and quality of life to be decreased by growth and development. The ongoing process of growth and development will have highway improvement better manage traffic to improve social conditions, while the increasing population changes the rural lifestyle, natural environment and small town atmosphere to a more urban environment.

Highway improvement is a factor to be considered in the planning process for its contribution to population growth, land use and economic development. Other factors, which are beyond the control of highway development, also influence growth and development~~have more influence on growth and development than the highway~~. These factors include overall market demand, price and availability of land for development, local and regional rates and patterns of population growth and economic development, and provision of public services such as water, sewer, schools and transportation facilities away from the highway. The importance of factors that affect growth and development will vary, depending on local and regional conditions.[20]

Research information compiled by FHWA identifies the potential for development within a reasonable period of time as an important consideration for estimating indirect and cumulative effects for highway projects. According to FHWA, in areas that experience little growth over time, an individual highway project likely will have negligible indirect and cumulative effects because of the absence of other activities occurring in the vicinity. In areas of moderate to rapid development, highway improvement can be an important element of change leading to long-term impacts.

7.4.1.5. Population Growth and Workers Who Commute Outside the Area

7.4.1.5.1. Flathead Indian Reservation

An estimate was made to consider an increase in commuters from the Flathead Indian Reservation to places of employment in Missoula. The estimate assumed an increase in commuters would occur over the 10- to 20-year period during which US 93 will be improved over the entire distance from Evaro through Polson. It applies to the alternatives that meet the purpose and need for the proposed action.[21] The estimate also assumed the rate of growth in commuting from the reservation would increase to be approximately equal to the rate of commuting from Ravalli County to Missoula. That means it is assumed there will be a substantially higher rate of growth in commuting in the future than there is currently from the Flathead Indian Reservation to Missoula. (Table 7.4-1 and Section 6.4.4.2)

For the entire region of western Montana, improvement of US 93 will not, by itself, add to ongoing population growth. Improvement of US 93 will reduce travel time and improve driving conditions for commuters to Missoula.

Improved transportation, with reduced travel time and improved driving conditions, combines with a broad mix of factors to be a part of growth. The highway transportation system is one of many factors that will combine to influence decisions about where people choose to live in and around Missoula:

- Growth of the population and economy in Missoula
- Concern about living in an urban environment

[20]U.S. Department of Transportation, Federal Highway Administration. Position Paper on Secondary and Cumulative Impact Assessment and related planning information. 1992.

[21]A four-lane highway will and an improved two-lane highway will not provide operation and level-of-service to meet the purpose and need.

Table 7.4-1 Commuters and Commuter-Related Population:* Flathead Indian Reservation

Categories of Population and Commuters for the Flathead Indian Reservation	Population Estimates and Year			
	1990	2020		
		High	Moderate	Low
Estimate of overall population projection for the Flathead Indian Reservation*	21,260	N.A.	28,600*	N.A.
Commuter-Related Population**				
Estimate of Commuter-Related Population** without Highway Improvement	1,340	1,810	1,620	1,470
Estimate of Commuter-Related Population** with Highway Improvement	--	2,310	1,920	1,610
Commuters				
Estimate of Commuters from Flathead Indian Reservation to Missoula without Highway Improvement	510	700	620	560
Estimate of Commuters from Flathead Indian Reservation to Missoula with Highway Improvement	--	900	740	620

Montana Department of Commerce, Census and Economic Information Center. Population Projection Information.
Morrison-Maierle.
N.A. is Not Applicable.
*The estimate of overall population growth does not have a range high-moderate-low.
**Commuter-related population represents commuters and their families, based on average household size.
This table has been added to the final EIS.

- Choice among rural areas in the five valleys around Missoula
- Willingness to drive longer distances, with increased time
- Availability and cost of housing in Missoula and rural areas around Missoula
- Local and regional land use policy

- Lower travel times and better driving conditions

- Other factors, such as personal values, taxes, schools and medical services.

In general, the estimate represents a worst-case set of conditions to show the potential for growth of the commuter-related population. The estimate should not be interpreted to mean all of the growth of the commuter-related population in the estimate is due strictly to improvement of US 93. The estimate should be considered as a combined effect of all the factors involved in growth.

The estimate of commuter-related population[22] growth includes high, moderate and low parts. The estimate indicates there will be between 60 and 200 additional commuters at the end of the 10- to 20-year period of highway improvement. The additional commuter-related population (the sum of commuters and their families) will be between 140 and 500 at the end of the 10- to 20-year period of highway improvement. This range of growth for the commuter-related population would be two to seven percent of total population growth between 1990 and 2020.

Factors such as regional rates of population growth and economic development, regional land use and travel conditions, and improvement of the regional transportation system, will combine to work with improvement of US 93 from Evaro through Polson to determine the amount and distribution of commuter-related growth. ~~The indirect and cumulative impacts that result from the relationship between highway improvement and population growth has not been quantified, and a specific level of population growth due to highway improvement has not been measured, beyond the analysis that is presented in this section.~~

With or without highway improvement, the recent pattern of growth and development is expected to continue in the area from Evaro through Polson. Improvement of US 93 as a regional transportation facility is not planned specifically to promote growth and development. An improved highway will be a factor that combines with the factors discussed above to provide transportation services that support any increase in the rate of population growth. As discussed in Section 6.4, any increase in commuters will consist of two groups: (1) established residents, who reside in Lake County and the part of northern Missoula County between Evaro and Lake County, and who obtain work outside the area; (2) new residents who move to the area and commute to work outside the area.

Overall commute times will remain much longer than is typical for workers in the most populous areas between Evaro and Polson; the long travel time will be a factor that limits, but does not eliminate, growth of the population due to new residents who commute to Missoula. In 1990, information from the U.S. Census indicated the average travel time to work was 16 minutes for Lake County, with the average travel times in the Polson, Ronan and St. Ignatius-Arlee areas being 15, 12 and 20 minutes, respectively.[23] Travel times to Missoula from these areas are greater than the average travel times. ~~Current estimated travel times to Missoula range from 27 minutes from the Arlee area to 78 minutes for the Polson area. Travel time to Missoula from the Evaro area in Missoula County, the southern end of the proposed action, was 13 minutes in 1990.~~ Four-lane highway improvement is expected to reduce current travel times ~~by between one and two minutes~~ from various locations in the area to Missoula in the design year. No Action or Lane Configuration A will increase travel times. (~~Table 7.1-1~~Section 7.1.1)

As discussed in Section 6.4, perception of the area's desirability as a place to live, combined with the rates of population growth in the Missoula and Kalispell areas, will be major factors that affect growth in commuters. Between 1980 and 1990, when Missoula County's population grew by four percent, the number of commuters from Lake County to Missoula did not change; the St. Ignatius-Arlee areas in southern Lake County had a decrease of 50, and the Polson area, with Flathead Lake in northern Lake County, had an increase of 50. Although information about commuters is unavailable from the U.S. Census for the part of Missoula County between Evaro and Lake County, Section 6.4 notes the population of that area increased by eight percent between 1980 and 1990. All of

[22]Commuter-related population represents commuters and their families, based on average household size.
[23]U.S. Department of Commerce, Bureau of the Census. U.S. Census of Population. 1990.

the increase was persons who were non-Indian, indicating newcomers, some of whom commute to Missoula, were moving to the Evaro area.[24]

Recent patterns of growth in commuters from Lake County indicate the northern (Polson area) and southern (Arlee-St. Ignatius areas) parts of Lake County will be the focus of commuter-based population growth. The Polson area will be influenced by population growth and economic development in both Missoula and Kalispell, while the Arlee-St. Ignatius areas will be influenced by Missoula. (Section 6.4)

Because of the expected increase in the rate of growth in Missoula County, it is expected population growth related to commuters will increase in Lake County, the Evaro area of northern Missoula County, and other counties around Missoula, such as Ravalli, with or without highway improvement.

The cumulative effects of the proposed action and other highway projects will result in a highway system that improves the desirability of travel for commuters in the area from Evaro through Polson and throughout Lake County north of Polson. Such projects include the four-lane segment of US 93 abutting the proposed action between I-90 and Evaro built in 1985-86, improvement during the late-1980s of US 93 north of Polson and the proposed improvement of US 93 from Somers to Whitefish, which is approximately 50 miles north of the proposed action. The cumulative effects of improvement of US 93 from Evaro through Polson and Lolo to Hamilton south of Missoula will moderate the effect of highway improvement causing new residents to move to the area from Evaro through Polson and commute to work in Missoula. Improvement of the highway south of Missoula also will combine with the factors that influence population growth, as discussed above, to make the area south of Missoula more desirable for travel.

With no substantial differences in travel times among Lane Configurations B, C and D, which are four-lane highways, there also will be no measurable difference in the effects of the lane configurations on travel time of commuters who travel US 93 to work outside the area.

While highway improvement will increase commuters' willingness to drive in terms of time and distance to work, thereby increasing the desirability of the area for residential development and population growth, other factors, in addition to the long distance and travel time discussed above, will be constraints that limit the potential for growth and development:

Terrain on the route of US 93

Several segments of US 93 present difficult driving conditions that will reduce drivers' willingness to commute to work daily between Missoula and locations in the area. Evaro Hill, which is south of the proposed action, and Ravalli Hill have steep grades. Although highway improvement will lessen the difficulty of crossing the grades, these areas will be factors that limit the growth of commuter traffic. Winter driving conditions on Evaro and Ravalli hills will further increase the difficulty of commuting to work.

Availability of land for development

There is limited land available for development. Any additional residential development in rural areas outside communities will affect the rural lifestyle and natural environment.

The area between 15 and 20 miles from Missoula is forested land and has limited capacity for growth and development. The area around Arlee, which is between 20 and 30 miles from Missoula has private, tribal and trust/allotment lands without steep slopes. This land, which is predominantly agricultural, has scattered development across the basin of the Jocko Valley, which is between one and three miles in width. In the area between 30 and

[24]U.S. Department of Commerce, Bureau of the Census. Census of the Population. 1980-1990.

40 miles from Missoula, steep slopes limit the availability of land for development between Ravalli Canyon and Ravalli Hill. Between Ravalli Hill and Polson, 40-70 miles from Missoula, the Mission Valley has private, tribal, trust/allotment, federal and state lands. This area combines growing development with agricultural lands and wetland areas. In order to enlarge the tribal land base of the Flathead Indian Reservation, CSKT purchases land that is for sale and available for development.

7.4.1.6. Shifts in Population: Workers Who Commute Inside the Area

Highway improvement will have indirect and cumulative effects that change the pattern of growth for the segment of the population commuting to work on US 93 from Evaro through Polson. As with workers who commute outside the area, reduced travel time and improved convenience will encourage workers to commute longer distances in the area. Locations that are perceived to be desirable and affordable will be most likely to have increased population from workers who commute in the area.

7.4.1.7. Students Who Commute to Colleges in Missoula and Kalispell

Students who commute to the University of Montana in Missoula and Flathead Community College in Kalispell also will benefit from improvement of US 93. While estimates about the number of students who commute to the schools, either daily or several days of the week, are not available, it is expected most students are long-time local residents for whom an improved highway could make a college education more obtainable. As with commuters who travel to work on US 93, any potential effects of indirect population growth due to an increase in the number of college students from outside the area will depend on other factors involving the region and the schools.

Such growth of the student population has not been measured beyond the general discussion and analysis presented in this section.

7.4.1.8. Population Impacts of Highway Alignments at Arlee, Ronan and Polson

Highway alignments at Arlee, Ronan and Polson will have little long-term impact on population growth in Lake County. The alignments have the potential to shift boundaries of local trade areas for communities, which may affect the ability of local economies in Lake County to support employment. The economic changes will shift sales for highway-oriented businesses, depending on pattern of development for highway-oriented businesses.

Changes in population because of shifts in sales, earnings and employment of highway-oriented businesses will affect communities and adjacent rural areas. Estimates of changes in population for the St. Ignatius, Ronan and Polson census subdivisions, which encompass the rural areas adjacent to the communities of Arlee, Ronan and Polson, indicate there will be variations of one percent or less, with all alignments, through the design year ~~2015~~2020.[25]

Mitigation

The mitigation measures for land use (and access control) will provide the most appropriate opportunity and strategy to control population growth. (Section 7.2)

7.4.2. No Action

No Action will require the least physical presence for a highway. Its inadequate capacity for current and future volume of traffic will adversely affect social conditions.

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[25]Jim Boyer. Alternative Highway Alignments Technical Report. 1993.

As the volume of traffic increases, US 93 will become more of a barrier. The roadway will not be widened. There will be increased concentrations of traffic. Longer platoons of vehicles will further restrict the flow of traffic.

Increased traffic will disrupt and restrict access for vehicular and pedestrian traffic in residential, commercial, industrial and public areas. More uncontrolled traffic will worsen safety and create a barrier that splits residential areas from facilities/services during intermittent times of the day and intermittent periods of the year.

7.4.3. Existing Alignment (Except Arlee, Ronan and Polson)

7.4.3.1. Barrier Effect for Community Cohesion and Access to Neighborhoods and Facilities/Services

Lane Configuration A (two-lane highway), which will have impacts similar to No Action, will be a less-wide physical barrier for vehicular and pedestrian access to and from the highway. The barrier effect for Lane Configuration A will occur as traffic is concentrated in multi-vehicle platoons that increase traffic congestion and reduce space between moving vehicles.

Lane Configurations B, C and D (four-lane highway) will result in a wider roadway. They will provide more spacing in traffic flow. They will provide better opportunity for access during periods of peak traffic. The barrier effect for Lane Configurations B, C and D will occur as traffic is dispersed across a wider area of highway, increasing the distance required to cross the highway.

Lane Configurations B, C and D will place traffic closer to developed residential, commercial, industrial and public areas that either have frontage along the highway or are near the highway. They will occupy a wider area than the current highway and result in a more prominent physical presence. They will decrease existing buffer zones between developed or undeveloped property and highway ROW.

Lane Configurations B, C and D will provide a more efficient highway for school buses, mail carriers, police and fire vehicles, ambulances and any other public-service vehicles.

7.4.4. Arlee Alignments

7.4.4.1. Alignment 1: Existing Alignment

Lane Configuration A will have impacts similar to No Action. It will become more of a barrier as traffic increases in the community. Traffic will be increasingly concentrated in the space of the existing roadway as spacing decreases between vehicles. Traffic congestion will increase and access will decrease to facilities/services in residential, commercial, industrial and public areas.

Lane Configurations B and C will be a barrier in the community because of a wider roadway that has a more prominent physical presence. Although there will be more spacing between vehicles, traffic will be closer to developed residential, commercial, industrial and public areas that either have frontage along the highway or are near the highway. The existing buffer zones will decrease between residential, commercial, industrial or public property and highway ROW.

All lane configurations with Alignment 1 will maintain the present patterns of vehicular and pedestrian travel. As traffic volume increases, convenience will be reduced, while travel time and operational expenses will increase for local and through traffic.

All lane configurations will improve the highway over existing conditions for school buses, mail carriers, police and fire vehicles, ambulances and any other vehicles providing public and private services. Through traffic will

continue to travel through Arlee on the existing alignment, increasing congestion and obstructing driving conditions for various vehicles that provide public and private services.

Section 7.4.1.1 provides an overview of barrier effects that will occur in communities.

7.4.4.2. Alignments 2, 3 and 4

All lane configurations with Arlee Alignments 2, 3 and 4 will result in a new roadway through the rural areas on the west or east edges of the community. They will divert through traffic from the developed residential, commercial and industrial areas to an open agricultural area. The area west of Arlee currently is served by county roads and is bounded on the west by railroad ROW. The area east of Arlee, which is currently served by MTS 559 and tribal and county roads, is bounded by school property, the powwow grounds and the rodeo grounds.

All lane configurations will change the area having an undeveloped rural lifestyle and natural environment into an area with a developed highway.

All lane configurations will improve the efficiency of through traffic by maintaining uninterrupted flow. Convenience will be improved, while travel time and operational expenses will decrease for local and through traffic.

In Arlee, the smaller volume of traffic that will pass through town will improve access to and from highway approaches for vehicular and pedestrian traffic among residential, commercial, industrial and public areas. The highway will be less of a barrier in the community.

All lane configurations will create a barrier and split the rural areas west or east of Arlee from residential, commercial, industrial and public areas in Arlee. Pedestrian traffic will be disrupted in the rural area. With Alignment 2, children who walk to school from the rural area and children from Arlee who walk to the rural area to fish and swim in Finley Creek will cross the highway. In the open area northwest of Arlee's developed area, the route of Alignment 2 will cross a location that is planned for development as a sewage lagoon. With Alignment 3, pedestrian traffic between Arlee and the area with the powwow and rodeo grounds will cross the highway.

Without access control on Alignments 2 and 3, approaches from residential streets in the areas of Arlee west or east of the current highway could be extended to the new highway. Vehicles turning from the highway onto the extended streets will increase traffic in the residential area. There could be new commercial and industrial development at the new highway approaches, further increasing vehicular and pedestrian traffic through the residential area on the west or east sides of Arlee. Without access control on Alignment 2, there will be increased vehicular and pedestrian activity near the railroad ROW.

Alignments 2, 3 and 4 will divert through traffic away from the existing alignment and provide the most improvement for school buses, mail carriers, police and fire vehicles, ambulances and any other vehicles that provide public or private services in Arlee.

Mitigation

The barrier effects of all Arlee alignment and lane configuration alternatives may be mitigated by normal highway design and traffic control features, such as sidewalks, pedestrian crosswalks, bicycle lanes, signing, speed control and landscaping. Landscaping can be used to reduce noise, air pollution and the perception that the highway imposes a physical intrusion ~~of the highway~~ on human activities.

For Alignment 1, public comment of residents in the Arlee area and the Arlee community team support the use of a traffic signal to interrupt through traffic and improve the opportunity for access to the highway by local traffic.

The interrupted flow of through traffic will further increase traffic congestion that restricts access at all locations along the highway, except the intersection with the traffic signal. (Chapter 10)

Participants in public and agency scoping meetings are in general agreement that a pedestrian overpass should not be used. It will require pedestrians to travel up and down long ramps, it will not be convenient for many pedestrians, and it will be expensive.

Access control ~~along the entire route of the new highway west or east of Arlee~~and corridor preservation along the alternate alignments at Arlee will restrict new commercial and industrial development near existing residential areas. Access control also will restrict traffic from traveling through the existing residential area between the current highway and the new highway.

7.4.5. Ronan Alignments

7.4.5.1. Alignment 1: Existing Alignment

Lane Configuration A will have impacts similar to No Action. It will become more of a barrier as traffic increases in the community. Traffic will be increasingly concentrated in the space of the existing roadway as spacing decreases between vehicles. Traffic congestion will increase, and access will decrease to facilities/services in residential, commercial, industrial and public areas.

Lane Configurations B and C will be a barrier in the community because of a wider roadway that has a more prominent physical presence. Although there will be more spacing between vehicles, traffic will be closer to developed residential, commercial, industrial and public areas that either have frontage along the highway or are near the highway. The existing buffer zones will decrease between residential, commercial, industrial or public property and highway ROW.

All lane configurations with Alignment 1 will maintain the present patterns of vehicular and pedestrian travel. As traffic volume increases, convenience will be reduced, while travel time and operational expenses will increase for local and through traffic.

All lane configurations will improve the highway over existing conditions for school buses, mail carriers, police and fire vehicles, ambulances and any other vehicles providing public and private services. Through traffic will continue to travel through Ronan with the existing alignment, increasing congestion and obstructing driving conditions for various vehicles that provide public and private services.

7.4.5.2. Alignment 2: One-Way Couplet

Ronan Alignment 2 will maintain the roadway on the existing alignment and provide a new roadway for southbound US 93 traffic on First Avenue Southwest, one block west of the existing alignment. This one-way couplet will place traffic closer to developed residential, commercial, industrial and public areas that either have frontage along the highway or are near the highway. It will occupy a wider area than the current street on the new southbound route and result in a more prominent physical presence. It will decrease existing buffer zones between residential, commercial, industrial or public property and highway ROW.

Alignment 2 will change the present patterns of vehicular and pedestrian travel by separating northbound and southbound lanes of traffic through Ronan. There will continue to be interrupted flow of traffic, but to a lesser extent than No Action. As traffic volume increases, convenience will be reduced, while travel time and operational expenses will increase for local and through traffic.

Alignment 2 will create a barrier in two areas and split residential areas from commercial, industrial and public areas. It will place new lanes of traffic on the east side of the schools, and it will require relocation of several buildings that house the CSKT Human Services Department near Round Butte Road (MTS 211). On First Avenue Southwest, it will place new lanes of traffic on the east side of a church. A senior citizens and developmentally disabled residential center, with approximately 20 apartments, will be split from the commercial district on the existing alignment.

Persons who use the services of the CSKT Human Services Department and residents of the senior citizens and developmentally disabled residential center on First Avenue Southwest will be placed at a disadvantage because the one-way couplet will be a barrier to unimpeded access to facilities/services.

With a separation of northbound and southbound traffic, Alignment 2 will provide more spacing in traffic flow and provide better opportunity for access on the existing alignment during periods of peak traffic. The volume of traffic will increase on First Avenue Southwest and worsen access in that area.

To provide access between the north and south routes of the one-way couplet will require improvement of cross streets between the existing alignment and First Avenue Southwest. The cross streets have mixed residential, commercial and open areas, including the city park. There will be increased vehicular and pedestrian traffic on the cross streets.

All lane configurations will improve the highway over existing conditions for school buses, mail carriers, police and fire vehicles, ambulances and any other vehicles providing public and private services. Through traffic will continue to travel through Ronan on the existing alignment, increasing congestion and obstructing driving conditions for various vehicles that provide public and private services.

7.4.5.3. Alignments 3 and 4

All lane configurations with Ronan Alignments 3 and 4 will result in a new roadway through the rural area on the west edge of the community of Ronan. They will divert through traffic from the developed residential, commercial and industrial areas in Ronan to an open agricultural area. The area west of Ronan currently is served by Round Butte Road (MTS 211) and county roads. Alignment 3 will be bounded on the west by Ronan's wastewater treatment plant and a ballfield. Alignment 4, which will be on the route of Thirteenth Avenue Southwest, will be bounded on the east by Ronan's wastewater treatment plant and a ballfield.

All lane configurations will change the area having an undeveloped rural lifestyle and natural environment into an area with a developed highway.

All lane configurations will improve the efficiency of through traffic by maintaining uninterrupted flow. Convenience will be improved, while travel time and operational expenses will decrease for local and through traffic.

In Ronan, the smaller volume of traffic that will pass through town will improve access to and from highway approaches for vehicular and pedestrian traffic among residential, commercial, industrial and public areas. The highway will be less of a barrier in the community.

All lane configurations will create a barrier and split the rural areas west of Ronan from residential, commercial, industrial and public areas in Ronan. Pedestrian traffic will be disrupted in the rural area. Children who walk to school from the rural area along MTS 211 will cross the highway.

Without access control on Alignments 3 and 4, approaches from residential streets in the area of Ronan west of the current highway could be extended to the new highway. Vehicles turning from the highway onto the extended

streets will increase traffic in the residential area. There could be new commercial and industrial development at the new highway approaches, further increasing vehicular and pedestrian traffic through the residential area on the west side of Ronan. Without access control, there will be increased vehicular and pedestrian activity near the railroad ROW.

Alignments 3 and 4 will divert through traffic away from the existing alignment and provide the most improvement for school buses, mail carriers, police and fire vehicles, ambulances and any other vehicles that provide public or private services in Ronan.

The lessening of traffic congestion also will reduce traffic interference with emergency vehicles and allow for safer operation of school buses.

Mitigation

All Ronan Alignments

The barrier effects of all Ronan alignment and lane configuration alternatives may be mitigated by normal highway design and traffic control features, such as sidewalks, pedestrian crosswalks, bicycle lanes, signing, speed control and landscaping. Landscaping can be used to reduce noise, air pollution and the physical intrusion of the highway on human activities.

For Alignments 1 and 2, public comment of residents in the Ronan area and the Ronan community team support the use of traffic signals to interrupt through traffic and improve the opportunity for access to the highway by local traffic. The interrupted flow of through traffic will further increase traffic congestion that restricts access at all locations along the highway, except the intersections with the traffic signal. (Chapter 10)

Participants in public and agency scoping meetings are in general agreement that a pedestrian overpass should not be used. It will require pedestrians to travel up and down long ramps, it will not be convenient for many pedestrians, and it will be expensive.

Access control along the entire route of the new highway west of Ronan will restrict new commercial and industrial development near existing residential areas. Access control also will restrict traffic from traveling through the existing residential area between the current highway and the new highway.

7.4.6. Polson Alignments

7.4.6.1. Alignment 1: Existing Alignment

Widening of US 93, coupled with growth in traffic, will further segregate and hinder access to and from north side residences, businesses, municipal offices, resorts, and recreational areas. Alignment 1 will increase the distance and time which senior citizen pedestrians will be exposed to traffic when crossing US 93. The corridor is not wide enough to allow for construction of a continuous sidewalk on the north side of Alignment 1, and pedestrians will walk on the highway shoulders.

Lane Configurations B and C also will widen the area of exposure to traffic for children and other pedestrians walking and bicycling to the Boettcher Park swimming area and other north side recreation areas.

Waterfront and park areas on the north side of US 93 are used for dispersed recreation. Highway widening will bring traffic closer to the lake shore and reduce staging areas for land and water-based activities. Widening will also reduce the buffer area separating the highway traffic from park and golf course users.

By lessening traffic congestion, Alignment 1 will improve general driving conditions along the US 93 corridor. The safety of seniors, children, and others will be advanced by installation of additional traffic signals and crosswalks. Although Alignment 1 will expand the area of exposure for seniors driving cars onto US 93 from the Lakeview Retirement Village complex, reduced congestion will make it easier to drive in and out of the complex. Road widening and installation of turning bays will create a safer riding environment for bicyclists riding on US 93.

7.4.6.2. Alignments 2 and 3

Alignment 2 or 3 will have little impact on the geographic distribution of Polson area population growth. Areas south and west of Polson and the Rocky Point area will experience new settlement irrespective of whether Alignment 2 or 3 is developed. The alignments will improve transportation access to areas south and west of Polson, but new roadways will not substantially change the rate or characteristics of future settlement in these areas.[26]

Alignment 2 or 3 will bring auto and truck noise, air pollution, and physical presence of highway traffic into farming and low density residential areas. Households living near the highway will experience much less pastoral living environments and will need to make lifestyle adjustments to accommodate living near a heavily traveled highway. Twenty houses have driveways entering on to Alignment 2. Seven houses will have driveways entering on to Alignment 3. One house on Caffrey Road will be within 100 feet of the Alignments 2 or 3. As traffic volume increases over time, the impacts of the highway will also increase.

New commercial development occurring along portions of Alignment 2 or 3 also will change the agrarian and residential character of nearby areas.

Alignment 2 or 3 will attract most drive-through traffic and will reduce flows along the existing US 93 corridor. Driving, walking and bicycling conditions along and across the existing highway will be improved. The existing alignment will still carry high traffic volume. Vehicle and pedestrian movements will be further improved by additional traffic signals.

The diversion of traffic will cause the north side of Polson to be less isolated from the rest of the city. Reduction in traffic congestion will also improve access and reduce noise and air pollution impacts to lake shore parks, shoreline recreation areas, resorts, and other businesses along the corridor. The lessening of traffic congestion and placement of new traffic signals also will reduce traffic interference with emergency vehicles and allow for safer operation of school buses.

Mitigation

All Polson Alignments

The barrier effects may be reduced by design and traffic control features, such as sidewalks, pedestrian cross walks, bicycle lanes, signing, traffic signals and speed control. Landscaping can be used to reduce noise, air pollution, and the physical intrusion of the highway on human activities.

For Alignment 1, public comment of residents in the Polson area and the Polson community team support the use of traffic signals to interrupt through traffic and improve the opportunity for access to the highway by local traffic. The interrupted flow of through traffic will further increase traffic congestion that restricts access at all locations along the highway, except the intersections with the traffic signal. (Chapter 10)

[26]Jerry Sorenson, Lake County Planning Director. 1993.

Access control along the entire route of the new highway south and west of Polson will restrict new commercial and industrial development near existing residential areas. Access control also will restrict traffic from traveling through the existing residential area between the current highway and the new highway.

7.5. ECONOMICS

Alternatives for alignments, lane configurations and design options are described in detail in Section 5.1. The MDT Preferred Alternative and the CSKT Preferred Alternative, which consist of combinations of alignments, lane configurations and design options, are described in detail in Sections 5.3 and 5.4.

The proposed action does not involve any public investment for economic development other than improving the highway transportation system. It will combine with other factors, but will not dominate future, changing economic conditions. The proposed action to improve US 93 from Evaro through Polson will support continuing economic development, consistent with what is expected to occur with a transportation system that provides adequate capacity. The proposed action will support the productive capacity of the existing economy with an adequate transportation system. No estimate of the direct economic impact of the proposed action on the economy has been measured beyond the discussion and analysis that is presented in this section.

National studies have found public investment in highway improvement will combine with, but not dominate, other non-transportation factors to affect regional growth. There are direct user benefits such as reductions of travel time, transportation cost and accidents. Intercity connections provided by highway improvement also are an important factor in regional economic development. Highway access is an important consideration in expansion and location decisions about business facilities such as corporate headquarters, regional offices, research and development facilities, manufacturing plants and distribution centers. Studies of the national interstate highway system indicate businesses providing tourism services are most seriously affected by decisions about highway development, while businesses in the manufacturing and wholesale sectors of the economy are more influenced by non-transportation factors.[27,28]

The potential for economic development is dependent on factors that are not controlled by the highway: Availability of natural resources; proximity to export markets and suppliers; availability of capital for finance; size and training of the labor force; and public policies affecting the general business climate.

Manufacturing of wood products depends on the continued availability of timber from the region's forests. Tourism and recreation depend on Glacier National Park, Flathead Lake and resources available in national forests. Retail trade and services, which have been the sectors of the economy with the most growth in employment and personal earnings, depend on tourism and the growing population. It is expected the services sectors of the economy will continue the recent trends of higher rates of growth than manufacturing and timber in the economy of Lake County and the Flathead Indian Reservation.

Estimates of impacts for local sales, earnings and employment due to changes in travel patterns of drive-through travelers were not quantitatively measured for either the No Action or the existing alignment (Except Arlee, Ronan and Polson) alternatives. There will not be any change in highway alignment with No Action or the Existing Alignment (Except Arlee, Ronan and Polson). Although increasing traffic congestion will be expected to redistribute economic growth associated with drive-through travelers, the redistribution is expected to occur primarily within the area from Evaro through Polson.

Sections 7.5.4, 7.5.5 and 7.5.6 present quantitative estimates of changes in local sales, earnings and employment for the communities of Arlee, Ronan, and Polson. In these communities, highway alignments are being considered that could change the boundaries of each community's local trade area for business activity associated with drive-

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[27]Transportation Research Board, Transportation Research Record 812. Interstate Highway System and Development in Nonmetropolitan areas.

[28]Eno Transportation Foundation, Inc., Westport Connecticut. Measuring Economic Development Benefits for Highway Decision-making: The Wisconsin Case. Weisbrod and Beckwith. Transportation Quarterly, Volume 46, No. 1, January 1992.

through travelers. Appendix E presents the analysis of changes in expenditures by drive-through travelers for Arlee, Ronan and Polson.

Businesses most susceptible to a decrease in drive-through trade will be highway-oriented establishments such as eating and drinking establishments, gasoline and convenience stores, motels and camping facilities, specialty retail stores and businesses providing recreation, entertainment, personal, and repair services.

7.5.1. Impacts Common to All Alternatives

7.5.1.1. Regional Economic Development and Tourism

All alignment alternatives and lane configuration alternatives, including No Action, will have US 93 continue to operate and provide support for economic development and tourism. Improvement of the highway will not be a factor that can be separated from other factors that are responsible for changing patterns of economic development in the area and throughout Montana.

All alternatives, including No Action, will have little influence on the number of nonresident visitors to northwestern Montana. Highway improvement will reduce travel time, improve convenience and increase access to parks and recreation activity. (Section 7.15)

All alternatives, including No Action, will require public expenditure for operations and maintenance. All alternatives, except No Action, will result in public expenditure for operation of a wider highway that requires maintenance of more pavement than the current facility; Lane Configurations B, C and D will operate more efficiently and with less deterioration of pavement because traffic is dispersed over a wider area of pavement. No Action will require increased maintenance due to concentration of increasing volume of traffic on the existing width of pavement.

Road widening will change the design of business driveways, and spaces will be removed from parking lots. Businesses located close to the highway and businesses with small parking lots will be most affected by these changes. Displaced businesses may have difficulty finding equivalent space along US 93.

All alternatives, including No Action, will not substantially change patterns of local and regional expenditure by residents of the area. Lost sales attributable to highway alignments or to business displacement and changes in driveways or removal of parking spaces will be regained by other local and regional businesses. Local residents will continue current patterns of local and regional expenditure between the area and Missoula and Kalispell, the region's major trade centers.

7.5.1.2. Reductions of Taxable Valuation, Property Taxes and Agricultural Production Value with Conversion of Land to Highway Right-of-Way.

Taxable Valuation and Property Taxes

The analysis of the impact of highway improvement on local property tax revenues is limited to estimating the effects of converting privately-owned land to highway ROW. The impact is expected to be greatest for the alignments which widen existing highway corridors. Conversion of private lands to highway ROW will have minor effects on local tax bases. (Section 7.2)

No Action will not convert land to highway ROW. For the existing alignment, including the highway through Arlee, Ronan and Polson, Lane Configuration D will have the greatest effect on the local tax base, reducing taxable value by $9,500 and annual revenue from property taxes by $2,800. Lane Configuration C will reduce taxable value by $5,700, followed by Lane Configuration B ($3,800) and Lane Configuration A ($1,600). Lane Configuration

C will reduce annual revenue from property taxes by $1,700, followed by Lane Configuration B ($1,100) and Lane Configuration A ($500). Compared with Lane Configuration D, Lane Configurations A, B and C will result in reductions of taxable value and annual property taxes that are generally lower by 20, 40 and 60%, respectively.[29] At Arlee, Ronan and Polson, the alignments will require more conversion of land to highway ROW, and they will have a greater reduction in taxable value and property taxes than the existing alignment through the communities.

At Arlee, Lane Configuration B on Alignment 3 will reduce taxable value by $950 and annual property taxes by $300, and it will reduce taxable value by $650 and annual property taxes by $200 on Alignment 2. At Ronan, Lane Configuration B on Alignment 4 will reduce taxable value by $4,200 and annual property taxes by $1,100, and it will reduce taxable value and annual property taxes by $3,900 and $1,000, respectively, on Alignment 3. At Polson, Lane Configuration B on Alignment 2 will reduce taxable value by $4,100 and annual property taxes by $1,300, and it will reduce taxable value by $900 and annual property taxes by $300 on Alignment 3. At Arlee, Ronan and Polson, the maximum reduction of taxable value and annual property taxes with alignments will be higher than the existing alignment by 60, 1,400 and 440%, respectively.[30]

With Lane Configuration B, the reduction in taxable value will be less than 0.1% of total taxable valuation for both Lake and Missoula counties.[31]

Agricultural Production Value

The analysis of the impact of highway improvement on local agricultural production value is limited to estimating the effects of converting agricultural land to highway ROW. The impact is expected to be greatest for the alignments which widen existing highway corridors. (Section 7.2)

No Action will not convert agricultural land to highway ROW. There will be continued conflicts between agricultural operations and traffic on US 93. The existing alignment outside Arlee, Ronan and Polson will displace agricultural land that consists primarily of agricultural cropland and rangeland, with some land used for seed potato farming between Pablo and Polson. Lane Configurations A, B, C and D will displace 68, 139, 208 and 306 acres, respectively. The annual production values are estimated to be $24,800, $42,400, $58,600, and $88,200 for Lane Configurations A, B, C and D, respectively.[32]

At Arlee, Alignment 1 will displace between 15 and 33 acres of agricultural land, most of which is used for crop production. The annual production value of the land is estimated to be between $2,800 and $6,100. Alignment 2 will displace between 50 and 90 acres of agricultural land, most of which is used for crop production. The annual production value of the land is estimated to be between $9,300 and $17,700. Alignment 3 will displace between 35 and 72 acres of agricultural land, most of which is used for crop production. The annual production value of the land is estimated to be between $6,400 and $13,200. Alignment 4 will displace between 139 and 192 acres of agricultural land used for crop production and grazing. The annual production value of the land is estimated to be between $17,400 and $24,000.[33]

At Ronan, Alignment 1 will displace between five and 11 acres of agricultural land, most of which is irrigated farm land. The annual production value of the land is estimated to range from $900 to $2,300. Alignment 2 will remove 14 acres of irrigated cropland from production. The annual production of this land is estimated to be $2,800. Alignment 3 will displace between 38 and 61 acres of agricultural land, most of which is used for crop production. The annual production value of the land is estimated to be between $7,600 and $12,600. Alignment 4 will displace

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[29]Jim Boyer. U.S. Highway 93 Economic Analysis Technical Report. 1993.
[30]Ibid.
[31]Ibid.
[32]Ibid.
[33]Ibid.

between 59 and 82 acres of agricultural land, most of which is used for crop production. The annual production value of the land is estimated to be between $12,500 and $16,500.[34]

At Polson, Alignment 1 will have minimal impacts on area agricultural operations and productivity. Alignments 2 or 3 will displace an estimated 38 acres of land used for seed potato farming. The value of displaced seed potato production will approach $95,000 a year. The alignments also will displace wheat, barley, and hay production valued at $1,600 per year for Alignment 2 and $4,300 for Alignment 3. Alignment 3 will reduce the value of county cattle production by about $2,500 per year.[35]

Mitigation

The mitigation measures for land use and access control will provide the most appropriate opportunity and strategy to control economic development. (Section 7.2)

Ongoing transportation planning should review the means of transport for passengers and freight. The economic feasibility of developing passenger mass transit and converting freight from trucks to rail will depend on transportation factors associated with national and international conditions. (Appendix B)

~~A review of the needs for a system to manage travel information should be conducted in conjunction with the design and construction of improvements for US 93. The review should evaluate whether visitors centers will be effective in attracting through travelers for day visit and overnight activity. The review should consider options for promoting existing attractions, such as the National Bison Range, Ninepipe National Wildlife Refuge and the CSKT cultural center north of Pablo.~~

~~Management of travel information, including highway signing and mapping, commercial advertising and visitors centers, will promote the availability and location of commercial services.~~

7.5.2. No Action

The volume of traffic will continue to increase, and the travel route through communities will not change. Highway-oriented and nonhighway-oriented businesses will be visible to all traffic.

No Action will require the least physical presence for a highway, but its inadequate capacity for current and future volume of traffic will adversely affect economic conditions. Traffic congestion will increase as a barrier that impedes vehicular and pedestrian access to businesses. Businesses on the highway will be increasingly less comfortable and safe as a result of increased conflicts with traffic.

As traffic demand increases, the highway will become more congested. There will be disruption of the distribution system for local trade and commerce. More expensive and less reliable transportation services will adversely impact industries and businesses that depend on them.

Increased traffic congestion will disrupt the tourism and travel industry. Increasing traffic and congestion will make the area less hospitable for local tourists. As travel becomes more difficult, there will be increased travel time and reduced convenience and safety. The result will be a reduction in the attraction of congested locations for visitors. Travelers will purchase goods and services from businesses more accessible elsewhere along US 93.

Economic estimates of expenditures for drive-through travelers at Arlee, Ronan and Polson assume the communities will not be able to recapture any business sales, earnings and employment lost due to traffic congestion with No

[34]Ibid.
[35]Ibid.

Action. Business operators in Arlee, Ronan, and Polson cite summer traffic congestion restricting customer access. As traffic increases, congestion will further limit access and restrict turning movements within existing business districts.

No Action will encourage more commercial strip development on US 93 outside the existing commercial areas. New businesses will develop new access to the highway away from congested areas. While traffic growth will increase local business sales to highway travelers, increasing congestion will limit the ability of established businesses to fully benefit from the growth. By limiting long-term growth in business sales to drive-through travelers, No Action also will constrain growth in local and regional trade. The indirect economic effects of the lost drive-through trade will be to reduce sales, employment and earnings by businesses serving local and regional residents.

7.5.3. Existing Alignment (Except Arlee, Ronan and Polson)

The proposed action will improve access for local residents to businesses. Lake County's location between Missoula and Kalispell also will improve access for local residents to those larger communities. With past high levels of population growth expected to continue, sales in the area to local and regional residents will continue to grow, but Lake and Missoula County businesses located between Evaro and Polson will continue to lose local and regional trade to Missoula and Kalispell.

All lane configurations will maintain the present patterns of traffic; businesses will remain visible to all local and through traffic. Highway improvement with the four-lane configurations will provide higher traffic capacity and improved access for commercial and industrial activity.

Lane Configuration A (two-lane highway) will have impacts similar to No Action due to the effects of increasing traffic congestion for transportation costs, local and regional trade and the tourism and recreation industry.

Lane Configuration A will be a less-wide physical barrier that restricts access for vehicular and pedestrian traffic to and from businesses along the highway. The barrier effect for businesses with Lane Configuration A will occur as traffic is concentrated in multi-vehicle platoons that increase traffic congestion and reduce space between moving vehicles.

Lane Configurations B, C and D (four-lane highway) will result in a wider roadway, but they will provide more spacing in traffic flow. They will provide better opportunity for access to businesses during periods of peak traffic.

Lane Configurations B, C and D will provide a more efficient transportation system by decreasing traffic congestion. Traffic will be less of a barrier, and there will be improved accessibility for vehicular and pedestrian traffic traveling to businesses. Highway improvement will provide higher traffic capacity and improved access for commercial and industrial activity.

The barrier effect for businesses with Lane Configurations B, C and D will occur as traffic is dispersed across a wider area of highway, increasing the distance required to cross the highway. Lane Configurations B, C and D will have four lanes and result in a wider roadway that places traffic closer to businesses.

Lane Configurations A and B will have designated left-turn bays that provide improved access for vehicles turning into some developed commercial and industrial areas. Lane Configuration C will have a continuous two-way left-turn center median that improves access for vehicles turning into businesses. Lane Configuration D will have either designated left-turn bays that cross the divided, unpaved center median or a system of access control with frontage roads.

Continued growth of the local population will offset the effects of local residents shopping outside the area. The increased highway efficiency for all alternatives, except No Action and Lane Configuration A, will serve the growing local population by providing more convenience for shopping with local businesses.

Improvement of traffic conditions will provide more convenience for current and new residents of the area to travel to places of employment in western Montana's regional trade centers, Missoula and Kalispell. Any increase in employment for local residents, either at locations in the area of the proposed action or in the Missoula and Kalispell areas, will increase potential for local retail sales.

Additional economic development, supported by the highway, will increase revenue obtained with taxes, such as property and income.

The cumulative effects of the proposed action and other highway projects will result in a more efficient highway transportation system that improves the desirability and efficiency of travel for commercial and industrial activity. Such projects include the four-lane segment of US 93 abutting the proposed action between I-90 and Evaro built in 1985-86, improvement during the late-1980s of US 93 north of Polson, and the proposed improvement of US 93 from Somers to Whitefish, which is approximately 50 miles north of the proposed action.

The cumulative effects of highway projects throughout the region will be to reduce travel time and increase convenience for residents of the area to travel to western Montana's regional trade centers, Missoula and Kalispell. The major retail trade centers will continue to attract residents from the area. Purchases outside the area will affect the structure of local trade due to outside competition for volume, selection and price of goods and services.

Mitigation

The mitigation measures for land use (and access control) will provide the most appropriate opportunity and strategy to control patterns of economic development outside established commercial and industrial areas. (Section 7.2)

Access to businesses may be improved by normal highway design and traffic control features, such as sidewalks, pedestrian crosswalks, bicycle lanes, signing and speed control.

~~Communities should increase coordination of marketing and promotional strategies for the local trade area to encourage local residents to shop in their communities.~~

7.5.4. Arlee Alignments

7.5.4.1. Business Sales, Earnings and Employment To Drive-Through Travelers and Local Tourists for All Arlee Alignments

Based on the results of a 1993 survey of businesses at Arlee, current annual sales to drive-through travelers are estimated to be two million dollars for 1992. Sales projections assume an annual rate of growth of three percent.[36]

Alignment 1, with Lane Configurations B and C (four-lane highways), will result in a total of $68 million in sales for the 24-year period 1992 through ~~the design year~~ 2015. Total sales with No Action will be $62.7 million, eight percent less than Alignment 1. Annual sales for No Action are higher than Alignment 1 during the period when construction will occur for Alignment 1. After construction, annual sales for Alignment 1 are higher than No Action, with a margin of 25% in 2015. Lane Configuration A (two-lane highway), after construction, will result in sales similar to No Action.[37] (Appendix E)

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[36]Jim Boyer. Impacts of Changes in Expenditure Patterns By Drive Through Travelers. April 1993.
[37]Jim Boyer. Impacts of Changes in Expenditure Patterns By Drive Through Travelers. April 1993.

With the alignments that will divert through traffic away from existing businesses, by 2015 Alignments 2 and 3 each will result in total sales of $41.9 million, while Alignment 4 will result in total sales of $22.7 million. Total sales for Alignments 2 and 3 will be 62% of Alignment 1 by 2015, and annual sales for Alignments 2 and 3 will be less than Alignment 1 until 2015, reflecting the effects of new businesses on Alignments 2 and 3. Total sales for Alignment 4 will be 33% of Alignment 1 by 2015, and annual sales will continue to be less than Alignment 1 in 2015.[38]

As with sales, earnings and employment will be highest with Alignment 1, followed by No Action and Alignments 2 and 3.

Much of Arlee's tourism trade is associated with special events, for example tribal powwows and rodeos. All alignment alternatives will continue to support events which attract tourists to Arlee.

7.5.4.2. Alignment 1: Existing Alignment

Lane Configurations A and B, with designated left-turn bays, and Lane Configuration C, which will have a continuous two-way left-turn center median, will improve access for vehicles turning into businesses. Lane Configurations B and C will have four lanes and result in a wider roadway that places traffic closer to businesses. None of the lane configurations will have onstreet parking.

All lane configurations will maintain the present patterns of traffic; businesses will remain visible to all local and through traffic. Lane Configuration A will reduce traffic congestion less than Lane Configurations B and C.

Lane Configuration A will not displace any commercial buildings. Lane Configurations B, C and D may displace five, six and 10 commercial buildings, respectively. (Section 7.18)

Lane Configuration A (two-lane highway) will have impacts similar to No Action due to the effects of increasing traffic congestion for transportation costs, local and regional trade and the tourism and recreation industry.

Lane Configurations B and C will support long-term growth in local employment and earnings. Improvement of traffic flow and reduction of congestion will cause changes in patterns of patronage and shifts in employment and earnings among local businesses.

7.5.4.3. Alignments 2, 3 and 4

No commercial businesses are currently located along Alignments 2, 3 or 4. In the initial years of new roadway operation, US 93 travelers desiring to make purchases will either remain on the existing US 93 through Arlee, or make purchases from businesses located elsewhere along US 93.

All lane configurations will result in a new roadway through the rural areas on the west or east edges of the community. They will divert through traffic from the developed commercial area and reduce the amount of traffic for which businesses are visible.

The southern and northern end points of Alignments 2 and 3 will be within one mile and one-half mile of Arlee, respectively. The southern and northern end points of Alignment 4 will be farther than two miles from Arlee.

There will be a smaller volume of traffic in Arlee's business district. The reduction of through traffic will reduce congestion and improve access for local traffic in the business district.

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[38]Ibid.

Without access control on Alignments 2 and 3, approaches from residential streets in the areas of Arlee west or east of the current highway could be extended to the new highway. There could be new commercial and industrial development at the new highway approaches, within 1,000 feet of the existing business district.

Alignments 2, 3 and 4 will not displace any existing commercial or industrial buildings. (Section 7.18)

The Arlee economy will lose sales as a result of the rerouting of travelers away from existing businesses. Unless prohibited by land use controls, new highway-oriented businesses will slowly develop along Alignments 2, 3 and 4. New business development is assumed to recapture all lost trade within 15 years.

Mitigation

All Arlee Alignments

The mitigation measures for land use (and access control) will provide the most appropriate opportunity and strategy to control patterns of economic development outside established commercial and industrial areas. (Section 7.2)

Arlee Alignment 1

Access to businesses may be improved by normal highway design and traffic control features, such as sidewalks, pedestrian crosswalks, bicycle lanes, signing and speed control.

Arlee Alignments 2, 3 and 4

Provide access to businesses with normal highway design and traffic control features, such as sidewalks, pedestrian crosswalks, bicycle lanes, signing and speed control.

If Alignment 2, 3, or 4 is selected, designate the existing alignment through Arlee as a US 93 business route. Implement a highway signing program to inform motorists of the availability of local commercial services.

Construct the end points of the highway alignment with approaches that serve as a "gateway" by providing visibility of the community for through traffic. Highway alignments that are constructed with approaches within one-half mile of the original business district provide desired visibility of businesses in the community for local and through traffic. Highway alignments that are located farther than one mile from the business district provide less than desired visibility of businesses.[39]

~~Management of travel information and development of an institutional commercial highway signing (billboard) program will provide awareness and visibility for commercial services. (Section 7.5.1.1)~~

7.5.5. Ronan Alignments

7.5.5.1. Business Sales, Earnings and Employment To Drive-Through Travelers and Local Tourists for All Ronan Alignments

Based on the results of a 1993 survey of businesses at Ronan, current annual sales to drive-through travelers are estimated to be seven million dollars for 1992. Sales projections assume an annual rate of growth of three percent.[40]

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[39]Highway Research Board Bulletin. Predicting the Economic Impact of Alternate Interstate Route Locations. Stroup, R.; Vargha, L.; and Main, R. 1962.

[40]Jim Boyer. Impacts of Changes in Expenditure Patterns By Drive Through Travelers. April 1993.

Alignment 1, with Lane Configurations B and C (four-lane highways), will result in a total of $228.5 million in sales for the 24-year period 1992 through ~~the design year~~ 2015. Total sales with No Action will be $211.1 million, eight percent less than Alignment 1. Annual sales for No Action are higher than Alignment 1 during the period when construction will occur for Alignment 1. After construction, annual sales for Alignment 1 are higher than No Action, with a margin of 18% in 2015. Lane Configuration A (two-lane highway), after construction, will result in sales similar to No Action.[41] (Appendix E)

With the alignments that will divert through traffic away from existing businesses, Alignment 2 will result in total sales of $213.7 million, while Alignments 3 and 4 each will result in total sales of $174.1 million by 2015. Total sales for Alignment 2 will be 94% of Alignment 1 by 2015, and annual sales will equal Alignment 1 in 2010. Total sales for Alignments 3 and 4 will be 76% of Alignment 1 by 2015, and annual sales for Alignments 3 and 4 will equal Alignment 1 by 2015, reflecting the effects of new businesses on Alignments 3 and 4.[42]

As with sales, earnings and employment will be highest with Alignment 1, followed by Alignment 2, No Action and Alignments 3 and 4.

New businesses are expected to develop slowly along Alignments 2, 3 and 4. Eventually, new businesses will reclaim most of lost sales, and new business development is assumed to recapture all lost trade within 10 years for Alignment 2 and within 15 years for Alignments 3 and 4.

Much of Ronan's tourism trade is associated with fishing, hunting and wildlife viewing in the area's wildlife refuges and forests. All alignment alternatives will continue to support recreation activities which attract tourists to Ronan.

7.5.5.2. Alignment 1: Existing Alignment

Lane Configurations A and B will have designated left-turn bays, and Lane Configuration C will have a continuous two-way left-turn center median to improve access for vehicles turning into businesses. Lane Configurations B and C will have four lanes and result in a wider roadway that places traffic closer to businesses. None of the lane configurations will have onstreet parking.

All lane configurations will maintain the present patterns of traffic; businesses will remain visible to all local and through traffic. Lane Configuration A will reduce traffic congestion less than Lane Configurations B and C.

Four or five commercial buildings will be displaced. (Section 7.18)

Lane Configurations B and C will support long-term growth in employment and earnings. Alignment 1 is expected to facilitate long-term growth in employment and proprietor and employee earnings. Improvement of traffic flow and reduction of congestion will cause changes in patterns of patronage with shifts in employment and earnings among local businesses.

7.5.5.3. Alignment 2: One-Way Couplet

Ronan Alignment 2 will maintain the roadway on the existing alignment for northbound traffic and provide an improved roadway for southbound traffic on First Avenue Southwest, approximately one block west of the existing alignment.

Alignment 2 will divert the southbound lanes of through traffic from the developed commercial area on the existing alignment and reduce the amount of traffic for which existing businesses are visible. There will be a smaller volume

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[41]Jim Boyer. Impacts of Changes in Expenditure Patterns By Drive Through Travelers. April 1993.
[42]Ibid.

of traffic on the existing alignment of US 93, and access will improve for existing businesses. The reduction of through traffic will reduce congestion and improve access for local traffic to the business district. The businesses on the existing alignment will remain visible only to traffic on the northbound route of the couplet.

Both the northbound and southbound routes of the couplet will improves access for vehicles turning into businesses. Neither the northbound or southbound route of the couplet will have onstreet parking.

The southern end point of Alignment 2 will be within one-half mile of Ronan, and the northern end point will be near the northern edge of Ronan's commercial area.

There will be a smaller volume of traffic on the existing alignment. The reduction of through traffic will reduce congestion and improve access for local traffic in the business district. There could be new commercial and industrial development in the existing residential and commercial areas of First Avenue Southwest, as well as the residential streets that connect the existing alignment and First Avenue Southwest.

Alignment 2 will displace five or six businesses.

Alignment 2 will slow growth in area employment. The lost employment will be recovered when sales to drive-through tourists are recaptured by new local businesses. Improvement of traffic flow, reduction of congestion and new businesses will change patterns of patronage and shift employment and earnings among businesses.

7.5.5.4. Alignments 3 and 4

No commercial businesses are currently located along Alignments 3 or 4. In the initial years of new roadway operation, US 93 travelers desiring to make purchases will either remain on the existing US 93 through Ronan, or make purchases from businesses located elsewhere along US 93.

All lane configurations will result in a new roadway through the rural areas on the west edge of the community. They will divert through traffic from the developed commercial area and reduce the amount of traffic for which businesses are visible. There will be a smaller volume of traffic on the existing alignment of US 93, and access will improve for existing businesses. The reduction of through traffic will reduce congestion and improve access for local traffic to the business district.

The southern end points of Alignments 3 and 4 will be within one-half mile and one mile of Ronan, respectively. Their northern end points will be approximately one mile from Ronan.

There will be a smaller volume of traffic in Ronan's business district. The reduction of through traffic will reduce congestion and improve access for local traffic in the business district.

Without access control on Alignments 3 and 4, approaches from residential streets in the area west of Ronan could be extended to the new highway. There could be new commercial and industrial development at the new highway approaches, within one mile of the existing business district.

Alignments 3 and 4 will not displace any commercial or industrial buildings. (Section 7.18)

The Ronan economy will lose sales as a result of the rerouting of travelers away from existing businesses. Unless prohibited by land use controls, new highway-oriented businesses will slowly develop along Alignments 3 and 4.

Alignments 3 and 4 will slow growth in Ronan area employment and earnings. Changes in traffic flow, reduction of congestion and new businesses will change patterns of patronage among local businesses and shift employment and earnings among businesses.

Mitigation

All Ronan Alignments

The mitigation measures for land use (and access control) will provide the most appropriate opportunity and strategy to control patterns of economic development outside established commercial and industrial areas. (Section 7.2)

Ronan Alignments 1 and 2

Access to businesses may be improved by normal highway design and traffic control features, such as sidewalks, pedestrian crosswalks, bicycle lanes, signing and speed control.

Ronan Alignments 3 and 4

Provide access to businesses with normal highway design and traffic control features, such as sidewalks, pedestrian crosswalks, bicycle lanes, signing and speed control.

If Alignment 3 or 4 is selected, designate the existing alignment through Ronan as a US 93 business route. Implement a highway signing program to inform motorists of the availability of local commercial services.

Construct the end points of the highway alignment with approaches that serve as a "gateway" by providing visibility of the community for through traffic. Highway alignments that are constructed with approaches within one-half mile of the original business district provide desired visibility of businesses in the community for local and through traffic. Highway alignments that are located farther than one mile from the business district provide less than desired visibility of businesses.[43]

~~Management of travel information and development of an institutional commercial highway signing (billboard) program will provide awareness and visibility for commercial services. (Section 7.5.1.1)~~

7.5.6. Polson Alignments

7.5.6.1. Business Sales, Earnings and Employment To Drive-Through Travelers and Local Tourists for All Polson Alignments

Based on the results of a 1993 survey of businesses at Polson, current annual sales to drive-through travelers are estimated to be five million dollars for 1992. Sales projections assume an annual rate of growth of three percent.[44]

Alignment 1, with Lane Configurations B, C and D (four-lane highways), will result in a total of $157.2 million in sales for the 24-year period 1992 through ~~the design year~~ 2015. Total sales with No Action will be $130.2 million, 18% less than Alignment 1. Annual sales for No Action are higher than Alignment 1 during the period when construction will occur for Alignment 1. After construction, annual sales for Alignment 1 are higher than No Action, with a margin of 36% in 2015. Lane Configuration A (two-lane highway), after construction, will result in sales similar to No Action.[45] (Appendix E)

With the alignments that will divert through traffic away from existing businesses, Alignment 2 will result in total sales of $141.9 million, while Alignment 3 will result in total sales of $132.2 million by 2015. Total sales for

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[43]Highway Research Board Bulletin. Predicting the Economic Impact of Alternate Interstate Route Locations. Stroup, R.; Vargha, L.; and Main, R. 1962.

[44]Jim Boyer. Impacts of Changes in Expenditure Patterns By Drive Through Travelers. April 1993.

[45]Ibid.

Alignment 2 will be 90% of Alignment 1 by 2015, and annual sales will equal Alignment 1 in 2010. Total sales for Alignment 3 will be 84% of Alignment 1 by 2015, and annual sales for Alignments 3 will equal Alignment 1 by 2015, reflecting the effects of new businesses on Alignments 3 and 4.[46]

As with sales, earnings and employment will be highest with Alignment 1, followed by Alignment 2, Alignment 3 and No Action.

New businesses are expected to develop slowly along Alignments 2 and 3. Eventually, new businesses will reclaim most of lost sales, and new business development is assumed to recapture all lost trade within 10 years on Alignment 2 and 15 years on Alignment 3.

7.5.6.2. Alignment 1: Existing Alignment

Lane Configurations A and B will have designated left-turn bays, and Lane Configuration C will have a continuous two-way left-turn center median to improve access for vehicles turning into businesses. Lane Configurations B and C will have four lanes and result in a wider roadway that places traffic closer to businesses. None of the lane configurations will have onstreet parking.

All lane configurations will maintain the present patterns of traffic; businesses will remain visible to all local and through traffic. Lane Configuration A will reduce traffic congestion less than Lane Configurations B and C.

Alignment 1 will displace three buildings that are occupied by four retail businesses. (Section 7.18)

By routing traffic along Flathead Lake, Alignment 1 will continue to provide short-term visitation to Polson as a resort at the southern end of Flathead Lake.

Alignment 1 could discourage new businesses and attractions which could induce longer-term visitations. Lane Configurations B and C will occupy additional lake frontage and highway frontage, and will diminish the land area available for destination resort and convention center development.

Alignment 1 is expected to support growth in employment and proprietor and employee earnings. Improvement of traffic flow and reduction of congestion will change patterns of patronage and shift employment and earnings among local businesses.

7.5.6.3. Alignments 2 and 3

No commercial businesses are currently located along Alignments 2 or 3. In the initial years of new roadway operation, US 93 travelers desiring to make purchases will either remain on the existing US 93 through Polson, or make purchases from businesses located elsewhere along US 93.

Alignments 2 and 3 will not displace any commercial or industrial buildings. (Section 7.18)

The Polson economy will lose sales as a result of the rerouting of travelers who will otherwise make purchases on their way through the city. Unless prohibited by land use controls, new highway-oriented businesses will eventually develop along Alignments 2 and 3. For Alignment 2, new business development is assumed to recapture all of lost trade within 10 years. Because Alignment 3 is more removed from the city, new business development is likely to occur more slowly. For Alignment 3, it is assumed that it will take 15 years to recapture the lost trade.

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[46]Ibid.

The rerouting of drive-through traffic will have both positive and negative effects on growth of local tourism. Alignments 2 and 3 will provide highway travelers less visual exposure to Flathead Lake. This visual association is cited as a valuable advertisement for existing resort and recreation type businesses. Tourists familiar with Polson will continue to use the existing highway to access resorts and other visitor attractions.

Reductions in noise, air pollution and the physical and psychological barriers created by intense traffic flows will improve the aesthetics of the Polson lake front area for tourists. Improved conditions may encourage visitors to stay longer and spend more in Polson. The improved aesthetics also may make business locations along the old highway more attractive for destination resort and convention center developments. Highway construction west of Polson will make river front areas more accessible to tourists and may make these areas viable for resort type investments. New resort development will expand the overall tourist industry for the Polson economy.

Alignments 2 and 3 will split agricultural parcels. The splitting of agricultural parcels will increase the time and reduce the convenience of farming and ranching activities.

Alignment 2 routes traffic along the west side of the Polson city limits and will provide highway travelers with serviceable access to downtown Polson businesses. Alignment 3, which will be farther west, will provide less convenient access to the downtown area.

Alignments 2 and 3 will slow growth in area employment. The lost employment will be recovered when sales to drive-through tourists are recaptured by new local businesses. This will occur more rapidly if Alignment 2 is developed. Change in traffic flow and reduction of congestion will change patterns of patronage and shift employment and earnings among businesses.

Mitigation

All Polson Alignments

The mitigation measures for land use (and access control) will provide the most appropriate opportunity and strategy to control patterns of economic development outside established commercial and industrial areas. (Section 7.2)

Polson Alignment 1

Access to businesses may be improved by normal highway design and traffic control features, such as sidewalks, pedestrian crosswalks, bicycle lanes, signing and speed control.

Polson Alignments 2 and 3

Provide access to businesses with normal highway design and traffic control features, such as sidewalks, pedestrian crosswalks, bicycle lanes, signing and speed control.

If Alignment 2 or 3 is selected, designate the existing alignment through Polson as a US 93 business route. Implement a highway signing program to inform motorists of the availability of local commercial services.

Construct the end points of the highway alignment with approaches that serve as a "gateway" by providing visibility of the community for through traffic. Highway alignments that are constructed with approaches within one-half mile of the original business district provide desired visibility of businesses in the community for local and through

traffic. Highway alignments that are located farther than one mile from the business district provide less than desired visibility of businesses.[47]

~~Encourage public and private investment in local attractions, such as shoreline beach development.~~

~~Management of travel information and development of an institutional commercial highway signing (billboard) program will provide awareness and visibility for commercial services. (Section 7.5.1.1)~~

[47]Highway Research Board Bulletin. Predicting the Economic Impact of Alternate Interstate Route Locations. Stroup, R.; Vargha, L.; and Main, R. 1962.

7.6. PEDESTRIANS AND BICYCLISTS

Alternatives for alignments, lane configurations and design options are described in detail in Section 5.1. The MDT Preferred Alternative and the CSKT Preferred Alternative, which consist of combinations of alignments, lane configurations and design options, are described in detail in Sections 5.3 and 5.4.

7.6.1. Impacts Common to All Alternatives

Vehicle traffic and pedestrian/bicycle traffic volumes have been increasing steadily during recent years and are expected to continue to grow. US 93 will continue to be shared by these different modes of travel -- conflicts will occur and must be managed to ensure the safety of the traveling public and, as much as practical, preserve and enhance convenience, efficiency and comfort. Accommodation and encouragement of non-motorized travel is an important goal which will help reduce energy consumption; reduce the demand for motorized vehicle travel and the need for future expansion of highways and streets; and reduce other environmental impacts such as noise and air pollution.

Participants in the public scoping process have indicated that developing bicycle facilities along the highway may allow it to become "a nationally recognized bike destination" and create a "low impact draw for tourism." The location of the proposed action in relation to Glacier National Park, Flathead Lake and other recreation opportunities contributes to the desirability of bicycle facilities in this area.

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) recognizes the transportation value of bicycling and walking, and offers mechanisms to increase consideration of bicyclists' and pedestrians' needs within the National Intermodal Transportation System (NITS). ISTEA offers opportunities to enhance state and local bicycle and pedestrian programs. Federal-aid funding is available from a number of ISTEA programs for these efforts. Generally, ISTEA encourages states to determine how their share of federal monies will be spent. In accordance with requirements of ISTEA, MDT has established a Bicycle and Pedestrian Coordinator position for promoting and facilitating the increased use of non-motorized modes of transportation.

7.6.2. No Action

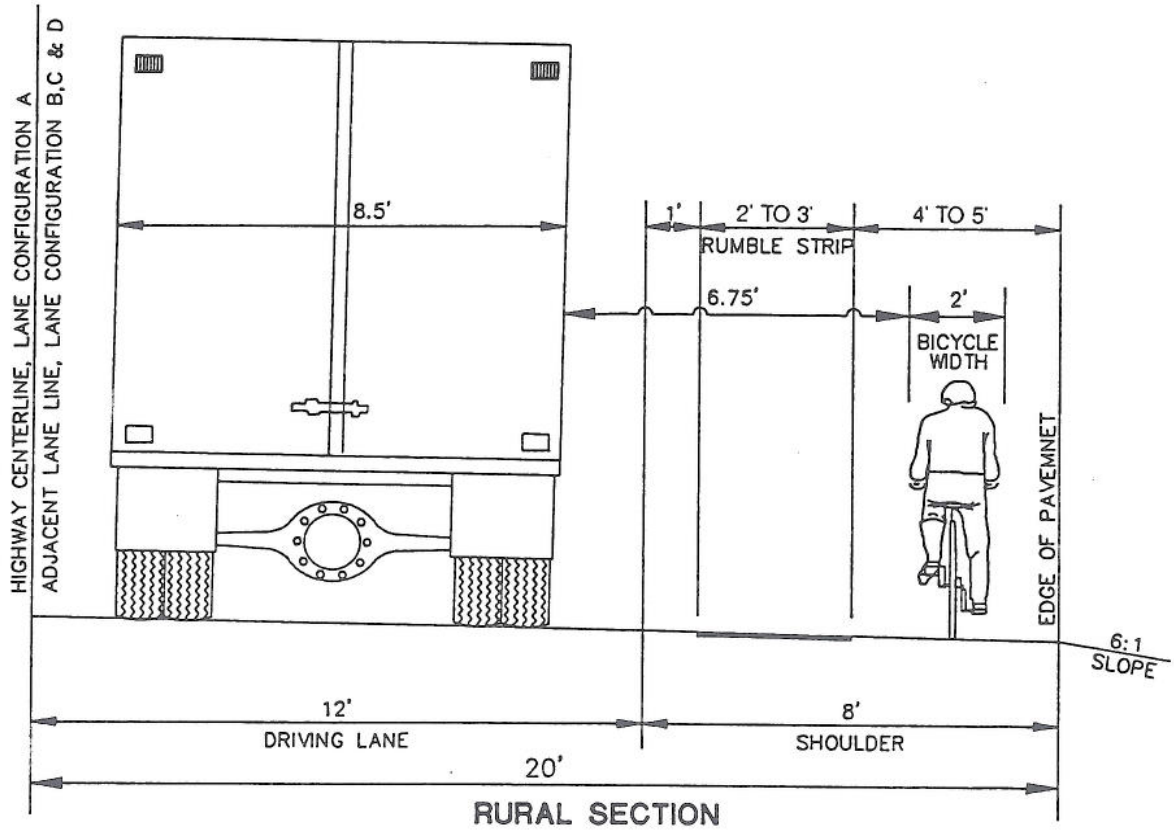
With No Action, there will be no improvement for pedestrian and bicycle travel along the highway or in the communities. Vehicle traffic volume is expected to continue to increase on the highway, with no substantial improvement in facilities, which will result in increased difficulty for pedestrians and bicyclists to safely cross the highway and travel along it. Safety, comfort and convenience for non-motorized travel will be adversely impacted. Opportunities for substantial improvement in bicycle and pedestrian facilities will not be realized.

7.6.3. Existing Alignment (Except Arlee, Ronan and Polson)

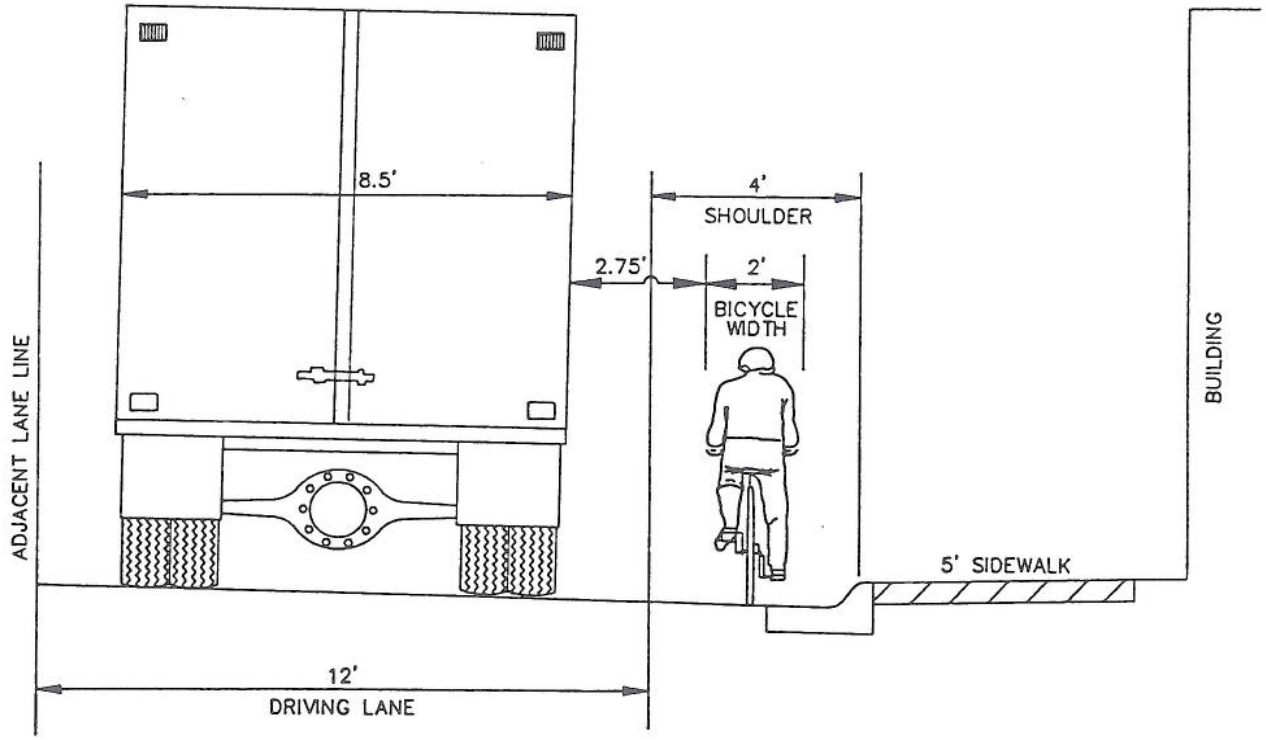
Bicyclists

All of the lane configurations under consideration will include eight-foot paved shoulders (Figure 5.1-4). In the paved shoulders, a two- or three-foot "rumble strip"[48] will be placed one foot from the edge of the driving lane leaving four to five feet of paved roadway surface. It will be effectively separated from highway traffic by the rumble strip, and it will be suitable for bicycle travel (Figure 7.6-1).

[48]Rumble strips consist of deep grooves, cut perpendicular to the highway into the asphalt or concrete paved shoulders. They are designed to create a loud noise and vibration when a vehicle, travelling at highway speeds, passes over them. This system has been effective in reducing accidents because it alerts a sleepy or inattentive driver that the vehicle is leaving the roadway.



RURAL SECTION



LANE CONFIGURATION C, ARLEE AND RONAN

BICYCLES ON SHOULDERS

FIGURE 7.6 - 1

A four- to five-foot separation between bicycles and trucks traveling at highway speeds is generally considered desirable. As indicated on Figure 7.6-1, the eight-foot shoulder will provide 6.75 feet of separation. This configuration should adequately and safely accommodate all utilitarian bicycle trips and some recreational bicycle trips along rural sections of the highway. It is in accordance with the AASHTO Bicycle Guide.[49] Where bridge widening or reconstruction is required, the eight-foot shoulder will be continued over the bridge. A petition was received during the public scoping process, signed by 129 individuals with addresses mostly in Lake County, which stated:

> "We, the undersigned residents of the Flathead Indian Reservation and the surrounding area, believe a separate path should be developed along the existing US 93 route for alternative, no-motorized transportation. We feel such a path, physically separated from vehicles moving at high speeds, is the safest alternative for accommodating pedestrian, bicyclist and equestrian uses along the highway (an unpaved area would run alongside the path to accommodate horses). In addition to improving highway safety, this alternative promotes clean, energy-efficient transportation, a goal mandated by the federal government for transportation facility development. This path would also create a valuable fitness facility for local and regional residents and could promote related economic development for reservation communities."

The AASHTO Bicycle Guide indicates that using a path for bicycles and horses creates an unsatisfactory and possibly dangerous mix. Horses startle easily and may kick out suddenly if they perceive bicyclists as a danger. A bicycle path and a horse path are also incompatible in their surface design requirements -- bicycles function best on hard surfaces while horses function best on soft surfaces. With any of the lane configurations equestrians will be allowed to travel in the area between the roadway pavement and the edge of ROW (an area 50 feet wide or more in many areas) if the horses are properly controlled and restrained.

Providing for bicyclists on the shoulder is generally more accommodating in rural circumstances and may be better than providing a separate parallel bike path in rural areas between communities for the following reasons:

- Unless they are provided on both sides of the highway, they will require one direction of bicycle traffic to ride against motor vehicle traffic.

- When the path ends, bicyclists going against traffic will tend to continue to travel on the wrong side of the road.

- The separate path will require additional ROW and will cover more land with pavement, which will increase environmental impacts.

- US 93 from Evaro through Polson is important and, as such, receives a high priority for maintenance. The highway, including the shoulders, receives prompt repairs, frequent sweeping and early snow removal. A separate bicycle path will be difficult and more expensive to maintain and, compared with the highway, will necessarily receive a much lower priority when allocating limited maintenance funds and resources.

- Many bicyclists will use the roadway instead of the bicycle path because they have found the roadway to be safer, more convenient or better maintained. Bicyclists using the roadway are then often subjected to harassment by motorists who feel that in all cases bicyclists should be on the path instead.

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[49]American Association of State Highway and Transportation Officials, Guide for the Development of Bicycle Facilities, August 1991.

- Bicyclists using the bicycle path will be required to stop or yield at all cross streets and driveways, while bicyclists using the roadway will have priority over cross or entering traffic because they have the same right of way as motorists on the highway.

- Stopped cross street motor vehicle traffic or vehicles exiting side streets or driveways may block the bicycle path crossing.

Pedestrians

The eight-foot shoulders will provide substantial improvement in safety and comfort for pedestrians wishing to travel along US 93 in rural areas between communities. As indicated in Section 6.6, only limited numbers of pedestrians travel along or across US 93 in rural areas. In general, other than the wider, paved shoulders, no pedestrian facilities are required or planned in rural areas of the highway.

School officials indicate that the best facilities for school buses that must stop along the highway will include turnout lanes on the right side of the highway. No facilities away from the highway are needed. School officials indicate that if a four-lane highway is constructed, school children will not be allowed to enter or leave school buses on a side of the highway opposite to the side on which they live.[50]

At the "Mule Palace" area near Milepost 9.9, events are provided that attract a large number of spectators and create unsafe pedestrian crossings of US 93. These crossings occur because there is inadequate parking at the facility on the same side of the highway. Vehicles park along the highway and on land on the opposite side of the highway, and occupants then walk across the highway, often at night. These conditions are expected to continue with any of the lane configurations.

No additional pedestrian facilities are proposed at Evaro, Ravalli, St. Ignatius or Post Creek.

Mitigation

Discussions and negotiations will be conducted by MDT with owners of the "Mule Palace" area near Milepost 9.9 to develop and implement a mechanism for accommodating all parking in areas off the highway ROW and on the same side of the highway as the facility. Parking on highway shoulders in this area (or on any other rural highway), for other than emergency purposes, is prohibited and compliance should be enforced. Providing a pedestrian crosswalk is not considered desirable in this area because it is a rural highway with a 55 mph speed limit.[51] Drivers on the highway are used to traveling at highway speeds and will not expect or anticipate the crosswalk. The crosswalk will be used infrequently and some local drivers will begin to not notice it. With the required reconstruction of the bridge over the railroad, approximately 500 feet south of the Mule Palace, it may be desirable to incorporate a pedestrian path under the highway. It may be difficult, without fencing or other barriers, to get people to walk this far when they can more quickly go straight across the highway.

Shoulders will be widened where appropriate to provide an area for school buses to pull out of the through traffic lanes and allow students to safely enter and leave the buses.

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[50] Lake and Sanders County Superintendents Meeting, 11 September 1995, conducted by Joyce Decker Wegner, County Superintendent of Schools.

[51] After Congress repealed the national speed limit of 65 mph on interstates and 55 mph on other highways in 1995, Montana automatically reverted to its former law that has the "basic rule." A driver may not drive at speeds exceeding what is "reasonable and prudent" for traffic, road and weather conditions.

7.6.4. Arlee and Ronan Alternate Alignments

The following shoulder widths and other features are anticipated if the highway is constructed through Arlee or Ronan (Alignment 1):

- Lane Configuration A will include six- to eight-foot shoulders, concrete curb and gutter and concrete sidewalk placed against the back of the curb. No parking will be allowed on the shoulders.

- Lane Configurations B and C will include, because of limited space available for roadway construction in Arlee or Ronan without major relocation of existing businesses, only three- to four-foot shoulders. Concrete curb and gutter and concrete sidewalk placed against the back of the curb will also be constructed.

- Lane Configuration D is not practical, feasible or desirable in Arlee or Ronan because of the limited construction space available without major relocations and because of the many vehicle access points and crossings.

Bicyclists

If Lane Configuration A is constructed, as indicated above, the wider shoulders will be continued through the communities, which will adequately allow for bicycles.

If Lane Configurations B or C are constructed, the area available for bicycle travel will be restricted. The facility may accommodate utilitarian travel through town, but probably will not be suitable for recreational trips.

If Alignment 2, the one-way couplet, is constructed in Ronan, it is anticipated that curb and gutter, sidewalk and six- to eight-foot paved shoulders will be constructed for each direction of travel, which should provide adequate accommodations for bicyclists traveling through the community.

If Arlee Alignments 2, 3 or 4, or Ronan Alignments 3 or 4 are constructed, it is anticipated the highway will be similar to the rural segments of the highway and the eight-foot paved shoulder will be constructed and will adequately accommodate most bicycle traffic traveling through the area as described in Section 7.6.3.

Mitigation

Consideration should be given, if Lane Configuration B or C is constructed, to designating and signing for a bicycle route on existing parallel streets in the communities to allow an alternate route for those not comfortable with the narrower shoulders. Generally, however, bicycle traffic cannot be diverted to a less direct alternate route unless the favorable factors outweigh the inconvenience to the bicyclist.

Where designated bicycle routes or bicycle paths connect with the highway (such as the bicycle routes mentioned above or the paved bicycle path on the north edge of Arlee), proper design of intersections will be important.

Consideration should be given to providing designated bicycle routes to and from any new alignment to: 1) provide access to the highway for bicycle travel to and from the community, and 2) provide an alternate route through the community that may be, because of lower traffic volume and speed, more quiet and aesthetically pleasing.

Pedestrians

If Alignment 1 is constructed through Arlee and Ronan, most of the existing adverse conditions for pedestrians will continue and will become more severe as traffic volume increases.

Lane Configuration B or C through Arlee and Ronan will have the following effects on pedestrians crossing US 93:

- The wider roadway will require more time to cross which will increase the time pedestrians are exposed to highway traffic.

- The four-lane roadway will disperse the motor vehicle traffic, creating wider gaps in the traffic stream and therefore more time for pedestrians to cross.

These two effects tend to offset each other, but the net effect of a wider roadway with more traffic lanes is expected to be a minor increase in the degree of difficulty for pedestrians to cross the roadway.

Alignments around Arlee (2, 3, and 4) and Ronan (3 and 4) should substantially reduce the number of pedestrian crossings. The number of children that must cross US 93 to walk to school will be substantially reduced. Crossings in these alignments will, however, be across higher speed highways (55 mph versus 35 and 25 mph in Arlee and Ronan).[52]

Residents in Arlee indicated that some school children living west of town will still be required to walk across Alignment 2 and that many children walk across the area of Alignment 2 to fish and swim in Finley Creek in the summer.

Though school officials have expressed concern for children crossing the highway as it passes through Arlee and Ronan, they have not indicated Alignments 2, 3 or 4 will be desirable or will help reduce accidents. In some cases, representatives of the schools and other residents have indicated more concern for these alignments because they will be designed for higher speed traffic and, though the number of school children crossing the highway will be reduced, they feel the higher speeds will present a more hazardous situation for pedestrian crossings.

Alignment 3 is located between Arlee and the tribal pow-wow and rodeo grounds. Residents and representatives of CSKT indicate that during functions at these facilities, there are many pedestrians that travel between these areas and will be required to cross US 93 if Alignment 3 is constructed.

Alignment 2 in Ronan (the one-way couplet) will create two sections of US 93 through the town which will create additional pedestrian crossings. Each crossing, however, should be much easier because pedestrians will be required to cross only two lanes going one direction.

Mitigation

As indicated in Chapter 10, the Arlee community team has recommended that if Alignment 1 is constructed, the flashing warning light at "B" Street (Butch Larsen/Taelman) be replaced with a full traffic signal to include pedestrian activated phases and advance warning signs with flashing lights. The team indicated that education of school children will be important to encourage them to always cross there.

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[52]After Congress repealed the national speed limit of 65 mph on interstates and 55 mph on other highways in 1995, Montana automatically reverted to its former law that has the "basic rule." A driver may not drive at speeds exceeding what is "reasonable and prudent" for traffic, road and weather conditions.

The Ronan community team (Chapter 10) has recommended, if Alignment 1 is constructed, that in addition to the signal at Round Butte Road, traffic signals, with pedestrian activated phases, be installed at Buchanan Street (three blocks south of Round Butte Road) and at Eisenhower Street (six blocks south of Round Butte Road). The team feels additional signals are needed at these intersections because of the large number of school children that cross. They indicate that it is difficult, because of the location of schools and the layout of the town, to get children to cross at the existing signal. Team members are aware that, as with all intersections for the proposed action, before signals are installed, a complete study and warrant analysis must be conducted to ensure the installation will improve safety overall and not create a more serious safety problem somewhere else. For example, installation of a signal could increase rear-end type accidents on US 93. Also, if the signal is placed in an area where it is not expected by and highly visible to drivers on the highway, some drivers might not notice it. This could place pedestrians crossing the highway, expecting to be protected by the pedestrian phase, at even greater risk than before.

If Alignment 2, 3 or 4 in Arlee or Alignment 3 or 4 in Ronan are constructed, it will be important to place pedestrian crossings at appropriate, high-use intersections.

Pedestrian overpasses are not considered desirable because they will require long access ramps (approximately 300 feet long) which will be difficult to place in the Arlee and Ronan areas without substantial additional environmental impacts, and it will be difficult to encourage or require pedestrians to use the overpass because it will be much more convenient for them to cross directly over the highway.

Pedestrian underpasses also are not considered desirable because they will create a safety and security problem. This is because the area under the highway will not be visible to law enforcement personnel and others. They also will be difficult to drain.

7.6.5. Pablo, Specific Concerns

Bicyclists

With any of the lane configurations, it is anticipated the eight-foot shoulders will be continued through the Pablo area and will adequately accommodate bicyclists, as described in Section 7.6.3.

Mitigation

Where existing or future designated bicycle routes or bicycle paths connect with the highway, proper design of intersections will be important.

Pedestrians

With any of the lane configurations, the potential for conflicts and accidents involving pedestrians will continue and will increase as traffic volume increases.

Mitigation

Mitigation measures have been suggested by the Pablo community team to better accommodate pedestrians crossing US 93 in Pablo near the tribal complex, the high school and the college: (Chapter 10)

- With any of the lane configuration alternatives, construct a 30-foot raised curb median. This provides an area in the median where pedestrians can, after crossing one direction of travel, rest and recover and prepare to cross traffic in the opposite direction. Pedestrians will then have to cross only one direction of traffic at a time.

- Install curb and gutter on the shoulders of the roadway. This generally tends to help drivers on the highway realize they are driving through a community and that they should exercise more caution.

- Reduce the number of vehicle driveways connecting to the roadway. This will require the construction of short sections of frontage road.

- Rather than construct frontage roads in front of the college and the high school (with required removal of trees and other impacts), use existing roadways and driveways parallel with and adjacent to the highway.

- A traffic signal likely will be warranted at Division Street in the near future. This signal should include a pedestrian actuated phase and a designated crosswalk.

- The community team indicated that a signal will be desirable at Clairmont Avenue to assist with pedestrian crossings. Warrant studies have not yet been completed.

- Pedestrian underpasses were not considered desirable because of ground water problems, security problems and difficulty getting pedestrians to use them.

- Pedestrian overpasses are not considered desirable for the same reasons they are not in Arlee and Ronan (Section 7.6.4).

- A bicycle/pedestrian path should be constructed along the east side of the highway in the area of the schools.

Consideration should be given, as suggested at public scoping meetings, to designating other highways through the area, such as the Old Freight Route, as bicycle routes. This will provide an alternate route on a highway with considerably less traffic and with possible improvement to safety, aesthetics, bicycling satisfaction and comfort.

7.6.6. Polson Alternate Alignments

The following shoulder width and other features are anticipated if the highway is constructed through Polson (Alignment 1):

- No Action will provide no improvement to existing conditions for pedestrians and bicyclists in Polson.

- Lane Configurations B and C will include, because of limited space available for roadway construction in Polson without major relocation of existing businesses or encroachment into Flathead Lake, an eight-foot shoulder on one side of the roadway only in the area where the lakeshore is immediately adjacent to the existing roadway. In the areas with on-street parking through Polson (primarily in the central business district), the existing sidewalks will remain as is and not be widened because of limited space available for road improvement. The on-street parking in these areas will become roadway travel lanes.

- Lane Configuration D is not practical, feasible or desirable in Segment O (MT 35 to the Flathead River) of Polson because of the limited access it will provide to existing businesses, the limited construction space available without major relocations, and the many vehicle access points and crossings.

Bicyclists

For Alignment 1, if Lane Configuration B or C is constructed, a continuous bicycle travel lane will be provided. The facility will accommodate both utilitarian travel through town, and it will be suitable for recreational trips as well.

If Alignment 2 or 3 is constructed, no accommodations for bicycle travel will be included. It is anticipated that bicyclists will continue to use the existing alignment through town for bicycle travel.

Mitigation

Consideration should be given, if Lane Configuration B or C is constructed within the existing alignment, to designating and signing a bicycle route on the northern side of the roadway, where the continuous bikeway will be located.

If Alignment 2 or 3 is constructed, consideration should be given to designating and signing for a bicycle route on existing parallel streets (including Fourth Street) to allow an alternate route for those not comfortable with the existing condition of narrow or lack of shoulders.

Pedestrians

If Alignment 1 is constructed through Polson, a continuous sidewalk will be provided; however, the number of access drives will remain the same presenting a similar situation for potential conflicts with cross street traffic as presently exists. Also, width of the highway will increase, creating a longer distance for pedestrians to cross the new roadway, with a resulting potential for increase in vehicle/pedestrian accidents. Alignment 1 will include the installation of additional traffic signals, thus providing additional crossing opportunities for pedestrians.

If Alignment 2 or 3 is constructed, no facility for pedestrians will be provided.

Mitigation

Residents present at Polson public meetings recommended that a pedestrian activated crossing replace the existing flashing amber light crossing near Super 1 Foods. Pedestrian activated crossings could be installed at all new signals proposed for Polson.

7.7. AIR QUALITY

Alternatives for alignments, lane configurations and design options are described in detail in Section 5.1. The MDT Preferred Alternative and the CSKT Preferred Alternative, which consist of combinations of alignments, lane configurations and design options, are described in detail in Sections 5.3 and 5.4.

More detailed information on the environmental consequences and mitigation measures relating to air quality is included in Appendix F.

7.7.1. Methodology

Section 176 of the Clean Air Act requires transportation plans, programs and projects in designated nonattainment areas (such as Ronan and Polson) to conform to the applicable implementation plan's purpose of eliminating or reducing the severity and number of violations of national ambient air quality standards and achieving attainment of such standards. The regulations require a regional analysis of the cumulative effects of major transportation projects in each designated nonattainment area.

The required regional analysis and conformity determination for the Polson and Ronan PM_{10} nonattainment areas, completed by MDT and approved by the Federal Highway Administration, is included in Appendix F of this final EIS.

7.7.2. Impacts: PM_{10} Regional Emissions Analysis

The conformity analysis indicates that an alternate route around Polson, because the included bypass will route traffic away from Polson and out of the nonattainment area, will result in a reduction in transportation-related emissions in the nonattainment area.

The conformity analysis indicates that in Ronan, the existing alignment with committed design features, will result in a reduction in transportation-related emissions in the nonattainment area.

7.7.3. Findings

The regional analysis shows that, in both Polson and Ronan, improvement of US 93 (referred to in the regional analysis as the "Action Scenario") will result in a reduction in PM_{10} emissions compared to the Baseline Scenario and therefore fulfills the requirements for conformity determinations for included projects.

7.7.4. Coordination

Coordination has occurred with the CSKT and EPA.

7.7.5. Mitigation

The following design features have been committed to in writing by MDT. Appendix F presents more details about mitigation measures. These will be implemented with construction of US 93 in Ronan and Polson.

1) Gravel and dirt shoulders will be surfaced.

2) Curbs and gutters will be added.

3) Gravel and dirt approaches will be consolidated wherever possible and surfaced within the US 93 right-of-way.

4) The highway will have new surfacing throughout.

MDT will work with CSKT to implement the following items wherever practical and feasible:

- Specifications on silt content for sanding material will use "200 mesh silt" with less than 10% silt content for sand. "Hardness" of sand typically isn't included in the specifications for sand. MDT and CSKT will consider developing a procedure to test sanding material stored at highway maintenance facilities.

- Dedication of equipment to the Flathead Indian Reservation to keep clean highway shoulders.

- Equipment may include increased use of automated "grasshopper brooms" outside communities.

- Procedures to apply water to the highway prior to sweeping, then to finish cleaning the highway with an Elgin sweeper.

- A schedule that assures a three-year turnover for sand.

- Monitoring quality of sand in storage with a reporting system and a regular schedule for testing.

- MDT coordination of use of additional sweepers with local governments of communities located on the reservation.

MDT will consider measures to mitigate impacts on air quality during construction:

- Use of chemical suppressants, rather than reliance on spraying water, to suppress dust.

- Construction will use a series of shorter segments in phases, rather than one long segment of highway.

- All road surfaces will have pavement when the winter season suspends construction.

- MDT and CSKT will consider special provisions for construction contracts to address specific environmental concerns.

7.8. NOISE

Alternatives for alignments, lane configurations and design options are described in detail in Section 5.1. The MDT Preferred Alternative and the CSKT Preferred Alternative, which consist of combinations of alignments, lane configurations and design options, are described in detail in Sections 5.3 and 5.4.

7.8.1. Impacts Common to All Alternatives

Environmental noise can directly affect human health by causing hearing loss, and it is suspected of causing or aggravating other diseases. It indirectly affects human welfare by interfering with sleep, thought, and conversation. Environmental noise also reduces property values and affects wildlife.

Applicable noise regulations and guidelines provide a basis for evaluating noise impacts. For federally funded highway projects, traffic noise impacts are considered to occur when predicted hourly equivalent sound levels (Leq(h)) approach or exceed noise abatement criteria as established by FHWA, or substantially exceed existing noise levels.[53] Although "substantially exceed" is not defined, FHWA considers an increase of 10 A-weighted decibels (dBA) or greater to be a substantial increase and thus an impact. The FHWA noise abatement criterion for residences, parks, schools, churches, and similar areas is 67 dBA. FHWA considers a noise impact to occur if predicted Leq(h) noise levels approach within one dBA of noise abatement criteria.

Leq(h) traffic noise levels for alignments and lane configurations under consideration were predicted using FHWA's STAMINA 2.0 computer model.[54] STAMINA 2.0 is consistent with methods in the FHWA Highway Traffic Noise Prediction Model.[55] Predicted noise emissions from free-flowing traffic at constant speeds depend on the number of automobiles and trucks per hour, vehicular speed, and reference noise emission levels of an individual vehicle. STAMINA 2.0 also considers effects of intervening barriers, topography, trees, and atmospheric absorption. Noises from sources other than traffic are not included.

Predicted noise levels were based on ~~1991~~1994 and ~~2015~~2020 DHV on US 93 (Sections 6.1.4 and 7.1.1). Traffic volumes in each direction of US 93 were assumed to be 50% of the DHV. Speeds were assumed to be ~~55~~60 mph for Lane Configurations B, C and D. Because No Action and Lane Configuration A are projected to operate at LOS F in most areas during the design year, it is difficult to estimate average highway speeds. The highest average speed at LOS F is estimated to be 45 mph and is the number that was ~~been~~ used in the analysis. Speeds were assumed to be 35 mph and 25 mph (30 mph was used in the STAMINA 2.0 Model because that is the lowest value it will accept) in Arlee and Ronan, respectively.

Predicted design hourly volume Leq(h) traffic noise levels were calculated for the existing alignment and are shown on Table 7.8-1. Noise levels were predicted at distances of 100, 150, and 300 feet from the centerline of US 93. The distance of 100 feet from the centerline was analyzed as the nearest distance to the roadway because ROW of US 93 will range from 80 feet with Lane Configuration A to 110 feet with Lane Configuration D.

With Alignments 2, 3 and 4 in Arlee, Alignments 3 and 4 in Ronan and Alignments 2 and 3 in Polson, traffic on the existing alignment through town will be reduced. To predict the decreased noise levels along the existing alignment, traffic volumes to be diverted to the alternate alignments were assumed to be 80% in Arlee, 60% in Ronan and ~~40~~30% in Polson. The remaining traffic mix on the existing alignment through these communities was assumed to be ~~99~~98% passenger cars, ~~and only~~ one percent medium trucks and one percent heavy trucks.

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[53]U.S. Department of Transportation, Federal Highway Administration, Procedures for Abatement of Highway Traffic Noise and Construction Noise, Federal-Aid Highway Program Manual, Volume 7, Chapter 7, Section 3, August 9, 1982.

[54]Bowlby, William, John Higgens, and Jerry Reagan, U.S. Department of Transportation, Federal Highway Administration, Noise Barrier Cost Reduction Procedure STAMINA 2.0/OPTIMA: User's Manual, Report Number FHWA-DP-58-1, April 1982.

[55]Barry, T.M. and J.A. Reagan, U.S. Department of Transportation, Federal Highway Administration, FHWA Highway Traffic Noise Prediction Model, Report Number FHWA-RD-77-108, December 1978.

Table 7.8-1 Predicted Design Hourly Volume Leq(h) Traffic Noise Levels (dBA) For The Existing Alignment

Roadway Section	Distance to Centerline (Feet)	~~1991~~1994 Existing Conditions[1]	~~2015~~2020 Lane Configuration D **MDT Preferred Alternative, Lane Configurations B, C and D**	~~2015~~2020 No Action or Lane Configuration A* **CSKT Preferred Alternative, Lane Configuration A**
A	100	69	74	70
	150	67	70	67
	300	62	65	63
B	100	65	68	68
	150	62	65	65
	300	57	61	61
C	100	69	73	70
	150	66	70	67
	300	61	65	62
D	100	69	73	70
	150	66	70	67
	300	61	65	62
E	100	69	73	70
	150	66	70	67
	300	61	65	62
F	100	69	73	70
	150	66	70	67
	300	61	65	62
G	100	68	73	70
	150	66	70	67
	300	61	65	62

This table has been changed in the final EIS to include the revision of the traffic analysis from 1991 to 1994.

(Continued)

Table 7.8-1 Predicted Design Hourly Volume Leq(h) Traffic Noise Levels (dBA) For The Existing Alignment (Continued)

Roadway Section	Distance to Centerline (Feet)	~~1991~~1994 Existing Conditions[1]	~~2015~~2020 Lane Configuration D **MDT Preferred Alternative, Lane Configurations B, C and D**	~~2015~~2020 No Action or Lane Configuration A **CSKT Preferred Alternative, Lane Configuration A**
H	100	68	72	69
	150	65	69	66
	300	61	64	62
I	100	68	73	69
	150	66	69	66
	300	61	64	62
J	100	63	67	67
	150	61	64	64
	300	56	59	59
K	100	70	74	71
	150	67	71	68
	300	62	66	63
L	100	70	74	71
	150	67	71	68
	300	63	66	63
M	100	70	74	71
	150	67	71	68
	300	63	66	63
N	100	70	75	71
	150	67	71	68
	300	63	66	64

Shapiro and Associates, Inc., 1993. [1] ~~1991~~1994 Existing Conditions predicted from ~~1991~~1994 traffic volumes and speeds. **The MDT Preferred Alternative includes Lane Configuration A in Polson between Mileposts 59.0 and 62.8**

This table has been changed in the final EIS to include the revision of the traffic analysis from 1991 to 1994.

Noise levels on Table 7.8-1 are not shown for Lane Configurations B and C. Noise levels resulting from Lane Configurations B and C will be only slightly less than Lane Configuration D because of different locations of the traffic lanes relative to adjacent receptors. Noise levels at 100, 150 and 300 feet from the centerline of each lane configuration are presented for Roadway Section I, MT 212 to Ronan, in Table 7.8-2, to illustrate the variations. Lane Configuration D will be the loudest of all the lane configurations and represents the worst-case analysis for comparison of impacts among the alignment alternatives.

The U.S. Department of Housing and Urban Development (HUD) has indicated roadway noise from the traffic generated by the highway could affect the location of future HUD-assisted housing projects. HUD noise standards are:

- Acceptable - DNL not exceeding 65 decibels
- Normally Unacceptable - DNL 65 to 75 decibels
- Unacceptable - DNL above 75 decibels

7.8.1.1. Noise Levels Associated with Population Growth

Indirect effects from a larger population, with residential and business development, will increase ambient noise levels. (Sections 7.2, 7.4 and 7.5)

Mitigation

Indirect effects of residential and other development on noise~~groundwater~~ can be mitigated by proper planning and siting of future residential, industrial and commercial development. Planning and control of these future developments is within the jurisdiction of CSKT and local governments. Refer to mitigation measures for Section 7.8.3.

Table 7.8-2 Predicted Noise Levels of Lane Configuration Alternatives

Lane Configuration Alternative	Predicted ~~2015~~2020 Leq(h) Noise Levels (dBA)		
	100 Feet to Centerline	150 Feet to Centerline	300 Feet to Centerline
Lane Configuration A	69	66	62
Lane Configuration B	72	69	64
Lane Configuration C	72	69	64
Lane Configuration D	73	69	64
Shapiro and Associates, Inc., 1993. Noise levels for Highway Segment I, MT 212 to Ronan			

This table has been changed in the final EIS to include the revision of the traffic analysis from 1991 to 1994.

7.8.2. No Action

With No Action, predicted ~~2015~~2020 Leq(h) noise levels along US 93 outside Arlee, Ronan and Polson will be ~~68~~69 to ~~69~~71 dBA at 100 feet (Table 7.8-1). These predicted ~~2015~~2020 noise levels will exceed the FHWA noise abatement criterion of 67 dBA, which is considered to be a noise impact. Compared with ~~1991~~1994 existing conditions, predicted ~~2015~~2020 Leq(h) traffic noise levels will increase by ~~one~~zero to two dBA, which is not considered an impact with FHWA criteria. The increase in noise levels will result from an increase in traffic volume. Because construction activities are not proposed with No Action, construction noise impacts will not occur.

7.8.3. Existing Alignment (Except Arlee, Ronan and Polson)

Construction Impacts:

Construction activities will generate noise. Construction noise sources will include earth-moving equipment, generators and compressors, trucks, and impact equipment. Construction noise will be short-term and limited to the length of the construction period. Construction noise impacts will depend on the type, amount, and location of construction activities and the presence of adjacent sensitive receptors.

During construction, noise levels will increase at sensitive receptors near construction sites. More receptors will be exposed to construction noise in the communities of Arlee, Ravalli, St. Ignatius, Ronan, and Pablo, while fewer receptors will be exposed in the rural sections of US 93. Maximum noise levels from construction activities at 50 feet will range from 69 to 106 dBA and at 200 feet will range from 57 to 94 dBA.[56] Because various equipment will be turned off, idling, or operating at full power at any time, average Leq noise levels during the day will be less than maximum noise levels.

Operational Impacts:

Widening US 93 (Lane Configuration B, C or D) will move traffic closer to receptors, which will increase noise levels above existing conditions. Noise levels shown in Table 7.8-1 assume widening will occur equally along both sides of US 93. In sections where widening will occur only on one side, noise levels will be slightly higher at receptors that will be located on the side of the widening, but slightly lower at receptors that will be located on the side without widening.

Compared with ~~1991~~1994 existing conditions, predicted ~~2015~~2020 Leq(h) noise levels with Lane Configuration B, C and D will increase from three to five dBA at any location along each roadway section (Table 7.8-1). Increases in noise levels of three to five dBA are not considered an impact with FHWA criteria.

As indicated in Section 6.8.1, a doubling of traffic noise constitutes a noise level increase of three dBA.

Predicted ~~2015~~2020 Leq(h) noise levels along US 93 will range from ~~71~~72 to ~~72~~75 dBA at 100 feet and from ~~68~~69 to ~~69~~71 dBA at 150 feet (Table 7.8-1). These predicted ~~2015~~2020 noise levels will exceed the FHWA noise abatement criterion of 67 dBA, which is considered to be a noise impact.

Compared with No Action, predicted ~~2015~~2020 Leq(h) noise levels will increase by one to three dBA (Table 7.8-1). The increase will result from widening the roadway and higher speeds than with No Action. ~~increasing speeds from 45 to 55 mph.~~

[56]U.S. Environmental Protection Agency, Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances, NTIS Number PB 206 717, December 31, 1971.

Acceleration and deceleration noise occurs on the existing two-lane roadway. It will occur with Lane Configuration A because of the poor LOS and resulting interaction of through traffic with turning vehicles, slower moving trucks and recreation vehicles. Such interaction will be reduced with any of the four-lane configurations. Acceleration and deceleration noise cannot be modeled with STAMINA 2.0, which assumes that traffic is flowing freely at a constant speed, and is not reflected in Table 7.8-1.

Mitigation

Construction noise could be reduced by ~~enclosures or barriers,~~ mufflers on engines, substituting quieter equipment or construction methods and~~,~~ minimizing time of operation~~, and locating equipment farther away from sensitive receptors.~~ To reduce construction noise at nearby receptors, mitigation measures will be incorporated into construction plans and contractor specifications.

Noise barriers could reduce noise levels during operation of the highway. Because noise barriers must be continuous and uninterrupted to be effective, numerous driveways and approaches along US 93 in areas where noise impacts will occur will break any noise barriers and therefore diminish their effectiveness. The low number of residences that will benefit from noise barriers along US 93 will result in a high cost for the amount of noise attenuation benefit received. In addition, noise barriers could adversely affect visual quality at commercial buildings and residences that face the roadway. For these reasons, noise barriers will not be reasonable along US 93.

~~US 93 could be widened only on the side located farthest from sensitive receptors. This will reduce 20152020 Leq(h) noise levels in Tables 7.8-1, 7.8-2 and 7.8-3 by one to three dBA.~~

Noise impacts also could be reduced by land use controls on undeveloped land along US 93. CSKT and local county and municipal governments could implement land use planning and regulation~~plans and zoning~~ that will restrict future land uses along US 93 to those compatible with traffic noise. MDT and ~~MHC~~MTC also could develop and implement an access management plan, which will complement land use planning and regulation~~zoning~~ effects on development by controlling access to and from the highway.

Public buildings could be insulated to reduce interior noise levels. Specific construction techniques could include acoustical doors and windows, insulation in walls, floors and ceilings, and ventilation systems designed without the need to open windows. Noise insulation, however, will have no effect on exterior noise levels.

7.8.4. Arlee Alignments

Alignment 1 will follow the existing US 93 through Arlee. Predicted Leq(h) noise levels will be ~~6768~~ dBA at 100 feet, which will ~~approach or~~ exceed the FHWA noise abatement criterion of 67 dBA. Noise levels will increase by three dBA over ~~19911994~~ existing conditions, but will be equal to ~~20152020~~ No Action (Table 7.8-3). Because traffic noise decreases with lower speeds, Alignment 1, with a posted speed limit of 35 mph, will result in lower noise levels at comparable distances than Alignments 2, 3, and 4, which will have higher speeds ~~posted speed limits of 55 mph~~. Alignment 1, however, will be located adjacent to a larger number of sensitive receptors than Alignments 2, 3, and 4, and therefore will expose more people to traffic noise. More people also will be exposed to construction noise.

Alignment 2 will be located outside of Arlee. Predicted ~~20152020~~ Leq(h) noise levels will be ~~7173~~ dBA at 100 feet and ~~6870~~ dBA at 150 feet, which will exceed the FHWA noise abatement criterion of 67 dBA. Because Alignment 2 will be located in a more rural area, ~~20152020~~ noise levels will increase as much as ~~2426~~ dBA over the measured Leq noise level of 47 dBA in rural locations (Table 7.8-3). Although substantial noise increases will occur, few

Table 7.8-3 Predicted Design Hourly Volume Leq(h) Traffic Noise Levels (dBA)
For Alignment Alternatives

Distance to Centerline (Feet)	~~1991~~1994 Existing Conditions[1]	~~2015~~2020 Alignment 1	~~2015~~2020 Alignment 2	~~2015~~2020 Alignment 3	~~2015~~2020 Alignment 4	~~2015~~2020 No Action	~~2015~~2020 Existing Alignment[2]
Arlee Alignments							
100	65	68	73	73	73	68	56
150	62	65	70	70	70	65	53
300	57	61	65	65	65	61	49
Ronan Alignments							
100	63	67	64	73	73	67	59
150	61	64	61	70	70	64	56
300	56	59	57	64	64	59	51
Polson Alignments							
100	66	69	73	73	---	69	63
150	63	67	70	70	---	66	61
300	59	62	65	65	---	62	56

Shapiro and Associates, Inc., ~~1993~~1996. [1]Existing Conditions predicted from ~~1991~~1994 traffic volumes and speeds. [2]Noise levels on the existing alignment if Alignment 2, 3 or 4 in Arlee, Alignment 3 or 4 in Ronan or Alignment 2 or 3 in Polson are constructed.

This table has been changed in the final EIS to include the revision of the traffic analysis from 1991 to 1994.

sensitive receptors will be located adjacent to the new roadway, and therefore fewer receptors will be affected by construction and traffic noise than with Alignment 1.

Noise levels at locations along existing US 93 will decrease because traffic will be diverted to the new alignment. Predicted ~~2015~~2020 Leq(h) noise levels along existing US 93 will be ~~54~~56 dBA at 100 feet. This decrease in noise levels of ~~10~~9 dBA compared with the ~~1991~~1994 existing conditions will be a substantial decrease and a positive environmental impact at these locations.

Alignment 3 will have noise impacts similar to those described for Alignment 2.

Alignment 4 will have noise impacts similar to those described for Alignments 2 and 3.

7.8.5. Ronan Alignments

Alignment 1 will follow the existing US 93 through the community of Ronan. Predicted Leq(h) noise levels will be ~~65~~67 dBA at 100 feet, which will ~~be below~~equal the FHWA noise abatement criterion of 67 dBA. Noise levels will increase by three to four dBA over ~~1991~~1994 existing conditions, but will be similar to ~~2015~~2020 No Action (Table 7.8-3). ~~Predicted noise levels will be below FHWA noise guidelines and therefore noise impacts will not occur with Alignment 1.~~ Because traffic noise decreases with lower speeds, Alignment 1, with a posted speed limit of 25 mph, will result in lower noise levels at comparable distances than Alignments 3 and 4, which will have higher speeds ~~a posted speed limit of 55 mph.~~ Alignment 1, however, will be located adjacent to a greater number of sensitive receptors than Alignments 3 and 4, and therefore will expose more people to traffic noise.

Alignment 2 will be a one-way couplet system through Ronan, where northbound traffic will remain on the existing US 93 and southbound traffic will be diverted one block west to a parallel street. Predicted ~~2015~~2020 Leq(h) noise levels will be ~~62~~64 dBA at 100 feet from either the north or south bound street, which will be below the FHWA noise abatement criterion of 67 dBA. Noise levels along existing US 93 will decrease by three dBA compared with ~~2015~~2020 No Action because half of the traffic will be diverted to the southbound street (Table 7.8-3). Noise levels will increase along the southbound street because of large increases in traffic. Predicted noise levels will be below FHWA noise guidelines, and therefore noise impacts will not occur with Alignment 2.

Similar to Alignment 1, Alignment 2 will be adjacent to a greater number of sensitive receptors than Alignments 3 and 4, and therefore will expose more people to construction and traffic noise.

Alignment 3 will be a new roadway located along the edge of Ronan. Predicted ~~2015~~2020 Leq(h) noise levels will be ~~71~~73 dBA at 100 feet and ~~68~~70 dBA at 150 feet, which will exceed the FHWA noise abatement criterion of 67 dBA (Table 7.8-3). Because Alignment 3 will be located in a more rural area, ~~2015~~2020 noise levels will increase as much as ~~24~~26 dBA over the measured Leq noise level of 47 dBA in rural locations. Although substantial noise increases will occur, few sensitive receptors will be located adjacent to the new roadway, and therefore fewer receptors will be affected. Because the speeds will be higher, ~~posted speed limit will be 55 mph,~~ noise levels will be greater than with Alignments 1 and 2.

Noise levels at receptors along existing US 93 in Ronan will decrease because traffic will be diverted to the new alignment. Predicted ~~2015~~2020 Leq(h) noise levels along the existing highway will be ~~56~~59 dBA at 100 feet. The decrease in noise levels of ~~six~~four to five dBA compared with the ~~1991~~1994 existing conditions will be a positive environmental impact at these locations.

Alignment 4 will be a new roadway located farther outside of Ronan than Alignment 3. Noise levels with Alignment 4 will be similar to those described for Alignment 3, although fewer sensitive receptors will be exposed to traffic noise from Alignment 4 (Table 7.8-3).

7.8.6. Polson Alignments

Alignment 1 will follow the existing US 93 through the community of Polson. Predicted Leq(h) noise levels will be 69 dBA at 100 feet, which will be above the FHWA noise abatement criterion of 67 dBA. Noise levels will increase by ~~two~~three dBA over ~~1991~~1994 existing conditions, but will be similar to ~~2015~~2020 No Action (Table 7.8-3). Since predicted noise levels will be above FHWA noise guidelines, noise impacts will occur with Alignment 1. Alignment 1 will be located adjacent to a greater number of sensitive receptors than Alignments 2 and 3, and therefore will expose more people to traffic noise.

Alignment 2 will be a new roadway located south and west of Polson. Predicted ~~2015~~2020 Leq(h) noise levels will be ~~69~~73 dBA at 100 feet, which will exceed the FHWA noise abatement criterion of 67 dBA (Table 7.8-3). Because Alignment 2 will be located in a more rural area, ~~2015~~2020 noise levels will increase as much as ~~22~~26 dBA over the measured Leq noise level of 47 dBA in rural locations. Although substantial noise increases will occur, few sensitive receptors will be located adjacent to the new roadway, and therefore fewer receptors will be affected.

Noise levels at receptors along existing US 93 in Polson will decrease slightly because traffic will be diverted to the new alignment. Predicted ~~2015~~2020 Leq(h) noise levels along the existing highway will be ~~68~~63 dBA at 100 feet. The decrease in noise levels compared with the ~~1991~~1994 existing conditions will be a positive environmental impact at these locations.

Alignment 3 will have noise levels similar to those described for Alignment 2 (Table 7.8-3).

7.9. WATER QUALITY

Alternatives for alignments, lane configurations and design options are described in detail in Section 5.1. The MDT Preferred Alternative and the CSKT Preferred Alternative, which consist of combinations of alignments, lane configurations and design options, are described in detail in Sections 5.3 and 5.4.

7.9.1. No Action

There will be no construction-related impacts on water quality with No Action. Increases in highway traffic might cause greater non-point pollution resulting from runoff of oil, grease and tire rubber. Traffic accidents resulting in spills of hazardous materials and fuels can also diminish water quality.

7.9.2. Existing Alignment (Except Arlee, Ronan and Polson)

Water Quality

During construction there is a potential for diminished water quality. Refueling, lubrication, and maintenance of construction equipment; and storage and handling of chemicals, fuels, and lubricating oils can introduce contaminants into surface waters. Following construction, increases in highway traffic might cause greater non-point pollution resulting from runoff of oil, grease and tire rubber. Traffic accidents resulting in spills of hazardous materials and fuels can also diminish water quality. With highway improvement and resulting improvement in safety for all vehicles, the potential for spills will be reduced.

Widening the highway will intercept very shallow--less than 15 feet deep-- aquifers in alluvial and glacial deposits at numerous sites. No measurable depletion or contamination of these aquifers is expected. Direct interference with existing shallow domestic wells near the highway is not expected, because these wells tap deeper aquifers.

Widening of the existing alignment near the Schley homesites (Mileposts 11.0 to 11.5) could facilitate movement of contaminated shallow groundwater into surface streams. At this site, a shallow aquifer is contaminated (probably by leakage from septic fields), and this water may be surfacing in the existing highway ditch.

Turbidity

Increased turbidity may result from runoff from construction areas which have been temporarily stripped of vegetation or topsoil. These impacts will be more serious during periods of heavy precipitation. They will also be more serious where soils have a high water or wind erosion potential.

Following construction, the increased paved surface area of the highway will result in increased and more rapid runoff and less infiltration of rain water during precipitation events. These changes in runoff volume and velocity can increase soil erosion and result in greater surface water turbidity.

Sedimentation rates during construction have been estimated. For a 10-year, 24-hour storm, it is estimated that 0.22 ton of sediment per acre will result in areas where vegetation or topsoil have been temporarily removed. Given existing conditions of 0.01 ton of sediment per acre produced during the same precipitation event, there will be a predicted net increase of 0.21 ton (0.1575 yards) of sediment per acre.

An estimate of sedimentation quantities for each segment of the highway for each lane configuration during construction is shown in Table 7.9-1 for the existing alignment. Estimates shown on these tables assume the erosion control plan and mitigation measures described below are properly implemented. As indicated on the tables, wider lane configurations have the potential for greater quantities of sedimentation during construction.

Table 7.9-1 Estimate of Potential Sediment Yield for Existing Alignment (Except Arlee, Ronan, and Polson) During Construction

Segment	Miles	CSKT Preferred Alternative Lane Configuration A		Lane Configuration B		Lane Configuration C		Lane Configuration D		MDT Preferred Alternative	
		Acres	Tons	Acres	Tons	Acres	Tons	Acres	Tons	Acres	Tons
A	10.2	84.7	18.6	121.7	26.8	138.7	30.5	174.7	38.4	125.0	27.5
B	1.5	2.6	0.6	5.6	1.2	7.6	1.7	10.6	2.3	7.6	1.7
C	6.3	36.3	8.0	40.3	8.9	44.3	9.7	57.3	12.6	41.0	9.0
D	2.0	31.2	6.9	33.2	7.3	35.2	7.7	39.2	8.6	33.2	7.3
E	0.9	7.2	1.6	7.2	1.6	7.2	1.6	7.2	1.6	7.4	1.7
F	3.7	50.6	11.1	63.6	14.0	69.6	15.3	78.6	17.3	63.8	14.1
G	2.4	21.8	4.8	27.8	6.1	31.8	7.0	37.8	8.3	27.8	6.1
H	8.6	95.2	20.9	115.2	25.3	135.2	29.7	167.2	36.8	118.0	25.9
I	4.0	60.4	13.3	70.4	15.5	81.4	17.9	96.4	21.2	73.2	16.1
J	1.5	4.6	1.0	4.6	1.0	6.6	1.5	4.6	1.0	6.6	1.5
K	3.2	55.1	12.1	56.1	12.3	59.1	13.0	66.1	14.5	56.7	12.4
L	3.9	54.5	12.0	57.5	12.6	61.5	13.5	72.5	15.9	60.4	13.2
M	1.8	20.4	4.5	23.4	5.1	27.4	6.0	33.4	7.3	25.4	5.6
N-O-P	6.3	50.4	11.1	68.7	15.1	79.4	17.5	113.0	24.9	60.8	13.3

Morrison-Maierle. 1993.
Assumption: Sedimentation equal to 0.22 ton per acre.

To illustrate the relative magnitude of sedimentation quantities shown on Table 7.9-1, sedimentation quantities for Segment D, which is parallel with the Jocko River for approximately two miles and is separated from the river by the railroad, have been compared with existing sediment loadings. As shown on Table 7.9-1 and depending on the lane configuration used, approximately 6.9 to 8.6 tons of sediment will be eroded during a 10-year, 24-hour storm event. A conservatively high estimate is that approximately one-half of this quantity will reach the river (3.5 to 4.3 tons). During spring run-off, sediment loadings in the Jocko River at Dixon (approximately nine miles downstream of Segment D) typically range up to 115 tons per day. Expected sediment introduction into the river resulting from a major storm occurring during construction will amount to approximately 3.0 to 3.7% ~~three to four percent~~ of current sediment loadings.

Sedimentation rates per acre of surface area are estimated to be similar to existing, preconstruction conditions. Larger paved surface areas resulting from the wider lane configurations will increase quantities and velocities of storm water runoff and will therefore increase sedimentation. These increases will be offset by substantially flatter shoulder slopes and excavation/embankment slopes (necessary to improve highway safety) and improved erosion protection measures.

Stream Flow

During and after highway construction, increases in volume and velocity of runoff can be expected. During construction, areas that have been stripped of topsoil or vegetation can experience increases in volume and velocity of runoff during precipitation events. Following construction, slightly increased runoff volume and velocity from larger highway surface areas can be expected.

Wellhead Protection Areas

The existing alignment, excluding the communities of Arlee, Ronan, Pablo and Polson, does not cross any existing or proposed wellhead protection areas.

Other potential impacts on groundwater include:

- Impacts from pesticide use. With any of the proposed alignment alternatives, herbicides will be used to control noxious weeds in the highway ROW.

- Impacts from road deicers. Various evaluations have been conducted on the impacts of the use of chemical road deicers on surface and groundwater. To date, no substantial potential impacts have been identified.

- Impacts from road salts. MDT no longer applies salt directly to roadways as a deicer. A small amount is placed in sanding stockpiles to keep them from freezing during the winter, but the amounts used are expected to have no impact on water quality.

- Impacts from spills of hazardous materials. The potential exists, with any of the proposed alignment alternatives, for accidental spills to occur along the roadway. Improvement of the highway will include various safety improvements that should reduce the potential for accidents on the roadway.

Permits

Section 7.11.1.2 lists permits that will be required for all improvements that affect stream crossings.

Mitigation

A storm water erosion control plan will be developed and a temporary erosion control permit secured from the EPA in accordance with Section 402 of the Clean Water Act. The objective of the plan and permit is to minimize erosion of disturbed areas during the construction and post construction phase. Careful planning and proper implementation of the plan will lessen the likelihood of pollutants reaching area waters. The plan will become part of the construction plans, specifications and documents. Construction contractors will be required to adhere to it.

A plan for runoff control for hazardous materials at construction sites is also necessary and will be coordinated with and approved by the EPA.

The continuous recording stream discharge station at Mission Creek will have to be moved if the highway is widened.

The MDT Standard Erosion Control Work Plan[57] will be used as a guide to prepare a specific work plan for each construction project. This standard plan incorporates seven major principles of soil erosion and sedimentation control including:

Plan the Development to Fit the Site

Detailed design will be employed to assure that roadways, structures and other permanent features of the proposed action conform to the natural characteristics of the site. Areas with steep slopes, erodible soils, and soils with severe limitations will have planned erosion controls to overcome those limitations. For instance, long steep slopes can be broken by benching, terracing or constructing diversion structures.

Minimize Extent of Disturbed Areas and Duration of Exposure

When earth moving activities require the removal of vegetation, the area and the duration of the exposure will be kept to a minimum. Phases or stages of development will be planned so that only the areas which are actively being developed are exposed. Grading will be completed as soon as possible after it is started. When construction is complete, permanent vegetative cover will be established in the area. As cut slopes are made and as fill slopes are brought up to grade, these areas will be revegetated with the progression of work. Timing for installation of best management practices (BMP) will be carefully planned.

Stabilize and Protect Disturbed Areas as Soon as Possible

Disturbed areas will be stabilized as soon as possible using methods appropriate at each site including dikes and swales; roughening, stair stepping and terracing of slopes; mulching; seeding; sodding; erosion control blankets; retaining walls; slope drains; vegetative buffer strips; straw bale barriers; gravel filter berms; silt fences; dugout ditch basins; settling basins; sediment traps and stream bank protection.

Keep Runoff Velocities Low

The removal of existing vegetative cover and the resulting increase in impermeable surface area during construction will increase both the volume and velocity of runoff. These increases will be taken into account when providing for erosion control. Slope changes will be designed to keep slope length and gradient to a minimum. Short slopes, low gradients and the preservation of natural vegetative cover will keep runoff velocities low. This will limit erosion hazards and reduce costs associated with erosion control.

[57]Pioneer Technical Services, Inc. for Montana Department of Transportation, Highway Construction Standard Erosion Control Work Plan, 30 September 1992.

Protect Disturbed Areas from Runoff

Measures to prevent off-site water from entering and running over the disturbed areas will be implemented. Slope and disturbed ground protection measures are favorable over trying to remove sediment from runoff waters after erosion has occurred.

Retain Sediment within the Corridor Area

Sediment will be retained by two methods: (1) by filtering runoff as it flows, and (2) by detaining sediment-laden runoff for a period of time so that sediment particles settle out. The best way to control sediment, however, is to prevent erosion. As recommended by the CSKT staff, using borrow ditches and natural depressions for construction of sedimentation basins has been used successfully on the existing highway and should be applied, where appropriate, on any new construction.

Implement a Thorough Maintenance and Follow-up Program

The plan will include a thorough maintenance and monitoring plan to ensure that erosion control measures are functioning properly and, where needed, adjustments or improvements are made.

The erosion control work plan will also apply to and be developed for all required borrow sites.

Mitigation of the groundwater contamination problem at Schley homesites is needed. There, contaminated shallow groundwater may be surfacing in the existing highway ditch. Discharge of contaminated ground water could be reduced or eliminated by replacement of existing septic fields, and possibly by shifting the highway alignment to the west, to avoid making a deeper sidecut into the slope east of the highway.

Where necessary to clean bridge decks, as part of construction or during maintenance after construction, the decks should be swept and the debris collected and taken to a proper disposal site. This should be done in lieu of hosing the bridge decks with water, which carries the debris into the streams.

Continued proper use of pesticides and chemical deicers will be important to avoid effects on surface and ground water.

7.9.2.1. Indirect Effects

Indirect effects from a larger population, with residential and business development, can affect surface water quality by lowering infiltration of precipitation and increasing runoff and erosion from developed areas. This can increase the potential for surface water pollution. Long-term growth also will increase the numbers of sewage treatment systems and septic fields which may affect ground water in some areas. The Arlee area is most susceptible to such groundwater contamination, where shallow sand and gravel deposits provide a pathway from the surface down to a shallow aquifer.[58] (Sections 7.2, 7.4 and 7.5)

Mitigation

Indirect effects of residential and other development on groundwater can be mitigated by proper planning and siting of future residential, industrial and commercial development. Areas near water bodies or other sensitive areas, such as those with shallow aquifers, should be avoided. Planning and control of these future developments is within the jurisdiction of CSKT and local governments.

[58]Makepeace, S. 1989. Simulation of ground water flow in a coarse-grained alluvial aquifer in the Jocko Valley, Flathead Indian Reservation, Montana. M.S. Thesis, University of Montana, Missoula, Montana.

7.9.3. Arlee Alignments

Alignments 1 and 2 in the Arlee area do not cross any streams. Alignment 3 crosses the Flathead Irrigation District's R Canal at three locations. Alignment 4 will require new stream crossings of Agency Creek, the Jocko River, Pellew Creek and Spring Creek.

Water Quality

Since Alignments 1, 2 and 3 in Arlee do not cross any streams, there is less potential for impacts on water quality.

During construction of Alignment 4, there is a potential for diminished water quality at the several stream crossings. Refueling, lubrication, and maintenance of construction equipment; and storage and handling of chemicals, fuels, and lubricating oils could introduce contaminants into surface waters.

Following construction, along Alignment 4, increases in traffic capacity and in subsequent highway use might cause greater non-point pollution resulting from runoff of oil and grease and tire rubber. Traffic accidents resulting in spills of hazardous materials and fuels could also diminish water quality.

Turbidity

Table 7.9-2 summarizes sediment yield quantities for the Arlee alignments during construction. Since Alignments 1, 2 and 3 do not cross any streams, potential for stream sedimentation is low.

Potential for stream sedimentation is higher for Alignment 4 because of the several crossings.

Stream Flow

During and after highway construction, increases in volume and velocity of runoff can be expected. Construction areas that have been stripped of topsoil or vegetation could experience increases in volume and velocity of runoff during precipitation events. Following construction, increased runoff volume and velocity from larger highway surface areas could be expected. However, given the small percentage of the total drainage basin which will be disturbed by the construction and new highway, no measurable increases in stream flow will be noted.

Wellhead Protection Areas

A wellhead protection area is proposed on property owned by the schools near Alignment 3 in Arlee. There is a potential for diminished groundwater quality resulting from increased surface runoff. Wells in Arlee mostly draw water from a shallow aquifer developed in sand and gravel of the alluvial fan deposited by the Jocko River. The increases in volume of surface runoff from the greater surface area of the new highway can result in greater infiltration of water contaminated by hydrocarbons. The potential for increased hazardous chemical spills with increased traffic volume can also be a contributing factor to decreased water quality. These impacts are difficult to quantify.

There are no other existing or proposed wellhead protection areas in the Arlee area.

Other potential impacts on groundwater include:

- Impacts from pesticide use. With any of the proposed alignment alternatives, herbicides will be used to control noxious weeds in the highway ROW.

Table 7.9-2 Estimate of Potential Sediment Yield for Arlee, Ronan and Polson Alignments, During Construction

Segment	Miles	Lane Configuration A CSKT Preferred Alternative		Lane Configuration B		Lane Configuration C		Lane Configuration D		MDT Preferred Alternative	
		Acres	Tons	Acres	Tons	Acres	Tons	Acres	Tons	Acres	Tons
Arlee Alignments											
1	7.0	40.6	8.9	49.6	10.9	60.6	13.3	NA	NA	60.6	13.3
2	7.1	46.5	10.2	56.5	12.4	68.5	15.1	88.5	19.5	56.5	12.4
3	7.2	44.5	9.8	54.5	12.0	65.5	14.4	86.5	19.0	54.5	12.0
4	7.4	62.3	13.7	79.3	17.4	97.3	21.4	115.3	25.4	79.3	17.4
Ronan Alignments											
1	3.5	35.8	7.9	37.8	8.3	35.8	7.9	NA	NA	35.8	7.9
2	3.5	27.8	6.1	NA	NA	NA	NA	NA	NA	NA	NA
3	3.5	35.8	7.9	44.8	9.9	53.8	11.8	65.8	14.5	44.8	9.9
4	3.5	38.8	8.5	47.8	10.5	56.8	12.5	65.8	14.5	47.8	10.5
Polson Alignments											
1	6.3	50.4	11.1	68.7	15.1	79.4	17.5	113.0	24.9	60.9	13.4
2	7.1	91.2	20.1	111.9	24.6	123.9	27.3	161.8	35.6	111.9	24.6
3	7.0	89.9	19.8	110.3	24.3	122.2	26.9	159.5	35.1	110.3	24.3

Morrison-Maierle. 1993.
Assumption: Sediment loading equal to 0.22 ton of sediment per acre. NA - Not applicable.

- Impacts from road deicers. Various evaluations have been conducted on the impacts of the use of chemical road deicers on surface and groundwater. To date, no substantial potential impacts have been identified.

- Impacts from road salts. MDT no longer applies salt directly to roadways as a deicer. A small amount is placed in sanding stockpiles to keep them from freezing during the winter, but the amounts used are expected to have no impact on water quality.

- Impacts from spills of hazardous materials. The potential exists, with any of the proposed alignment alternatives, for accidental spills to occur along the roadway. Improvement of the highway will include various safety improvements that should reduce the potential for accidents on the roadway.

Indirect Effects

Indirect effects will be similar to those described for the existing alignment.

Mitigation

Mitigation measures will be similar to those described in Section 7.9.2.

7.9.4. Ronan Alignments

Alignments 1 and 2 in Ronan will cross Spring Creek at existing roadway culvert crossings. Alignments 3 and 4 will require new crossings of Spring Creek. Alignments 3 and 4 will also cross the Flathead Irrigation District's Lateral A6 and Alignment 4 will cross the district's Canal B.

Water Quality

Since all alignments under consideration in Ronan will cross Spring Creek, there is potential for impacts on water quality. The potential is considered greater for Alignments 3 and 4 because new crossings will be required.

Refueling, lubrication, and maintenance of construction equipment; and storage and handling of chemicals, fuels, and lubricating oils could introduce contaminants into surface waters.

Following construction, along Alignments 3 and 4, increases in traffic capacity and in subsequent highway use might cause greater non-point pollution resulting from runoff of oil and grease and tire rubber. Traffic accidents resulting in spills of hazardous materials and fuels could also diminish water quality.

Turbidity

Table 7.9-2 summarizes potential sediment yield quantities for the Ronan alignments during construction.

Potential for stream sedimentation is higher for Alignments 3 and 4 because they will require new crossings.

Stream Flow

During and after highway construction, increases in volume and velocity of runoff can be expected. Construction areas that have been stripped of topsoil or vegetation could experience increases in volume and velocity of runoff

during precipitation events. Following construction, increased runoff volume and velocity from larger highway surface areas could be expected. However, given the small percentage of the total drainage basin which will be disturbed by the construction and new highway, no measurable increases in stream flow will be noted.

Wellhead Protection Areas

There are no existing or proposed wellhead protection areas in the Ronan area.

Potential impacts to groundwater will be similar to those described for the alternative alignments in Arlee.

Indirect Effects

Indirect effects will be similar to those described for the existing alignment.

Mitigation

Mitigation measures will be similar to those described in Section 7.9.2.

7.9.5. Polson Alignments

Alignment 1 will cross the Flathead River at the location of the present US 93 bridge just south of the Flathead Lake outflow. No other perennial streams are crossed by Alignment 1. To the east of Polson, Alignment 1 also crosses the Polson and Pablo Feeder canals. These canals receive water pumped from the Flathead River two miles below the US 93 bridge as well as diversions from streams rising in the Mission Mountains southeast of Polson.

With Alignment 2, the Flathead River bridge crossing will be one-half mile downstream of the existing crossing. Flow there is essentially the same and the channel width is slightly narrower. Alignment 2 also crosses the Polson and Pablo Feeder canals but at different locations. It also crosses the pump canal which brings water from the Flathead River pumping station to the aforementioned canals.

With Alignment 3, the Flathead River crossing will be one-half mile further downstream than the Alignment 2 crossing. Flow there is essentially the same and the channel width is slightly narrower. Alignment 3 does not cross the Polson Canal. It crosses the Pablo Feeder Canal at the same location as Alignment 2 and crosses the pump canal at a different location from the Alignment 2 crossing.

Water Quality

During construction of Alignment 1, there is a potential for diminished water quality in Flathead Lake and the Flathead River. Refueling, lubrication, and maintenance of construction equipment; and storage and handling of chemicals, fuels, and lubricating oils could introduce contaminants into surface waters.

Following construction, increases in traffic capacity and in subsequent highway use might cause greater non-point pollution resulting from runoff of oil and grease and tire rubber. Traffic accidents resulting in spills of hazardous materials and fuels could also diminish water quality.

Turbidity

Table 7.9-2 summarizes potential sediment yield quantities for the Polson alignments during construction.

Total surface disturbance for any of the alternatives under consideration represents a small percentage of the approximately 7,090 square mile Flathead Lake and river drainage basin above the proposed action. The increase in total dissolved solids in the river downstream of the site following a major precipitation event will be small.

Stream Flow

During and after highway construction, increases in volume and velocity of runoff can be expected. Construction areas that have been stripped of topsoil or vegetation could experience increases in volume and velocity of runoff during precipitation events. Following construction, increased runoff volume and velocity from larger highway surface areas could be expected. However, given the small percentage of the total Flathead Lake and river drainage basin which will be disturbed by the construction and new highway, there will be no measurable increases in stream flow in the Flathead River.

Wellhead Protection Areas

Alignment 1 crosses approximately 0.6 mile of Zone 1 of the proposed Polson wellhead protection area in the SW1/4, Sec. 2, T22N, R20W.[59] Approximately 2.5 miles of Zone 2 are crossed by the Alignment 1 in Secs. 11, 12, and 13, T22N, R20W. Zone 1 is the most sensitive zone as it immediately surrounds the Polson municipal water supply wells. Zone 2 is a less sensitive buffer area situated further from the wellhead.

Alignments 2 and 3 will cross less of the proposed wellhead protection area than Alignment 1. They cross two miles of the boundary area between Zones 2 and 3 northeast of the Pablo Reservoir. Zone 3 is less sensitive than Zone 2.

Potential impacts to groundwater will be similar to those described for the alternative alignments in Arlee.

Surface water resource conditions for Alignments 2 and 3 are essentially the same as those for Alignment 1.

Indirect Effects

Indirect effects will be similar to those described for the existing alignment.

Mitigation

Mitigation measures will be similar to those described in Section 7.9.2.

It may be appropriate to place signs along the highway to advise motorists and truckers that they are entering a wellhead protection area and extra caution should be used.

[59]Shannon Environmental Management. .1993. Draft Map of Wellhead Protection Area for Polson, Montana. Missoula, MT.

7.10. WETLANDS

Alternatives for alignments, lane configurations and design options are described in detail in Section 5.1. The MDT Preferred Alternative and the CSKT Preferred Alternative, which consist of combinations of alignments, lane configurations and design options, are described in detail in Sections 5.3 and 5.4.

7.10.1. No Action

Under No Action, wetlands and non-wetland riparian areas along the highway would not receive additional fill and would remain in their existing states. Existing levels of highway related disturbances to these areas resulting from periodic clear zone maintenance and other maintenance activities would continue. The potential of disturbance to these areas resulting indirectly from forecasted increasing traffic (e.g., fuel spills and other accidents) is expected to increase over time in the absence of highway improvements. (Section 7.1.2)
~~No Action will not result in the filling or disturbing of existing wetlands.~~

7.10.2. Existing Alignment (Except Arlee, Ronan and Polson)[60]

Table 6.10-1, which is presented at the back of Appendix A, lists individual estimated impact acreage for all wetlands and non-wetland riparian areas with alternative alignments and lane configurations. A summary of wetland and non-wetland riparian area impacts by alignment and lane configuration is presented in Table 7.10-1. Estimated impacts by wetland type and overall rating category are summarized in Table 7.10-2.

As determined using the MDT wetland site evaluation method,[61] Table 7.10-3 lists primary functions of wetland acreage expected to be lost to construction for each wetland type and each of the four overall rating categories. These include food chain support, general fish and wildlife habitat, potential habitat for threatened and endangered species, flood attenuation, sediment filtration, erosion control, nutrient cycling, and recreation/education potential. In addition to the direct losses described above, many affected wetlands and non-wetland riparian areas would experience incremental losses in overall function commensurate with their proportional losses in size. For comparison purposes, estimated total sizes and anticipated impacts under each alternative for each wetland and non-wetland riparian area are presented in Table 6.10-1 (Appendix A). These indirect impacts would have little effect on the overall functions of larger Category I and II wetlands, which would experience very minor losses in proportion to their overall sizes. Similarly, indirect effects would not apply to most of the small, low value wetlands (e.g., roadside ditches) that would be lost entirely to construction. These indirect impacts would have the greatest effect on small to medium-sized (e.g., one to five acres) wetlands of high overall value, which primarily consist of potholes (emergent/open water wetlands).

Wetlands and riparian areas may be indirectly affected by development associated with improvement of the highway. However, it is not possible to quantify such impacts without knowledge of where such associated development may or may not occur. With or without highway improvement, the recent pattern of growth and development is expected to continue in the area from Evaro through Polson. Consequently, an improved highway would be a factor that combines with other factors to provide transportation services that support any increase in the rate of population growth (Section 7.4).

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[60]Tables 7.10-1 and 7.10-3 in the draft EIS has been removed, and tables have been renumbered in the final EIS.

[61]Montana Department of Transportation, Wetlands Site Evaluation Form. Unpublished methodology. Helena, Montana. 1994.

Table 7.10-1 Summary of Wetland and Riparian Area Impacts (Acres)
This table has been added to the final EIS.

Alignments	MDT Preferred Alternative Alignments and Configurations*		CSKT Preferred Alternative Lane Configuration A		Lane Configuration B		Lane Configuration C		Lane Configuration D	
	Wetland	Riparian	Wetland	Riparian	Wetland	Riparian	Wetland	Riparian	Wetland	Riparian
Existing Alignment - Does not include Arlee (1-4), Ronan (1-4), or Polson (1-3) Alignments	37.12	6.97	21.75	3.33	36.15	7.05	43.03	8.06	58.71	10.76
Arlee Alignments										
*Arlee #1	2.48	0.68	2.1	0.37	2.33	0.53	2.54	0.68	4.78	0.85
Arlee #2	N/A	N/A	2.58	0.08	2.93	0.21	3.15	0.23	5.09	0.27
Arlee #3	N/A	N/A	2.16	0.37	2.71	0.51	2.96	0.64	5.28	0.72
Arlee #4	N/A	N/A	8.23	0.66	9.86	0.79	10.85	0.87	13.13	1.05
Ronan Alignments										
*Ronan #1	0.59	0.00	0.21	0.00	0.52	0.00	0.72	0.00	1.25	0.00
Ronan #2	N/A	N/A	0.41	0.00	0.72	0.00	0.91	0.00	1.41	0.00
Ronan #3	N/A	N/A	2.42	0.02	2.86	0.02	3.17	0.02	3.87	0.03
Ronan #4	N/A	N/A	6.22	0.05	7.51	0.06	8.27	0.07	10.10	0.08
Polson Alignments										
*Polson #1	0.15	0.00	0.11	0.00	0.18	0.00	0.24	0.00	0.70	0.00
Polson #2	N/A	N/A	0.37	0.00	1.38	0.00	1.64	0.00	2.26	0.00
*Polson #3	0.08	0.00	0.08	0.00	0.09	0.00	0.10	0.00	0.13	0.00
Total Estimated Impacts of Preferred Alignments and Preferred Lane Configurations:	40.42	7.65	24.25	3.70	39.27	7.53	46.63	8.74	65.57	11.61

Morrison-Maierle Environmental. 1996. * Preferred alignments. MDT Preferred Alternative is a combination of Lane Configurations A, B, C and D.

Table 7.10-2 Estimated Wetland Impact Acreage of the Existing Alignment and Polson Alignment 3 ~~Preferred Alignment~~ and Alternative Lane Configurations

Wetland Type	MDT Preferred Alternative Lane Configurations A, B, C and D	CSKT Preferred Alternative Lane Configuration A	Lane Config. B	Lane Config. C	Lane Config. D
Emergent	20.02	12.00	19.44	23.08	32.48
Emergent/Open Water (with scattered shrub component)	2.85	1.70	2.75	3.26	4.59
Emergent/Shrub	8.05	4.85	7.85	9.32	13.10
Forested/Shrub (with scattered emergent component)	9.50	5.70	9.23	10.97	15.40
Total	40.42	24.25	39.27	46.63	65.57
Overall Wetland Category*					
Category I (exceptional)	6.49	3.88	6.28	7.46	10.49
Category II (high)	6.78	4.12	6.67	7.93	11.15
Category III (moderate)	15.77	9.45	15.32	18.19	25.57
Category IV (low)	11.38	6.80	11.00	13.05	18.36
Total	40.42	24.25	39.27	46.63	65.57

Morrison-Maierle Environmental. 1996.
* From MDT Wetland Site Evaluation Forms
This table has been added to the final EIS.

Table 7.10-3 Proposed Wetlands Affected by MDT Preferred Alternative versus Replacement Wetlands

Wetland Type	Estimated Affected Acres	Prominent Functions* at Affected Wetlands	Estimated Acres at Replacement Wetlands	Prominent Functions* at Replacement Wetlands
Emergent	9.89	SF, EC, WH, FCS, NC	20.9 (total both types)	TES, WH, REP, FCS, SF, EC, NC
Emergent/Open Water	2.85	TES, WH, EC, FCS, REP, U		
Emergent/Shrub	5.37	FCS, EC, WH, NC, GDR, SF	14.9*** (total both types)	FCS, TES, WH, FC, NC, GDR
Forested/Shrub	9.5	TES, GDR, WH, FCS, SF, FC, EC, NC, U		
Emergent and Shrub Excavated Ditches	12.81	SF, EC	9.37	SF, NC
Total	40.42		45.17	
Overall Wetland Category **				
Category I (Exceptional Overall Rating)	6.49	FCS, FC, TES, SS, WH, GDR, U, REP, EC, NC, SF	7.4	FCS, TES, WH, GDR, REP, EC, NC, SF, FC
Category II (High Overall Rating)	6.78		28.4	
Category III (Moderate Overall Rating)	15.77	SF, EC, WH, FC, NC	9.37 (excavated ditches)	SF, NC
Category IV (Low Overall Rating)	11.38	SF		SF
Total	40.42		45.17	

* Prominent Functions (as determined using MDT wetland site evaluation forms. Functions generally rating as "high" or "exceptional" at wetlands representative of each type are indicated as prominent functions.):

EC - Erosion Control
FCS - Food Chain Support
HD - Habitat Diversity
REP - Recreation/Education Potential
SS - Sensitive Species Habitat
U - Uniqueness
FC - Flood Control & Storage
GDR - Groundwater Discharge/Recharge
NC - Nutrient Cycling
SF - Sediment Filtration
TES - Threatened and Endangered Species Habitat
WH - General Fish & Wildlife Habitat

** As determined using MDT wetland site evaluation forms.

*** Total does not include proposed enhancement/restoration of woody vegetation along Post Creek on the Yatchak property.

The potential for disturbance of wetlands and riparian areas resulting indirectly from forecasted increasing traffic (e.g., fuel spills and other accidents) is not expected to increase substantially due to proposed traffic safety improvements. (Section 7.1.2)

~~Table 7.10-1 lists wetlands that will be impacted along the existing alignment.~~

Temporary ~~Indirect~~ impacts to wetlands and riparian areas would be ~~are~~ minor and would include ~~, including~~ temporary effects on wildlife, vegetation, and surface and ground water flow and quality during construction. ~~Unavoidable environmental effects also include minor temporary damage to some existing wetlands adjacent to the construction site.~~ These would ~~This might~~ result from ~~occur through~~ temporary draining or ponding of water, operation of machinery along wetland edges, sediment washed into wetlands, and disturbance of wildlife and vegetation. Following construction, temporary impacts would result from periodic clear zone maintenance and other maintenance activities.

7.10.3. Arlee, Ronan and Polson Alignments

Table 6.10-1 (Appendix A) lists individual estimated impact acreage for all wetlands and non-wetland riparian areas with alternative alignments and lane configurations. A summary of wetland and riparian area impacts by alignment and lane configuration is presented in Table 7.10-1. Estimated impacts by wetland type and overall rating category under the existing alignment and alternative lane configurations are summarized in Table 7.10-2.

Types of direct, indirect, and temporary impacts to wetlands and riparian areas under implementation of alternative alignments and lane configurations would be similar to those discussed in the preceding section. The magnitude of these impacts would vary with the amount of wetlands and riparian areas affected, which, in turn, varies depending on the combinations of alignments and lane configurations selected for analysis. Depending on the combinations selected, direct wetland impacts could range from approximately 24.25 to 84.2 acres, while impacts to riparian areas could range between 3.7 and 11.89 acres (Table 7.10-1).

Alternative Alignments

As shown in Table 7.10-1, the alternative alignments through or around Arlee, Ronan, and Polson would directly impact more wetlands than would the existing alignments in these areas, regardless of the lane configuration selected. In the Arlee area, Arlee Alignment 4 would result in the most wetland impacts (including a new crossing of the Jocko River), generally followed in decreasing order of impact by Alignments 3, 2, and 1. Arlee Alignment 2 would generally result in the least impact to non-wetland riparian areas. In the Ronan area, Ronan Alignment 4 would affect the greatest amount of wetlands and riparian areas, followed by Alignments 3, 2, and 1. Polson Alignment 2 would result in greater wetland impacts, as well as more impacts to the Flathead River, than would the proposed combination of Alignments 1 and 3 (Table 6.10-1, Appendix A). No impacts to non-wetland riparian areas would result from any of the Polson alignments.

Alternative Lane Configurations

Lane Configuration A would result in the least amount of wetland and riparian area impacts, followed in increasing order of impact by Lane Configurations B, C and D, regardless of the alignments selected. (Table 7.10-1)

~~Table 7.10-3 compares total estimated areas of directly impacted wetlands on alignment alternatives for each lane configuration.~~

~~Arlee Alignments 1, 2 and 3 have no wetlands on segments of the roadway in which they correspond.~~

~~Arlee Alignment 4 will have roughly the same impact on wetlands as will Alignment 1 (on the segments of the roadway in which they correspond).~~

~~Ronan Alignment 1 impacts less wetlands than Ronan Alignments 3 and 4. Ronan Alignment 2 has no wetlands, and has a marginal, unsubstantial advantage over Alignment 1. Both cross Ronan Spring Creek, but only minimal impacts to the narrow wetland along Alignment 1 are expected.~~

~~Polson Alignments 1 and 3 have equivalent, low impacts to wetlands, mostly at narrow strips along canals. Both alignments have a substantial advantage over Alignment 2.~~

~~No mitigation projects are planned that are specific to any of the alignment alternatives.~~

7.10.4. Cumulative Impacts

While the total acreage of drained and filled wetlands on the Flathead Indian Reservation has never been calculated, the Confederated Salish and Kootenai Tribes estimate that at least 30% of the pothole wetlands on the reservation have been drained over time through farming practices, road construction, and other development.[62] Additional wetland losses within the reservation are likely to result from future activities, including timber harvest and residential development; however, it is not possible at this time to accurately predict or quantify these potential impacts. Proposed projects which may affect wetlands or other waters on the reservation would be subject to the tribal ALCO permit process.

According to MDT, it is estimated that proposed highway improvement projects north of Missoula and west of the Continental Divide would result in the cumulative loss of approximately 60 wetland acres (of which approximately 25 acres would occur on the Flathead Indian Reservation) in addition to anticipated losses associated with the proposed action to improve US 93 from Evaro through Polson. Another loss of 45 acres of wetlands may result from a proposed action for improvement of US 93 south of Missoula. ~~Currently, proposed highway improvement and reconstruction projects in northwestern Montana would adversely affect 90 to 103 acres of wetlands.~~ Although wetlands would be lost or degraded by proposed highway projects, wetlands would be created or enhanced to mitigate for losses in functions and values. Consequently, no net losses of wetland functions and values should result from these projects if mitigation projects are successful. ~~The Section 404(b)(1) Guidelines specify that if projects are permitted which destroy or degrade wetlands that wetlands and their associated functions and values must be replaced so there is no net loss in wetland resources.~~ No net loss in wetland resources is (unofficial) national policy with respect to wetland mitigation.

While past wetland losses on the reservation were considerable, present and anticipated future losses would be temporary as compensatory mitigation would be provided to satisfy the requirements of the Confederated Salish and Kootenai Tribes, the U.S. Department of the Army, Corps of Engineers (COE) and the U.S. Environmental Protection Agency (EPA). Many of these projects may, as a result of required mitigation, result in the restoration of previously drained wetlands. Consequently, pending the success of proposed mitigation, the proposed action would have relatively minor cumulative impacts on wetland resources; particularly because wetland mitigation would be constructed in advance of anticipated impacts over the expected construction period.

Mitigation

Permits for placing fill in wetlands under ~~along~~ any alternative ~~the preferred alternative~~ (alignments and lane configurations) must be obtained from COE, under Executive Order 11990, and Section 404 of the Federal Clean Water Act. (Appendix C) Mitigation is discussed in this section with respect to general principles that apply to alternative alignments and lane configurations.

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[62] Mary Price, Tribal Wetlands Coordinator. Personal communication.

Wetlands were ~~have been formally~~ delineated as described in Section 6.10 ~~with formal wetland surveys~~. Projected wetland and riparian area impacts were estimated as accurately as possible using "as built" highway plans and cross sections; increasingly accurate measurements of affected wetlands may be available as ~~will be done during final design, using~~ detailed highway plan maps are produced.

The overall wetland mitigation goal must be no net loss in wetland ~~area or quality~~ functions and values. The Council on Environmental Quality (CEQ) (40 CFR 1508.20) provides regulations for sequencing of wetland mitigation, in the following order of priority:

1. Avoidance of Wetlands. Avoiding the impact altogether by not taking a certain action or parts of an action.

2. Minimization of Impacts. Minimizing impacts by limiting the degree or magnitude of the action and its implementation.

3. Repair, Rehabilitation, Restoration. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.

4. Preservation and Maintenance. Reducing or elimination of the impact over time by preservation and maintenance operations during the life of the action.

5. Replacement. Compensating for the impact by replacing or providing substitute resource or environments.

In the following sections, wetland mitigation is discussed according to these priorities.

Avoidance. Complete avoidance of all wetlands is not possible with any of the lane configurations. Immediately north of the Jocko River crossing (MP 19), however, the alignment would be shifted to the east to avoid fill placement on the east bank of the Jocko River.

As more detailed roadway design is completed, minor alignment adjustments may ~~will~~ be made throughout the proposed action where ~~when~~ practical and feasible to help reduce impacts to wetlands. ~~Several identified~~Areas where the alignment may ~~will~~ be adjusted slightly during the design phase to further avoid wetlands, while still providing a safe highway meeting current design standards, are listed on Table 7.10-~~42~~. In order to assess impacts conservatively, these potential shifts were not considered when calculating wetland impact acreage under any of the alternatives. As can be seen on the photographs in Appendix A, however, in most other areas shifting the alignment away from one wetland area will create similar offsetting impacts to wetlands in the direction of the shift.

Minimization of Impacts. Minimization through selection of the narrowest feasible lane configuration and the best alignment are discussed above. The following site-specific minimization measures are proposed:

At the Jocko River crossing, if the highway is widened, care will be taken to avoid rolling or sliding of fill material into the channel along the river's east bank several hundred feet north of the existing bridge. As needed, work will be done from the roadbed above, keeping machinery out of the channel.

In the Ninepipe area (Mileposts 39.5 to 44.1), placement of fill at potholes will be minimized in some locations through the use of guardrail in conjunction with nearly vertical gabion retaining walls below shoulders instead of normal fill slopes. This measure is proposed at larger potholes and where guardrail currently exists in this area. ~~Where Ninepipe pothole ponds are traversed by the existing highway, if the highway is widened, consideration will be given to using steeper fill slopes below shoulders, to minimize placement of fill in adjacent wetlands.~~ Installation of wildlife mitigation measures will help to reduce road kills. (Section 7.12)

Table 7.10-~~42~~ ~~Proposed~~Potential Wetland Avoidance Sites

From/To Milepost	Avoidance Measure Under Consideration
~~19.0 - 19.2~~	~~North of Jocko River crossing. Avoid alignment shift west into east side of channel; keep fill and machinery out of channel~~
43.3 - 44.0	Potholes in Ninepipe area, just south of Crow Creek. Shift alignment west to avoid encroachment.
48.3 - 48.8	Shift alignment east to avoid wetland encroachment
50.4 - 50.6	Shift alignment west to avoid wetland encroachment

This table has been changed in the final EIS.

Repair, Rehabilitation, Restoration. Removal of vegetation will be kept to the minimum necessary for construction and for safety.

All exposed areas will be revegetated to reduce potential erosion and sedimentation, to provide desirable ground cover, to inhibit noxious weed invasions, and for aesthetic purposes.

Perennial stream crossing mitigation measures will include mulching, reseeding, netting, plantings, and other bank stabilization/erosion control measures as discussed in Section 7.9.

Preservation and Maintenance. To assure preservation and maintenance of wetlands, MDT will purchase each mitigation site or a permanent conservation easement. A memorandum of agreement (MOA)~~MOA~~ between CSKT and MDT covering mitigation of unavoidable impacts to wetlands by highway construction ~~is complete and will~~ provides for case-by-case site development plans for replacement wetlands; disposition of land titles and conservation easements; agency coordination (including the U.S. Fish and Wildlife Service (USFWS), COE, the CSKT Shoreline Protection Office (SPO) and Aquatic Lands Conservation Ordinance (ALCO), the Interagency Wetlands Group, the Montana State Historic Preservation Office (MSHPO), the Advisory Council on Historic Preservation (ACHP), and the Flathead and Kootenai culture committees); and funding for development and management.

Annual monitoring will be conducted during the first three ~~few~~ years to determine the effectiveness of the mitigation measures, and to determine the need for additional mitigation measures or adjustments.

Road maintenance does not appear to have a substantial detrimental effect on wetlands in this area. Sand used for icy roads may be plowed into adjacent wetlands. This has not been a problem along the existing highway.

Replacement Wetlands (either created or restored) can only be used if there is no practical alternative to the discharge of dredged or fill material in a wetland which will have less adverse impact on the aquatic ecosystem and without other substantial adverse environmental consequences that do not involve discharges into "waters of the United States."

Replacement must be done according to the following priorities.

1. On-site replacement or enhancement is the preferred type of mitigation.

2. When on-site mitigation is not practical, off-site replacement or enhancement will be considered.

3. When the above are not practical, "wetland banking" will be considered; this allows the highway agency to develop wetland complexes in the general area, and then, as wetland losses occur, the acreage will be subtracted.

A mitigation plan has been prepared which demonstrates replacement for losses of wetland functions and values.[63] Mitigation of the unavoidable wetland losses resulting from the improvement of the highway would ~~can~~ be accomplished ~~done~~ using a combination of on-site and off-site mitigation. CSKT is reviewing the proposed mitigation plan ~~measures,~~ to assure that it ~~they~~ minimizes or precludes potential adverse impacts to the aquatic environment as provided by ~~CSKT~~ ALCO.

Wetlands would be restored or created on four parcels in the area, three of which are considered "onsite" and occur immediately adjacent to US 93; the fourth occurs approximately 0.5 mile from the highway. Wetlands would be created using very minor excavation commensurate with existing topography. Restoration would occur largely by plugging drainage ditches. Water would be provided to sites by groundwater, existing surface flows and irrigation water. Revegetation would initially ~~will mostly~~ occur ~~naturally~~by intense planting and seeding of wetland trees, shrubs, and emergents. ~~Proposed mitigation will involve enhancement and expansion of existing wetlands by placement of check dams, and excavation of new channels, ponds and marshes. At some riparian sites, plantings of shrubs might enhance habitat interspersion.~~ Excavated borrow would ~~will~~ be used for highway construction. Control of grazing (fencing, for example) would ~~will~~ be required at some sites. Details of proposed mitigation activities at each of the sites are presented in the mitigation plan.

Construction of mitigation sites would be staggered over the project construction period in conjunction with proposed highway construction segments. It is expected that mitigation sites offering replacement acreage that corresponds to anticipated impacts of the six proposed highway construction segments would be developed one to two years in advance of anticipated impacts.

Table 7.10-3 compares wetland types, prominent functions, and overall ratings among wetlands expected to be directly affected by the proposed action and proposed mitigation measures for wetlands. Emergent/open water and forested/shrub/emergent wetlands would be restored and created to, at a minimum, match anticipated losses of these communities. A higher proportion of emergent/open water wetlands is proposed to compensate for the expected increased indirect affects to these communities (Section 7.10.2). A portion of the proposed mitigation includes establishment of roadside ditch wetlands to compensate for expected impacts to these communities. A total of 45.17 acres of created and restored wetlands is proposed to compensate for the expected loss of wetlands.

The MDT wetland site evaluation method was applied to proposed mitigation sites in their anticipated "completed" states. As shown on Table 7.10-3, prominent wetland functions lost to construction would be replaced at mitigation sites. Table 7.10-3 also demonstrates that, if mitigation is successful, most of these sites would rate as Category I or II (exceptional to high overall ratings, respectively) wetlands.

~~Wetland projects with potential for about 107 acres of new and enhanced wetlands are now being evaluated. Some of the sites will be eliminated, others retained, with the goal of matching the mitigation area to the total area affected by the preferred alternative. Of the total area, 13% will involve enhancement of existing wetlands and 87% creation of new wetlands.~~

~~Proposed mitigation is "in kind," in close proportion to these percentages of impacted wetland types. Approximately 10% of the total mitigation area now under consideration will involve ponds, 66% marsh habitats, and 24% riparian (stream) wetlands.~~

[63]Draft Wetlands Mitigation Plan. Project F 5-1(9)6. US 93 Evaro to Polson, Montana. Morrison-Maierle. 1996.

~~**Off-Site Wetland Replacement.** Off-site mitigation of the impacts to pond and marsh wetlands in potholes of the Ninepipe area will be emphasized, rather than on-site mitigation. Off-site wetland replacement and enhancement is often desirable because it is more efficient to restore and enhance wetlands in large, off-site tracts, and because on-site mitigation could increase road kills of waterfowl and turtles. Various off-site mitigation tracts are being investigated throughout the area.~~

~~**On-Site Wetland Replacement.** Nineteen small areas next to ROW of US 93 are potential on-site mitigation projects. During further site studies, some sites will be eliminated because of cost, availability, lack of reliable water, poor soil conditions, or land management problems. Other sites that have not yet been identified may be encountered.~~

~~The advantage of on-site projects is that in-kind mitigation is easier. Disadvantages are that many prospective wetland sites are small, and extend into adjacent private land as narrow strips along streams or as irregular marshy tracts. This makes easement acquisition, grazing control and general land use management difficult. Fencing of numerous small tracts is typical, along with long-term maintenance and easement monitoring costs. There are few large sites near the highway, and reliable water sources are often not available.~~

~~Most of the prospective sites lie mostly on private land, and will require purchase of the property or conservation easements. At all sites, recommended mitigation will involve excavation of borrow to create new ponds and marsh habitat. At some sites, especially those with small streams, low check dams will pond and divert water into marshes or new channels. Various on-site wetland mitigation projects are under review throughout the area.~~

Mitigation for the expected loss of non-wetland riparian areas would primarily be achieved through the protective purchase and enhancement of a 36-acre parcel adjacent to US 93 in the Post Creek area. The wetland/riparian zone bordering Post Creek is considered an extremely high value corridor for grizzly bears and other wildlife, and has been degraded over the years by grazing of livestock. Existing riparian and wetland vegetation along the creek would be enhanced through planting of woody vegetation and exclusion of grazing. Additionally, all riparian vegetation that would be disturbed temporarily by construction activities would be restored. (Section 7.9)

Land use planning and regulation should greatly reduce potential wetland and riparian area impacts potentially resulting from increased population growth and development.

7.11. FLOODPLAINS AND STREAM CROSSINGS

Alternatives for alignments, lane configurations and design options are described in detail in Section 5.1. The MDT Preferred Alternative and the CSKT Preferred Alternative, which consist of combinations of alignments, lane configurations and design options, are described in detail in Sections 5.3 and 5.4.

7.11.1. Impacts Common to All Alternatives

7.11.1.1. Floodplain Encroachments

As indicated in Section 6.11.2, flood insurance studies have been performed for Missoula and Lake counties, and both counties have adopted standards for floodplain management for non-tribal lands and are participating in the National Flood Insurance Program (NFIP). Any encroachment in a designated floodplain will require a floodplain permit.

Floodplain regulations require that structural improvements create no more than one-half foot of increased flood elevation during a 100-year flood. A 100-year flood will be expected to occur on the average once every 100 years. All culvert and bridge crossings will be designed and constructed to meet this requirement.

The standards are administered by a local floodplain administrator. A floodplain permit will be required for stream crossing structures located in a delineated floodplain.

Using the one-half foot backwater criterion will limit floodplain impacts. In special cases where this criterion cannot be met, other means such as flood easements will be used to mitigate damage to surrounding property owners.

Table 6.11-1 lists the drainage crossings that have been delineated by approximate methods. A floodplain permit will not be required for drainages with no delineation.

7.11.1.2. Permit Requirements

The following permits may be required for highway improvement that affects floodplains or stream crossings:

- An ALCO 87-A permit for all perennial stream crossings will be required by CSKT. CSKT SPO will review the permit application and administer the ALCO process.

- An ALCO permit will also be required for all the smaller drainage crossings listed on Table 6.11-1. The final permit requirements for these structures will be determined after final design. Upon preliminary review of the final design, CSKT SPO will determine whether individual permits will be required for each drainage culvert or whether a project-wide permit can be submitted.

- COE requires that a COE Section 10/404 permit be obtained for all perennial and other stream crossings listed on Table 6.11-1. Upon review of the final design, COE will determine which permit classification, individual or nationwide, will apply for each crossing site.

7.11.2. No Action

With No Action, the existing stream crossings, stream crossing structures and characteristics of the floodplains will not change. Permits will not be required. Existing stream crossing and floodplain problems related to the highway will not be corrected.

7.11.3. Existing Alignment (Except Arlee, Ronan and Polson)

All existing bridges must be widened to accommodate any of the lane configurations.

~~The Jocko River bridge will likely require reconstruction because, in addition to being too narrow to accommodate the new roadway, it is too low to allow needed improvement in vertical grades. If it is widened, it will not adequately pass the estimated 100-year flood flows.~~

~~Reconstruction, instead of just widening, will be necessary at the Post Creek bridge to provide a wider opening for wildlife crossings.~~

All lane configurations will require reconstruction of the roadway on the existing alignment, with extensions of most of the existing pipe or box culverts. It will be necessary to replace most of the existing culverts with longer culverts. Many of the existing culverts are old and in poor condition. The location, elevation and grade of many others will not properly accommodate the new roadway.

Lane Configuration A will require the widening of bridges and extension of culverts because of a slightly wider pavement width and substantially flatter and wider shoulder slopes and fill slopes than the existing roadway. Lane Configurations B, C and D will require progressively greater bridge widening and extension of culverts as summarized in Table 7.11-1.

All of the reconstructed, wider bridges and reconstructed, longer culverts will be designed to adequately pass the estimated 100-year flood flows without substantially increasing historic floodplain elevations.

Allowance for fish passage will be provided at all stream crossings. Culvert crossings will be designed and constructed to allow free and unrestricted passage of fish. Crossing structures will be selected based on the least impact to fisheries, sediment load and wetland or riparian lands.

Finley Creek and Railroad Bridge. This bridge will be widened or replaced in its current location.

Table 7.11-1 Bridge and Culvert Extensions

Lane Configuration	Approximate Additional Bridge Width[1] (Feet)	Approximate Additional Culvert Length[1] (Feet)
Lane Configuration A	12	50
Lane Configuration B	36	74
Lane Configuration C	50	88
Lane Configuration D	76+	114+

Morrison-Maierle. 1993.
[1]Total, both sides, in feet.

Agency Creek

With any of the lane configuration alternatives, the opportunity exists to improve less than desirable flow conditions at the existing Agency Creek crossing. The following options are under consideration:

- Increase the size of the culvert (from the existing 18-inch pipe culvert to approximately a 42-inch pipe culvert) under the highway to convey the estimated 100-year flood flows to an existing gravel pit west of the highway and then to a drainage swale on the railroad ROW. This option will increase the flow into the gravel pit and in the railroad drainage swale but will decrease the flow in the east borrow ditch of US 93.

- Maintain the 18-inch pipe culvert size at its existing location. Convey excess drainage in the east borrow ditch of US 93 northward to a point just south of Arlee, provide a new drainage crossing adequate to accommodate the estimated 100-year flood flow under the highway and a drainage ditch westward to Finley Creek. This option may increase flood flow west of the highway and impact residences or other features located near the drainage ditch.

- Agency Creek eventually flows into Finley Creek but it will not be desirable to provide fish passage from Finley Creek to Agency Creek -- this is to help protect the natural cutthroat fishery in Agency Creek.

Jocko River. The existing bridge will be reconstructed at its existing location. If four lanes are constructed, the additional two lanes will be placed to the northeast side of the existing roadway. Wildlife crossing is not to be enhanced at this location.

The Jocko River bridge will require reconstruction because, in addition to being too narrow to accommodate the new roadway, it is too low to allow needed improvement in vertical grades. If it is widened, it will not adequately pass the estimated 100-year flood flows.

Spring Creek Near Ravalli

Because portions of Spring Creek are located immediately adjacent to the existing highway in this area, all lane configurations will require relocation of the channel for at least 300 to 400 feet.

~~Final design of the preferred alternative will include measures to mitigate the displaced stream channel with a channel change providing improved fish habitat and a crossing with improved fish passage.~~

The current conditions will be improved by providing a direct, same-location crossing of US 93 and the railroad and then placing the creek back in its natural channel west of the railroad. As with all stream crossings, it will be important to adequately protect newly constructed channels from erosion, provide adequate separation between the highway and the stream and revegetate the disturbed area.

Mission Creek. A wildlife crossing will not be desirable at this location because it will encourage wildlife to move into the town of St. Ignatius.

Post Creek. The span of this bridge will be increased to provide adequate width (45 feet minimum on each side of the stream) and clearance (minimum nine feet) for a wildlife crossing to be used by animals following the Post Creek riparian corridor.

Ronan Spring Creek. A new culvert is needed at this location. Any storm drainage systems must be treated, using settling basins or other methods, before discharging into the stream.

Fish Passage. It will be important to provide fish passage at the following creek crossings:

Finley Creek	Jocko Spring Creek
Sabine Creek	Mission Creek
Post Creek	Ninepipe Reservoir
Crow Creek	Ronan Spring Creek
Mud Creek	

7.11.4. Arlee Alignments

Alignment 1, the existing alignment, and Alignments 2 and 3 do not cross any streams and will not require the stream crossing structures.

Alignment 3 crosses the Flathead Irrigation District's R Canal at three locations and will require new irrigation crossing structures.

Alignment 4 will require new stream crossings over Agency Creek, the Jocko River, Pellew Creek and Spring Creek. The Jocko River crossing occurs in the Jocko River Canyon. Conceptual design indicates the bridge will be approximately 90 feet high and have a span of approximately 400 feet. The south abutment will require a trapezoidal fill section approximately 75 feet high and up to 500 feet wide depending on the width of the bridge lane width.

As indicated on Table 6.11-1, the Jocko River floodplain has been delineated by approximate methods in this area. A detailed hydraulic analysis during the design phase for the bridge crossing will be required to determine and document its impact on the floodplain.

Stream crossings over Agency Creek, Pellew Creek and Spring Creek will be accomplished with pipe culverts or box culverts and no particular problems are anticipated.

7.11.5. Ronan Alignments

Since the existing culvert for Spring Creek in Ronan will not accommodate estimated 100-year flood flows, any of the lane configurations on Alignments 1 or 2 will require modifications. If Alignment 3 or 4 is constructed, there will be no modification to the culvert.

Alignments 3 or 4 will require new stream crossing structure on Spring Creek southwest of Ronan and a new irrigation crossing structure for Lateral A6 of the Flathead Irrigation District. Alignment 4 will also require a new crossing structure over Ronan Canal B of the Flathead Irrigation District.

7.11.6. Polson Alignments

Alignment 1 with Lane Configuration A will require no change to the bridge structure over the Flathead River.

Alignment 1 with Lane Configuration B, C or D will require bridge widening, or a new bridge structure over the Flathead River to be located west of the existing bridge. Span lengths will be approximately 125 feet. The new bridge is estimated at a total of 1,575 feet in length.

Alignment 2 will require a new bridge structure over the Flathead River. The bridge is estimated to be approximately 1,325 feet in length. It will use 125-foot spans.

Alignment 3 will require a new bridge over the Flathead River estimated to be 750 feet long, using 125-foot spans.

7.12. FISH AND WILDLIFE

Alternatives for alignments, lane configurations and design options are described in detail in Section 5.1. The MDT Preferred Alternative and the CSKT Preferred Alternative, which consist of combinations of alignments, lane configurations and design options, are described in detail in Sections 5.3 and 5.4.

7.12.1. No Action

No Action will have little or no impact on wildlife habitat that is not currently disturbed or reduced in value as a result of displacement of animals from habitat near the highway. Direct mortality from vehicle collisions will increase as a result of increased traffic levels that will occur with or without the improvement of the highway.

7.12.2. Existing Alignment (Except Arlee, Ronan and Polson)

Impacts on wildlife will result from increased mortality and loss of habitat either from direct removal of vegetation or displacement of animals from areas near the highway. Direct mortality from the highway will result from animal-vehicle collisions.

Areas of wildlife habitat that will be affected by the proposed action will differ, depending on the lane configuration. Lane Configuration A will result in the smallest loss of habitat converted to pavement and grass-dominated ROW. Lane Configuration D will result in the largest loss of habitat converted to pavement and ROW, while Lane Configurations B and C will result in intermediate levels of loss of habitat to pavement and ROW.

For the 56.3 miles of highway on the existing alignment from Evaro through Polson, the most extensive habitat that will be affected by the highway improvement will be agricultural lands with hay/pasture and grain fields. Other types of habitat that will be affected include conifer forest, native (palouse) prairie, riparian and unvegetated areas. Refer to Section 7.2 for details about areas of land converted to ROW.

Lane Configuration A may provide slightly less impact risk to wildlife than will the wider lane configurations, but the difference in impact potential will not be substantial. The types of habitat that will be lost (with the exception of wetlands) with all lane configurations are not especially important or limited in the area of the proposed action. Habitat losses with all lane configurations will be not be substantial to regional wildlife populations.

Lane Configuration A may inhibit wildlife crossing of the highway less than will wider lane configurations. All lane configurations probably will exert similar levels of displacement of animals from habitat because displacement is dependent primarily on traffic volume. The existing highway and the proposed action probably have sufficiently high levels of traffic to discourage use of habitat near the highway by wildlife sensitive to noise and human activity (e.g., grizzly bear, gray wolf, elk, and mountain lion).

Lane Configuration A may have slightly less potential than the other lane configurations to cause wildlife mortality from vehicle collisions. Because Lane Configuration A will be narrower than other lane configurations, animals crossing the traffic lanes will be vulnerable to vehicle collision for less time, assuming that animals will cross a narrower highway faster than they will cross a wider highway. Wider lane configurations, however, may provide more opportunity for motorists to avoid wildlife in the traffic lanes. With Lane Configuration A, motorists will have little opportunity to change lanes to avoid wildlife collisions.

Among lane configurations, differences in mortality risk from vehicle collision will be slight. Traffic volume and vehicle speed are the primary factors influencing mortality from vehicles. Traffic volume will be high for all lane configurations.

Although vehicle speed for Lane Configuration A (two-lane highway) will be lower than the speeds for Lane Configurations B, C and D (four-lane highways), vehicles will be spaced more closely in the two lanes of traffic, with fewer gaps in the traffic stream. The higher density of vehicles with Lane Configuration A will offset the lower mortality risk associated with lower speed.

Indirect effects that could increase mortality will relate to increased human activity (e.g., subdivision and business establishments) brought about by improved access. Increased human activity resulting from the proposed action could increase animal-human interactions which could result in mortality due to legal and illegal killing. The potential impact to wildlife will depend on the species, type of habitat affected, behavior of the animal, use of habitat and success of proposed mitigation. The following sections discuss potential impacts on various species of wildlife and suggest mitigation measures. (Sections 7.2, 7.4 and 7.5)

7.12.2.1. Fish

Potential impacts on fish and aquatic habitat could result from habitat degradation from siltation, habitat alteration from construction of culverts and bridges, and channelization. Suspended and deposited sediments enter streams from unvegetated highway embankments and borrow ditches. Deposited sediments reduce habitat volume by filling pools and intergravel spaces which are critical to young fish. Fine sediments in stream gravels affect incubating eggs and developing alevins (sac embryos) by inhibiting dissipation of metabolic wastes of developing embryos in intergravel spaces.[64] Fine sediments in stream gravels also abrade, or scrape off, developing embryos and emerging fry, delay the rate of egg hatching, and reduce survival during incubation.[65] Moving suspended and bedload sediments also abrade aquatic insects (important fish food) and reduce both insect biomass and species diversity.[66] (Sections 7.9, 7.10 and 7.11)

Physical alteration of habitat can result from placement of culverts and bridges. Water velocities can increase and inhibit upstream fish movement if culverts are not sized correctly. Fish migration also can be inhibited or prevented if culvert outflows are perched above the streambed so that fish cannot enter. Bridge construction is not expected to impact the fisheries resource. Construction will follow approved construction measures used in river crossings. Impacts to fish and aquatic habitats will result if water removal from streams for dust suppression will greatly reduce flows. Low stream flows from water removal will reduce living space for fish and aquatic insects (important fish food), increase water temperatures, and make fish more vulnerable to predation.

Mitigation

Impacts to fish and aquatic habitat will be mitigated by use of BMP for erosion control. This will include constructing silt fencing to prevent sediment from the highway embankment from entering water bodies. Bales of straw also will be placed in bottoms of borrow ditches to prevent erosion and sediment transport on slopes. Disturbed areas, embankments, and borrow ditches will be quickly revegetated with perennial vegetation to stabilize soils, as specified in storm water permit documents. Buffer strips of vegetation will be left between water bodies and construction areas to trap sediment, control erosion, and maintain and enhance fish habitat.

Culverts will be sized correctly to prevent water velocities from inhibiting fish passage. Water velocities in culverts should not exceed three feet/second, and minimum water depths in culverts during periods of fish passage should

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[64]Phillips, R. 1971. Effects of sediment on the gravel environment and fish production. In: J. Krygier and J. Hall (eds.), Forest land uses and stream environment. Corvallis, Oregon.

[65]Weaver, T. and R. White. 1985. Coal Creek fisheries monitoring study No. III. Final report. Montana Cooperative Fishery Research Unit, Montana State University, Bozeman, Montana.

[66]Hynes, H. 1973. The effects of sediment on the biota in running water. Ninth Canadian Hydrology Symposium, University of Alberta, Edmonton, National Research Council of Canada.

not be less than eight inches.[67] Culverts will be placed to prevent the ends from being perched above the streambed, except at East Finley Creek. Maintaining minimum instream flows will help ensure that important fisheries are not jeopardized by water removal or inhibition of flows during construction (for instance, by coffer dams or flumes).

Site specific mitigation is proposed at the following key stream crossings.

1. North Fork Finley Creek. To prevent migration of non-native species eastward up this stream CSKT biologists suggest leaving the culvert perched. This barrier will isolate west slope cutthroat trout in the upper section of the creek from rainbow trout in the lower stream. The present culvert is perched.

2. Agency Creek. This creek is largely diverted for irrigation in several ditches at the present crossing of the highway; some water is diverted toward Arlee along the highway borrow ditch. During spring runoff, water flows in these ditches; later in the summer as flows decrease and are diverted for irrigation, the stream dries up, from west to east. Reconstructing the ditches to feed water under the highway through a ~~single open-bottom~~ culvert is recommended. This will allow fish to retreat upstream (eastward) as the stream dries up, and provide for passage of flood waters.

3. Jocko Spring Creek. ~~An open-bottom concrete box~~ culvert rather than a bridge will satisfy fish passage needs on this stream. The road grade will have to be raised considerably to place a bridge.

4. Sabine Creek. ~~An open-bottom~~ culvert at the highway crossing is recommended.

5. Mission Creek. ~~An open-bottom~~ 13-foot culvert with an additional 20-foot cement box culvert for wildlife passage, or a 40- to 75-foot bridge span, are being considered for bear and other wildlife passage. Either of these two design options will provide an adequate stream bed for fish passage.

6. Post Creek. To facilitate wildlife crossings under the highway, an extended, 100-foot long bridge is proposed. The fishery will also benefit because the stream will have an undisturbed bed, and be free to shift laterally under the bridge.

7. Crow Creek. A new culvert will be provided at this location and will be constructed to provide fish passage.

~~7~~8. Ronan Spring Creek. At the highway crossing, the stream enters a long culvert leading southwestward under a bank building; water emerges in a park one block to the southwest. ~~An open-bottom~~ culvert at the highway crossing is recommended; this will provide for fish passage and water velocity control. No substantial benefit to the fishery will result from a new bridge.

~~8~~9. Mud Creek. This creek has excellent spawning habitat, and receives both mountain runoff and spring water. Locally the stream is channelized, and banks are broken down by heavy grazing. ~~An open-bottom~~ culvert at the highway crossing is recommended.

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[67]Leedy, D. and L. Adams. 1982. Wildlife considerations in planning and managing highway corridors. Federal Highway Administration FHWA-TS-82-212.

7.12.2.2. Reptiles and Amphibians

Amphibians, such as salamanders, toads, and frogs, lay eggs in the spring in ponds and standing water. Before egg laying, amphibians move to wetlands and water bodies for breeding and may cross roads and highways. They are vulnerable to vehicle mortality when they cross roads and highways to reach breeding areas. They also are susceptible to mortality when young emerge and disperse from breeding areas to other suitable habitat.

Turtles also are susceptible to vehicular mortality when they cross highways. In the spring, turtles leave wetlands and travel to traditional upland sites to lay eggs. During the breeding season, turtles leave water and may move several hundred yards seeking suitable sites for egg laying. They are vulnerable to vehicular mortality when they are moving to and from egg laying sites. Newly hatched turtles also are vulnerable to mortality if they must cross highways and roads to move from hatching sites to wetlands or during spring or fall dispersal.

Currently, high rates of turtle mortality occur in the Ninepipe-Crow Creek area on US 93. Increasing the width of the highway will increase the mortality risk to turtles, amphibians, and other reptiles. With a wider highway, amphibians and reptiles will spend more time crossing the highway, thereby increasing the probability that they will be struck by vehicles.

Mitigation

Highway mortality to turtles and other amphibians and reptiles may be reduced if effective, practical designs can be developed for encouraging them to cross under the highway in culverts rather than travelling over the highway. Biologists representing CSKT, USFWS and MDT currently are evaluating several proposals, including placement of one-foot high concrete "drift fence" to direct turtles towards proposed and existing culverts under the highway at some of the larger ponds. If it is determined these designs will be effective and practical, they will be implemented during project construction.

Locations where turtle mortality is most concentrated and where these crossings may be most effective include: 1) near the scenic turnout south of Ronan, 2) south of Crow Creek, 3) and 4) the two large permanent wetlands split by the highway in the area of the Ninepipe National Wildlife Refuge.

7.12.2.3. Birds

Highway construction can have both positive and negative impacts on bird habitat and food availability. Increased mortality will occur resulting from vehicular collisions. A nesting area for bank swallows will be displaced by widening the highway through the narrow portion of the Jocko River Canyon south of Ravalli because widening the highway will remove the steep banks of lacustrine sediment at the edge of the existing highway.

Typically, roadsides and borrow ditches provide relatively dense and succulent vegetation growth due to enhanced moisture runoff from paved roadways. Increased growth of vegetation along highways often leads to larger populations of insects and small mammals, important food for hawks, owls, and other birds.[68,69] Vegetated roadsides and borrow ditches also provide nesting cover for pheasants, gray partridge, and ducks.[70,71] Bridges provide nesting sites for cliff swallows, barn swallows, pigeons, dippers, and other birds adapted to rock and cliff nesting.

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[68]Huey, L.M. 1941. Mammalian invasion along the highway. Journal of Mammalogy 22(4):383-385.

[69]Ferris, C. 1974. Effects of highways on red-tailed hawks and sparrow hawks. Master's Thesis. West Virginia University, Morgantown, West Virginia.

[70]Oetting, R. and J. Cassel. 1971. Waterfowl nesting on interstate highway right-of-way in North Dakota. Journal of Wildlife Management 35(4):774-781.

[71]Leedy, D.L., T.M. Franklin, and E.C. Hekimian. 1975. Highway-wildlife relationships, Volume 2. Annotated bibliography. Report No. FHWA-RD-76-5.

Although food and habitat values can be improved along highways, attraction of birds to roadsides increases mortality risk due to vehicle collisions. Fences and utility poles that parallel highways provide perch sites for hawks, owls, ravens, and magpies seeking insects, small mammals, and animals killed by vehicles. Birds often are hit by vehicles as they pursue prey or are attracted to other road-killed birds and animals. Birds, such as ducks, pheasants, gray partridge, horned owls, and larks, are vulnerable to traffic because they seek roadsides for grit in winter when other areas are snow covered.[72] Other birds commonly frequenting the roadside, also vulnerable to mortality from traffic, include Brewer's blackbird, red-winged blackbird, meadowlark, American robin, and American kestrel.

Currently, in the Ninepipe-Crow Creek area pheasants and waterfowl experience high rates of mortality along US 93. Duck broods cross the highway when moving from upland nesting areas to wetlands. Canada geese also are vulnerable to mortality on the highway because they often nest on small ponds and move to Ninepipe Reservoir for young rearing.[73] Canada geese with young have been documented to travel a mile or more from nest sites to larger water bodies.[74]

Mitigation

Reduction of mortality to raptors by providing additional perches in open, agricultural areas and grasslands away from the highway ROW was considered. Typically, in the Mission Valley most perch sites are power poles and fencelines along roads and highways. However, birds still will be attracted to the highway because of road-killed prey and high populations of insects and small mammals usually present along roadways. Few birds are observed scavenging on the existing highway. Little benefit will be obtained by construction of perches, and this mitigation measure is not recommended along the existing alignment. Raptor proofing of powerlines is necessary. Refer to Section 7.13.4 for discussion of bald eagle mitigation along Polson alignments.

Reduction of mortality to duck broods by constructing underpasses linking wetlands or wetlands and upland breeding sites on either side of the highway was considered. This mitigation measure will require use of 52-inch culverts or larger. Because this form of mortality is low and use of such large culverts is not cost-effective, it is not recommended.

The Migratory Bird Treaty Act ~~prohibits~~includes prohibitions on the killing, pursuit, taking and hunting of all migratory birds, including swallows. Impacts to bank swallow colonies~~swallows~~ could be reduced by constructing after the swallows have nested and young have left the nest. Nesting and rearing occur April through July. By leaving near-vertical cuts in lacustrine sediments adjacent to the highway south of Ravalli Canyon, habitat for nesting will be replaced following construction. No revegetation will be needed at the site. All necessary slope cutting must be done before April 15. Swallows returning earlier will shift to other suitable habitats within the area. Work could probably resume in August with the start of swallow migration. MDT or CSKT biologists could refine these dates and coordinate with contractors to possibly allow a better window of construction. Any request for construction at the swallow sites after April 15 should be considered, but with the provision that no birds occupy the colony at the time of work.

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[72]Hammond, M. 1941. Fall and winter mortality among Hungarian partridges in Bottineau and McHenry counties, North Dakota. Journal of Wildlife Management 5(4):375-382.

[73]Morrison-Maierle; personal communication with West. 1992.

[74]West, W.. 1992. Annual cycle of the giant Canada goose flock at Trimble Wildlife Area. Masters thesis. University of Missouri, Columbia, Missouri.

7.12.2.4. Mammals

Impacts to small mammals (e.g., meadow voles, ground squirrels, rabbits, skunks, mink, porcupines, and muskrats) will result from vehicle collisions as they cross the traffic lanes. Impacts to larger animals will result from collision mortality and displacement from habitat near the highway.

Most studies of wildlife mortality resulting from traffic have dealt with impacts on deer. Deer mortality from vehicles is proportional to traffic volume, speed and population; however, time of day, time of year, and habitat characteristics adjacent to the highway also influence mortality.[75,76] According to Feldhamer et al.[77], deer mortality on highways is highest in areas with forest habitat adjacent to highways and lowest where broad, uninterrupted areas of agricultural lands abut ROW. More deer are killed in fall and spring than during other seasons because forbs and grasses along ROW are the first to green-up and remain succulent into fall.

In 1988, O'Gara and Harris[78] studied deer mortality in the Swan Valley of Montana and found that 90% of deer killed in winter along MT 83 were in poor physical condition. They hypothesized that sick or malnourished deer travel on highways plowed clear of snow because movement requires less energy. Also, weakened deer are not alert and cannot easily jump or climb snowbanks along roads to avoid traffic.

Expansion of US 93 may result in somewhat greater displacement of sensitive species of wildlife; however, the existing highway with its high traffic volume probably exerts a near-maximum level of displacement under current conditions. The expanded highway width may deter some species or individuals of some species from attempting to cross the open traffic lanes. The extent to which animals will be inhibited from crossing the expanded highway will depend primarily on the specific behavioral characteristics of the animal trying to cross, including its response to crossing openings, changes in substrate, cover requirements and traffic volume. Although it will be desirable for animals to use habitat on both sides of US 93 to reduce habitat fragmentation, mortality risk increases when animals cross the traffic lanes. Widening the highway and constructing steep vertical slopes in some parts of Ravalli Canyon, which is the only segment of the proposed action in which highway improvement may increase steep slopes in a wildlife crossing corridor, will inhibit and may preclude crossing of wildlife in some areas.

Mitigation

Attempts to mitigate lethal deer-vehicle encounters have met with mixed success. In 1986, Feldhamer et al.[79] expressed the view that the most common approach is a warning sign; however, signs appear to be of little value in reducing the number of road-killed deer. Roadside mirrors also have been ineffective in most, but not all, instances. Highway underpasses of sufficient size (13 x 59 x 49 feet - height x width x length) were effective in allowing migratory mule deer to cross under an interstate highway in Colorado, although deer were reluctant to use them.[80] In 1976, Ward et al.[81] found that elk will not use underpasses to cross an interstate highway in

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[75]Leedy, D.L., T.M. Franklin, and E.C. Hekimian. 1975. Highway-wildlife relationships, Volume 2. Annotated bibliography. Report No. FHWA-RD-76-5.

[76]Leedy, D. and L. Adams. 1982. Wildlife considerations in planning and managing highway corridors. Federal Highway Administration FHWA-TS-82-212.

[77]Feldhamer, G., J. Gates, D. Harman, A. Loranger, and K. Dixon. 1986. Effects of interstate highway fencing on white-tailed deer activity. Journal of Wildlife Management 50(3):497-503.

[78]O'Gara, B. and R. Harris. 1988. Age and condition of deer killed by predators and automobiles. Journal of Wildlife Management 361-320.

[79]Feldhamer, G., J. Gates, D. Harman, A. Loranger, and K. Dixon. 1986. Effects of interstate highway fencing on white-tailed deer activity. Journal of Wildlife Management 50(3):497-503.

[80]Reed, D. 1981. Mule deer behavior at highway underpass exit. Journal of Wildlife Management 45(2):542-543.

[81]Ward, A., J. Cupal, G. Goodwin, and H. Morris. 1976. Effects of highway construction and use on big game populations. Federal Highway Administration. FHWA-RD-76-174.

Wyoming; however, in 1992, Becker et al.[82] cites studies in Canada which documented the use of underpasses on the Trans-Canada Highway by deer, moose, wolves, coyotes, black bears, and grizzly bears.

Studies of wildlife use of underpasses of I-75 in Florida found that endangered Florida panther and other animals, including bobcats and raccoons, crossed through underpasses to gain access to habitat fragmented by a major highway.[83,84] Underpasses and bridges were constructed so that they did not present a tunnel appearance to animals approaching the highway. A clear view of habitat from one side of a bridge or underpass to the other, to present a continuous expanse of cover was a high priority in design. A width of about 100 feet and a height of about eight feet was found to be the most cost-effective design. Extending bridges so there was at least 40 feet of land on either side of the stream also was recommended. Wing fences 10 to 13 feet high were used to direct animals to underpasses.

A wildlife overpass probably offers the best option in terms of likelihood of use by large carnivores and ungulates. Four wildlife overpasses are presently being constructed in Canadian national parks to facilitate movement of large carnivores across the Trans Canada Highway, and similar overpasses are being constructed in France to prevent the disruption of brown bear habitat and to avoid collisions.[85]

The most effective means of preventing highway-associated mortality of deer and elk appears to be through the use of nine-foot high fence along ROW to exclude animals from traffic lanes.[86,87] The use of fence, however, leads to fragmentation of habitat and can trap deer and elk on the highway ROW if they are able to skirt the edges of the fence. In areas with many access points and developments along the highway, continuous fencing is impractical and its effectiveness is greatly reduced.

The mitigation measures proposed to reduce impact risk to deer and other species of wildlife, including grizzly and grey wolf, are as follows.

1. **Wildlife Passage Structures.** The major mitigation measure that has been proposed is to build a wildlife overpass at Milepost 10.3. The overpass will include two arch structures, one over the two northbound lanes and one over the two southbound lanes. The structures will support a minimum of four feet of topsoil on which vegetation will be established to provide cover for wildlife. The structure will create a tunnel for highway traffic approximately 165 feet long.[88] ~~two wildlife passage structures in the 0.4 mile forested area east of Joe's Smoke Ring (north of Evaro).~~ Existing wildlife activity has been documented by studies conducted by CSKT.[89] These studies used camera surveillance and track surveys during 1992 and winter 1993. ~~The structures proposed are:~~

   ~~Wildlife underpasses will be constructed at Mileposts 10.3 and 10.5. The wildlife underpass at milepost 10.3 will be a three-span structure with a 60-foot center span, and the structure at milepost 10.5 will include a single 60-foot span with vertical wall abutments. At the underpasses,~~

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[82]Becker, D., D. Lipscomb, and A. Soukkala. 1992. Evaro corridor wildlife use study and mitigation recommendations. U.S. Highway 93 Reconstruction Project.

[83]Evink, G. 1992. Wildlife crossings of Florida I-75. Transportation Research Record 1279.

[84]Foster and Humphrey. 1992.

[85]~~Becker et al. 1993.~~

[86]Bashore, T., W. Tzilkowski, and E. Bellis. 1985. Analysis of deer-vehicle collision sites in Pennsylvania. Journal of Wildlife Management 49(3):769-774.

[87]Feldhamer, G., J. Gates, D. Harman, A. Loranger, and K. Dixon. 1986. Effects of interstate highway fencing on white-tailed deer activity. Journal of Wildlife Management 50(3):497-503.

[88]Morrison-Maierle Environmental Corporation, Biological Assessment, F 5-1(9)6, U.S. Highway 93, Evaro through Polson, 11 October 1996.

[89]Becker, D., D. Lipscomb, and A. Soukkala. 1992. Evaro corridor wildlife use study and mitigation recommendations. U.S. Highway 93 Reconstruction Project.

~~the highway will be divided to provide a 40-foot median to create an opening at the center of the structures to avoid a "tunnel effect" and thereby increase the use by animals crossing the highway.~~

Between about Mileposts 10.0 and ~~10.8~~10.6 (the section with the wildlife overpass~~crossing structures~~), the highway ROW will be bordered with 10-foot high fences located 150 feet from the outer edge of the borrow pit on both sides of the highway. Near the overpass~~two wildlife crossing structures~~, the fence will be aligned and connected with the structure to allow and encourage movement of animals through the overpass~~underpasses~~.

Vegetation outside fences will provide security for animals approaching the underpasses. Tree and shrub plantings that will screen animals from traffic, and will be beneficial where natural vegetation has been removed or is sparse.

Vegetation will be managed between the fences and the highway to provide escape and security cover for animals that become trapped inside of fences, and to provide good visibility near the roadway for both drivers and animals. Dead-end roads leading off the highway will be closed and revegetated.

A management plan and agreement for the Evaro wildlife corridor will be prepared. This plan will include details of land use and vegetation management at and near the structures and management for the entire area so that future rural development does not preclude wildlife movement to and from the structures. Topics which will be covered are: logging, rural homesite development, and road construction and management. A plan, with provision for funding, is also needed for monitoring wildlife usage of the overpass~~structures~~.

Post signs advising motorists of wildlife crossing the highway in the Evaro, Post Creek, Mission Creek, Ninepipe and Ravalli Canyon areas.

Close and revegetate dead-end roads leading off the highway, as part of a joint effort by CSKT, Missoula County and USFWS to develop planning for special management status in the Evaro area.

~~Noise dissipation measures in wildlife underpasses~~

2. **Extended Bridge at Post Creek.** An extended bridge at Post Creek will allow passage of deer and other animals (including grizzly). A 100-foot long bridge to replace the existing 50-foot bridge ~~under~~ is under consideration. This design will span the creek with at least 15 meters of land on either side of the stream and an average height of three meters or higher. A small grade raise of the highway will be needed to provide sufficient vertical clearance.

   Vegetation dominated by shrubs will be established both upstream and downstream of the bridge and, if possible, under the bridge.

3. **Mission Creek.** ~~An open bottom~~ 13-foot culvert for flood-water and fish passage is proposed. A 40- to 75-foot long bridge at Mission Creek was considered, to replace the existing 13-foot wide by eight-foot high culvert. This will include excavation to provide an opening, and raising roadway grade about four feet, to provide three meters of vertical clearance, and about 15 meters of land on either side of stream. This option is not recommended because of the proximity to developed areas in and around St. Ignatius, where benefit to wildlife passage will be limited.

4. **Other areas considered for wildlife crossings.** Other potential wildlife crossing sites were evaluated, including the Jocko River and the area of the Ninepipe National Wildlife Refuge. None of the other sites were identified as desirable for developing special wildlife crossing facilities.

7.12.2.5. Vegetation

Clearing and related construction activities could permanently remove individuals or small groups of plants of special concern near Ninepipe Reservoir and near Kicking Horse Reservoir.

One of the more serious concerns associated with the highway reconstruction entails the creation of habitat suitable for noxious weed colonization. Exposed soils, particularly adjacent to highways, are vulnerable to weed establishment. Off site movement from highway corridors onto adjacent land can result in serious land devaluation and productivity, added operational costs and the potential for environmental degradation through improper herbicide use. The presence of flowing water in the immediate vicinity lends an additional risk to downstream landowners concerned over noxious weed invasion. Seeds and plant fragments can travel great distances in water before resettling in a germinable position.

Mitigation

A survey of ROW ~~of the preferred alternative~~ will be done by a biologist before construction begins. This survey should concentrate on the dry range areas in Ravalli Canyon and Ravalli Hill, the Ninepipe pothole area, and any local remnants of native prairie.

In the event additional sensitive plant surveys are conducted prior to disturbance and population(s) are discovered, appropriate means of mitigating their loss will be initiated. This may include, but not be limited to, transportation to like habitats off site, seed collection and reseeding, preservation of the site if possible, and/or minor realignment. Coordination of activities with CSKT and Montana Natural Heritage Program personnel will assure that efforts to relocate or reestablish populations will have reasonable chance of success.

Weed control associated with construction activities of this nature will be approached in two phases; temporary (construction) and permanent (post-construction). A predisturbance survey and/or review of weed district records will indicate the presence or prior occurrence of weeds in the disturbance corridor. The assumption can be made that a sizable seedbank of weed seeds exists on site if either of the above conditions are met. It is imperative that noxious weeds be prevented from going to seed on exposed soils in light of the potential of one spotted knapweed plant to produce upwards of 2,000 thousand seeds in one season.

Seeds or plant fragments attached to construction equipment or vehicles and placement of contaminated fill or erosion control material are common means of weed seed introduction. ~~Judicious cleaning of equipment and selection of weed seed free materials will be employed.~~ Equipment entering the job site will be inspected to ensure that it is not carrying large amounts of soil or vegetation that may carry noxious weed seeds -- if necessary, the equipment will be cleaned.

Temporary weed control will entail careful monitoring of newly exposed soils and immediate removal of noxious weed plants. ~~Handpulling or hoeing will be employed for scattered plants.~~ Grubbed plants will be collected and disposed of if any flowers have opened. Spot spraying will be utilized if excessive numbers of weeds establish on site. Herbicide applications will be made by a knowledgeable, licensed applicator. Spraying will be timed to achieve maximum efficacy. Spraying is not recommended on topsoil stockpiles or in highly erosive areas. Short residual herbicides will be used to prevent possible phytotoxicity to newly emerged grass seedlings once seeding is conducted. In no case, shall soil sterilants be used.

Control of weeds and weed seeds will be a requirement of the construction contracts. Permanent weed control will be approached through preventive measures. Proper grading, topsoil treatment, seedmix selection and seeding operations will be employed to establish a vigorous cover of competitive, desirable species. Monitoring and removal of even small numbers of individual weeds for two to three years following disturbance will greatly enhance grass stand development.

7.12.3. Arlee Alignments

Alignments 1, 2 and 3 will have similar impacts on fish and wildlife. These impacts will be negligible.

Alignment 4 will have minor effects on fisheries in the Jocko River through construction of a bridge at a point with no existing bridge. Construction impacts will be short-term and will result from increased sedimentation. At the Jocko Spring Creek crossing, an open-bottom concrete box or culvert rather than a bridge will satisfy fish passage needs.

This alignment will have a higher potential than other alternate alignments to affect wildlife through direct mortality caused by vehicle collisions. This alignment will traverse riparian areas interspersed with agricultural land and residential areas, which provide habitat for a variety of birds, small mammals, and deer. Bald eagles wintering along the Jocko River will be displaced from riparian habitat by construction over the Jocko River at an area with little or no existing traffic. This impact will be minor because bald eagles will select suitable habitat at more secure locations along the Jocko River or other ice-free water bodies for perching and foraging.

7.12.4. Ronan Alignments

All alignments will pose similar, negligible impact risks to wildlife. Fish and fish habitat in Ronan Spring Creek will be adversely affected with all alignments as a result of increased sediment levels during construction. These impacts from sediment will be short-term and minor with appropriate mitigation.

Alignment 4 will pose slightly greater impact risks to fish in Ronan Spring Creek. Alignments 1, 2 and 3 will affect habitat that has been degraded by removal of riparian vegetation and urban development. Alignment 4 will affect higher value aquatic and riparian habitat. Sediment levels will be carried downstream to habitat with higher fish populations.

7.12.5. Polson Alignments

A potential impact common to all Polson Alignments is increased animal/vehicle collision. This impact is expected to be low, for the following reasons. ~~Wildlife near Alignment 1 are accustomed to US 93.~~ Widening the highway should not change the species' perceptions of the area. Alignments 2 and 3 are in both agricultural areas and existing rights-of-way. In general, wildlife densities are lower in agricultural areas because of the homogeneous habitat. ~~In addition, wildlife that might occur in these areas are already somewhat accustomed to disturbance.~~ Therefore, Alignments 1, 2, and 3 will not adversely impact wildlife through substantial increases in animal/vehicle collisions.

Although the highway will not impede wildlife movement, extensive development over the long term could present a barrier. Some of the area around Alignment 1 near the city of Polson is presently developed, and development likely will increase with improvement of the highway. Wildlife barriers posed by expected development near Alignment 2, which is mostly undeveloped and Alignment 3, which is presently undeveloped, could have long-term adverse impact on wildlife in the area.

Alignment 1 will have less impact on wildlife than Alignments 2 or 3. The greatest impact to wildlife will be loss of habitat. Lane Configuration A will have the least habitat lost or converted to grass-dominated ROW, and Lane

Configuration D will have the most habitat lost or converted to grass-dominated ROW. The existing habitat generally has low wildlife densities. Approximately two acres of urban habitat will also be impacted. Areas of wetlands will be lost at irrigation canal crossings and the Flathead River. Although some habitat will be lost, no unique or limiting habitats are known in the area, and no substantial adverse impacts to wildlife are expected as a result of the habitat loss along this alignment.

Alignment 2 will have greater impact on wildlife than Alignment 1. Most habitat lost will be agricultural. Lane Configuration A will have the least habitat lost or converted to grass-dominated ROW, and Lane Configuration D will have the most habitat lost or converted to grass-dominated ROW. Some habitat loss will also occur in wetlands at crossings of irrigation canals and the Flathead River. In addition, there will be some loss of urban habitat.

Habitats crossed by this alignment are neither unique or limiting in the area. Bridge placement could displace waterfowl and shorebirds. However, no substantial adverse impacts to wildlife are expected as a result of the habitat loss along this alignment. Mitigation measures necessary will be done through implementing those proposed for the bald eagle.

Alignment 3 impacts are expected to be similar to those for Alignment 2. Lane Configuration A will have the least habitat lost or converted to grass-dominated ROW, and Lane Configuration D will have the most habitat lost or converted to grass-dominated ROW. No urban habitat will be impacted. Areas of wetlands will be impacted at irrigation canal crossings, depressions, and the Flathead River. Mitigation measures are those proposed for the bald eagle.

7.12.6. Cumulative Impacts

Improvement and reconstruction of highways in northwestern Montana will act cumulatively with the proposed action to adversely affect wildlife through vehicle-animal collisions, direct loss of habitat, and displacement from habitat near highways. Highway improvement generally will increase traffic speed, which will increase probability of vehicle-animal collisions; however, mortality risk from increased speed and traffic volume may be offset by increasing motorists' visibility of animals on or near the highway, increasing motorists' opportunity to avoid animals by changing lanes, and through construction of fences or other mitigation measures to reduce impacts to wildlife.

7.13. THREATENED AND ENDANGERED SPECIES

Alternatives for alignments, lane configurations and design options are described in detail in Section 5.1. The MDT Preferred Alternative and the CSKT Preferred Alternative, which consist of combinations of alignments, lane configurations and design options, are described in detail in Sections 5.3 and 5.4.

7.13.1. No Action

No Action will have little or no impact on wildlife habitat that is not currently disturbed or reduced in value as a result of displacement of animals from habitat near the highway. Direct mortality from vehicle collisions will increase as a result of increased traffic levels that will occur with or without the proposed action.

7.13.2. Existing Alignment (Except Arlee, Ronan and Polson)

7.13.2.1. Peregrine Falcon

The proposed action will not affect peregrine falcon nesting sites. The highway, however, passes through the Ninepipe area where peregrine falcons are occasionally present as seasonal migrants. CSKT has initiated a reintroduction program in this area. There is a slight risk to peregrine falcons from vehicle collision, particularly when they are pursuing prey and may not be aware of approaching traffic. In general, peregrine falcons are able to avoid vehicle collisions because of their high mobility and speed.

No mitigation is needed or proposed for peregrine falcon. Raptor-proofing of powerlines, mentioned in Section 7.13.2.2 for the protection of bald eagles, also may benefit the peregrine falcon and other raptors.

7.13.2.2. Bald Eagle

No nesting bald eagles will be affected by the proposed action. The nearest nests are more than a mile from US 93. This will be sufficiently far from construction activity and traffic to have negligible impact on nest and brood rearing. Eagles nesting within one to two miles of US 93 probably have become accustomed to traffic and noise levels which will change little following construction.

Wintering bald eagles will have a low probability of being affected by improvement of the highway; however, potential impacts to bald eagles could result if wintering eagles were attracted to road-killed animals. Eagles feeding on road-killed animals will be vulnerable to collisions with vehicles.

Mitigation

Removal of road-killed animals, as part of normal MDT maintenance operations, from ROW will reduce the potential for bald eagle impacts to negligible levels. ~~MDT will fund CSKT to remove and dispose of road-killed animals.~~

Off-highway perches are not recommended, because adequate raptor perches exist away from the highway.

Raptor-proofing of powerlines is needed.

7.13.2.3. Grizzly Bear

Impacts of highways on grizzly bears include lethal bear-vehicle collisions, habitat modifications, and stress-related behavioral adaptations (such as displacement and habituation to humans). Avoidance and displacement of grizzly

bears from roads have been reported by various researchers.[90] Most studies have been conducted concerning the impacts of secondary roads and trails rather than major highways on grizzly bear displacement. In 1977, Lloyd and Fleck[91] reported that grizzly bears avoided habitat within 0.5 mile of roads in southeastern British Columbia. Similarly, grizzly bears along the Rocky Mountain Front Range in Montana avoided habitat within two miles of automobile roads and four miles of four-wheel drive roads.[92] In 1988, Zager and Jonkel et al.[93] observed that grizzlies in northwestern Montana were more likely to use logged areas if the areas were adjacent to secondary and closed roads rather than near primary roads.

In 1985, McLellan and Mace[94] studied grizzly bears in British Columbia, adjacent to Montana, and found that grizzlies used habitat less if they were 300 feet or less from roads, with bears in remote areas being more sensitive to disturbance than bears habituated to humans. Data from their studies show that a disproportionately high number of bear mortalities occur near roads due to shooting.

In 1983, Aune and Stivers[95] found that increased traffic may substantially reduce available habitat. Data show that habitat as much as 0.6 mile from roads may be used less by grizzlies.

Grizzly bears generally avoid roads regardless of the productivity of adjacent habitats, but may reduce the degree of avoidance of high quality habitats during certain seasons and in years when food supply is limited.[96] In 1989, Aune and Kasworm[97] reported that bears avoided habitats within 1,500 feet of roads during all seasons; however, berry patches were not strongly avoided in fall. Berries are of critical nutritional importance in fall. In 1980, Schallenberger and Jonkel[98] found mean distances of bears from roads decreased in poor food supply years, suggesting that bears compromised security factors when stressed by food shortages.

Security cover adjacent to roads may influence how grizzly bears respond to human activities. In 1989, McLellan and Schackleton[99] never recorded a bear in cover fleeing from an approaching vehicle. Bears exhibited the strongest aversion when they were in direct view of vehicles and away from protective cover.

Responses of grizzly bears to roads may differ with the size of the road and traffic levels. In 1985, Aune and Stivers[100] reported that grizzlies often used jeep trails, occasionally used secondary roads at night, and rarely used heavily traveled primary roads. Seasonal increases in traffic volume in Yellowstone National Park during spring and early-summer resulted in increased avoidance of habitat near roads. In 1984, Brannon[101] reported that bears

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[90]Frederick, G. 1991. Effects of forest roads on grizzly bears, elk, and gray wolves: A literature review. U.S. Department of Agriculture, Forest Service, Kootenai National Forest, Libby, Montana.

[91]Lloyd, K. and S. Fleck. 1977. Some aspects of the ecology of black and grizzly bears in southeastern British Columbia. British Columbia Fish and Wildlife Branch, Victoria.

[92]Schallenberger, A. and C. Jonkel. 1980. Rocky Mountain East Front grizzly studies, 1979. Annual report. University of Montana, Border Grizzly Project, School of Forestry, Missoula, Montana.

[93]Zager, P. and C. Jonkel. 1983. Managing grizzly bear habitat in the northern Rocky Mountains. Journal of Forestry 81(8):524-526.

[94]McLellan, B. and R. Mace. 1985. Behavior of grizzly bears in response to roads, seismic activity and people. Preliminary report. Canadian Grizzly Project, Cranbrook, British Columbia.

[95]Aune, K. and W. Stivers. 1983. Rocky Mountain Front, grizzly bear monitoring and investigation. Montana Department of Fish, Wildlife and Parks, Helena, Montana.

[96]Frederick, G. 1991. Effects of forest roads on grizzly bears, elk, and gray wolves: A literature review. U.S. Department of Agriculture, Forest Service, Kootenai National Forest, Libby, Montana.

[97]Aune, K. and W. Kasworm. 1989. Final report East Front grizzly bear study. Montana Department of Fish, Wildlife and Parks, Helena, Montana.

[98]Schallenberger, A. and C. Jonkel. 1980. Rocky Mountain East Front grizzly studies, 1979. Annual report. University of Montana, Border Grizzly Project, School of Forestry, Missoula, Montana.

[99]McLellan, B. and D. Schackleton. 1989. Immediate reactions of grizzly bears to human activities. Wildlife Society Bulletin 17:269-274.

[100]Aune, K. and T. Stivers. 1983. Rocky Mountain Front, grizzly bear monitoring and investigation. Montana Department of Fish, Wildlife and Parks, Helena, Montana.

[101]Brannon, B. 1984. Influence of roads and developments on grizzly bears in Yellowstone National Park. Interagency Grizzly Bear Study Team, Bozeman, Montana.

were located at the greatest average distance from roads in summer when traffic exceeded 6,000 vehicles per day. Grizzly bears increased their degree of response to vehicles in Alaska when traffic volume and noise increased.[102]

The highway expansion will not affect grizzly bear use of habitat in the wetlands and riparian areas east of Ninepipe National Wildlife Refuge. Important grizzly bear feeding areas are sufficiently distant from the highway to prevent displacement from these lowland habitats.

Grizzly bear habitat in the area may be indirectly affected by development associated with improvement of the highway. However, it is not possible to quantify such impacts without knowledge of where such associated development may or may not occur. With or without highway improvement, the recent pattern of growth and development is expected to continue in the area from Evaro through Polson. Consequently, an improved highway would be a factor that combines with other factors to provide transportation services that support any increase in the rate of human population growth (Section 7.4). Land use planning should greatly reduce potential impacts to grizzly bear habitat potentially resulting from growth.

Both the existing highway with its high traffic volume and an expanded highway will inhibit grizzly bear movement to areas of the Mission Valley west of US 93. Grizzlies will be reluctant to approach and cross a busy highway, particularly since there is little cover to protect bears from direct view as they approach the highway. Displacement of grizzlies from habitat west of US 93 within the Mission Valley may indirectly benefit some ~~the~~ bears by ~~preventing~~reducing human-bear lethal encounters. ~~High levels of human activity and settlement in Mission Valley west of the highway may not be compatible with long-term grizzly bear survival.~~

If grizzly bears were present in the Evaro area, it is likely the expanded highway will displace them from habitats within 0.5 to one mile from the highway. Although the expanded highway will inhibit grizzly bear use of habitat in the vicinity of the highway, it is likely that this displacement will be similar to that caused by the existing highway with its high traffic volume. If grizzly bears were present in the Evaro area and attempted to cross the highway over the traffic lanes, the potential for collision with vehicles will be relatively high because of high levels of traffic.

Mitigation

Mitigating potential impacts to grizzly bears will require that safe passage of bears across the highway be encouraged, particularly in the Evaro area. Underpasses may be useful in allowing bears to safely cross the highway; however, there are little data concerning whether grizzly bears will use an underpass rather than moving over the traffic lanes. It is likely that bears will be encouraged to cross over the highway at points where dense vegetation abuts the highway ROW. Encouraging bears to cross over rather than under the highway will increase the mortality risk to bears. It is questionable whether promoting movement across the highway as a result of maintaining dense stands of vegetation along the roadway will offset the mortality risk of vehicle collision associated with crossing busy traffic lanes. In 1982, Leedy and Adams[103] expressed concern that when a highway bisects habitat occupied by threatened and endangered species, it may be better to maintain wide, closely clipped rights-of-way to discourage animals from getting on the road rather than encourage crossing and increasing mortality.

~~Suggested m~~Mitigation for grizzly bears will be construction of an extended bridge over Post Creek and construction of ~~underpasses and~~ an overpass, along with fencing and related measures, at the Evaro area (Section 7.12.2.6).

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[102]Interagency Grizzly Bear Committee. 1987. Grizzly bear compendium. U.S. Fish and Wildlife Service, Missoula, Montana.

[103]Leedy, D. and L. Adams. 1982. Wildlife considerations in planning and managing highway corridors. Federal Highway Administration FHWA-TS-82-212.

7.13.2.4. Gray Wolf

Information on the response of wolves to roads is mostly limited to radio telemetry studies and wolf track surveys.[104] Wolves often travel in winter on plowed roads with low traffic volumes, but avoid roads in summer. In 1991, Frederick[105] cited data that dispersing and lone wolves (wolves not affiliated closely with a pack) typically travel over larger areas than members of a stable pack and, therefore, are more likely to encounter roads.

Wolves tend to avoid areas with high levels of human activity even though the areas may have high quality habitat and food resources.[106] Although wolves travel through the Evaro area, high levels of human activity undoubtedly discourage wolves from moving through the area and prevent wolves from expanding their home ranges to include the densely settled habitat adjacent to US 93 as permanent habitat.

Mitigation

Mitigation of impacts to gray wolves poses the same conflicts as mitigation of grizzly bear impacts. Although it is desirable to encourage highway crossing to reduce impacts of habitat fragmentation, it is undesirable to increase the risk of mortality by promoting passage over traffic lanes. The same mitigation as proposed for mammals (Section 7.12.2.4) is proposed for wolves.

7.13.3. Arlee and Ronan Alignments

Impacts to threatened and endangered species will be the same as on the existing alignment. No mitigation specific to these alignments is suggested.

7.13.4. Polson Alignments

Along all alignments, potential impacts to bald eagles are associated with construction of a new bridge over the Flathead River. Construction during the winter may displace eagles from their traditional foraging areas along the river.

Limiting the construction of the bridge and related activities to the summer will minimize impacts to bald eagles and other birds that forage along the river during the winter, which is the heaviest period of use.

Alignment 1 is expected to have the lowest impacts to bald eagles. Eagles are presently accustomed to disturbances related to the existing bridge. A slight relocation of the bridge should not disrupt current foraging patterns. Also, preferred foraging areas or perch sites are not crossed by this alignment. All known sites are downstream of Alignment 1.

No mitigation measures will be necessary for this alignment.

Alignment 2 has the highest potential for adverse impacts to bald eagles. The bridge will cross over feeding areas and shallow water perches at gravel bars (Figure 6.13-1) commonly used by four to 12 eagles during the winter for perching, hunting, feeding, and loafing.[107] Placement of a bridge in this area probably will displace these eagles.

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[104]Frederick, G. 1991. Effects of forest roads on grizzly bears, elk, and gray wolves: A literature review. U.S. Department of Agriculture, Forest Service, Kootenai National Forest, Libby, Montana.

[105]Ibid.

[106]Singer, F. 1979. Status and history of timber wolves in Glacier National Park, Montana. In: Klinghammer, E. (ed.), The behavior and ecology of wolves. Garland STPM Press, New York.

[107]Morrison-Maierle; personal communication with Becker. 1993.

Bridge design could include avoidance of gravel bars in pier placement. Bridge design could include avoidance of changes in flow patterns that impact the gravel bars downstream of the bridge. Together, these measures will maximize the potential for retention of the gravel bars.

Development of riparian habitat downstream of the new bridge could also mitigate impacts to bald eagles. The loss of raised perching sites could be replaced by cottonwood plantings or placement of artificial perching structures. Plantings and structures could be located where existing raised perching sites are limited.

In addition to raised perch sites, development of low perching sites ~~will~~could provide additional feeding perches for foraging eagles. This will be done at shallow water sites downstream of the new bridge. Large boulders, snags, or artificial materials could be placed in these areas as low perches. In consideration of safety of boat traffic in the area during the summer, these low perches ~~will~~could be designed to be exposed only during moderate to low flows.

To mitigate cumulative impacts, the acquisition of narrow buffer zones along the river banks is recommended. The buffer zones will offset impacts from potential business and residential development and restricting public access during critical time periods.[108] The size of these zones will depend on topography, and will be determined by local wildlife biologists.

Alignment 3 A new bridge on this alignment is expected to have a moderate impact to eagles. The proposed bridge is not near known shallow water or tree perch sites (Figure 6.13-1). It does, however, cross known foraging areas. A tree used by eagles for perching is about 0.25 mile upstream of the proposed crossing, but is in a developed area and will not be impacted by the bridge.

~~Because the bridge will be in a previously undeveloped and undisturbed section of the river, the extent of impacts to eagles is not known. Buffer zones to protect foraging areas, development of raised perches and shallow water sites, as described in Alignment 2 mitigation measures, will address some potential impacts to eagles at the new bridge site. However, implementation of all or some of these mitigation measures will not ensure that wintering bald eagles will not be displaced.~~

A large wetland/vegetated shallows mosaic occurs immediately upstream of the bridge site for Alignment 3. This site attracts waterfowl and is used occasionally by foraging bald eagles, primarily during winter.[109] Depending on its exact placement, the bridge may traverse the extreme downstream tip of the mosaic. However, existing human use of the site is high, including a private boat dock within the southern tip of the site and a community boat dock immediately downstream of the site. Due to the mimimal direct impact to the site that would be caused by the bridge, the relatively high existing levels of human use and the relatively low existing levels of bald eagle use, impacts to bald eagles resulting from encroachment on the wetland by a new bridge would not be severe, although some displacement would occur.

Construction of the new bridge for Alignment 3 would likely displace eagles which forage in the immediate area. Because eagles often frequent areas close to human activities and habitations, it is likely that some eagles would become habituated to the new bridge and routine associated traffic, and would continue to forage in the area. In a study conducted to assess behavioral responses of wintering bald eagles to human activity, Stalmaster and Newman (1978) found that wintering eagles can become habituated to routine human activities. They concluded that human activities directly on river channels, such as boating and fishing, were most disturbing to eagles if these activities did not regularly occur there.

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[108]Steenhoff, K. 1993. Raptor Biologist. Personal Communication. BIM Raptor Research and Technical Assistance Center, Boise, Idaho.
[109]Becker pers. comm., 1995

If construction of the new bridge for Alignment 3 were limited to the traditional construction, impacts to birds foraging along the river during winter (the heaviest period of use) would be further reduced; however, some displacement would likely still occur.

7.13.5. Cumulative Impacts

Reconstruction and improvement of highways that traverse grizzly bear and wolf habitat, in the Northern Continental Divide Ecosystem, will act cumulatively with the proposed action to increase mortality risk to grizzly bears and wolves; inhibit movement between adjacent parcels of habitat divided by highways; and displace bears and wolves from habitat near highways.

Improvement of MT 83 through the Swan Valley, US 2 between East and West Glacier, and MT 200 in the vicinity of Rogers Pass, will affect wolf and grizzly bear movement between habitat bisected by the highways. Widening traffic lanes and removal of vegetation from ROW likely will inhibit movement of some grizzly bears and wolves across the highway. Increased traffic volume and vehicle speed, resulting from highway improvements, will increase the risk of mortality due to vehicle-animal collisions; however, highway improvements would also increase motorists visibility of animals on or near the highway and allow avoidance of collisions. Widening highways would also provide a greater opportunity for drivers to change lanes and avoid animals.

In the Swan Valley, upgrading of MT 83 has been designed to minimize impacts to grizzly bears through habitat fragmentation by identifying and maintaining zones where grizzly bears (and other wildlife species) can approach and cross the traffic lanes with relatively high security. These zones are known as habitat "linkage zones" and have been established in areas where vegetation and topography are conducive to grizzly bear use of habitat near the highway.[110]

7.13.6. Determination of Effect

It has been determined the proposed action is not likely to adversely affect the threatened grizzly bear, the endangered gray wolf, the endangered peregrine falcon or the threatened bald eagle.[111] The US Fish and Wildlife Service has concurred with this determination.[112]

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[110]Montana Department of Transportation. 1993

[111]Morrison-Maierle Environmental Corporation, Biological Assessment, F 5-1(9)6, U.S. Highway 93, Evaro - Polson, 11 October 1995.

[112]McMaster, Kemper M., Field Supervisor, Montana Field Office, Ecological Services, Fish and Wildlife Service, United States Department of the Interior, letter dated 07 December 1995. A copy of this letter is included in Section 2.2., comment A-199 of Volume II of the final EIS.

7.14. CULTURAL RESOURCES

Alternatives for alignments, lane configurations and design options are described in detail in Section 5.1. The MDT Preferred Alternative and the CSKT Preferred Alternative, which consist of combinations of alignments, lane configurations and design options, are described in detail in Sections 5.3 and 5.4.

7.14.1. Impacts Common to All Alternatives

Potential adverse effects associated with the proposed action to eligible, formally recorded cultural resource properties could include physical, visual and auditory effects. Whether or not an effect is considered to be an "adverse effect" will depend upon the character of significance of specific eligible resources. General guidelines for determining adverse effect are provided in the ACHP criteria of Adverse Effect as defined in 36 Code of Federal Regulations (CFR) 800.3:

Adverse effects on formally recorded National Register of Historic Places (NRHP) or eligible properties may occur under conditions which include but are not limited to:

1. Destruction or alteration of all or part of a property;
2. Isolation from or alteration of the property's ~~surrounding environment~~setting;
3. Introduction of visual, audible, or atmospheric elements that are out of character with the property or alter its setting;
4. Neglect of a property resulting in its deterioration or destruction;
5. Transfer or sale of a property without adequate conditions or restrictions regarding preservation, maintenance, or use.

Of the five listed conditions, the first three are most applicable to the proposed action. Physical effects may include ground disturbing construction activities that result in the alteration of resources that contribute to the eligibility of a property. With regard to historical properties with standing buildings, this could include the destruction and/or removal of resources associated with the property, including buildings, structures and landscaping elements. Traditional cultural properties are also susceptible to physical effect, since the character of the setting may be primary to the eligibility of the property. Archaeological properties (both historic and prehistoric) may be adversely affected by ground disturbing activities, if the depositional integrity of artifacts is disturbed.

Visual effects associated with the proposed action may be considered "adverse" if they alter the setting of an eligible property by the introduction of incompatible elements of the relationship of one eligible property to another. For example, the construction of a roadway that is of a much larger scale or at a different grade than the existing roadway could alter the setting of a property in a manner that impacts the qualities that contribute to its significance. In general, the impact of visual effect is considered only in relation to cultural resource properties for which integrity of setting is an important integral component of eligibility. These types of properties are usually those eligible under NRHP criteria A or B. Cultural resource properties eligible only for their architectural value (criterion C) or their information potential (Criterion D) tend not to be susceptible to, or adversely affected by, visual effects. With regard to the proposed action, rural homesteads and traditional cultural properties are the property types that may be susceptible to visual effects.

Like visual effect, audible effect associated with the proposed action may be considered adverse if it impacts the qualities of significance of an eligible property. With regard to the proposed action, auditory effects may include an increase in the overall traffic noise level. Traditional cultural properties are particularly susceptible to auditory effects, since the addition of traffic noise, or an increase in traffic noise, may impact the sense of isolation and permanency of the site. In some instances, the continued use of a site will depend upon the retention of a private natural setting.

With regard to formally recorded cultural resource properties, the long-term effects may be difficult to assess and document. Generally speaking, an improved highway has the potential to contribute to changes in land use, which in turn likely will affect previously unrecorded cultural resource properties. Development such as subdivision of lands, and the improvement or construction of additional secondary road systems, have the potential to create additional physical, visual and auditory effects that could impact significant cultural resources. However, it is likely the case that many cultural resources will go unrecorded since this type of development may fall outside the auspices of federal cultural resource compliance legislation. For these reasons, it will be difficult to predict and document cumulative long-term effect, and to determine its impact to important cultural resources.

A more clearly discernable long-term effect will be the effect on the traditional cultural values of the Salish and Kootenai people. Although the construction of the proposed action in and of itself may not substantially alter the existing road corridor, the long-term effects of improving the transportation system could generate indirect effects that threaten the "cultural environment"--those qualities that are essential to the preservation of Native American culture and spiritual values.

One of the primary concerns is that an improved highway between the Mission Valley and the city of Missoula will result in the former becoming an "overwhelmingly non-Indian suburbia."[113] Improved access will make commuting between the Mission Valley and Missoula more attractive to current "city-dwellers," who want to move to a more rural setting. This in turn may affect the sense of Native American "community" which currently exists in some areas of the reservation. (Sections 6.4 and 7.4)

The pattern of subdividing agricultural lands (which already is underway), has the potential not only to "fill up" currently open lands, but to destroy or to make inaccessible, areas that contain natural resources of cultural significance to the Salish and Kootenai people. The elimination of plant gathering areas, the disruption of animal migration routes, and the reduction or elimination of some species of reptiles, birds, mammals, fish and plants from the reservation--all have the potential to adversely affect the natural and thus the cultural environment. The Flathead and Kootenai cultural committees fear that construction of an improved transportation corridor within the reservation has the potential to bring yet another segment of reservation land under national and regional scrutiny and regulatory control.

As discussed in Section 7.12, impacts to fish and wildlife will occur through either loss of habitat, or by direct mortality resulting from vehicle collisions. The current highway alignment bisects several wildlife corridors and results in relatively high mortality rates among some species of animals (notably turtles in the vicinity of the Ninepipe Wildlife Refuge). The extent of this impact is not limited to the direct effect to fish and wildlife populations; it also impacts traditional Salish and Kootenai cultural values, which, as stated previously, are predicated upon the primary relationship between people and natural ecosystems. When fish and wildlife populations are reduced or displaced, the well-being of the tribal culture also is affected. The alternative that requires the least disturbance to fish and wildlife habitat would be preferred.

The effects of increased noise levels on cultural values may be felt at a variety of levels. There is the cumulative effect that is felt by the general population, as they go about their daily life and find that the quality of their environment has been degraded by new or amplified noise. This degradation may be realized in a number of ways: By noticing a change in environmental systems due to noise-related impacts (e.g., the abandonment of nesting sites, etc.); or by the realization that the level of traffic noise has increased so that it is heard from a greater distance, at different times of the day, or at different seasons of the year.

Specific cultural practices may be directly affected if Salish or Kootenai people are forced to abandon the sites where these activities occur. As discussed in Section 6.14.3, the use of an area for these types of purposes may be

[113]Letter from Flathead Culture Committee to Mr. Michael T. Pablo, Chairman of the Confederated Salish and Kootenai Tribes. June 4, 1992, p.5.

dependent upon the conditions of purity, privacy, isolation and permanency of the site. Pollution of any kind, including intrusive noise, may render a site unusable.

As with impact resulting from an increase in noise level, lowering of water and air quality standards could affect the cultural environment of the reservation (as well as the health of its residents), by further degrading the natural environment.

Mitigation

When adverse impacts to NRHP eligible cultural resource properties cannot be avoided, property specific mitigation plans have been developed which address the qualities of significance inherent in the eligible property. Mitigation plans have been developed and approved within the context of an MOA for each site between the sponsoring federal agency (in this case FHWA and its representative MDT) and MSHPO. ACHP is also party to each of the MOAs. These mitigation plans and MOAs are discussed, for each site where direct use cannot be avoided, in the Section 4(f) Evaluation in Chapter 12.

Mitigation of adverse effects to traditional cultural sites may be more difficult. In order to avoid as many cultural sites as possible, MDT and CSKT will consider methods to use the Tribes' cultural clearance permit to enhance consultation during the design and construction process.

With regard to specific culturally significant areas, avoidance of impact may be achieved through a coordinated consultation process between design engineers and representatives of the Flathead and Kootenai culture committees. Coordination with representatives of the culture committees will occur prior to the beginning of each design project and continue through the construction phase of the project.

Coordination will include a preliminary field visit during which the design engineering team will identify design options (general routing, lane widths, etc.) to representatives of the Flathead and Kootenai culture committees. The culture committees will present the results of this preliminary on-site meeting to their tribal elders.

A second on-site meeting will be held, during which representatives of the culture committees will provide information from the elders to the engineering design team. The process of consultation will continue through the construction period and may include additional on-site visits. Culture committee members may wish to monitor the project area during the construction phase -- this will be coordinated directly with the construction contractor.

~~Thus far the Flathead and Kootenai cultural committees have not identified any mitigation methods specific to traditional cultural properties other than avoidance. The Flathead Cultural Committee has worked directly with transportation engineers to avoid culturally sensitive properties.~~

Mitigation of long-term effects to traditional values of the Salish and Kootenai Tribes will be addressed with two types of action:

1. Using traditional Native American and English languages for highway signs:
   - Major highway signs entering and leaving the Flathead Indian Reservation
   - Community signs located on highway right-of-way for all major communities located on the Flathead Indian Reservation
2. Establishment of two visitor information centers to be located and designed in cooperation with tribal architects and the Flathead and Kootenai culture committees.

7.14.2. No Action

No action will have no effect on NRHP eligible cultural resource properties or the traditional (confidential) cultural properties located within or near the proposed action.

7.14.3. Impacts at Eligible Sites

Table 7.14-1 indicates the effects of the proposed action, at each of the NRHP eligible sites (Table 6.14-1), as determined by MDT with the concurrence of MSHPO.

Lane Configuration D has not received substantial public or agency support and, in many cases, will cause substantially greater environmental impacts and will require substantially more use of Section 4(f) lands than Lane Configurations A, B or C. It has not been evaluated for impacts to NRHP eligible sites.

Lane Configurations B, C and D on Alignment 1 in the city of Polson have not been evaluated for impacts to NRHP eligible sites because they are not part of the MDT Preferred Alternative in this area (Section 5.3).

As indicated on Table 7.14-1, the following sites will be adversely impacted by the proposed action.

Ravalli School (24LA131)

Because concrete curb and gutter is planned through Ravalli, ROW requirements can be reduced and the ROW boundary will move only five or 10 feet closer to the site with Lane Configurations B or C, which will result in the direct use of 0.02 and 0.03 acres -- no new ROW or direct use of the site will be required with Lane Configuration A. Lane Configuration A will not move highway traffic closer to the site while Lane Configurations B or C will place highway traffic approximately 43 or 48 feet closer to the site.

Although the Ravalli School building will not be directly affected by the construction of a new roadway, MDT, with the concurrence of MSHPO, has determined the site will be adversely affected by impacts to its setting. Impacts, avoidance alternatives and measures to minimize harm to this site are discussed in the Section 4(f) Evaluation in Chapter 12.

Northern Pacific Railroad, Dixon-Polson Branchline (24LA89)

It has been determined by MDT and MSHPO that this property will be adversely affected by the proposed action. Approximately 1,800 linear feet of railline will be obliterated. About 1,750 feet of new railline will be reconstructed about 100 to 150 feet from the existing line. If Alignment 2 or 3 is constructed, a new crossing of the railroad will be required. Construction of Alignment 2 or 3 will remove highway traffic from the existing alignment (and away from the railroad), but a substantial amount will remain.

Impacts, avoidance alternatives and measures to minimize harm to this site are discussed in the Section 4(f) Evaluation in Chapter 12.

Table 7.14-1 Effect on NRHP Eligible Properties

Number	Description	Milepost Location	Determination of Effect
24MO316	Evaro School	6.8	No Effect
24MO319 24LA199	Northern Pacific Railroad Grade	Crossing at 9.7, parallel from 6.5 to 7.3, 13.4 to 15.4, and 19.1 to 27.1	No Effect on 24MO319; No Adverse Effect on 24LA199
24LA131	Ravalli School	27.0	Adverse Effect
24LA133	Salzman Residence	27.2	No Adverse Effect
24LA158	Woods Agricultural Complex	38.5	No Adverse Effect
24LA159	Jenkins/Rungborg Farmstead	39.2	No Effect
24LA161	Anderson Farmstead - Barn	45.2	No Effect
24LA211	Lake Flour Mill and Granary	47.1, Alignment 4	No Effect
24LA89	Northern Pacific Railroad, Dixon-Polson Branchline	56.6 to 59.5	Adverse Effect
24LA167	Casey Dentist Office	61.0	No Effect
24LA177	Faunce House	60.6	No Effect
24LA197	Paul House	59.8	No Effect
24LA188	Tiddy House	60.3	No Effect
24LA175	Anderson Cottage	60.8	No Effect
24LA181	Poage House	60.5	No Effect
24LA204	Caffrey Place - Barn, Feature 8	59.1, Alignments 2 and 3 (2.6 Miles west of US 93)	No Effect

Morrison-Maierle and Carter Burgess. 1994.

7.15. PARKS AND RECREATION

Alternatives for alignments, lane configurations and design options are described in detail in Section 5.1. The MDT Preferred Alternative and the CSKT Preferred Alternative, which consist of combinations of alignments, lane configurations and design options, are described in detail in Sections 5.3 and 5.4.

7.15.1. Impacts Common To All Alternatives

Population growth and growth of tourism in the area of the proposed action and throughout western Montana will continue to increase public use of parks and recreation areas with all alignments and lane configurations, including No Action. Increasing traffic, with more noise and visual distraction, will encroach on areas used for recreation along the highway. Impacts to parks, recreation areas and wildlife refuges are discussed in further detail in the final~~draft~~ Section 4(f) evaluation in Chapter 12.

7.15.2. Existing Alignment (Except Arlee, Ronan and Polson)

Highway improvement will provide an opportunity to improve access to parks, recreation areas and wildlife and waterfowl refuges. Most of the nine scenic/historic turnouts adjacent to the highway will be perpetuated and will not be reduced in size by any of the lane configurations.

Improved access may cause an increase in public use of parks and recreation areas. In some cases, increased use may reduce the quality of the recreation experience.

Lane Configurations A, B and C will require land from the National Bison Range visitor center, which is operated by CSKT and is located on the south side of US 93 on Ravalli Hill. The Fort Connah Historic turnout near Milepost 38.8 north of Post Creek is on a steeper grade which adversely affects safety and traffic flow as recreational vehicles or trucks enter or leave it. It may be desirable to relocate this turnout. A new location should also be considered for the turnout and picnic area south of Ronan near Milepost 44; much of its area will be converted to highway ROW with Lane Configuration B, C or D, and the area also has a high water table that prohibits operation of sewage disposal facilities. Other turnouts may be constructed, as part of highway improvement projects, where desirable and appropriate and where they can be constructed without adversely affecting safety, traffic flow and the environment.

Lane Configurations B and C will require land from the National Bison Range, which is operated by the U.S. Fish and Wildlife Service (USFWS). Lane Configurations A, B and C will require land from the Ninepipe National Wildlife Refuge, which is owned by CSKT and managed by USFWS and from the Ninepipe Wildlife Management Area, which is operated by the Montana Department of Fish, Wildlife and Parks (MDFWP). None of the lane configurations, including No Action, will have direct impact on either the fishing access site or the wildlife management viewing area, which are located near Ninepipe Reservoir. Public use will not be disrupted for any of the parks, recreation areas and wildlife and waterfowl refuges.

Lane Configurations A, B and C will require land from the Kicking Horse Waterfowl Production Area (WPA), and the Duck Haven WPA. Public use will not be disrupted for the WPAs, which are operated by USFWS.

There will be no direct impact to the ballfield at St. Ignatius with any of the lane configurations, including No Action. All lane configurations may reduce the size of existing informal recreation sites by encroaching in areas with natural settings adjacent to the highway. Lane Configurations B, C and D will place traffic, with more noise and visual distraction, closer to areas used for recreation along the highway, but public use will not be disrupted if access is perpetuated to these sites. (Appendix A, aerial photographs and maps)

7.15.3. Arlee Alignments

Highway improvement will provide an opportunity to improve access to parks and recreation sites.

Alignment 1, with Lane Configurations B and C, will place traffic, with more noise and visual distraction, closer to the community park, but public use will not be disrupted for the park. Lane Configuration C will require a small part of current park land.

Alignment 2, with all lane configurations, will divert through traffic away from the existing alignment and reduce traffic near the community park. Alignment 2 will require local residents to cross the highway for fishing and swimming at Finley Creek.

Alignment 3, with all lane configurations, will place traffic, with more noise and visual distraction, closer to the powwow and rodeo grounds, elementary and junior high school playgrounds, the high school athletic field and ballfield, a community ballfield and the Jocko River Trout Hatchery.

Alignment 3 will separate the schools from the hatchery and will eliminate the use of hatchery land, for athletic activities and science education studies and observation, by the schools. The schools and MDFWP consider this a substantial adverse impact and are opposed to Alignment 3 for that reason and others.[114]

Alignment 4, with all lane configurations, will require a new crossing of the Jocko River and disrupt the natural setting used for recreation.

7.15.4. Ronan Alignments

Highway improvement will provide an opportunity to improve access to parks and recreation sites.

Alignment 1, with Lane Configurations B and C, will place traffic, with more noise and visual distraction, closer to the ballfield on the northern edge of Ronan. Public use will not be disrupted for the ballfield.

With Lane Configuration A, Alignment 2, the one-way couplet, will require land from the high school athletic field and the city park on First Avenue Southwest. It will place traffic closer to the high school athletic field, and it will introduce highway traffic, with noise and visual distraction, into a residential area. Public use will be disrupted for the athletic field and city park.

Alignments 3 and 4, with all lane configurations, will place traffic, with more noise and visual distraction, closer to the ballfield on the western edge of Ronan. With Alignment 4, Lane Configurations A, B and C will require land from the ballfield on the west edge of Ronan. Alignment 4 will disrupt public use of the ballfield.

7.15.5. Polson Alignments

Highway improvement will provide an opportunity to improve access to parks and recreation sites.

With Alignment 1, and Lane Configuration B and C, land, including some mature trees, will be converted to ROW along the edge of Ducharme Park, while the highway will encroach slightly, with more noise and visual distraction, on land along the edge of the golf course and Lions Park.

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[114]Crane, Gayle, Superintendent, Joint School District No. 8, letter dated 28 March 1994 and Ron Snyder, Montana Department of Fish, Wildlife and Parks, letter dated 24 March 1994.

A portion of the Seventh Avenue ballfield, including part of one ball diamond, will be converted to ROW if Alignment 2 is constructed.

Alignment 3 will not affect parks and recreation land.

Mitigation

ROW will be acquired only as required to construct the highway improvements in areas with land used for parks, recreation areas and wildlife and waterfowl refuges. Where direct impact occurs, alignments may be shifted away from the site. Where severe restrictions exist, where substantial environmental impacts may occur, and where safety standards are not compromised, the width of total ROW may be reduced in some areas.

7.15.6. Section 4(f) and Section 6(f) Properties

Chapter 12 discusses impacts for parks, recreation areas and wildlife and waterfowl refuges that are subject to Section 4(f) of the 1966 U.S. Department of Transportation Act, 49 U.S.C. 303 and Section 6(f) of the Land and Water Conservation Fund Act.

7.16. HAZARDOUS MATERIALS

Alternatives for alignments, lane configurations and design options are described in detail in Section 5.1. The MDT Preferred Alternative and the CSKT Preferred Alternative, which consist of combinations of alignments, lane configurations and design options, are described in detail in Sections 5.3 and 5.4.

7.16.1. No Action

Existing Hazardous Material Sites

As indicated on Table 6.16-1, various potential hazardous material sites exist within or adjacent to the ROW of the existing highway. With No Action, these sites will remain as they are. No substantial highway construction will occur that will alter the sites. No contaminated soil will be disturbed or removed. A Phase II hazardous materials assessment will not be conducted so sites of concern will not be further defined or evaluated and removal or mitigation plans will not be completed and implemented.

Potential for Highway Related Contamination

With No Action, safety on the existing highway will not be substantially improved so the potential for additional highway and transportation related accidents or spills will continue to exist. As traffic volumes increase, the number of hazardous material transport trips also will increase; safety will further deteriorate; and the potential for hazardous material related accidents and spills will increase.

7.16.2. Existing Alignment (Outside Arlee, Ronan and Polson)

Existing Hazardous Material Sites

~~After the preferred alternative has been selected, a~~A Phase II investigation will be conducted in the areas described in Table 6.16-1 that are ranked as high and moderate and that may be affected by the proposed action. A Phase II hazardous materials assessment targets specific sources and usually involves field sampling and laboratory analysis of the soil and/or water to determine the nature and extent of any contamination encountered. Any further investigation or cleanup often involves identification of a potentially responsible party and any additional work becomes the responsibility of that party.

Most of the highway construction in potentially contaminated areas will occur on flatter land in and around communities. Excavation will be shallow, will not be extensive and should not affect or require the removal of contaminated soils.

Because construction and ROW widths increase with Lane Configurations A, B, C and D, respectively, impacts on existing hazardous waste sites also will increase.

Some beneficial impacts may occur when removal or remediation is completed on new highway ROW for existing contaminated sites that otherwise may not have been corrected.

Potential for Highway Related Contamination

The potential for highway related accidents involving the transport of hazardous materials will decrease with the construction of any of the lane configurations because, as indicated in Section 6.1, alignments, grades, shoulder widths and other geometric design features will be improved to meet current standards. The improvements will improve safety for all vehicles, including vehicles transporting hazardous materials, and decrease the likelihood of accidents or spills.

Lane Configurations B, C or D will further improve safety and decrease the potential for hazardous materials incidents because they will be wider highways with more space for larger vehicles to maneuver.

Lane Configuration D will have added safety features related to the wider, unpaved center median which will effectively separate opposing traffic lanes and virtually eliminate head-on collisions.

Mitigation

In areas where new ROW must be acquired, negotiations and agreements between the owner and MDT will ensure that necessary removal or other required remediation work will be completed, by the parties determined responsible, before construction occurs.

Where removal of contaminated soil is required, it will be disposed of in an approved manner and location.

7.16.3. Arlee, Ronan and Polson Alignments

Existing Hazardous Material Sites

As indicated on Table 6.16-1 and as summarized in Table 7.16-1, most potential hazardous material sites ranked moderate to high are located on Alignment 1 in the Arlee, Ronan and Polson areas.

Potential for Highway Related Contamination

Because of the proximity of residences, schools and businesses, the potential for human injury related to hazardous materials spills or accidents is greater as the highway passes through the communities of Arlee, Ronan and Polson.

Table 7.16-1 Summary of Potential Hazardous Material Sites

Number of Sites Ranked Moderate to High				
Location	Alignment 1 (Existing Alignment)	Alignment 2	Alignment 3	Alignment 4
Arlee	9	None	None	None
Ronan	9	15	3	3
Polson	22	3	1	--

Chen-Northern, Inc., Phase I Hazardous Material Assessment, U.S. Highway 93 Right-of-Way Corridor; Evaro to Polson, February 1993 and Chen-Northern, Inc., Phase I Hazardous Material Assessment, U.S. Highway 93 Polson Bypass Study, June 1993.

If Lane Configuration B or C is constructed through these communities, the hazard will increase because traffic lanes will be placed closer to homes and businesses. This may be offset by the wider roadway provided by a four-lane highway and resulting fewer head-on and rear-end collisions and greater maneuverability to avoid accidents.

Alignments 2, 3 and 4 through Arlee will move highway traffic out of the most populated area of the town and therefore away from areas of concentrated human activity. Alignment 3, however, will place the highway closer to the Arlee schools on the east edge of the town.

Alignment 2 in Ronan will place traffic in a residential area that is currently not exposed to highway traffic with related potential for hazardous materials spills and resulting potential contamination and human injury.

Alignments 3 and 4 through Ronan and Alignments 2 and 3 through Polson will move highway traffic out of the most populated area of the town and therefore away from areas of concentrated human activity.

Mitigation

Mitigation will be as described in Section 7.16.2 for Alignment 1, the existing alignment outside Arlee, Ronan and Polson.

7.17. VISUAL

Alternatives for alignments, lane configurations and design options are described in detail in Section 5.1. The MDT Preferred Alternative and the CSKT Preferred Alternative, which consist of combinations of alignments, lane configurations and design options, are described in detail in Sections 5.3 and 5.4.

A visual impact assessment has been completed for the proposed action.[115] The following is a summary of impacts and mitigation measures identified.

7.17.1. Visual Impacts Common to All Alternatives

The growth of traffic on US 93 in the Evaro Canyon, the Jocko Valley, Ravalli Canyon and the Mission Valley landscape units with all alignment and lane configuration alternatives, including No Action, will increase demand for highway related services. General visual quality will deteriorate if there is a proliferation of outdoor advertising or more strip development and sprawl along the highway. Foreground vegetation and landforms will be destroyed in the development process.

Mitigation

Visual quality will be highest if alignment and lane configuration alternatives vary the roadway to accommodate unique characteristics of existing land cover and landforms. Access should be limited to locations now in use to insure that higher future traffic volume will not result in development sprawl. This will cause visual fragmentation, which will confuse situations for travelers. Visual quality will be lost in the foreground view.

The following mitigation or visual quality management measures should be considered for each section of the highway. The relative importance of each measure in managing (protecting, conserving, enhancing or mitigating) visual quality in specific landscape units depends on the unique resources, patterns and character of each landscape unit.

View Sequences

Visual quality relates to specific views, as well as the order or sequence as they are experienced. The view sequence of each landscape unit has been assessed and recommendations developed. It is important to frame or preserve desirable views, buffer visual encroachments, and redirect, focus or enhance views to provide diversity and add interest to the view sequence.

Vegetation

Normal MDT practice for all highway construction includes placing topsoil on newly constructed slopes and planting, fertilizing and maintaining newly seeded areas until vegetation is established. MDT uses grasses and shrubs that are native to the area and will establish themselves and survive without long-term irrigation. Preservation and enhancement of vegetation includes reclamation seeding to provide landcover, reduce unsightly erosion and visually integrate the highway into the visual environment. Other potential landscaping items that can be completed, if funding and maintenance commitments are available, may include:

- Revegetation with woody plants is appropriate where existing buffers between conflicting land uses are destroyed or important vegetation patterns are disturbed, such as along drainages and forested corridors. Preservation of existing vegetation will retain the character and composition of the

[115]Fischer & Associates, Visual Impact Assessment, U.S. Highway 93, Evaro to Polson, March 1993.

landscape and minimize the perception of encroachment by providing visual separation of the highway and development.

- Retaining existing vegetation will provide foreground and middle ground interest, and may provide drivers with alignment clues, particularly when located along curves. Selective clearing will occasionally increase opportunity for visual access to unique visual resources. Care must be taken to avoid adversely altering views of the road.

- Vegetative screens may be introduced to mitigate the impact of man-made encroachments, particularly unsightly development located on curves and the numerous substations, gravel pits and highway maintenance facilities located along this route.

- Urban planting may contribute to overall image enhancement of communities and help delineate special districts. To be effective, plantings must be maintained and appropriate sized species and forms must be selected to be compatible with the community streetscape. Maintenance of ROW vegetation to control noxious weeds and maintain appropriate cover will be important to visual quality throughout the area.

Landforms

Generally, curvilinear alignments will visually integrate best into areas of steep topography and provide more visual interest and diversity to the route. When feasible, the road should wrap around landforms rather than cut through them. Because of the restricted ROW and, in many cases, substantial environmental impacts that may occur, substantial adjustments to provide curvilinear alignments strictly for visual quality is often not practical or desirable.

Modifications to standard sections, for the purpose of narrowing the width of the standard cross section solely to improve visual quality, is generally not appropriate because highway safety and operation will be adversely affected., ~~may be appropriate in areas where important resources will be disturbed.~~ While generally not recommended from a visual standpoint, the use of structures such as bridges, barriers, retaining walls and guardrail may be desirable if use substantially reduces the amount of disturbance to landforms.

Where disturbance of landforms is unavoidable, the feasibility and effectiveness of slope flattening, rounding, rock fracturing, picking of disturbed faces and reclamation should be assessed. When practical, the road should be designed to minimize disturbance to west and south facing slopes because they are more difficult to reclaim.

Variable slope configurations and landform modifications may occasionally be undertaken to enhance view sequences or eliminate unnatural looking remnants of landforms. Indirect benefits will be the creation of moisture pockets facilitating the establishment of native vegetation.

Water

Designing roads should respond and relate to the visual aspects of surface water features. Where practical, vegetated drainages should be bridged rather than filled to minimize disruption to important lines and avoid creating unnatural looking fills. Where bridges are impractical and preservation of existing vegetation will not be an issue, culverts should be lengthened to avoid the need for guardrail and leave more natural looking landforms.

Floodplains should be crossed at locations as narrow as possible, and they should be bridged rather than filled to preserve the natural appearance of the riparian habitat. Visual access to water amenities should be enhanced through sensitive alignments and design details which permit visual access to the resource.

Alignment

The horizontal and vertical alignments of highways affect the quality of views from and of the road. Assuming safety design criteria can be met, roads conforming to natural grades and forms will be more visually appealing than roads which interface, or connect, abruptly with landforms and landcover.

Roadside Development

Generally the existing facilities along US 93 are too close to the road and sited in less than optimum locations. To the extent practical, new sites should be selected and existing facilities upgraded to provide multiple benefits including, but not limited to, resource identification and orientation, recreation, landscape reclamation, community identification, habitat preservation and resource enhancement.

Visual quality, particularly in the valleys, is negatively impacted by signage, billboards, fencing, overhead utilities and power poles. To the extent practical, the roadway corridor should be protected from these encroachments.

Highway Structures and Appurtenances

Highway construction involves use of structures that often are visual encroachments requiring some degree of mitigation. Structures include bridges, guardrails, culverts, concrete median barriers, wildlife and livestock crossings, retaining structures, traffic signals, curb and gutter, curbed median, wildlife fencing and fencing.

Visual quality will benefit from sensitive detailing and siting. Occasionally structures may be introduced to protect visual resources. Refer to the discussion of visual impacts with design options in Section 7.17.7 for more information about the visual impacts of structures.

Land Use and Development

Land use contributes to the overall character and visual quality of views from and of the road. The visual impacts of land use will be greater in valleys than canyons because of the openness and length of views.

To protect scenic resources, MDT will coordinate access management with local governing agencies. ~~in association with MDT, should undertake comprehensive land use planning studies to address visual quality of future development along highway corridors.~~ Planning should address conservation and preservation of scenic qualities using land use planning and regulation~~zoning~~, access control, development guidelines, signage ordinances (including removal of billboards and signs) and scenic and conservation easements.

Access Management

Access points should be controlled and consolidated, and where space permits, frontage roads should be developed. Additional ROW should be acquired and access control~~development standards~~ should be adopted by MDT ~~and local governing agencies~~ to provide generous setbacks and insure visual compatibility between the highway and developed areas.[116]

Design details used to manage access include access control easements, curbs, consolidated access and frontage roads.

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[116]Condemnation of land under eminent domain will not be a method used to preserve an undeveloped corridor for an alternative alignment of the highway.

Community Interface

The visual connection, or interface, between the highway and communities may be enhanced to improve the image and provide opportunities for travelers to enjoy and be oriented to natural and cultural resources. Image enhancement and gateway concepts for individual communities require coordination of highway design with existing patterns and character.

7.17.2. No Action

With No Action, existing problems in visual quality will worsen with higher traffic volume that interrupts views and reduces visual connectedness. Visual quality in the foreground will deteriorate and enjoyment of scenic background views will be diminished. Without control of access, approaches to the highway will increase, creating more hazardous driving conditions that demand constant driver attention. Drivers will have less time to notice distant scenic views.

Continued population growth will result in residential, commercial and industrial development that diminishes visual quality along the highway. Views of and from US 93 will continue to deteriorate.

Increased traffic congestion will result in greater visual separation (the degree to which two sides of the road are perceived to be related) through communities.

7.17.3. Existing Alignment (Except Arlee, Ronan, and Polson)

Visual quality impacts related to lane configurations (Figure 5.1-4) will be associated with road section width, design flexibility and visual load/capacity as it affects driver attention requirements and consequent ability to enjoy the scenic setting.

Lane Configuration A (two-lane highway) will have a pavement width of 40 feet compared with the existing pavement widths of 32 to 40 feet. This will result in only minor changes to the visual environment. The roadway will be narrower and most easily designed to match existing conditions, resulting in less change. Where passing and designated left-turn bays are added, and road width increases, the result will be greater negative impacts on landforms and landcover.

Lane Configuration B (four-lane highway: 64-feet wide~~, or 68 feet wide if the four foot painted center median is used~~) will be wider than Lane Configuration A and further reduce visual quality for all viewers. Its greater width will be more difficult to match existing conditions. Lack of left-turn bays will maintain an existing hazard, diverting travelers' attention from scenic views. Two lanes of traffic in each direction will provide more visual openings, increasing visual access to surroundings, particularly along curvilinear alignments. Lane Configuration B will be more comfortable to drive than a two-lane highway, and drivers will be more able to view the scenery. ROW purchase will result in relocation of fences and utilities to be relocated which will improve the visual appearance of the highway.

The width of Lane Configuration C (four-lane highway: 78 feet) will result in slightly lower visual quality than Lane Configuration B. The continuous two-way left-turn center median will, however, create a generally safer left-turn movement, resulting in greater driver comfort and opportunity to enjoy views. Other beneficial impacts described above for Lane Configuration B will also occur with Lane Configuration C.

The width of Lane Configuration D, from outside edge of pavement to outside edge of pavement, including the median, will be at least 104 feet. The greater width will result in lower visual quality than Lane Configurations B and C. The unpaved center median, however, offers a greater measure of visual comfort to drivers by separating opposing traffic lanes and by inserting special lanes in the median space to eliminate hazardous turning movements,

thus assuring greater enjoyment of scenic views. Use of a median wider than 40 feet may improve visual quality by enhancing the visually accommodating independent vertical alignments which will better fit with the existing terrain.

Mitigation

Where practical and feasible, without decreasing safety and creating other environmental impacts that might be more severe, variation of the horizontal and vertical alignments may provide a curvilinear alignment to conform to vegetation and landforms with the least reduction of visual quality.

Where existing overhead utilities require relocation, consideration should be given to placing them underground or locating them away from the highway. Consideration should also be given to incorporating vegetative screens at noncommercial buildings and facilities such as power substations and highway maintenance shops.

With any of the lane configurations, the number of driveways and other accesses to the highway will be reduced, partial access control will be implemented, and future accesses will be effectively limited.

Other mitigation measures will include the following:

- Retention of trees and natural vegetation except where removal is required for construction, for sight distance improvement or for other safety requirements.

- Construction of the roadway with smooth, rounded excavation and embankment slopes to match and blend in with the adjacent natural terrain as much as possible.

- Excavation and embankment slopes will generally be constructed flat enough to allow re-establishment of natural vegetation.

- Where steeper slopes are required, the newly seeded topsoil will be protected with mulch or protective mats.

- Topsoil will be placed on all new excavation and embankment slopes to facilitate re-establishment of natural vegetation. Slopes will be seeded with plant varieties native to the area. Wherever practical, and where noxious weeds do not occur, existing topsoil will be salvaged in areas of road construction and reused -- this topsoil will contain natural seeds and organic matter.

- Erosion control measures will be constructed and maintained, as described in Section 7.9, to prevent related negative visual impacts.

- Noxious weeds will be controlled as discussed in Section 7.12.

7.17.3.1. Evaro Canyon Landscape Unit

The proximity of the Evaro Canyon landscape unit to Missoula makes it more susceptible to population growth due to reduced travel time and improved convenience for workers who commute outside the area. Additional development of land in the rural, mountainous area will diminish visual quality. (Sections 6.4 and 7.4)

Mitigation

Protect the visual character and resources of Evaro Canyon by minimizing disturbance to existing mature vegetation and preserving the existing view sequence. Generally follow the existing alignment. The existing curvilinear road alignment, considered important for the scenic quality of the highway, will be maintained.

Preserve and protect existing mature conifers as much as possible since they are considered an important part of the landscape and scenery. Trees should be removed only where required for construction, for sight distance improvement or for other safety requirements.

~~A mitigation measure, sometimes employed to~~~~To~~ enhance the view sequence in areas where the road grade is unnaturally high, ~~consideration should be given~~is to lower~~ing~~ the road to reduce the need for guard rail and improve the visual relationship between the road and adjacent land and development. However, a review of the proposed action indicates that there are no areas where the roadway is unnaturally high.

The concrete glare screen located near Schley Homesites should be replaced with a vegetation screen.

7.17.3.2. Jocko Valley Landscape Unit

All lane configurations through the Jocko Valley generally will retain the sequence of long tangents and short curves that result in static views and visual discomfort for travelers. The visual disruption will continue to be reinforced by the railroad and by overhead powerlines that distract from scenic mountain views.

Other man-made developments, such as scattered businesses, billboards and residences, will remain with any of the lane configurations and will continue to influence the visual environment.

Widening of the Jocko River bridge will diminish the view from the road by removing mature trees from the vegetation line along the river and by moving travelers into the visual space of developed areas adjacent to the highway.

Views from the road will be impacted by the road alignment and associated view sequences, handling of the Jocko River crossing, changes in land use and encroachment of commercial development. Views of the road will be impacted by increasing the scale and visibility of the highway, and the conversion of new lands to highway usage likely will contribute to commercial expansion.

Mitigation

Vegetated drainages, agricultural lands and the rural landscape will protect visual quality. Visual impacts for the Jocko River crossing will be less with narrower lane configurations.

Ideally, for visual quality, overhead utilities that require relocation should be placed underground. ~~However,~~ utilities have indicated that placement underground is generally much more expensive. Where overhead utility lines are required, they should be placed near vertical elements that will conceal them; not where they silhouette against the sky or near heavy concentrations of viewers. ~~In Jocko Valley, this will be away from the highway and, perhaps against the toe of the mountain ranges where they will be concealed by trees, if practical and feasible.~~

~~Dirty Corner, near Milepost 15.2, is an area where consideration should be given to lowering the grades to remove the awkward appearance and enhance the view sequence.~~

Priority mitigation measures in order of importance are land use preservation, development controls, conservation of the Jocko River environment and alignment enhancements.

7.17.3.3. Ravalli Canyon Landscape Unit

All lane configurations through Ravalli Canyon will retain the awkward relationships between the Jocko River, the MRL railroad, MT 200 and the community of Ravalli. Because of limited physical space, the narrowness of the canyon and the small scale of the development, any increase in width of the highway or roadside development will diminish visual quality. The attention of travelers will be diverted from the scenery by a visually confusing landscape.

All lane configurations through Ravalli Canyon will diminish views of the major visual resources: Ravalli Canyon enclosure; National Bison Range; and the Jocko River environment. Additional pavement width will intensify the visual encroachment of the railroad and commercial development.

In the Ravalli Canyon area, south of the community of Ravalli, the existing large highway excavations in the toes of the hills east of the highway will be increased in some areas with any of the lane configurations to provide for a wider highway, to increase safety recovery areas adjacent to the highway, to improve slopes and to improve existing substandard horizontal curves. The largest excavation area is located near Milepost 25.4 (Figure 7.17-1).[117]

Approximate excavation heights in this area for each of the alternatives are summarized below:

No Action	50 Feet
Lane Configuration A	140 Feet
Lane Configuration B	160 Feet
Lane Configuration C	170 Feet
Lane Configuration D	185 Feet

Geological conditions are such that these slopes can be constructed nearly vertically, which will allow the least possible excavation into the hill sides. Thus possible adverse impacts to land use, cultural resources and wildlife habitat will be reduced. Construction of flatter slopes will require substantially greater areas of disturbance because the flatter slopes must be extended further before they intersect the slope of the hillsides. The near-vertical slopes will not necessarily provide the least visual impacts. They may be out of place because there is no vertical element in this unit except power poles.

Views of the road will be impacted by the perceived and actual encroachment of the highway into private space and the increase in scale and visibility of the highway from roadside facilities and adjacent development.

Mitigation

The narrowest roadway width that will provide safety and accommodate traffic demand should be considered to minimize disturbance. Consideration should be given to narrowing borrow ditches through some of the large cut sections to minimize disturbance to important roadside landforms.

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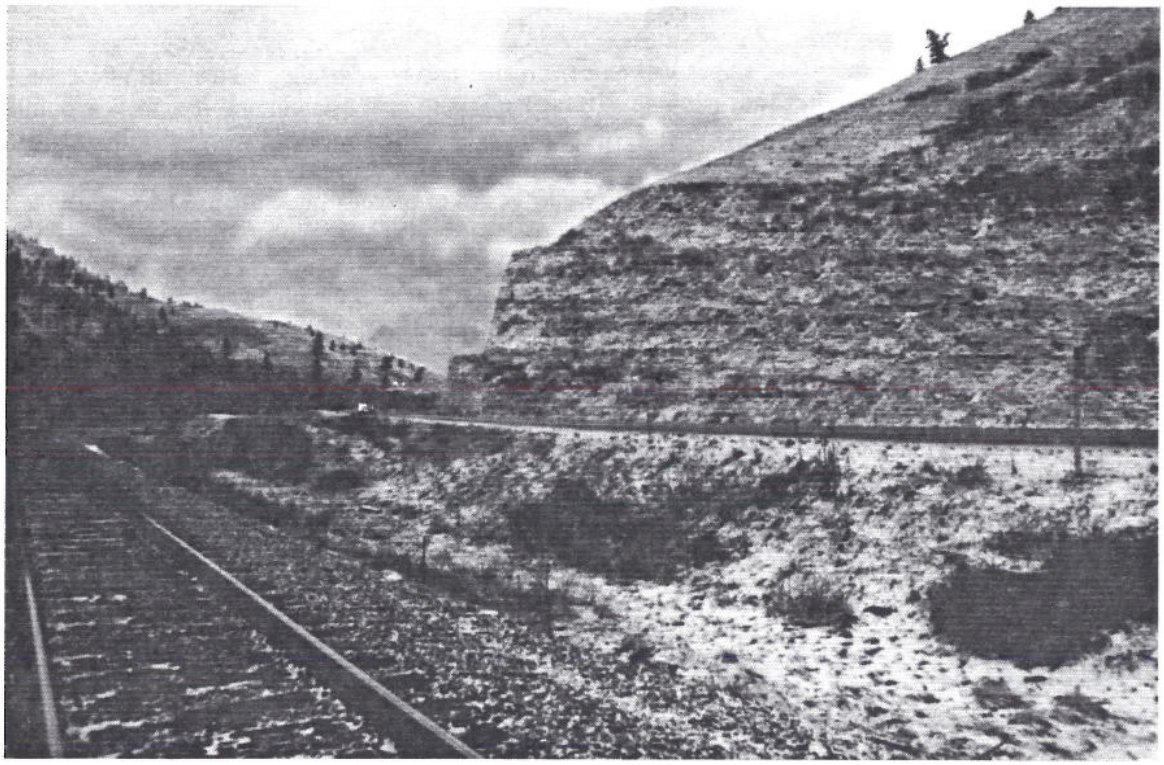
[117]This photographic representation is intended only to show the general appearance of the roadway after construction. It is not intended to show all design details, and some details may change when final design is completed.

EXISTING 2 – LANE HIGHWAY



LANE CONFIGURATION B

EXCAVATION IN RAVALLI CANYON - MP 25.4 FIGURE 7.17-1

Where landforms are disturbed, slope rounding, revegetation and fracturing of exposed rock faces is encouraged to leave natural looking forms. All disturbed areas should be revegetated with special attention given to matching existing species, particularly near the Bison Range.

Mitigation measures in order of importance are landform conservation and mitigation of disturbance, land use preservation, access and development control, vegetation protection/reclamation. The cut slopes should be graded and revegetated to restore natural looking contours, landcover, color and texture.

7.17.3.4. Mission Valley Landscape Unit

All lane configurations will retain existing long straight view sequences that some viewers may consider to be static, uninteresting and limiting for travelers' exposure to unique resources of the area.

Views of the road from St. Ignatius will be impacted by disturbance to creekside vegetation, commercial sprawl or deterioration of panoramic views.

Views of the road from roadside parks, wildlife viewing areas and commercial establishments will be impacted by an increase in road width. Views from the road will be most impacted by the width of pavement, quality of roadside development and proliferation of highway appurtenances.

Views of the road in Pablo from scattered commercial and roadside facilities will be impacted by commercial sprawl, proximity and scale of the highway to existing development and extent of disruption of existing vegetation, which will have the greatest negative visual impact near Pablo. Views from the road will be most impacted by commercial sprawl, and destruction of roadside vegetation.

Mitigation

Roadway width and fill slopes no wider than necessary to provide for safety and to accommodate~~d~~ traffic demand will be particularly desirable to preserve visual quality in places where the roadway passes through potholes and major wetlands in the Ninepipe area~~, especially at vegetated creek crossings, such as the Mission Outwash adjacent to St. Ignatius; throughout the Mission Moraine at places crossing wetlands; and at places with wildlife views; and the community of Pablo where a narrow roadway will preserve mature vegetation.~~ Constructing narrower and consequently steeper fill slopes will, in many areas, require installation of guardrail which may be considered an adverse visual impact.

Some diversity in lane configuration will add visual interest to the long, straight parts of the highway.

To the extent possible, the foreground visual exposure for travelers will be enhanced by reducing excessive length of guardrails and developing and linking roadside parks in the area of Ninepipe National Wildlife Refuge.

~~To the extent possible, reduce excessive length of guardrails, and develop and link roadside parks in the area of Ninepipe National Wildlife Refuge to enhance the foreground visual exposure for travelers.~~

With protection~~Protection~~ of land use~~,~~ and mitigation of highway structures and man-made encroachments~~,~~ ~~s~~Specific enhancements to be considered include enlarging, enhancing and linking the existing roadside parks to provide an enhanced interpretation of the resource. Other measures include p~~P~~edestrian enhancements for wildlife viewing and reduction of guardrails to the extent feasible. Introduction of additional, naturalized vegetation will~~to~~ provide foreground interest and improved wildlife habitat.

~~Include c~~Conservation of vegetation near Post Creek and smaller drainages, conservation of the rural character of the agricultural valley, and enhancement and preservation of distant views of the Mission Mountains~~. Specific~~ will

be enhanced by ~~Specific mitigation opportunities include~~ vegetative screening of the electric power substation and commercial development, particularly on curves.

7.17.4. Arlee Alignments

Existing conditions and Lane Configurations A and C on the existing alignment in Arlee are illustrated on Figure 7.17-2.[118] With Alignment 1 (existing alignment) in the community of Arlee, visual quality in the foreground will deteriorate and enjoyment of scenic background views will be diminished similar to No Action. More traffic and congestion will worsen the existing visual and functional division for views of the road. Widening of the existing alignment to four lanes through Arlee will fragment an already discontinuous streetscape, removing "edge" buildings and vegetation, diminishing views from adjacent properties and encroaching on adjacent businesses and pedestrians. The scale of the road will visually and functionally divide the community, being incompatible with the scale of the community and roadside development, for views from the road.

Alignment 2 (west alignment) and Alignment 3 (east alignment) will divert traffic around the developed area of Arlee, but they will not be outside all of the area visually contained in the Arlee community. Each creates visual divisions that weaken existing forms and negate the opportunity to give Arlee added visual cohesiveness.

Alignments 2 and 3 will cross the Jocko River at the existing bridge location, visually separating all the development north of Saddle Mountain Road and in Jocko Hollow from Arlee. Any widening of the existing Jocko River crossing will disrupt a visually important vegetation line along the river, and move travelers into the visual space of adjacent users.

Alignment 3 will pass east of town, opening a major new highway view to a large concentration of viewers, many of whom will be occupied with outdoor community, private residential or school and church related activities which are sensitive to views of the highway. Although this location will provide a pleasant view for highway users with its east edge along the high wooded bank of the Jocko River, the view into private and institutional spaces on the west side of the road will conflict with and be out of scale with the highway. Alignment 3 also will eliminate future linkage of the Jocko River frontage to the town of Arlee, creating a visual unit without riverside amenities.

Where Alignment 2 passes west of Arlee it negatively exposes new residential viewers to highway views without reinforcing the logical visual boundary of the community.

Alignment 4 (Jocko Valley Alignment) will be east of Arlee and farther from the town than Alignments 2 and 3. It will connect with the existing alignment south of Arlee at a visually logical location, straight off the tangent at Dirty Corner. It will expose cropland and scattered homes to the highway, and it will cross the Jocko River at a new location presenting the opportunity to enhance the scenic visual quality with an advancing mountain view framed by river vegetation. After crossing the Jocko River, Alignment 4 curves to the northwest revealing a stunning, revolving view of the Mission Mountains.

Alignment 4 will be located on low ground, exposing some new viewers to the highway. It intersects existing field and road patterns at odd angles, without offering the compensatory value of long, scenic views.

Mitigation

If Alignment 2, 3 or 4 is constructed, the existing alignment should be retained and signed as a "business route" providing access for travelers to services in Arlee. Community gateways on the north and south ends of town should identify routes and provide the opportunity to develop community identity, combining image enhancements,

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[118]This photographic representation is intended only to show the general appearance of the roadway after construction. It is not intended to show all design details, and some details may change when final design is completed.

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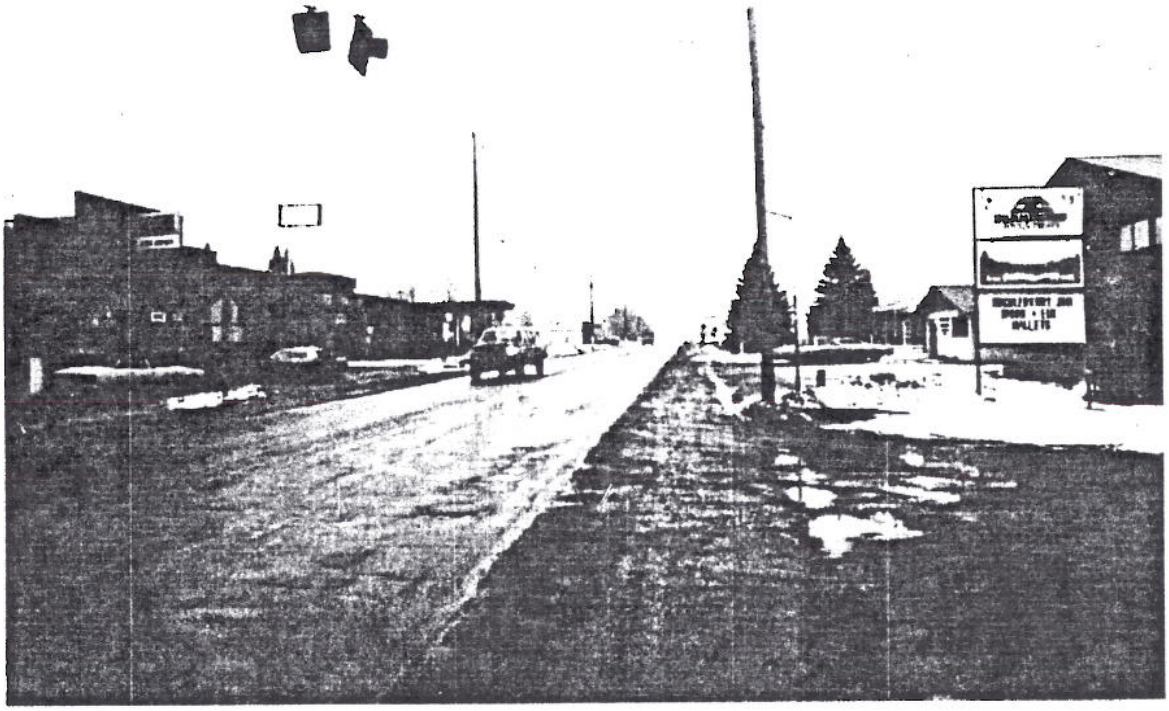
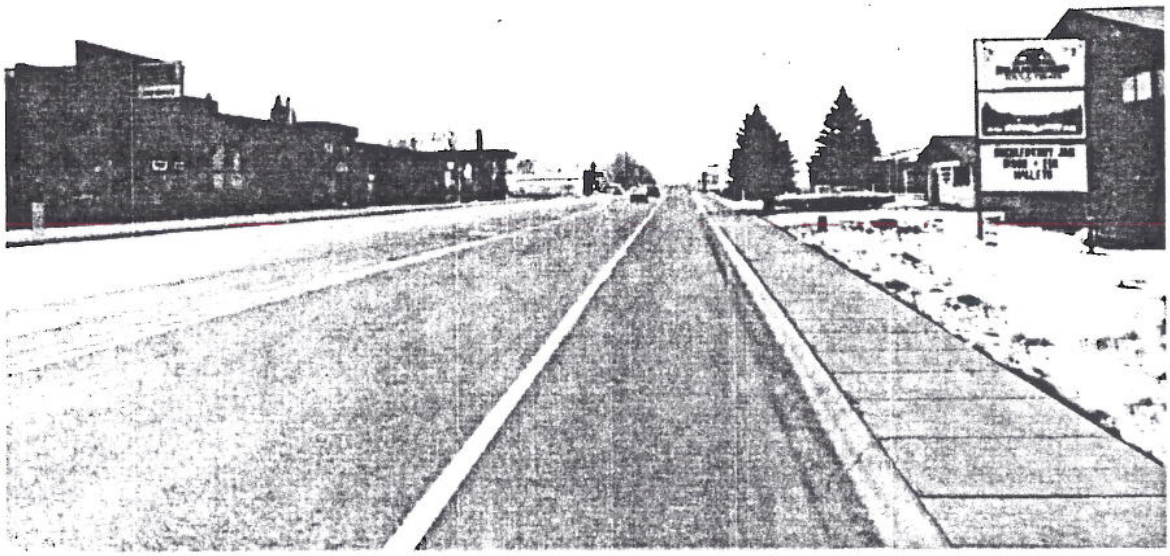


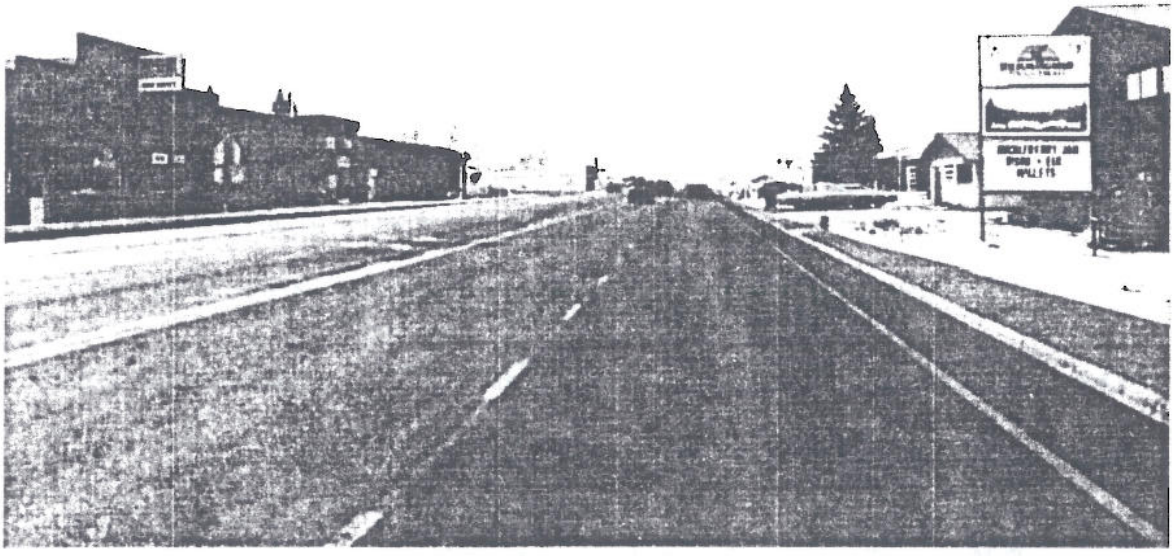
EXISTING 2 – LANE HIGHWAY



LANE CONFIGURATION A
WITH CONTINUOUS 2–WAY LEFT TURN MEDIAN

ARLEE LANE CONFIGURATIONS FIGURE 7.17-2

EXISTING 2 – LANE HIGHWAY



LANE CONFIGURATION C

ARLEE LANE CONFIGURATIONS (CONT.) FIGURE 7.17-2

directional signage, roadside interpretive and park facilities. With Alignments 2, 3 or 4, the creation of gateways with park and scenic/historic information at the north and south ends of Arlee will provide an opportunity to orient travelers to alternative scenic routes that expose travelers to areas of cultural and historic interest in the Jocko Valley.

If Alignment 2 is constructed, consideration should be given to locating it closer to the railroad tracks to improve the visual quality by conforming to the existing logical edge of the tracks.

Consider reclamation of the gravel pit at the south end of town for use as a roadside park and interpretive site to create a gateway and enhance the community image.

If Alignment 4 is constructed, it will visually conflict less with local field patterns if it more closely follows Pellew Creek.

7.17.5. Ronan Alignments

Existing conditions and Lane Configuration C on the existing alignment in Ronan are illustrated on Figure 7.17-3.[119] With Alignment 1 (existing alignment) and Alignment 2 (one-way couplet), visual quality in the foreground will deteriorate and enjoyment of scenic background views will be diminished similar to No Action. More traffic and congestion will worsen the existing visual and functional division for views of the road. Widening of the existing alignment to four lanes through Ronan will fragment an already discontinuous streetscape, removing "edge" buildings and vegetation, diminishing views from adjacent properties and encroaching on adjacent businesses and pedestrians. The scale of the road will visually and functionally divide the community, being incompatible with the scale of the community and roadside development, for views from the road.

In addition, Alignment 2 will introduce highway traffic into an existing residential setting which will change the visual environment.

Alignments 3 and 4 will divert traffic around the developed area of Ronan, and they will be outside all of the developed area visually contained in the Ronan community. However, future development is expected to extend west, beyond the routes of Alignments 3 and 4. Generally, they will be located between developed land and natural visual boundaries, and they will provide visual and physical access to the business district. Near its northern end, Alignment 3 will pass through and diminish the views of and from an established residential area. Alignments 3 and 4 will diminish views of and from agricultural land and scattered homes on their southern ends.

Alignment 4 (west of Ronan) will cross agricultural land diagonally and expose views of powerlines, sewage treatment facilities, a power substation and other industrial areas. These views will not provide a positive image of the community.

Alignment 4 will provide more area for the town to expand without having to cross the physical boundary of a highway. Alignment 3 will provide an interesting, somewhat distant view of an old granary.

Alignments 3 and 4 will provide opportunity to enhance the view for northbound travelers west to the Salish mountains.

Alignments 3 and 4 will be located on low ground, intersecting existing field and road patterns at odd angles.

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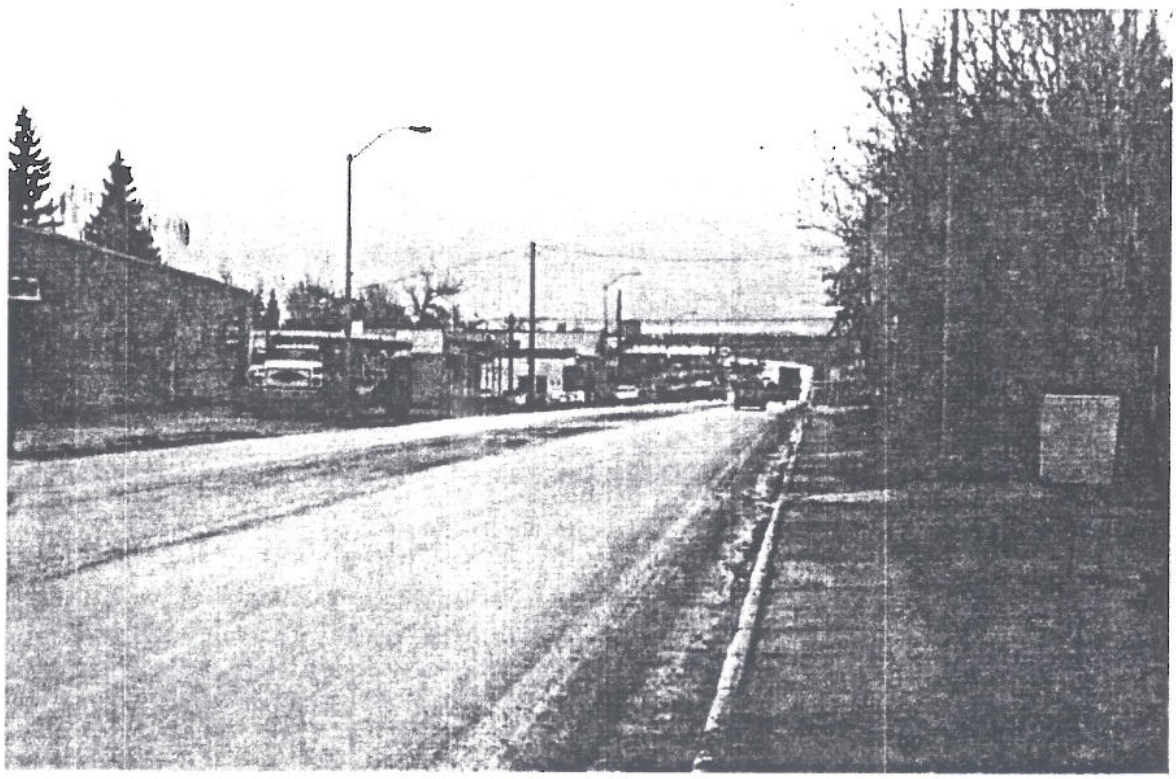
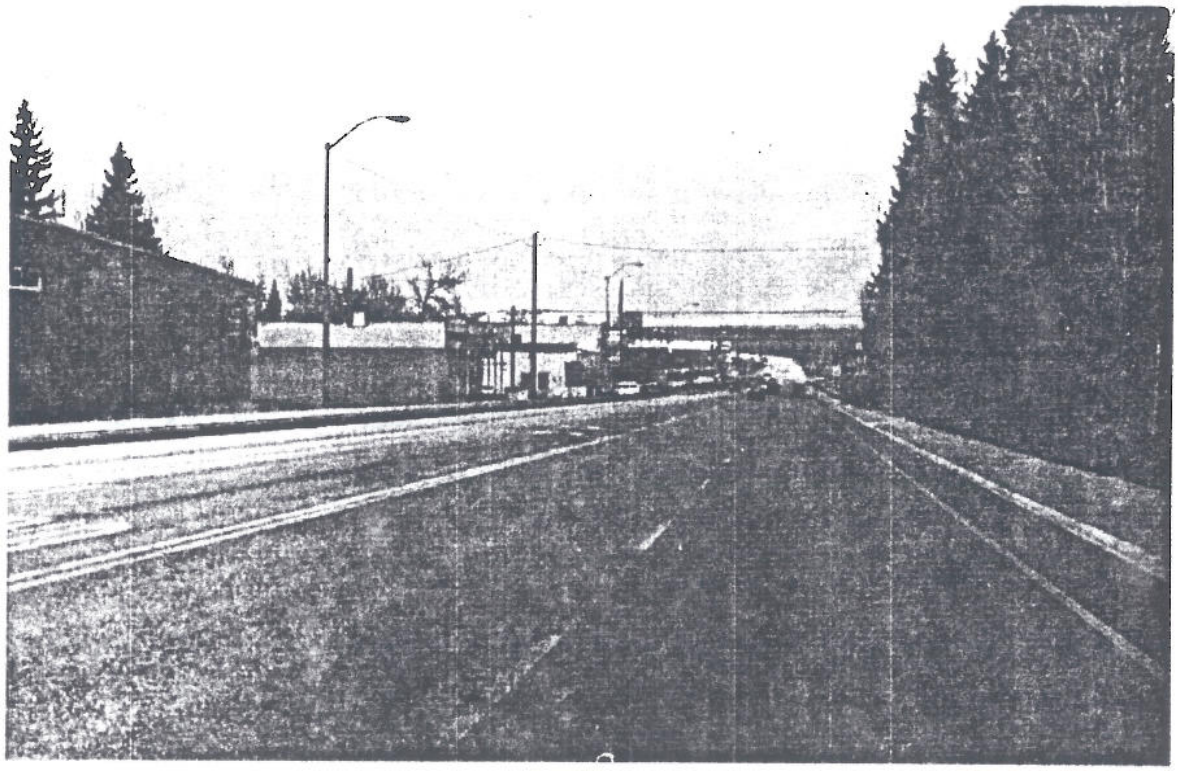
[119]This photographic representation is intended only to show the general appearance of the roadway after construction. It is not intended to show all design details, and some details may change when final design is completed.



EXISTING HIGHWAY WITH CONTINUOUS 2-WAY LEFT TURN MEDIAN



LANE CONFIGURATION C

RONAN LANE CONFIGURATIONS FIGURE 7.17-3

Mitigation

If Alignment 3 or 4 is constructed, the existing alignment should be retained and signed as a "business route" providing access for travelers to services. Community gateways on the north and south ends of town should identify routes and provide the opportunity to develop community identity, combining image enhancements, directional signage, roadside interpretive and park facilities. With Alignments 3 or 4, the creation of gateways with park and scenic/historic information at the north and south ends of Ronan will provide an opportunity to orient travelers to alternative scenic routes that expose travelers to areas of cultural and historic interest in the Mission Valley. A secondary gateway should be considered at the intersection of Main Street and Alignments 3 and 4 to invite travelers to visit downtown and take advantage of services.

To be visually compatible, Alignment 3 should be located west of 9th Avenue Northwest to avoid diminishing views of and from the developed residential area. The opportunity exists to follow Alignment 3 south to Little Martin Road, then cross diagonally to intersect the existing highway in the same location as Alignment 4. This will be less disruptive of visual quality for field patterns, and it will increase the area south of town for development expansion within a logical visual boundary.

7.17.6. Polson Landscape Unit

Alignment 1, if Lane Configuration B or C is constructed, will increase the highway width and create larger cut and fill slopes. The visual scale of the highway will increase, particularly through town. A single row of mature deciduous trees in Ducharme Park will have to be removed. The increased highway width will increase views of the lake and of town. (Figure 7.17-4)

Alignment 2 will increase views of Polson and Flathead Lake. However, new road segments plus a wider road along existing segments will be a visual impact to rural residential areas. Grade changes along Kerr Dam Road will require cut and fill to maintain an acceptable road grade; this will be a visual impact to nearby residential areas as well as to highway users.

Alignment 2 crosses the Flathead River at a new location. This new bridge crossing will be a visual impact to the existing river view from many areas of town. The users of the new bridge will experience a new view of the lake, river, and of Polson.

Alignment 3 will decrease views of Polson and Flathead Lake. Hilly terrain will not permit a view of the river until the road turns west to cross the river, and there will not be a view available of Polson. The new road segments and increased roadway width along existing segments of this alignment will have a visual impact to rural residential areas east of the Flathead River. Due to the hilly terrain that this alignment encounters as it travels parallel to the Flathead River, large cut and fill slopes will occur.

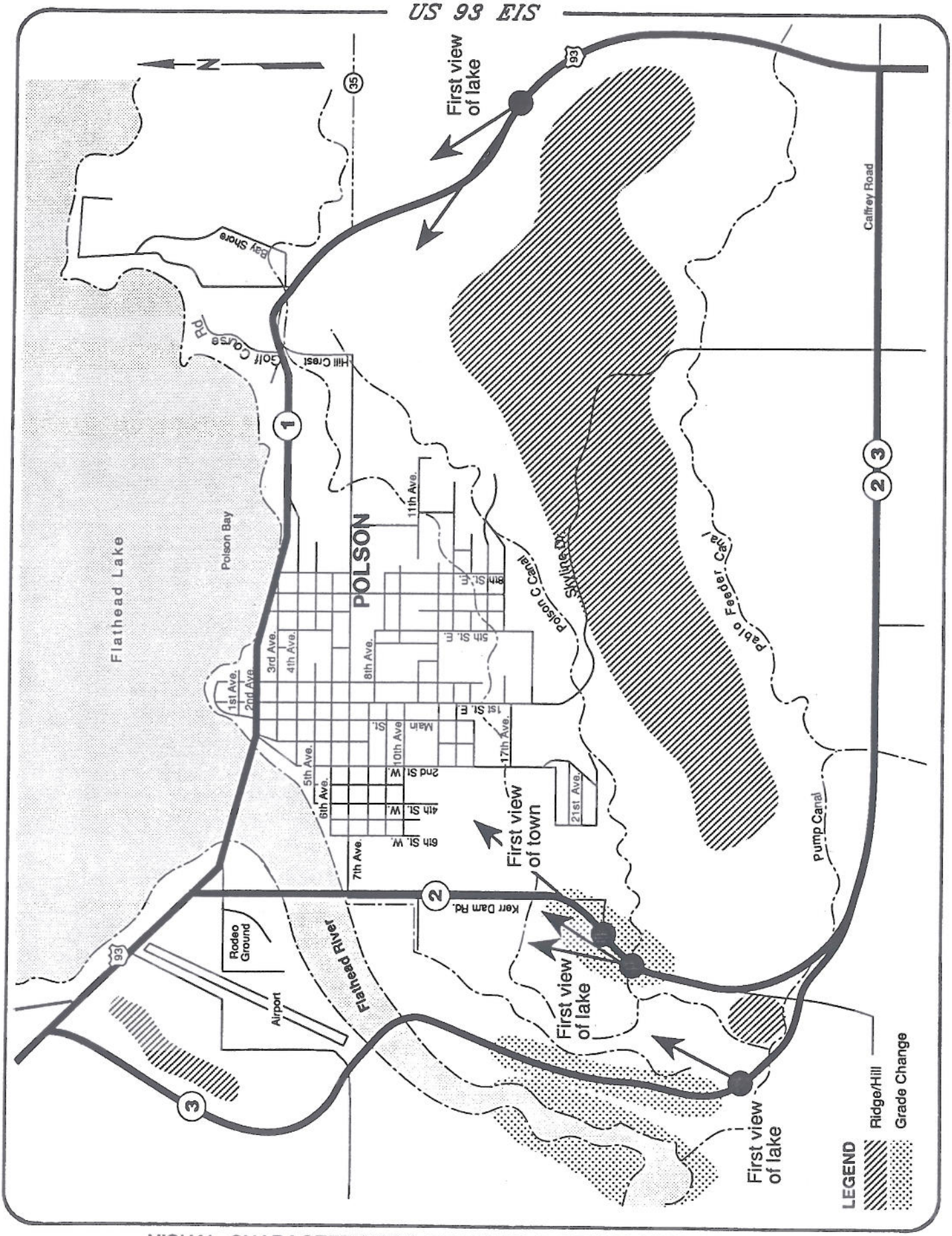
Alignment 3 crosses the Flathead River in a new location south of the airport and will be a visual impact to the existing river from rural residential areas. It will not be a visual impact from town. The users of the new bridge will experience a new view of the lake and the river.

Mitigation

Slope Cuts

Slope molding techniques will be used to enhance the diversity of the landform and provide visual variety. These include:

- Accentuating ridges and laying the slope back at draws.



VISUAL CHARACTERISTICS OF VIEWS & GRADE CHANGES FIGURE 7.17-4

- Modifying slope ratios to reflect existing terrain characteristics to minimize visual impacts.

All cut and fill slopes will be rounded at the top and bottom to present a softer transition between constructed and existing slopes. This may require greater disturbance of existing vegetation; however, scars due to clearing of vegetation heal faster. Cross-slope drainage should be treated with random placement of rock of various sizes to reduce their visual dominance. These drainages will be further softened by adding topsoil and seeding.

Revegetation

Vegetation will be re-established in patterns similar to adjacent undisturbed slopes. Grasses and wildflowers are valuable for soil stabilization and erosion control. Native grasses should be used on all disturbed areas, and wildflowers should be used in more highly visible areas. Soil mulches and netting, if needed, can be used to stabilize slopes until vegetation is established.

7.17.7. Visual Impacts of Highway Design Options

Several design options have been proposed as mitigation, safety or transportation needs. The impact of each option on visual quality is discussed generally in the following paragraphs. The manner in which relevant options, alignments and road details are combined and adapted to site-specific conditions will determine their impact on visual quality and effectiveness as mitigation measures. Appropriate applications of these options in specific locations are addressed in the discussion of mitigation of impacts in specific landscape units.

Access Control positively impacts visual quality by limiting strip development and influencing land development patterns adjacent to highway corridors. Access control reduces visual distraction associated with too many approaches and unclear definition of traffic patterns and the road edge.

Pedestrian Facilities. Pedestrian overpasses will reduce visual quality, interrupting views in all situations causing considerable encroachment in open, horizontal valley landscapes.

Painted Median. Visual acuity, particularly during periods of snow cover, may be a problem on roads frequented by a mix of travelers. Some are familiar with the route and "in a hurry", like commuters and logging trucks, while others are unfamiliar tourists driving at a leisurely pace.

Wildlife Fence. In general, fencing reduces visual quality by interrupting views. Lower, open fences in styles and materials characteristic of the landscape setting will be less distracting than fences placed in response to property lines. To reduce the visual impact, align fences to follow natural topographic, vegetation or water lines and avoid silhouetting against the sky.

Curb and Gutter. To the extent curb and gutter is used to define the road edge, control perimeter access and manage storm water, the visual impact will be positive. Potential negative impacts will result where this urban element is introduced into a rural setting. Use of gutter sections to reduce the need for ditches and hence minimizing the disturbance to landforms and landcover will have positive visual impacts.

Frontage Roads. Introduction of frontage roads to limit the number of turning points off and access points onto the highway will be visually desirable, providing opportunity for a visual buffer and further delineation of the road edge. Potential negative impacts may include excessive disruption of vegetation and further increasing the road width with all the associated disadvantages of wide roads discussed previously.

Bicycle Facilities may negatively impact the visual quality. When included as part of the roadway shoulder they will have little or no negative impacts. Construction of separate paths will disrupt additional landforms and vegetation and will have corresponding additional negative impacts.

Wildlife and Livestock Crossings require culverts or bridges to maintain livestock or wildlife routes. Bridges have the advantage of avoiding unnatural embankments commonly associated with installation of culverts. Where culverts are used the lengths should be increased and extended to eliminate unnatural slopes and embankments and avoid requirements for guardrail.

Traffic Signals. Visual impacts are negligible, and to the extent traffic signals improve safety, they increase travelers opportunity to enjoy scenery.

Directed Routes provide the opportunity to direct travelers to alternate routes designed to meet differing needs. Discussions have focused on alternate routes and truck routes near existing communities. Additionally, opportunities exist to develop commercial service, scenic or heritage routes. Visual impacts of directed routes may be positive or negative depending on the designation, location and land use controls associated with each. Truck routes should follow corridors where highway commercial services are already available. New corridors should be selected to expose travelers to cultural and scenic resources. Land use controls should be implemented to eliminate strip commercial sprawl.

Turnouts. The provision of turnouts increase the travelers opportunity to appreciate the scenic, historic and cultural aspects of the landscape. Visual quality for all viewers may be positively or negatively impacted depending on the siting, layout and design details.

Concrete Median Barriers in nearly all cases are a visual distraction, collecting dirt and introducing an urban element into a predominantly rural setting. Positive visual impacts include reduction of headlight glare for night time travelers, particularly along long straight road tangents.

Sidewalks may positively or negatively impact visual quality depending on location and resulting disturbance to existing roadside features.

One-way Couplet. Visual issues are site specific relating primarily to road width. Specific applications and related impacts are discussed in other sections.

7.18. RELOCATIONS

Alternatives for alignments, lane configurations and design options are described in detail in Section 5.1. The MDT Preferred Alternative and the CSKT Preferred Alternative, which consist of combinations of alignments, lane configurations and design options, are described in detail in Sections 5.3 and 5.4.

7.18.1. No Action

No removal of structures or relocations of households in residences ~~or commercial buildings businesses or other buildings~~ will be required with No Action. With No Action, structures near the existing highway will continue to be affected by highway traffic operation and resulting safety, air quality, noise, visual and other highway related impacts as described in related sections of this document. As traffic volume increases, these adverse impacts will become more severe. (Table 6.18-1)

7.18.2. Existing Alignment (Except Arlee, Ronan and Polson)

Table 7.18-1 summarizes removal of~~relocations of homes, businesses and other~~ structures that will or may be required for each of the lane configurations. Where it is indicated on the table that a structure will require removal~~relocation~~, it is because preliminary design and surveys have indicated that it will not be practical and feasible to construct the lane configuration while avoiding the structure with required excavation and embankment slopes. Also, it is not possible to adjust the alignment away from the structure without creating more severe ~~relocation or other~~ impacts in another area. Where it is indicated on the table that a structure may require removal~~relocation~~, it is because, though the structure is near the existing highway, it may be practical and feasible to avoid it by revising the highway design and ROW width or by adjusting the alignment away from the structure without creating more severe impacts in another area.

No structures will require removal~~relocation~~ if Lane Configuration A is constructed on the existing alignment, whereas Lane Configurations B, C or D, because of the wider width, will require removal~~relocation~~ of two, 16 and 35 structures, respectively.

Table 7.18-2 summarizes the types of buildings that may or will require removal.

The median value of owner occupied housing for Lake County in 1990 was $61,300. In 1990 median rent paid was approximately $260.[120]

Commercial buildings removed by the proposed action are occupied by small businesses that operate with single occupancy and employ 10 or fewer workers. They are primarily older buildings that are moderate and low cost commercial buildings.

Population growth has increased demand for housing, market value of housing units and cost for rental housing. Moderate and low cost housing is not readily available throughout the area.

Section 7.4.1.3 presents information about Environmental Justice Executive Order 12898 and Title VI of the Civil Rights Act of 1964.

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[120]U.S. Department of Commerce, Bureau of the Census. 1990 Census of Population and Housing. Summary Population and Housing Characteristics and Summary Social, Economic and Housing Characteristics, Montana. 1990.

Mitigation

Wherever practical and feasible, and where it can be done without causing more severe impacts elsewhere, adjust the highway alignment away from the structure to avoid the structure.

Wherever practical and feasible, and where it can be done without compromising highway safety, revise fill slopes and ROW width to avoid the structure.

In areas where removal~~s relocations~~ may be required, construct the narrowest highway section that will still accommodate existing and projected traffic volumes.

MDT has a relocation assistance program whereby supplemental housing payments, moving costs, advisory assistance and other services are offered to individuals and households displaced by a highway construction project. The payments for relocation are offered in addition to the amount of just compensation for ROW requirements. The disposition of the buildings to be relocated will be negotiated with the owners -- they may be moved and reused, demolished and disposed of, sold to other parties or remain the property of the owners to do with as they see fit.

Federal highways are subject to provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (as amended).[121]

The Intermodal Surface Transportation Efficiency Act (ISTEA), H.R. 2950, includes all references to the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. They require compliance with Title VI of the Civil Rights Act of 1960, H. R. 2950-34, Section 1017 Acquisition of Rights-of-Way. Relocation resources are available for all displaced residential and commercial buildings without discrimination.

MDT policy is no person will move from their dwelling unit until there is available a comparable replacement dwelling unit. The replacement dwelling unit must be safe, decent, sanitary and open to persons regardless of race, religion or national origin.

Generally, persons residing in either conventional dwellings or mobile homes will be eligible for relocation payments. They will be eligible to receive referrals of available replacement properties, assistance in filing claims and other reasonable assistance necessary to assure successful relocation. Comparability primarily will be based on functional rather than physical similarity. Occupants of residential and commercial buildings are entitled to receive reasonable and necessary moving costs and related expenses in relocating their personal property, in accordance with established procedural requirements of MDT.

7.18.3. Arlee, Ronan and Polson Alignments

Table 6.18-1 shows existing buildings located within 200 feet of alignments in Arlee, Ronan and Polson. These structures may be affected by highway traffic operation and resulting safety, air quality, noise, visual and other highway related impacts as described in related sections of this document. Table 7.18-1 lists structures that will or may require removal ~~relocation~~.

[121]The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 is Public Law (P. L.) 91-646. P. L. 100-17, the Surface Transportation Act of 1987, amended certain provisions of P.L. 91-646.

Table 7.18-1 ~~Removal of Structures~~~~Relocations~~ (This table has been changed in the final EIS)

Milepost	Side	Description	Lane Configuration				
			A*	B	C	D	**MDT Preferred Alternative**
Existing Alignment							
6.8	West	Community Center	N	N	N	W	N
6.9	West	Residence	N	N	M	W	M
7.0	West	MDT Maintenance Building	N	N	M	W	M
7.8	East	Residence	N	M	W	W	M
9.6	East	Garage	N	M	M	W	M
13.3	West	Residence	N	M	M	W	M
13.3	West	Building	N	N	N	W	N
14.0	East	Residence	N	N	N	W	N
15.0	East	Abandoned Residence	N	N	N	W	N
15.4	East	Motel/Residence	N	M	W	W	M
16.1	East	Residence	N	N	M	M	N
16.5	East	Residence	N	N	N	M	N
16.7	East	Power Substation	N	N	N	M	N
16.9	East	Residence	N	N	N	M	N
16.9	East	Residence	N	N	N	M	N
17.0	East	Residence	N	N	M	W	M
17.5	East	Residence	N	M	W	W	W
17.6	West	Vacant Building	N	M	W	NA	W
17.6	West	Retail Business	N	M	W	NA	W
17.6	West	Retail Business	N	M	W	NA	W
17.6	East	Canopy, Retail Business	N	M	W	NA	W

W - Will require ~~removal~~~~relocation~~. **M** - May require ~~removal~~~~relocation~~. **N** - Will not require ~~removal~~~~relocation~~.
NA - Not applicable because this lane configuration is not under consideration in this area.
*Lane Configuration A is the CSKT preferred alternative.

(Continued)

Table 7.18-1 Removal of Structures~~Relocations~~ - Continued

Milepost	Side	Description	Lane Configuration				
			A*	B	C	D	**MDT Preferred Alternative**
17.7	East	Retail Business	N	N	M	NA	M
17.8	West	Gas Pump Canopy	N	N	M	NA	M
17.8	East	Residence	N	M	M	NA	M
17.9	East	Residence	N	M	M	NA	M
18.0	East	Residence	N	M	M	W	M
19.0	East	Residence	N	N	M	W	M
19.1	East	Residence & Garage	N	N	W	W	W
20.0	East	Business	N	N	N	W	N
23.8	East	Business	N	N	N	W	N
30.4	West	Residence	M	W	W	W	W
31.7	East	Building	N	N	N	W	N
32.6	West	Business	N	N	M	W	N
32.6	East	Business	N	N	N	W	N
33.0	East	Business	N	N	N	W	N
35.0	East	Residence	N	N	M	W	M
35.0	West	Residence	M	M	W	W	W
36.5	West	Residence	N	N	M	W	N
37.0	East	Building	M	W	W	W	W
37.0	East	Building	N	M	M	W	M
37.1	East	Business	N	N	M	W	M
37.1	East	Building	N	N	M	W	M
37.5	East	Business (Lumber)	N	M	M	M	M

W - Will require removal~~relocation~~. **M** - May require removal~~relocation~~. **N** - Will not require removal~~relocation~~.
NA - Not applicable because this lane configuration is not under consideration in this area.
*Lane Configuration A is the CSKT preferred alternative.

(Continued)

Table 7.18-1 ~~Removal~~~~Relocations~~ - Continued

Milepost	Side	Description	Lane Configuration				
			A*	B	C	D	**MDT Preferred Alternative**
37.5	East	Business (Lumber)	N	M	M	M	M
46.8	West	Business	N	N	M	NA	M
46.9	West	Business	N	M	M	NA	M
46.9	West	Business	N	N	M	NA	M
46.9	East	Business	N	N	M	NA	M
51.8	East	Gas Pump Canopy (by Frontage Road)	N	M	M	W	M
52.5	West	Residence	N	M	W	W	W
54.9	East	Building	N	N	M	M	M
55.5	West	Building	N	N	N	W	N
55.5	East	Phone Substation	N	M	W	W	W
59.3	South	Residence	N	N	M	M	N
59.3	South	Residence	N	N	M	M	N
59.3	South	Building	N	N	M	M	N
59.3	North	Building	N	N	M	M	N
59.4	South	Building	N	N	M	M	N
60.4	South	Building	N	N	W	W	N
60.4	South	Building	N	N	W	W	N
60.6	South	Building	N	N	W	W	N
61.5	North	Building	N	M	M	M	N
62.1	North	Residence	N	M	M	M	N
Total buildings that will require ~~relocation~~ along existing alignment			0	2	16	35	11
Total buildings that may require ~~relocation~~ along existing alignment			3	22	33	11	25

W - Will require ~~relocation~~. **M** - May require ~~relocation~~. **N** - Will not require ~~relocation~~.
NA - Not applicable because this lane configuration is not under consideration in this area.
*Lane Configuration A is the CSKT preferred alternative.

Table 7.18-1 ~~Removal of Structures~~~~Relocations~~ - Continued

Milepost	Side	Description	Lane Configuration			
			A	B	C	D
Arlee Alignment 2						
17.2	East	Building	N	N	N	M
Arlee Alignment 3						
18.2	East	Building (Fish Hatchery/Out Building)	N	M	M	W
Arlee Alignment 4						
15.6	East	Residence	N	M	M	W
17.0	East	Building	W	W	W	W
Ronan Alignment 2						
46.3	East	Business (Warehouse)	M	NA	NA	NA
47.1	On CL	Business Office (CSKT)	W	NA	NA	NA
47.1	On CL	Business Office (CSKT)	W	NA	NA	NA
47.1	On CL	Business Office (CSKT)	W	NA	NA	NA
47.1	On CL	Business Office (CSKT)	W	NA	NA	NA
47.2	On CL	Business	W	NA	NA	NA
Ronan Alignment 3						
47.1	East	Building	W	W	W	W
47.1	East	Building	W	W	W	W
47.2	East	Residence	M	W	W	W
47.3	East	Residence	M	W	W	W
Ronan Alignment 4						
46.7	East	Building (Ball Park)	M	M	W	W
46.9	West	Buildings (4) (Mink Farm)	M	W	W	W

W - Will require ~~removal~~~~relocation~~. **M** - May require ~~removal~~~~relocation~~. **N** - Will not require ~~removal~~~~relocation~~. **NA** - Not applicable because this lane configuration is not under consideration in this area. **CL** - Center Line.

(Continued)

Table 7.18-1 Removal of Structures~~Relocations~~ - Continued

Milepost	Side	Description	Lane Configuration				
			A	B	C	D	**MDT Preferred Alternative**
Ronan Alignment 4 - Continued							
47.3	East	Power Substation	W	W	W	W	--
47.3	East	Building (Lumber)	W	W	W	W	--
47.3	East	Building (Lumber)	M	W	W	W	--
47.4	East	Building	M	W	W	W	--
47.8	East	Building	W	W	W	W	--
Polson Alignment 2							
59.7	North	Building (3), Residence (3)	N	M	N	M	--
58.1	South	Residence (2)	N	W	N	W	--
60.4	East	Residence, Building	N	W	N	W	--
60.9	West	Residence (3), Building (5)	N	W	N	W	--
Polson Alignment 3*							
56.7	North	Building (3), Residence (3)	N	M	N	M	M
58.1	South	Residence (2)	N	W	N	W	W
60.9	West	Residence	N	W	N	W	W
63.1	East	Building	N	M	N	M	M

Morrison-Maierle. 1993.
W - Will require removal~~relocation~~. **M** - May require removal~~relocation~~. **N** - Will not require removal~~relocation~~.
NA - Not applicable because this lane configuration is not under consideration in this area.
*Polson Alignment 3 is MDT preferred alternative.

Table 7.18-2 Summary of Removal of Structures: Existing Alignment and Polson Alignment 3
This is a new table in the final EIS.

Existing Alignment										
Type of Property	Alternatives									
	Lane Configurations								Preferred Alternative	
	A*		B		C		D			
	M	W	M	W	M	W	M	W	M	W
Residential	2	--	9	1	13	6	7	15	9	5
Conventional	2	--	8	1	13	5	7	14	8	5
Mobile Homes	--	--	1	--	--	1	--	1	1	--
Commerical	--	--	8	--	11	4	2	8	11	3
Public	--	--	--	--	1	--	--	1	1	--
Other	1	--	5	1	8	6	6	11	4	3
Total of buildings that will require removal		--		2		16		35		11
Total of buildings that may require removal	3		22		33		15		25	

Polson Alignment 3										
	Lane Configurations									
	A		B		C		D		MDT Preferred Alternative	
	M	W	M	W	M	W	M	W	M	W
Total of buildings that will require removal		--		3		NA		3		3
Total of buildings that may require removal	--		7		NA		7		7	

Morrison-Maierle and Carter Burgess, 1992.
*Lane Configuration A is the CSKT preferred alternative for the existing alignment. Polson Alignment 3 is the MDT preferred alternative. Polson Alignment 3 is not the CSKT preferred alternative.
W - Will require removal. **M** - May require removal. **N** - Will not require removal. **NA** - Not applicable because this lane configuration is not under consideration in this area.

7.19. ENERGY AND COMMITMENT OF RESOURCES

Alternatives for alignments, lane configurations and design options are described in detail in Section 5.1. The MDT Preferred Alternative and the CSKT Preferred Alternative, which consist of combinations of alignments, lane configurations and design options, are described in detail in Sections 5.3 and 5.4.

7.19.1. No Action

No Action will not improve highway operation and efficiency, but it will require no commitment of resources. As traffic volume increases, LOS will deteriorate and, as a result, efficiency of vehicles operating on the facility will decrease and energy use will increase.

7.19.2. Existing Alignment (Except Arlee, Ronan and Polson)

Construction of Lane Configurations B, C and D on the existing alignment will substantially improve traffic operations and efficiency by providing better alignments, more traffic lanes, better LOS and more roadway capacity. This improvement in efficiency and traffic operations will result in fuel savings and a decrease in vehicle wear. The long-term effect will, therefore, be a decrease in energy use.

Construction of Lane Configuration A on the existing alignment will provide better alignments, but will not provide additional traffic lanes (except in a few areas where additional passing lanes will be added) and will not substantially improve LOS or capacity. There will be only minor improvement in traffic operations and efficiency with corresponding minor improvement in fuel savings, decrease in vehicle wear and decrease in energy use.

Implementation of the proposed action involves a commitment of a range of natural, physical, human and fiscal resources. The approximate area of land to be converted to highway ROW with each of the alignment and lane configuration alternatives is described in Section 7.2 and summarized on Tables 7.2-1 through 7.2-45. Lane Configuration A will convert the smallest area of land to highway ROW, while Lane Configuration D will require the largest area. Land used in the construction of the facility is considered an irreversible commitment during the time period the land is used for a highway. However, if a greater need arises for use of the land or if the highway is no longer needed, the land can be converted to another use. At present, there is no reason to believe such a conversion will ever be necessary or desirable.

Considerable amounts of fossil fuels, labor and highway construction materials such as cement, aggregate and bituminous material will be expended. Approximate quantities of major construction materials required for each segment and lane configuration are summarized on Table 7.20-2 -- Lane Configuration A will require the smallest quantities, while Lane Configuration D will require the largest. Additionally, large amounts of labor and natural resources will be used in the fabrication and preparation of construction materials. These materials are generally not retrievable. However, they are not in short supply and their use will not have an adverse effect upon continued availability of these resources.

The commitment of these resources is based on the concept that residents in the immediate area, state and region will benefit by the improved quality of the transportation system. These benefits will consist of improved accessibility and safety, savings in time and greater availability of services which are anticipated to outweigh the commitment of these resources.

7.19.3. Arlee, Ronan and Polson Alignments

As compared with Alignment 1 (existing alignment), construction of any of the lane configurations on Alignments 2, 3 or 4 in Arlee, Alignments 3 or 4 in Ronan or Alignments 2 or 3 in Polson will provide a substantial improvement in operation and efficiency because vehicles will generally be able to maintain uniform highway speeds

through the area and will be far less likely to be required to decelerate, stop or accelerate. Vehicles on these alignments will be affected by fewer driveways and intersections and related crossings of vehicles and pedestrians. This further improvement in efficiency and traffic operations will result in additional fuel savings and a further decrease in vehicle wear. Alignment 2, the one-way couplet, in Ronan will provide only minor improvement in traffic operation and efficiency over the existing alignment.

As indicated on Tables 7.2-1 through 7.2-45 and 7.20-2, construction of any of the lane configurations on Alignments 2, 3 or 4 in Arlee; 2, 3 or 4 in Ronan or 2 or 3 in Polson will require conversion of larger areas of land to highway ROW. It also will require larger quantities of construction materials than on Alignment 1 in these areas.

7.19.4. Transportation Demand Management

TDM measures such as transferring truck traffic to rail, increasing the use of public transit, promoting increased use of non-motorized travel such as bicycling and increasing the use of carpooling will serve to reduce energy consumption. As indicated in Section 5.3.3 of this document, any highway improvements should be designed to: 1) not reduce or adversely affect TDM activities already occurring and 2) accommodate and promote increased use of TDM.

Encouraging traffic to travel alternate routes such as MT 83 through the Seeley-Swan area will serve to increase energy consumption because vehicles will travel longer distances.

7.20. CONSTRUCTION

Alternatives for alignments, lane configurations and design options are described in detail in Section 5.1. The MDT Preferred Alternative and the CSKT Preferred Alternative, which consist of combinations of alignments, lane configurations and design options, are described in detail in Sections 5.3 and 5.4.

7.20.1. No Action

There will be no construction related impacts or costs with No Action.

7.20.2. Existing Alignment (Except Arlee, Ronan and Polson)

Construction related activities, with any of the lane configurations, will result in some short-term adverse impacts which cannot be avoided. These impacts will be temporary and should last only for the duration of construction activities:

- Emissions from asphalt plants and crushers (Section 7.7)
- Dust from construction equipment activities (Section 7.7)
- Increased noise levels from construction equipment (Section 7.8)
- Potential for erosion from fresh cut and fill slopes (Section 7.9)
- Increase in water turbidity in streams from construction activities (Section 7.9)
- Inconvenience to highway users resulting from delay, detours and temporary surfacing as described in the following sections
- Reduced access to businesses resulting from delay and detours of traffic

It is anticipated that construction will be completed under six or more separate construction contracts. The first contract (or contracts) is expected to begin no earlier than ~~1999~~1996 with the remainder of the contracts beginning over the next five- to-six years. No priority or schedule has been established indicating which portions will be constructed first or in what order succeeding contracts will begin. All construction schedules are highly dependent on availability of future funding.

It is estimated that each construction contract will require two construction seasons to complete.

If any of the lane configurations are implemented on the existing alignment, construction will be one the following two types:

- Widen and Overlay. With this type of construction, the existing highway roadbed will be retained and will be widened, generally on both sides but sometimes only on one side. Roadway slopes will be flattened on both sides of the highway to meet current safety standards, even when the highway is widened on only one side. The entire roadway will then receive an asphalt pavement overlay. This type of construction is planned in areas where the existing horizontal and vertical alignments adequately meet design standards; where the existing roadbed is in satisfactory condition; and where widening the highway in its current location will not severely impact environmental resources.

- Complete Reconstruction. With this type of construction, the existing highway roadbed will be removed and a new highway will be constructed. This type of construction will be required in areas where the existing horizontal and vertical alignments must be improved; where the existing roadbed is in unsatisfactory condition; in areas where the alignment of the highway must be adjusted to avoid severe environmental impacts; or if alternate alignments are selected at Arlee, Ronan or Polson.

Approximate lengths of each type of construction, along the existing alignment, are summarized on Table 7.20-1. Construction on all alternate alignments will include complete reconstruction.

Traffic will be maintained on the existing alignment with any of the lane configurations during construction. Few, if any detours will be required. Most of the construction will, of necessity, occur during summer months which coincide with periods of highest traffic volume. Substantial inconvenience and some delay will occur. A traffic control plan will be completed to maximize safety and minimize inconvenience to motorists. The plan will designate how traffic will be maintained through construction areas. (Section 6.1.4)

In most areas to be widened and overlaid, traffic will be maintained on the existing two-lane highway, while excavation, construction of gravel base courses and construction of the first layer of asphalt pavement are constructed on the outside edges. Traffic will then be maintained on one side of the widened highway, while the opposite side receives the final asphalt overlay.

The most serious periods of inconvenience and delay will occur with Lane Configuration A during the time the final asphalt overlay is constructed because only one-way traffic can be maintained, while still allowing room for construction equipment and crews to work on the remainder of the 40-foot total width. As a result, flagging and pilot cars will be used to allow one direction of travel to go through the area while the other waits. Lane Configurations B, C and D will result in less inconvenience and delay because they are wide enough (at least 28 feet are required outside construction work areas) to allow two-way traffic on one side of the highway, while the asphalt overlay is constructed on the other.

In areas to be completely reconstructed, inconvenience and delay will be greater. It is planned that, as much as possible, excavation, embankment, gravel base course and asphalt pavement will be constructed outside the existing roadway without disturbing it while traffic is maintained on it. As the existing roadway is removed and the new subgrade and gravel base courses are constructed, it is planned that traffic will generally be maintained on one side of the construction area while work continues on the opposite side. During most of this time, traffic will be on unsurfaced or gravel surfaced areas and watering or other methods of dust control will be required. Traffic speeds in these areas will need to be reduced, possibly by using pilot cars, to ensure that safety will not be reduced and to avoid damage to vehicles by flying gravel particles. Maintenance of traffic in this method will be more difficult with Lane Configuration A because of its narrower width -- one-way traffic with resulting increased delay will often be required. With the wider roadways of Lane Configurations B, C and D, it is expected that two-way traffic can be maintained most of the time and delay will be substantially less.

Because of inadequate width, poor condition or unsatisfactory vertical/horizontal alignments, it is planned that all existing bridges will be reconstructed with any of the lane configurations. At the railroad crossing at Finley Creek and at the Jocko River bridge, it is anticipated that traffic will be maintained on the existing bridge while the new bridge (with Lane Configuration A) or one-half of the new bridge (with Lane Configurations B, C and D) is constructed. Traffic will then be shifted to the new structure while remaining bridge work is completed. Traffic will be slowed during the construction period but little additional delay or inconvenience are expected.

Because of age, poor condition, inadequate capacity and poor location, it is expected that most existing culverts will be replaced. They will also be extended to accommodate the width of the new roadway. In these areas, part of the culverts will be constructed while maintaining traffic on the existing roadway then, traffic will be shifted to the new roadway over the new culvert while the remainder of the culvert is constructed. In some locations, alignment

Table 7.20-1 Summary of Construction Types

Segment	Description	Miles	
		Widen and Overlay	Complete Reconstruction
A	Evaro to Arlee	7.1	1.4
B1	Arlee - Existing Alignment	2.2	4.8
C	Arlee to Ravalli Canyon	2.5	0.0
D	Ravalli Canyon to Ravalli	0.0	2.0
E	Ravalli	0.0	0.9
F	Ravalli Hill	2.0	1.7
G	St. Ignatius	1.8	0.6
H	St. Ignatius to Highway 212	6.6	2.0
I	Highway 212 to Ronan	3.1	0.0
J1	Ronan - Existing Alignment	3.5	0.0
K	Ronan to Pablo	2.1	0.0
L	Pablo	3.9	0.0
M	Pablo to Caffrey Road	1.8	0.0
N	Caffrey Road to MT 35 - Existing Alignment	1.0	1.5
O	Polson - Existing Alignment	2.0	0.0
P	Polson North - Existing Alignment	1.2	0.6
Totals		40.8	15.5
Morrison-Maierle. 1993.			

and space available may require the construction of temporary culverts and short detour roads around the construction area.

It is anticipated that most delay and inconvenience will occur during one construction season. Most excavation, embankment, pipe culvert installation, and possibly asphalt surfacing will be constructed during the first construction season. These are the major items that affect highway traffic and will cause the most delay.

Delays of up to 15 minutes will occur frequently, particularly with Lane Configuration A, during this first year to allow one-way traffic through narrow construction areas and to allow clearance and passage of trucks and other construction equipment. Few longer delays are anticipated and will not be allowed except where necessary and only

when requested several days in advance by the construction contractor. When these extended delays are anticipated, they will be advertised in advance using the local news media. They will be scheduled to avoid high traffic use periods such as weekends; morning and evening periods when people are traveling to and from work and school; or holidays such as Independence Day or Labor Day.

During the second season, it is anticipated that asphalt pavement (if not completed during the first season), seal coats, signing, striping, re-topsoiling and permanent seeding will be completed. These items will cause only brief, if any, interruptions in the flow of traffic.

No specific borrow sites have been identified for fill materials, gravel base courses and asphalt concrete aggregate. As final design is completed for each of the construction projects, these borrow sites will be identified and evaluated. Borrow material removal will be subject to applicable rules and regulations of the Montana Open Cut Mining Act -- a mine reclamation plan will be required. An erosion control plan, as described in Section 7.9 will also be required and will be developed by MDT. Table 7.20-2 summarizes gravel, plant mix and borrow quantities required for each section of the roadway.

Estimated construction costs for each segment for each of the alignments and lane configurations are summarized on Table 7.20-3.

Mitigation

Mitigation of adverse impacts that may result from air quality emissions related to asphalt plants and crushers and dust and other emissions from construction equipment on the roadway are discussed in Section 7.7.

Construction activities near communities or other noise sensitive areas will be allowed only during daylight hours to avoid disturbance at night.

An erosion control plan will be developed to avoid impacts to streams and other features during and after construction as outlined and described in Section 7.9. The erosion control plan will be prepared, not only for construction areas, but also for any borrow sources and gravel pits.

Inconvenience and delay to travelers on the highway will be minimized, to the extent practical, by developing and following a carefully planned traffic plan using methods describe above.

7.20.3. Arlee, Ronan and Polson Alignments

Construction related impacts are expected to be severe if Alignment 1 (the existing alignment) is followed through Arlee, Ronan and Polson. Air and noise pollution may occur in areas with a concentration of homes, businesses and other sensitive receptors. Maintenance of traffic and traffic control are expected to be much more difficult, particularly with Lane Configurations B and C (Lane Configuration D is not considered in these areas) because of the limited space available and the many intersecting streets and driveways and related crossing vehicles and pedestrians. Impacts on existing businesses will be substantial because, during particularly the first construction season, when excavation to subgrade occurs (to a depth of two feet or more beneath the existing roadway) and when gravel base courses are constructed, access to businesses located along the highway will be difficult, inconvenient and uncomfortable. It is expected that many potential customers will go elsewhere. Detours to parallel streets or roads may be considered through these communities, but is likely that even greater impacts may occur due to heavy volume of detoured highway traffic being diverted through residential, and normally quiet areas.

Table 7.20-2 Summary of Major Construction Quantities

Segment	Description	Lane Configuration A[1]			Lane Configuration B			Lane Configuration C			Lane Configuration D			MDT Preferred Alternative		
		Cubic Yards			Cubic Yards			Cubic Yards			Cubic Yards			Cubic Yards		
		Excav.	Asphalt Pav.	Gravel Base Courses	Excav.	Asphalt Pav.	Gravel Base Courses	Excav.	Asphalt Pav.	Gravel Base Courses	Excav.	Asphalt Pav.	Gravel Base Courses	Excav.	Asphalt Pav.	Gravel Base Course
A	Evaro to Arlee	350,000	10,850	98,020	496,400	31,990	236,900	584,000	38,000	281,290	817,600	32,820	317,840	567,940	36,050	269,879
B1*	Arlee - Existing Align.	157,000	15,590	144,250	222,400	29,430	255,050	261,600	35,050	303,230	366,200	32,180	305,330	261,600	55,050	303,230
B2*	Arlee - West Align.	147,600	15,860	153,820	209,200	29,960	270,860	246,000	35,590	321,620	344,400	32,650	322,780	--	--	--
B3*	Arlee East Align.	150,000	16,140	156,600	212,500	30,410	275,320	250,000	36,130	326,910	350,000	33,160	327,840	--	--	--
B4*	Arlee - Jocko Valley Align.	504,300	20,880	206,310	714,500	33,450	329,740	840,500	39,740	391,530	1,176,700	37,520	374,290	--	--	--
C	Arlee to Ravalli Canyon	34,500	2,450	21,020	48,900	9,080	61,870	57,500	10,790	73,460	80,500	9,110	87,540	50,362	9,370	63,840
D	Ravalli Canyon to Ravalli	159,400	5,730	56,600	215,400	9,180	90,460	290,800	10,900	107,410	409,300	10,290	102,680	215,400	9,180	90,460
E	Ravalli	24,800	2,400	14,860	37,200	3,720	23,090	41,300	4,530	27,910	61,900	4,320	26,840	41,300	4,530	27,910
F	Ravalli Hill	95,000	6,520	61,850	134,600	14,530	121,290	158,300	17,260	144,010	221,600	15,440	151,420	135,311	14,612	121,871
G	St. Ignatius	73,100	3,420	31,490	103,600	9,090	70,190	121,800	10,800	83,340	170,600	9,440	91,840	103,600	9,090	70,190
H	St. Ignatius to MTS 212	208,700	12,310	112,890	295,600	33,730	257,290	347,700	40,070	305,500	486,800	34,900	339,130	302,894	34,618	264,040
I	MTS 212 to Ronan	87,900	3,020	25,850	124,600	11,180	76,100	146,500	13,270	90,360	205,100	11,210	107,690	130,075	11,703	79,665
J1*	Ronan - Existing Align.	48,600	6,060	16,680	130,000	13,500	56,620	151,100	16,290	76,750	211,500	14,630	96,210	151,100	16,290	76,750
J2*	Ronan - One-Way Couplet	72,600	8,040	56,680	102,900	14,620	100,200	121,000	17,630	120,190	169,400	16,330	122,150	--	--	--
J3*	Ronan - West Align.	99,200	7,880	75,030	140,500	14,650	131,030	152,500	18,260	155,670	231,400	16,020	155,710	--	--	--
J4*	Ronan - West Align.	108,600	10,800	105,750	153,800	17,290	168,950	180,900	20,550	200,660	253,300	18,400	190,350	--	--	--
K	Ronan to Pablo	11,200	2,120	18,180	15,800	7,860	53,520	18,600	9,330	63,550	26,000	7,880	75,730	19,500	8,227	56,028
L	Pablo	87,600	4,960	35,970	124,100	14,580	93,850	146,000	17,430	111,940	204,200	15,090	129,850	140,306	16,689	107,236
M	Pablo to Caffrey Road	28,800	1,750	15,010	40,800	6,490	44,190	48,000	7,710	52,470	67,200	6,510	62,530	44,400	7,100	48,330
N-O-P1	Polson Alignment 1	190,000	13,500	117,000	278,000	25,800	209,000	317,000	31,000	285,000	472,000	28,400	242,000	236,900	19,980	176,600
N-O-P2	Polson Alignment 2	355,000	13,500	130,000	456,000	24,600	226,000	501,000	29,200	268,000	757,000	27,000	286,000	--	--	--
N-O-P3	Polson Alignment 3	342,000	17,200	169,000	473,000	29,700	281,000	508,000	35,200	334,000	767,000	32,800	352,000	1,207,000	80,100	716,000
TOTAL'		1,556,600	90,680	769,670	2,267,400	220,160	1,649,420	2,690,200	262,430	2,006,220	3,800,500	232,220	2,136,630	3,607,688	332,589	2,472,029

Morrison-Maierle. 1993. * On Existing Alignment throughout (Alignment 1 in Arlee, Ronan and Polson). " In Arlee and Ronan, in order to compare construction quantities, portions of adjacent segments are included.
'Lane Configuration A is the CSKT preferred alternative for the existing alignment. Polson Alignment 3 is the MDT preferred alternative. Polson Alignment 3 is not the CSKT preferred alternative.

Table 7.20-3 Summary of Construction Costs

Segment	Description	Lane Configuration ($1,000)				MDT Preferred Alternative
		A[1]	B	C	D	
A	Evaro to Arlee	5,234	9,204	10,591	11,530	9,394
B1*	Arlee - Existing Align.	5,540	8,391	9,696	9,811	9,696
B2*	Arlee - West Align.	5,042	7,999	9,337	9,418	—
B3*	Arlee - East Align.	5,148	8,128	9,479	9,558	—
B4*	Arlee - Jocko Valley Align.	8,279	12,466	14,718	15,060	—
C	Arlee to Ravalli Canyon	1,274	2,219	2,567	2,727	2,278
D	Ravalli Canyon to Ravalli	1,827	2,635	3,161	3,381	2,635
E	Ravalli	1,084	1,348	1,505	1,535	1,505
F	Ravalli Hill	2,364	3,418	3,950	4,178	3,434
G	St. Ignatius	1,231	2,220	2,557	2,810	2,220
H	St. Ignatius to Highway 212	5,199	9,014	10,476	10,940	9,219
I	Highway 212 to Ronan	1,259	2,532	2,915	3,251	2,628
J1*	Ronan - Existing Align.	2,130	4,481	5,298	5,179	5,298
J2*	Ronan - One-Way Couplet	3,527	4,378	4,657	4,662	—
J3*	Ronan - West Align.	2,907	4,214	4,853	4,981	—
J4*	Ronan - West Align.	3,346	4,831	5,600	5,658	—
K	Ronan to Pablo	700	1,502	1,726	1,858	1,558
L	Pablo	2,322	3,792	4,294	4,633	4,163
M	Pablo to Caffrey Road	649	1,357	1,561	1,706	1,459
N-O-P1	Polson Align. 1	7,040	19,600	23,700	15,500	13,294
N-O-P2	Polson Align. 2	9,700	15,500	18,800	18,400	—
N-O-P3	Polson Align. 3	9,900	15,100	18,500	17,600	15,100
TOTAL*		37,853	71,713	83,997	79,039	83,881

Morrison-Maierle. 1993.
*On Existing Alignment throughout (Alignment 1 in Arlee and Ronan).
**In Arlee and Ronan, in order to compare construction costs of alignment alternatives, portions of adjacent segments are included.
[1]Lane Configuration A is the CSKT preferred alternative for the existing alignment. Polson Alignment 3 is the MDT preferred alternative. Polson Alignment 3 is not the CSKT preferred alternative.

With Alignment 2, the one-way couplet in Ronan, the new southbound roadway one block west of the existing alignment will be constructed first, while highway traffic remains on the existing highway. Businesses and residences located along the southbound route will receive impacts similar to those described above for Alignment 1 and Lane Configuration A except that fewer businesses will be affected and alternative access to most residences could be provided. When the southbound roadway is completed, US 93 traffic will be placed on it while the existing alignment is reconstructed. The construction for the two-lane roadway required for the northbound lanes will be minor and will involve only the construction of concrete curb and gutter and sidewalk, minor improvement to the existing pavement and an asphalt overlay.

If Alignment 2, 3 or 4 is constructed in Arlee, if Alignment 3 or 4 is constructed in Ronan, or if Alignment 2 or 3 is constructed in Polson, noise and air quality impacts may still occur but will be less severe because there are fewer homes and businesses located close to them. Maintenance of traffic will be much easier because traffic will be maintained on the existing roadway throughout construction and will not be substantially affected by highway construction.

Major construction material quantities and construction costs are summarized on Tables 7.20-2 and 7.20-3.

7.20.3.1. Economic Impacts of Project Construction

Project construction will have positive impacts on the Lake County economy by directly creating employment and earnings for area residents. The current MOA between MDT and CSKT provides that 80% of laborer jobs and 50% of truck driver and operator jobs be awarded to tribal members for highway construction projects on the Flathead Indian Reservation. The agreement insures that a high percentage of construction workers will be hired from the Lake County labor pool. Some Lake County residents who are not tribal members also will be hired by contractors. Most out-of-county workers are expected to commute from Missoula or Flathead County.[122]

To provide a representative estimate of economic impact associated with construction, employment and earnings are based on the construction requirements of Lane Configuration B, a four-lane highway. Comparisons are then provided for Lane Configurations A, C and D.[123]

Over the period of construction, Alignment 1 (existing alignment), with Lane Configuration B (four-lane highway) will result in total direct employment of 520 construction workers, measured in person years. Of the total construction workers, 302 (58%) will be from Lake County; there will be 269 tribal construction workers, which will be 52% of the total and 89% of Lake County construction workers. Annual average employment will be 65 total construction workers, of which 38 will be from Lake County and 34 will be tribal members. In addition to direct employment, construction will generate 241 indirect jobs in Lake County, for total direct and indirect employment of 543 jobs over the period of construction.[124]

Total direct earnings for construction workers will be $15 million, of which $8.4 million (56%) will be for Lake County workers. Workers who are tribal members will have earnings of $7.6 million, which is 51% of total construction worker earnings. In addition to direct earnings, construction will generate $4 million in indirect earnings in Lake County, for total direct and indirect earnings of $12.4 million over the period of construction. Annual average direct and indirect earnings for Lake County will be $1.6 million.[125]

Compared with the existing alignments at Arlee, Ronan and Polson, the alternate highway alignments that will have the longest distance of new highway construction around the communities will result in higher levels of employment

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[122]Jim Boyer. U.S. Highway 93 Economic Impact Analysis Technical Report. 1993.
[123]Ibid.
[124]Ibid.
[125]Jim Boyer. U.S. Highway 93 Economic Impact Analysis Technical Report. 1993.

and earnings ranging from 12 to 31%. Compared with Lane Configuration B, Configuration A will result in 40% less employment and earnings. Configurations C and D will increase employment and earnings by 17 and 22%, respectively, compared with Configuration B.[126]

Contractor and construction worker expenditures in Lake County will further benefit the local economy. Contractor purchases are expected to include concrete, gravel, fuel, and miscellaneous tools and supplies. Expenditures by Lake County construction workers will be similar to expenditures by other county residents. Purchases by non-local workers will be mainly for food and beverages and gasoline and convenience store goods. Local purchases will increase sales by Lake County businesses and create additional jobs and earnings for county residents.

Assuming Lake County residents are hired to fill secondary jobs induced by local contractor and construction worker purchases, the county unemployment will be reduced by about 0.6% for the full period of construction.

Mitigation

Potential air quality, noise, erosion and water quality impacts will be mitigated as described in Section 7.20.2.

If roadway construction occurs through Arlee, Ronan or Polson on the existing alignment, a detailed and well organized traffic control plan will be particularly important. The plan must be developed and coordinated with local business, CSKT and local governments to ensure that, to the extent possible, needs of the community are met and that delay and inconvenience are no more than necessary and that safety is not compromised. Advance notice of construction activities and weekly updates of construction activities, using local news media, will be useful.

[126]Ibid.

TABLE OF CONTENTS

8. LIST OF PREPARERS 8-1

LIST OF TABLES

Table 8-1 List of Preparers, Agencies 8-1
Table 8-2 List of Preparers, Morrison-Maierle 8-2
Table 8-3 List of Preparers, Carter Burgess 8-3
Table 8-4 List of Preparers, Confederated Salish and Kootenai Tribes 8-4

8. LIST OF PREPARERS

The Federal Highway Administration (FHWA) in cooperation with the Montana Department of Transportation (MDT) is responsible for the preparation of this ~~draft~~final environmental impact statement (EIS). Table 8-1 lists representatives of these two agencies, and their education and experience. Morrison-Maierle, a Helena, Montana based engineering firm, under contract to MDT, prepared this document. Carter Burgess, a Denver, Colorado based engineering firm and a subcontractor to Morrison-Maierle, completed studies and evaluations related to the Polson, Montana area. Tables 8-2, 8-3 and 8-4 list representatives of Morrison-Maierle, Carter Burgess, and the Confederated Salish and Kootenai Tribes, their project responsibility, education and experience.

Table 8-1 List of Preparers, Agencies

Name, Title and Project Responsibility	Education	Experience
MONTANA DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS:		
Joel Marshik, Manager Environmental Services, Environmental and Hazardous Waste Bureau, MDT	B.S., Civil Engineering B.S., Biology M.F., Forestry	~~Twenty-four~~Twenty-eight years experience in U.S. Forest Service engineering, road design and water quality
Gordon Stockstad, Supervisor, Resources Section, Environmental and Hazardous Waste Bureau, MDT EIS Reviewer	B.S., Industrial Arts Education	~~Twenty-four~~Twenty-eight years experience in Traffic Engineering, Highway Design and Environmental Analysis and Coordination
Thomas J. Barnard, Administrator, Highway Division, Montana Department of Transportation	B.S., Civil Engineering, Professional Engineer	~~Twenty-seven~~Thirty-one years experience in highway design, construction and administration
Edrie L. Vinson, Past Chief, Environmental and Hazardous Waste Bureau, MDT Project Coordinator	B.A. and M.A., History and Archaeology	~~Eighteen~~Twenty-two years of experience in Environmental Management and Cultural Resource Preservation.
U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION		
Dale W. Paulson, Environmental and Project Development Engineer, FHWA Project Coordinator	B.S., Civil Engineering, Professional Engineer	~~Nine~~Thirteen years of experience in environmental coordination.

Table 8-2 List of Preparers, Morrison-Maierle

Name and Project Responsibility	Education	Experience
Brad Peterson, Project Manager	B.S. Civil Engineering Professional Engineer	~~Eighteen~~Twenty-two years of experience in highway planning, engineering, design and environmental evaluation.
John Hodnik, Assistant Project Manager	B.A. Political Science/Economics	~~Fifteen~~Nineteen years of experience in social, economic and land use planning.
Ginger Thomas, Consultant-Tribal Liaison	M.S., Wildlife Biology; B.A. Geography	~~Ten~~Fourteen years of experience in fisheries biology.
Gerald Graham, Preliminary Highway Design	Two-Year Degree, Civil Engineering Technology	~~Thirty-five~~Thirty-nine years of experience in planning and design of highways and streets.
Matt Delich, Traffic Operations	B.S. & M.S., Civil Engineering; Professional Engineer	~~Twenty-five~~Twenty-nine years of experience in traffic engineering and transportation planning.
Margaret Hofacker, GeoResearch, Inc., Air Quality	M.S., Environmental Engineering; B.S., Chemical Engineering	~~Three~~Seven years of experience in environmental engineering.
Tim Krause, Shapiro & Associates, Inc., Noise	B.S., Environmental Science; M.S. Environmental Systems Engineering; J.D.	~~Twelve~~Sixteen years of experience in preparing and reviewing environmental assessments and impact statements.
Mark Franchi, Floodplains	B.S., Civil Engineering	~~Four~~Eight years of experience in water resources.
Ray Breuninger, Wildlife and Wetland Coordination	Ph.D., Geology	~~Sixteen~~Twenty years of experience in environmental evaluation and assessment.
Joe Elliott, Threatened & Endangered Species	B.S., Biology and Chemistry; Ph.D., Botany	~~Twenty-one~~Twenty-five years of experience as an ecological consultant.
Janene Caywood, Historical Research Associates, Inc., Cultural Resources	B.S. & M.A., Anthropology	~~Thirteen~~Seventeen years of experience on cultural resource projects.
Daphne Digrindakis, Chen-Northern, Inc., Hazardous Materials	B.A., Geology	~~Ten~~Fourteen years of experience as an environmental scientist and reclamation specialist.

Table 8-2 List of Preparers, Morrison-Maierle (continued)

Name and Project Responsibility	Education	Experience
Sandra Fischer, Fischer & Associates, Visual Quality	B.S., Landscape Architecture; M.A., Art	~~Eighteen~~Twenty-two years of experience in landscape aesthetics.

Table 8-3 List of Preparers, Carter Burgess

Name and Project Responsibility	Education	Experience
Jeanette Lostracco Polson Project Manager	B.A., Geography; Master of Business Administration	~~Thirteen~~Seventeen years of experience in environmental analysis.
Gina McAfee, Assistant Project Manager	B.S., Landscape Architecture	~~Sixteen~~Twenty years of experience in environmental analysis.
Nancy Bauer Polson Transportation Planner	B.A., Social Ecology; M.A., Urban and Regional Planning	~~Fourteen~~Eighteen years of experience in transportation planning.
Joe Hart Transportation Analysis	M.S., University of Colorado; Montana Registered Professional Engineer	~~Sixteen~~Twenty years of experience in conceptual design, traffic engineering, transportation planning and transit analysis.
Nanette Neelan Traffic Operations and Conceptual Highway Design	B.S., Civil Engineering, Registered Professional Engineer	~~Twelve~~Sixteen years of experience in traffic highway planning, engineering and design.
Lee Cryer Noise and Air Quality	B.S., Economics; M.A., Regional Science	~~Six~~Ten years of experience in transportation planning.
Lisa Holewinski Visual Analysis	B.S., Ornamental Horticulture; Masters Landscape Architecture	~~Five~~Nine years of experience in planning and design of streetscape, parks and trails.
Jan McKee Greystone, Wetlands	B.S., Botany; M.S., Plant Ecology	~~Eight~~Twelve years of experience in vegetation and wetland evaluation, and impact analysis.
Mike Bonar Greystone, Wildlife	B.S., Environmental Biology	~~Five~~Nine years of experience in wildlife and threatened/endangered evaluation and impact analysis.
Jim Boyer Social and Economics	B.A., History; B.A.A., Marketing; M.S., Planning and Economics	~~Eighteen~~Twenty-two years of experience in socio-economic analysis in Montana.

Table 8-3 List of Preparers, Carter Burgess (continued)

Name and Project Responsibility	Education	Experience
Nick Kaufman WGM Group, Land Use	B.A., Economics; M.S., Rural, Town and Regional	~~Fifteen~~Nineteen years of experience in planning.
Lynn Fredlund GCM, Cultural	Ph.D., Archaeology; M.A., Anthropology; B.S., Anthropology	~~Twenty~~Twenty-four years of experience in cultural resource inventories and assessments.
Scott Richman	Bachelors, Environmental Design	~~Two~~Six years of experience in planning.

Table 8-4 List of Preparers, Confederated Salish and Kootenai Tribes

Name and Project Responsibility	Education	Experience
Dale Becker	B.S., M.S. Wildlife Biology	~~Four~~Six years of experience as a Wildlife Project Manager/Tribes.
Sue Ball	B.S., M.S. Wildlife Biology	Six years of experience as a Tribal Wildlife Biologist

TABLE OF CONTENTS

9. CIRCULATION OF THE FINAL~~DRAFT~~ ENVIRONMENTAL IMPACT STATEMENT 9-1

9. CIRCULATION OF THE ~~FINAL~~DRAFT ENVIRONMENTAL IMPACT STATEMENT

Copies of this ~~draft~~final environmental impact statement (EIS) are being furnished to federal agencies that have jurisdiction by law or special expertise with respect to any environmental impact involved and any appropriate federal, state, tribal or local agency authorized to develop and enforce environmental standards. This document is also being furnished to any person, organization or agency that has requested a copy of the entire document.

These entities include:

- Members, and the agencies or organizations they represent, of the Project Interdisciplinary Team as described in Chapter 10.

- Members, and the agencies or organizations they represent, of the community teams for Arlee, Ronan, Pablo and Polson as described in Chapter 10.

MASTER LIST
RVARO TO POLSON, RIB, F 5 1(9)6
REVISED 6/6/96 Moiese

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x	Willard Hill			112 Meadow Drive	Helena	MT	59601
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x	Jim Beyer	NEPA Coordinator	Bureau of Indian Affairs	Box A	Pablo	MT	59855
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x	Ronan City Library			203 Main SW	Ronan	MT	59864
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x	Helge Birk			P.O. Box 222	St. Ignatius	MT	59865
x	Honorable Ken W. Hurt	Mayor, Town of St. Ignatius		P.O. Box 103	St. Ignatius	MT	59865
x	Jeanine Allard			P.O. Box 460	St. Ignatius	MT	59865
x	Sandra & William Munoz		P.O. Box 370	12023 Watson	St. Ignatius	MT	59865
x	St. Ignatius Chamber of Commerce			P.O. Box 216	St. Ignatius	MT	59865
x	St. Ignatius Public Library				St. Ignatius	MT	59865
x	Tim Biggs	History Department	St. Ignatius High School		St. Ignatius	MT	59865
x	U.S. Postmaster			U.S. Post Office	St. Ignatius	MT	59865
x	Dick Dyer		Foresgren Associates	15 Madison Ave	W. Yellowstone	MT	59758
x	Director, Fed. Agency Liaison Div	Office of Federal Activities	EPA Environmental Review Coordinator		Washington	DC	20460
x	Federal Railroad Administration	Office of Economic Analysis	RRP-32	400 Seventh Street, SW	Washington	DC	20590
x	U.S. Dept. of Interior	Director	Office of Environmental Affair	1849 C Street, NW	Washington	DC	20240
x	Roy Duff	Highway Commissioner		P.O. Box 185	Whitefish	MT	59937
x	John Stromnes	The Missoulian		P.O. Box 8029	Missoula	MT	59807
x	*Coalition for Canyon Preserv.	Sharlon Willows		Box 422	Hungry Horse	MT	59919
x	Ken Howlett			Box 392	Polson	MT	59860

TABLE OF CONTENTS

10. COMMENTS, COORDINATION AND ISSUES 10-1
10.1. COORDINATION 10-1
10.1.1. Prior Environmental Assessments (EAs) 10-1
10.1.2. U.S. Highway 93 Environmental Impact Statement (EIS) 10-1
10.1.3. Coordination of Response to Comments on the Draft EIS 10-9
10.2. COMMENTS 10-12
10.3. ISSUES 10-12

LIST OF TABLES

Table 10-1-1 Prior Projects 10-2
Table 10.1-2 Interdisciplinary Team 10-3
Table 10.1-3 Community Teams 10-4
Table 10-1-4 Polson Community Team 10-4
Table 10.1-5 Community Team Meetings 10-5
Table 10-1-6 Scoping Meetings 10-8
Table 10.1-7 Meetings Held To Coordinate Changes In The Draft EIS For The Final EIS 10-10
Table 10.2-1 Total Comments By Scoping Meeting Series 10-13

10. COMMENTS, COORDINATION AND ISSUES

10.1. COORDINATION

10.1.1. Prior Environmental Assessments (EAs)

The proposed action was originally planned for development in several sections, as summarized on Table 10.1-1.

Four sections were planned for development in 1989-90 by the Montana Department of Transportation (MDT) and the Federal Highway Administration (FHWA) including:

Evaro-Dirty Corner, 8.7 miles;
Dirty Corner-Ravalli, 12.4 miles;
Ravalli-North, 8.1 miles; and
Ronan-Polson, 11.2 miles.

Public coordination efforts were initiated and documented for each of these four projects -- a Notice of Intent was issued on 15 February 1989 for the Dirty Corner-Ravalli Project, 06 July 1989 for the Evaro-Dirty Corner and Ravalli-North projects and 16 January 1990 for the Ronan-Polson project. The notice was sent to tribal, federal, state and local agencies and affected private individuals and organizations. Several public scoping meetings were held and location and design public hearings were conducted for the Evaro-Dirty Corner, Dirty Corner-Ravalli and Ravalli-North projects. During this process and at the request of the Confederated Salish and Kootenai Tribes (CSKT), it was determined by FHWA in cooperation with MDT that a single environmental impact statement (EIS) should be prepared.

At the time of the decision to prepare an EIS, it was also decided by MDT and FHWA that the entire length of US 93, from Evaro to Polson should be included in the EIS analysis and documentation. For that reason the 12.3 mile-long Ronan-South section was added. In 1992, based on information received from public scoping meetings and preliminary environmental evaluations, it was determined by FHWA and MDT at the request of CSKT that the 3.8 mile-long section of US 93 through the city of Polson should also be included with the EIS.

10.1.2. U.S. Highway 93 Environmental Impact Statement (EIS)

On 08 August 1991, a Notice of Intent was prepared and mailed to federal, state and local agencies, and interested private organizations and citizens. The notice explained the scope and purpose of the proposed action, indicated that an EIS was being prepared and requested written comments.

On 04 September 1991, a meeting was held at the tribal complex in Pablo with representatives of MDT and CSKT to discuss upcoming public scoping meetings and how to best involve and solicit comments from the public.

An Interdisciplinary Team (ID Team) including representatives from tribal, federal, state and local agencies, and private organizations was established to provide a forum for members to discuss key issues and comments relating to their respective agency. The representative of each agency is listed on Table 10.1-2.

The purpose of the ID Team has been to discuss and provide recommendations on key issues, attend public scoping meetings and record comments, to present and review various studies, to review sections of the draft EIS and final EIS to ensure that each agency's concerns and recommendations are identified and addressed, and to develop recommendations for a preferred alternative ~~an "ID Team preferred alternative"~~ for the proposed action.

ID Team meetings ~~have been~~were held approximately every two to three months duringsince the development of the draft EIS ~~began~~.

For Arlee, Ronan, Pablo and Polson, individual community teams were established to provide a forum for representatives of the community at large, including local government, businesses, and schools, to review alternatives for highway improvement and make recommendations specific to each community. A list of each community team is included in Tables 10.1-3 and 10.1-4. Each community team held meetings as shown in Table 10.1-5.

Table 10-1-1 Prior Projects

Project Number	Project Name	From Milepost	To Milepost
F5-2(8)6	Evaro-Dirty Corner	6.3	15.0
F5-2(34)15	Dirty Corner-Ravalli	15.0	27.4
F5-2(38)27	Ravalli-North	27.4	35.5
F5-2( )36	Ronan-South	35.5	47.8
F5-2(33)48	Ronan-Polson	47.8	59.0
NH 5-2(46)59	Polson	59.0	62.8

Table 10.1-2 Interdisciplinary Team

Interdisciplinary Team Members		
Joel Marshik, Manager Environmental Services Environmental and Hazardous Waste Bureau Montana Department of Transportation 2701 Prospect Avenue Helena, MT 59620	Derwyn Halvorson, Branch Chief Agency Roads Department Flathead Agency Bureau of Indian Affairs P.O. Box A Pablo, MT 59855	Kim Aipperspach Ronan City Council 440 7th Avenue NW Ronan, MT 59864
Dale W. Paulson Environmental and Project Development Engineer Federal Highway Administration 301 S. Park Street, Drawer 10056 Helena, MT 59626-0056	Chane Salois Irrigation Manager Flathead Irrigation Project Bureau of Reclamation P.O. Box G St. Ignatius, MT 59865	Dave Stipe Lake County Commissioner 106 4th Avenue E. Polson, MT 59860
Indian Programs Coordinator Region VIII, Montana Office Environmental Protection Agency Federal Building, 301 S. Park, Drawer 10096 Helena, MT 59626-0096	Department of Health and Human Services Public Health Service P.O. Box 280 St. Ignatius, MT 59865	Horace Brown Missoula County Surveyor Missoula County Courthouse Missoula, MT 59802
Howard Kutzer Rocky Mountain, Denver U.S. Department of Housing and Urban Development First Interstate Tower 633 17th Street Denver, CO 80888	Carol Gleichman Advisory Council on Historic Preservation 730 Sims Street #401 Golden, CO 80401	Kyle Karstens Polson City Council 1312 9th Street East Polson, MT 59860
Kevin Shelley Fish and Wildlife Enhancement Kalispell Suboffice U.S. Fish and Wildlife Service 780 Creston Hatchery Road Kalispell, MT 59901	Ginger Thomas Tribal Consultant Liaison Confederated Salish and Kootenai Tribes 502 Livingston Avenue Missoula, MT 59801	Tony Hoyt, Representative Flathead Resource Organization c/o Hummingbird Toys and Treats Box 281 Arlee, MT 59821
U.S. Army Corps of Engineers, Omaha District 215 N. 17th Street Omaha, NB 68102-4978	John Lindahl Soil Scientist U.S. Natural Resources Conservation Service 514 S. 23rd Avenue Bozeman, MT 59715	

Table 10.1-3 Community Teams

Arlee Community Team	Ronan Community Team	Pablo Community Team
Charlene Petet P.O. Box 354 Arlee, MT 59821	Kim Aipperspach Ronan City Council 440 7th Avenue NW Ronan, MT 59864	Jerry Slater Salish Kootenai College P.O. Box 117 Pablo, MT 59855
Tony Hoyt P.O. Box 281 Arlee, MT 59821	Jay Preston 717 2nd Place SW Ronan, MT 59864	Bryan Hall P.O. Box 277 Pablo, MT 59855
Gayle Crane, Superintendent School Dist No. 8 Box 37 Arlee, MT 59821	Gordon Granley 2200 Terrace Lake Road Ronan, MT 59864	Chane Salois, Irrigation Mgr. Flathead Irrigation Project, Bureau of Reclamation, P.O. Box G Pablo, MT 59855
Louie Adams CSKT Council Member P.O. Box 278 Pablo, MT 59855	Robert Halgren Superintendent: School District No. 30 532 4th Avenue SW Ronan, MT 59864	Larry Anderson, Principal Two Eagle River School P.O. Box 362 Pablo, MT 59855
Hank Baylor CSKT Council Member P.O. Box 278 Pablo, MT 59855	John Lozeau P.O. Box 278 Pablo, MT 59855	Lloyd Irvine CSKT Council Member P.O. Box 278 Pablo, MT 59855
Dave Stipe Lake County Commissioner 106 4th Avenue East Polson, MT 59860	Dave Stipe Lake County Commissioner 106 4th Avenue East Polson, MT 59860	Gerald Newgard Lake County Commissioner 106 4th Avenue East Polson, MT 59860
Aileen Meyer P.O. Box 283 Arlee, MT 59821		

Table 10.1-4 Polson Community Team

Polson Community Team		
Kyle Karstens Polson City Council 1312 9th Street East Polson, MT 59860	George Mahoney P.O. Box 1127 Polson, MT 59860	Jerry Sorenson Land Services 106 4th Avenue East Polson, MT 59860
Bob Fulton City Engineer 217 Main Street Polson,MT 59860	Pat Lefthand CSKT Council Member P.O. Box 278 Pablo, MT 59855	Bill Coffee Community Development P.O. Box 1506 Polson, MT 59860
Rich Forbis Chamber of Commerce 510 20th Avenue West Polson, MT 59860	Michael Lies City Council P.O. Box 1689 Polson, MT 59860	Fred Bente Montana Dept. of Trans. 2701 Prospect Avenue Helena, MT 59601
Jim Weaver Montana Dept. of Trans. P.O. Box 7039 Missoula, MT 59807	Don Smith School Dist. #23 414 6th Avenue West Polson, MT 59860	Ginger Thomas Tribal Consultant Liaison 502 Livingston Avenue Missoula, MT 59801

Table 10.1-5 Community Team Meetings

Town	Place	Date	Time	Purpose
Arlee	CSKT's Alcohol and Substance Abuse Program Office	20 October 1992	3:00 to 5:00pm	Discuss alternatives, design options and issues related to proposed improvement to U.S. Highway 93 through the Arlee area.
	CSKT's Alcohol and Substance Abuse Program Office	04 November 1992	3:00 to 5:00pm	Discuss alternatives, design options and issues related to proposed improvement to U.S. Highway 93 through the Arlee area.
	CSKT's Alcohol and Substance Abuse Program Office	13 January 1993	3:00 to 5:00pm	Discuss alternatives, design options and issues related to proposed improvement to U.S. Highway 93 through the Arlee area.
	CSKT's Alcohol and Substance Abuse Program Office	02 June 1993	3:00 to 5:00pm	Discuss proposal by CSKT concerning special mitigation measures for business impacts.
Ronan	Ronan City Hall	20 October 1992	7:00 to 9:00pm	Discuss alternatives, design options and issues related to proposed improvement to U.S. Highway 93 through the Ronan area.
	Ronan City Hall	04 November 1992	7:00 to 9:00pm	Discuss alternatives, design options and issues related to proposed improvement to U.S. Highway 93 through the Ronan area.
	Ronan City Hall	13 January 1993	7:00pm	Discuss alternatives, design options and issues related to proposed improvement to U.S. Highway 93 through the Ronan area.
Pablo	BIA East/West Conference Rooms	20 October 1992	7:00 to 9:00pm	Discuss alternatives, design options and issues related to proposed improvement to U.S. Highway 93 through the Pablo area.
	BIA East/West Conference Rooms	04 November 1992	7:00 to 9:00pm	Discuss alternatives, design options and issues related to proposed improvement to U.S. Highway 93 through the Pablo area.
	BIA West Conference Rooms	07 January 1993	6:00 to 8:30pm	Discuss the alternatives and issues related to proposed improvement to U.S. Highway 93 through the Pablo area.
Polson	Polson City Library	10 November 1992	7:00pm	Study background; sub-ID Team roles and responsibilities; EIS process/methodology; Public Involvement Program; selection of initial alternatives; and schedule.
	Polson City Library	02 December 1992	7:00pm	Reviewed Alternatives 1 through 6. Discussed issues map. Refined alternative routes, combining several.
	Lake County Courthouse	19 January 1993	7:00pm	Present and discuss alternatives A through H; review community planning issues; determine alternatives that will be advanced in the study.
	Lake County Courthouse	03 February 1993	7:00pm	Present and discuss alternatives; reduce number to a more manageable set to present at Scoping Meeting.
	Lake County Courthouse	05 August 1993	7:00pm	Community team recommended Alternative 3 as the preferred alternative.

An organized public scoping process has been conducted to encourage and provide an opportunity for public comment on the proposed action. Meetings have been held as shown on Table 10.1-6. A notice for each meeting was generally advertised one to two weeks prior to each meeting in newspapers in or near the area of the proposed action, including the Missoulian, Lake County Leader, Char-Koosta News and the Daily Interlake. Written notice of each meeting was also sent to all individuals and agencies who requested to be on the mailing list.

Each meeting has included a brief presentation explaining the history of the proposed action to-date, the environmental review process, the purpose of each meeting and planned future activities. Public comment has been requested and recorded by members of the ID Team and community teams on special forms. Displays have been available at each meeting and have consisted of maps showing alignments under consideration, drawings showing lane configurations under consideration and large scale aerial photographs. At some of the meetings, informational handouts have been provided. At all meetings, individuals have been encouraged to write their name and address on forms provided and they have been added to the mailing list. At all meetings, forms have been provided for submitting written comments.

The focus of the first three series of meetings was on the area in general, while meeting series four and five, and the three Polson meetings were on the specific community.

Other meetings have been held with public and private organizations interested in the proposed action including:

03 February 1992, meeting with the Kootenai and Salish culture committees at 11:00 am at the Longhouse in St. Ignatius

04 February 1992, meeting with the CSKT Tribal Council at 1:00 pm, tribal council chamber, in Pablo

04 May 1992, meeting of the members of the CSKT tribal staff at 10:00 am, in Pablo

26 August 1992, meeting of the members of the CSKT tribal staff (three meeting segments) held at the Lands Department, in Pablo

29 October 1992, ID Team meeting

13 November 1992, CSKT Tribal Council

21 January 1993, Polson Kiwanis Club meeting held at the Diamond Horseshoe Restaurant, in Polson

12 January 1993, Polson Rotary Club meeting held at the Pondera Restaurant, in Polson

02 February 1993, Polson/U.S. Highway 93 presentation to the CSKT Tribal Council, in Pablo

02 February 1993, St. Ignatius City Council meeting at 7:00 pm in city hall

03 February 1993, Polson Chamber of Commerce meeting at noon

22 February 1993, Polson City Council in Polson

02 March 1993, St. Ignatius City Council meeting at 7:00 pm in city hall

August 1993, CSKT Tribal Council, in Pablo

01 November 1993, Polson City Council in Polson

02 November 1993, Lake County Commissioners in Polson

14 November 1993, Polson/US 93 presentation to the CSKT Tribal Council in Pablo

11 January 1994, CSKT Tribal Council, in Pablo

28 January 1994, Salish-Kootenai College, television show, in Pablo

Table 10.1-6 Scoping Meetings

Meeting Series	Town	Place	Date	Time	Purpose
1	Arlee	Arlee Elementary School Cafeteria	03 October 1991	2:00 to 4:30 pm	To receive information from the public on issues that should be addressed in the EIS.
	Ronan	Ronan High School Gym	03 October 1991	7:00 to 9:30 pm	To receive information from the public on issues that should be addressed in the EIS.
	Pablo	CSKT Tribal Council chamber	21 November 1991	7:00 to 9:30 pm	To receive information from the public on issues that should be addressed in the EIS.
2	St. Ignatius	St. Ignatius Community Center	03 February 1992	2:00 pm	To receive information from the public on alternatives that should be addressed in the EIS.
	Polson[1]	Polson City Library	03 February 1992	7:00 pm	To receive information from the public on alternatives that should be addressed in the EIS.
3	St. Ignatius	St. Ignatius Community Center	04 June 1992	2:00 to 5:00 pm	Present findings of preliminary environmental studies and to receive additional information.
	Pablo	BIA West Conference Room, in Pablo	04 June 1992	7:00 to 10:00 pm	Present findings of preliminary environmental studies and to receive additional information.
4	Arlee	Tribal Community Center	28 September 1992	1:00 to 3:00 pm	To receive comment related to alternatives under consideration in the Arlee area.
	Ronan	Ronan High School Gym	29 September 1992	7:00 pm	To receive comment related to alternatives under consideration in the Ronan area.
	Pablo	CSKT Tribal Council Chamber	28 September 1992	7:00 pm	To receive comment related to alternatives under consideration in the Pablo area.
5	Arlee	Arlee High School lunchroom	02 December 1992	7:00 pm	To receive comment related to alternatives under consideration in the Arlee area.
	Ronan	Ronan High School Gym	01 December 1992	7:00 pm	To receive comment related to alternatives under consideration in the Ronan area.
	Pablo	BIA Conference Rooms,in Pablo	02 December 1992	1:00 to 3:00 pm	To receive comment related to alternatives under consideration in the Pablo area.
1[2]	Polson	Polson Elks Lodge	19 November 1992	7:00 pm	Introduce study and participants; its primary purpose and to receive public comments about Polson's traffic conditions and potential improvement.
2[2]	Polson	Lake County Courthouse Conference Room	15 December 1992	7:00 pm	Present a summary of concerns and comments raised at the first meeting; review more data and alignment alternatives.
3[2]	Polson	Elk's Lodge	16 February 1993	6:00 to 9:00 pm	Present summary of comments received at previous meetings and alternatives under consideration to be analyzed.

[1]Open forum held in Polson with focus on Project Area. [2]Specific Polson community team meetings.

On 09 December 1992, the ID Team; on 17 December 1992, CSKT staff and council members; and on 11 January 1994, CSKT council members and the ID Team; went on bus tours of the area of the proposed action. The focus of each tour was on wildlife and wetland impacts, and on alternate alignments in Arlee, Ronan, Pablo and Polson. Participants provided comments that combined recommendations, observations, and questions. (Public Comments, Book 2)

On 13 January 1993, the Flathead Resource Organization (FRO) prepared a proposal that offers design alternatives for the proposed action. The FRO Plan is based on improving safety, reducing traffic, and preserving local communities and the environment by improving the existing two-lane highway with specific design options, law enforcement, elimination of multi-trailer semis and development of mass transit, all of which are outlined, in detail, in their proposal. (Public Comments, Book 2)

10.1.3. Coordination of Response to Comments on the Draft EIS

A series of meetings was held between July 1995 and January 1996 to coordinate responses to comments on the draft EIS. The meetings were held at various locations on the Flathead Indian Reservation to discuss analysis of issues that will have changes in the final EIS. Table 10.1-7 presents a list of the meetings that were held to coordinate responses to comments on the draft EIS for the final EIS.

Table 10.1-7 Meetings Held To Coordinate Changes In The Draft EIS For The Final EIS
This table has been added to the final EIS.

Meetings Held To Coordinate Changes In The Draft EIS For The Final EIS			
DATE OF MEETING	LOCATION	PURPOSE OF MEETING	RESULT OF MEETING
27 April, 1995	Polson, MT	Discuss Ninepipe, wetlands and stream crossing issues.	Determined more coordination will be necessary for these items.
28 April, 1995	Pablo, MT	Discuss special management strategy for Evaro wildlife corridor.	Determined cooperating agencies are satisfied with jurisdictional preservation of habitat. Determined there is concern about design of wildlife underpasses.
28 June, 1995	Morrison-Maierle Inc. Helena, MT	Coordinate with Environmental Protection Agency (EPA).	Determined planned responses to comments will satisfy EPA concerns.
12 July, 1995	Arlee, MT	Discuss Evaro wildlife crossing.	Determined a wildlife overpass will be better than a wildlife underpass.
4 August, 1995	Pablo, MT	Discuss wildlife overpass structure and stream crossings.	Determined need for other meetings to respond to tribal comments.
17 August, 1995	Pablo, MT	Discuss comments on traffic analysis.	Decided to update traffic information from 1991 to 1994 and design year from 2015 to 2020.
17 August, 1995	Pablo, MT	Discuss comments of culture committees and tribal education program.	Determined need for additional meetings with culture committees.
29 August, 1995	Pablo, MT	Discuss coordination of responses to tribal comments and coordination with tribal council.	Decided to prepare issues summaries for tribal council as a basis for identification of a preferred alternative.
30 August, 1995	Pablo, MT	Discuss Ninepipe, wetlands and stream crossing issues.	Determined more information is needed for design of highway through Ninepipe area.
31 August, 1995	Pablo, MT	Discuss population growth and review method for estimating commuter-related population growth.	Decided to continue working on an estimate of commuter related population growth.
11 September, 1995	Polson, MT	Discuss school bus routes with superintendents of public schools.	Determined need to coordinate design of highway with school officials.
18 September, 1995	Pablo, MT and Ninepipe National Wildlife Refuge	Discuss design of highway through Ninepipe area.	Continue to develop information for the Ninepipe area.

Meetings Held To Coordinate Changes In The Draft EIS For The Final EIS			
DATE OF MEETING	LOCATION	PURPOSE OF MEETING	RESULT OF MEETING
19 September, 1995	Pablo, MT	Discuss revised traffic analysis.	Determined two-lane highway doesn't have adequate capacity and can't reduce traffic for desirable level-of-service.
20 September, 1995	Pablo, MT	Discuss method to estimate commuter-related population growth.	Continue to work on commuter-related population growth.
25 September, 1995	Pablo, MT	Discuss concerns of highway accelerating change and affecting traditional values.	Determined impacts will occur over next 20 years and safety must be important consideration.
16 October, 1995	Helena, MT	Review draft copies of issues summaries.	Continue to work on issues summaries.
16 November, 1995	Pablo, MT	Discuss mitigation of impacts to wetlands.	Decided to develop a wetlands mitigation plan before completion of final EIS.
17 November, 1995	Pablo, MT	Discuss revised analysis of air quality.	Determined method of analysis is acceptable and need to continue to coordinate information.
11-15 December, 1995	Pablo, MT	Conduct field reconnaissance of properties to be developed as replacement wetlands.	Use information for the wetlands mitigation plan.

10.2. COMMENTS

Comments were received from 455 individuals, businesses and private organizations during the public scoping process. Refer to the list of meetings in Section 10.1. The comments consist of written comments, letters and comments transcribed during scoping meetings. Table 10.2-1 shows the total comments on 18 issues by meeting series. Safety was a major focus of the comments and was associated with each of these issues.

10.3. ISSUES

The following is a list of issues that have been presented by participants in the public scoping process. The issues are generally listed under the headings corresponding to the section in the ~~draft~~final environmental impact statement (EIS) where they are discussed.

ALTERNATIVES UNDER CONSIDERATION (Chapter 5)

Public comments expressed interest in a set of alternatives that would consider whether it will be necessary to widen the highway to four lanes to provide adequate highway capacity and desirable level-of-service (LOS). Comments identified a range of transportation options to consider in the analysis of increasing traffic volume and the effect of highway improvement and transportation demand management (TDM) measures on highway capacity and LOS. It has been noted that traffic volumes and transportation needs during the five-month peak summer season (May through September) are greater than during the seven-month off-peak season.

Comments about highway improvement included consideration of two-lane, four-lane and divided four-lane configurations. Passing lanes, continuous two-way left-turn center medians, left-turn bays, alternate alignments around communities, one-way couplets, truck routes and design options such as access control and frontage roads have been suggested by the public. Other important highway design options mentioned by the public include improved approaches to the highway, improved intersections and turnouts for school buses and mail delivery.

Strong public opposition has been expressed for any alignment alternatives that divert traffic away from or around the community of Arlee and the city of Ronan.

Interest has been expressed in transportation demand management (TDM), which includes alternate highway routes and mass transit, conversion of truck to rail freight and various ridesharing strategies for traffic that regularly uses the highway.

Public comments identified U.S. Highway 93 in the Evaro-Polson area as a part of a regional transportation system centered on the highway and extending from the Idaho stateline northward through the Bitterroot, Missoula, Jocko, Mission and Flathead valleys to the Canadian border.

Table 10.2-1 Total Comments By Scoping Meeting Series

Information From Public Scoping Meetings:	Meeting Series #5 Community Focus			Meeting Series #4 Community Focus			Meeting Series #3 Project Area Focus			Meeting Series #2 Project Area Focus			Meeting Series #1 Project Area Focus			TOTAL OF ALL COMMENTS RECEIVED		
Open-ended discussion, so each comment does not mention every issue.	TOTAL COMMENTS			TOTAL COMMENTS			TOTAL COMMENTS			TOTAL COMMENTS			TOTAL COMMENTS			TOTAL COMMENTS		
	Fa	Op	WC	Fa	Op	WC	Fa	Op	WC	Fa	Op	WC	Fa	Op	WC	Fa	Op	WC
Existing Alignment-PSA	0	0	0	0	0	0	3	0	0	35	0	0	15	0	0	53	0	0
Existing Alignment-Towns	51	0	2	62	0	2	5	4	0	33	6	1	45	16	1	196	26	6
Alternate Alignment-PSA	0	0	0	0	0	0	2	1	0	1	3	1	4	1	0	7	5	1
Alternate Alignment-Town	4	22	6	7	19	2	2	2	0	23	5	2	20	9	0	56	57	10
Truck Route-Towns	1	0	1	4	1	1	1	0	0	4	0	0	3	0	0	13	1	2
One-Way Couplet	2	4	2	0	2	2	0	0	0	1	0	1	0	0	0	3	6	5
Widen Highway to 4-lanes	1	6	0	20	0	0	8	1	0	44	2	0	38	3	0	111	12	0
Improve Existing 2-lanes	12	0	0	3	0	0	1	0	0	11	0	0	14	0	0	41	0	0
More enforcement of speed limit	1	0	0	2	0	0	1	0	0	5	0	0	0	0	0	9	0	0
Lower speed limit	2	0	0	2	0	0	1	0	0	3	0	0	7	0	0	15	0	0
Access control	2	0	1	1	0	2	0	0	0	6	0	0	7	0	0	16	0	3
Continuous Left Turn Lane	2	1	0	2	5	4	1	2	1	9	11	0	5	10	0	19	29	5
More traffic signals/ controls	19	1	0	17	0	1	2	1	0	6	0	0	14	0	0	58	2	1
More pedestrian access	7	0	1	18	0	1	4	0	0	10	0	0	22	0	0	61	0	2
More bicycle access	5	0	0	5	0	0	3	0	0	3	0	0	12	0	0	27	0	0
Develop more rail freight	4	0	0	0	0	0	0	0	0	5	0	0	0	0	0	9	0	0
Develop more mass transit	2	0	0	0	0	0	0	0	0	3	0	0	0	0	0	5	0	0
Develop more HOV travel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total # Comments Forms	82			86			33			115			139			455		
Total attendance at mtg.	133			112			59			106			118			528		

Fa = Favor; Op = Oppose; WC = Would Consider --- PSA = Project Service Area --- HOV = High occupancy vehicle. SOURCE: Morrison-Maierle. 1990-1993.

There is interest in transit strategies and programs available with the Intermodal Surface Transportation Efficiency Act (ISTEA).

TRAFFIC OPERATION AND SAFETY (Sections 6.1 and 7.1)

Increased speed with a four-lane highway is a concern for improving safety and reducing accidents in communities and outside communities.

In communities, local residents identify traffic signals as a method to reduce speed, improve safety and increase access. Communities indicate that traffic traveling at highway speed is a barrier that restricts access for vehicles, pedestrians and bicyclists. There also is concern that widening the highway to four lanes will cause delay for traffic crossing the highway in communities. Public comments associated increased speed with the potential for increased accident rates on the highway outside communities.

Communities are concerned about comparing beneficial and adverse effects of diverting through traffic away from the existing alignment to alternate alignments. Alternate alignments will improve safety and access, but traffic is reduced for highway-oriented business. Alternate alignments contrast the safety and convenience of the traveling public outside communities with businesses that currently serve the traveling public in communities.

Throughout all of the public scoping meetings, by almost a three-to-one margin, public comments favored improving the highway with four-lanes rather than two-lanes.

LAND USE (Sections 6.2 and 7.2)

Public comments expressed concern about conversion of productive land to highway right-of-way (ROW). The value of a highway system that efficiently and safely provides transportation needs to be balanced with the value of land needed for the highway. Agricultural concerns identified effects on existing irrigation facilities, water rights and livestock crossings.

Governmental agencies with jurisdictional authority for land use planning and regulation are interested in integrating the land use planning process with access control and highway design and development.

Access control is seen as an aid for protecting existing businesses, controlling commercial strip development and residential sprawl, improving safety at approaches to the highway and for preserving access to county roads and maintaining value of private property. Land use also is an issue for establishing land use planning and regulation and coordinating jurisdictional authority among the tribal, county and municipal governments.

Land use also is of interest for highway signing and billboard controls that would balance rights of private property with the common desire to preserve the area's scenic values and natural setting.

Land concerns have also been expressed related to increased demand for use of recreation sites and wildlife habitat, as well as prime farmland and residential, commercial and industrial development.

SOCIAL (Sections 6.4 and 7.4)

Social concerns involve two types of population growth: 1) Ongoing growth that includes retirees, new residents who live and work in the area and temporary residents who maintain residences for seasonal occupancy; 2) population growth due to commuters who move to the area to live, but travel to work in the Missoula and Kalispell areas. If highway improvement results in more population growth, Native American social organization and the rural lifestyle would be influenced by the larger population. Public comments inquired whether highway improvement will accelerate or shift patterns of population growth, with increased demand on schools and other facilities/services.

ECONOMICS (Sections 6.5 and 7.5)

There is concern about the effects of increasing traffic and congestion on businesses that are located on or near the highway. Existing highway-related businesses will be less visible to through traffic with alternate alignments. If local sales decrease because of a shift in traffic, there will be losses of employment and earnings.

Availability of access to businesses and parking with increasing traffic and congestion also are considerations that are identified for businesses.

The highway will improve access from the area of the proposed action to Missoula and Kalispell, the region's major trade centers. With improved convenience and safety in travel, local businesses will be increasingly vulnerable to the concentration of retail trade and services in the larger communities.

PEDESTRIANS AND BICYCLISTS (Section 6.6 and 7.6)

Outside communities, public comments addressed whether separate bicycle, pedestrian and equestrian paths could be built parallel to the highway, rather than utilizing wider highway shoulders.

Signing, speed control, traffic signals, improving sidewalks and building pedestrian underpasses and overpasses also have been identified as methods to consider to improve access for pedestrians and bicyclists.

AIR QUALITY (Sections 6.7 and 7.7)

Environmental groups and CSKT expressed a need for a study of long-term impacts of air quality due to increased vehicle emissions caused by increasing traffic. It is a concern that an improved highway will increase traffic above recent rates of growth, rather than just providing adequate capacity and desirable LOS. There also is concern about the effects of using sand for maintenance during winter months, which causes airborne particulate matter, especially during the spring.

NOISE (Section 6.8 and 7.8)

Public comments indicated a concern that shifting traffic to rural areas will expose residential areas, cultural resources and recreation sites to increased noise.

WATER QUALITY (Sections 6.9 and 7.9)

There is concern that appropriate pollution control measures be used to assure protection of water quality, aquatic habitat and riparian areas. Increased development resulting from highway improvement is a concern for the capacity of water aquifers, which currently are exposed to high numbers of individual water and sewer systems. A future site for wastewater treatment is located in the area of a possible highway alignment on the northwest edge of Arlee.

Public comments indicated need for flood control and storm drainage, wastewater treatment and individual septic systems near highway development.

Existing and potential future channel changes of Jocko River, other streams (such as Spring and Agency creeks) and irrigation canals are a concern, especially to protect trout spawning from sedimentation and roadside drainage.

Mitigation for natural vegetation should be identified, including revegetation and erosion control.

Bridges over Jocko River and other streams should be constructed in a manner to adequately span the river and minimize channel modifications.

WETLANDS (Sections 6.10 and 7.10)

Highway improvement should replace the loss of wetlands, in accordance with Section 404 of the Clean Water Act.

Complete coordination between CSKT, the U.S. Fish and Wildlife Service (USFWS) and MDT will be important.

FLOODPLAINS AND STREAM CROSSINGS (Sections 6.11 and 7.11)

Bridges over Jocko River and other streams should be constructed in a manner to adequately span the river and minimize channel modifications. Culverts for streams and irrigation channels should be of adequate size to minimize damage from erosion due to floods and storm drainage.

Mitigation for natural vegetation should be identified, including revegetation and erosion control.

FISH AND WILDLIFE (Sections 6.12 and 7.12)

Public comments indicated concern with timing of construction activities to avoid impact on spawning trout, by designing culverts to allow fish passage.

Wildlife (black bear, deer, mountain lion, avocet, arctic swan, whistling swan, other waterfowl and turtles) are concerns for animal migration patterns and wildlife habitat, especially in riparian areas. There is a desire that highway design consider methods of reducing the danger of road kill, both for wildlife and human safety.

An existing problem with duck and turtle mortality is a concern for the highway through the Ninepipe National Wildlife Refuge. Six sensitive species (birds or waterfowl) are a concern, primarily in the vicinity of Kicking Horse and Ninepipe reservoirs.

Areas of special interest include:

- The Evaro area is a migration corridor for large mammals.
- Jocko River, Finley Creek and Spring Creek contain good populations of brown, rainbow and cutthroat trout -- care should be taken to avoid any additional encroachment by the highway.
- Mission and Sabine creeks contain good populations of trout and have high fishery and recreational value -- crossing designs should allow for adequate fish passage.
- "Avocet" pond for bird habitat, including whistling swans, south of the south Valley Creek turnoff
- In relation to wetlands, coverage of state or heritage program listed species is important.

THREATENED OR ENDANGERED SPECIES (Sections 6.13 and 7.13)

Threatened or endangered species are a concern and include grizzly bear, gray wolf, peregrine falcon, and bald eagle.

Preservation of migration routes, particularly for grizzly bear in the Evaro area, and installation of raptor-proof power lines are identified as methods to lessen effects of highway improvement.

CULTURAL RESOURCES (Sections 6.14 and 7.14)

Traditional cultural values and cultural resource sites are identified as concerns for highway improvement. Construction of a new, wider roadway may be a factor in changing the rural character and social organization of the area.

PARKS AND RECREATION (Sections 6.15 and 7.15)

Highway improvement will increase access to recreation in the area and throughout Flathead Valley. There is opportunity to coordinate travel information and manage recreation activities at various sites, including the National Bison Range, Ninepipe National Wildlife Refuge, Flathead Lake and other dispersed sites throughout the area.

HAZARDOUS MATERIALS (Sections 6.16 and 7.16)

Concerns about hazardous materials include:

- Truck traffic and the potential for spills of hazardous materials, especially near schools, in communities and at environmentally sensitive areas.

- Existing underground storage tanks that could be disturbed or concealed by construction.

VISUAL (Sections 6.17 and 7.17)

The development of a wider highway is a concern as a disturbance of the natural setting. Development along the highway, such as billboards and commercial strip development, are included with the highway facility as potential visual impacts.

Scenic/historic turnouts present an opportunity to provide clean, safe areas for viewing scenery. Maintaining existing views and developing new views from the highway is considered to be important for using scenic attractions to support the economy.

RELOCATIONS (Sections 6.18 and 7.18)

There is a concern the wider highway will displace existing businesses and housing and contribute to what is already perceived as a shortage of available residential land.

ENERGY/COMMITMENT OF RESOURCES (Section 7.19)

Public comments expressed interest in developing public transit, rail freight transit, and ridesharing or high occupancy vehicle travel. These items have the potential to limit use of energy and commitment of resources for both the amount of construction required for highway improvement and the amount of travel in individual vehicles. If reasonable and practical, these items will help to preserve adequate highway capacity and desirable LOS.

CONSTRUCTION (Section 7.20)

There is concern that construction along the route be designed and scheduled to minimize disturbance of communities, businesses and other human activities necessary to maintain the rural lifestyle.

Construction should reclaim any borrow areas that are created in the cut and fill operations.

INDEX

TABLE OF CONTENTS

11. INDEX

A. LIST OF ABBREVIATIONS

B. GLOSSARY

C. INDEX

A. LIST OF ABBREVIATIONS

LIST OF ABBREVIATIONS

30 HV	30th Highest-Hourly Volume
AASHTO	American Association of State and Transportation Officials
ACHP	Advisory Council on Historic Preservation
ADT	Average Daily Traffic
ALCO	CSKT Aquatic Lands Conservation Ordinance
ARM	Administrative Rules of Montana
ATR	Automatic Traffic Recorder
bgs	Below Ground Surface
BIA	U.S. Department of the Interior, Bureau of Indian Affairs
BMP	Best Management Practices
CBD	Central Business District
CDP	Census Designated Place
CEIC	Montana Department of Commerce, Census and Economic Information Center
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CFS	Cubic Feet Per Second
CFT	Code of Federal Regulations
CO	Carbon Monoxide
COE	U.S. Army Corps of Engineers
C2WLTL	Continuous two-way left-turn lane
CSKT	Confederated Salish and Kootenai Tribes
CSP	Corrugated Steel Pipe
CSPA	Corrugated Steel Pipe Arch
CWA	Clean Water Act
dB	Decibels
dBA	A-weighted decibels
DHV	Design-Hourly Volume
EIS	Environmental Impact Statement
EA	Environmental Assessment
EIS	Environmental Impact Statement
FAP	Federal Aid Primary
FAS	Federal Aid Secondary
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
FHWA	U.S. Department of Transportation, Federal Highway Administration
final EIS	Final Environmental Impact Statement
FPPA	Farmland Policy Protection Act of 1981
FRO	Flathead Resource Organization
HUD	U.S. Department of Housing and Urban Development
ID Team	Interdisciplinary Team
ISC	Industrial Source Complex
ISTEA	Intermodal Surface Transportation Efficiency Act of 1991
Leq	Equivalent sound level, or average noise level
Leq(h)	Design hourly volume equivalent sound level
LOS	Level-of-Service
LWCF	Land and Water Conservation Fund
MAAQS	Montana Ambient Air Quality Standards
MAQB	Montana Air Quality Bureau
MAQS	Montana Air Quality Rules

MCA	Montana Code Annotated
MDFWP	Montana Department of Fish, Wildlife and Parks
MDHES	Montana Department of Health and Environmental Sciences
MDHES-WQB	Montana Department of Health and Environmental Sciences - Water Quality Bureau
MDNRC	Montana Department of Natural Resources and Conservation
MDT	Montana Department of Transportation
MHC	Montana Highway Commission
MM	Morrison-Maierle, Inc.
MME	Morrison-Maierle Environmental
MOA	Memorandum of Agreement
MPDES	Montana Pollutant Discharge Elimination System
MPH	Miles Per Hour
MRL	Montana Rail Link Railroad
MSHPO	Montana State Historic Preservation Office
MTS	Montana Secondary Highway
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act of 1969, as amended
NFIP	National Flood Insurance Program
NHS	National Highway System
NITS	National Intermodal Transportation System
NO_2	Nitrogen Dioxide
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
Pb	Lead
PM_{10}	Respirable Particulates
PSD	Prevention of Significant Deterioration
ROW	Right-of-Way
RV	Recreational Vehicle
SCS	U.S. Department of Agriculture, Soil Conservation Service
SO_2	Sulfur Dioxide
SPO	CSKT Shoreline Protection Office
SSPPA	Structural Steel Plate Pipe Arch
SWPPP	Storm Water Pollution Prevention Plan
TDM	Transportation Demand Management
TDP	Transit Development Plan
TSD	Technical Support Document
TSM	Transportation System Management
TSP	Total Suspended Particulates
USC	United States Code
USDI	U.S. Department of the Interior
USEPA	United States Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UST	Underground Storage Tank
VOC	Volatile Organic Compounds
VPH	Vehicles per hour measured as service flows with LOS
WPA	Waterfowl Production Areas
MDEQ	Montana Department of Environmental Quality
TranPlan21	Montana Intermodal Statewide Transportation Plan
NRCS	U.S. Natural Resources Conservation Service

B. GLOSSARY

GLOSSARY

30th highest-hourly volume (30 HV):	The 30th highest-hourly volume of traffic used in the design of highway facilities.
A-weighted decibels (dBA):	A numerical expression of the relative loudness of sound.
Accident rate:	A method of measuring accidents based on the number of accidents per million vehicle miles.
Accident severity:	A method of measuring the effects of accidents based on the incidence of injuries, fatalities and costs.
Acre-foot:	Volume of water to cover one acre of land to a depth of one foot.
Accidents per mile	A method of measuring accidents based on the frequency for each mile of highway.
Ambient air:	That portion of the atmosphere, external to buildings, to which the general public has access.
Ambient air quality:	A physical and chemical measure of the concentration of various chemicals in the ambient atmosphere.
American Association of State Highway and Transportation Officials (AASHTO):	A professional organization that provides guidelines and standards forming policies for individual state design practices.
Average daily traffic:	Typical daily traffic volume on a highway.
Class I Area:	Any area which is designated for the most stringent degree of protection from future degradation of air quality. The Clean Air Act designates as mandatory Class I areas each national park over 6,000 acres and each national wilderness area over 5,000 acres.
Class II Area:	Any area cleaner than federal air quality standards which is designated for a moderate degree of protection from future air quality degradation. Moderate increases in new pollution may be permitted in a Class II area.
Criteria pollutant:	A pollutant for which EPA has established a national ambient air quality standard under Section 109 of the Clean Air Act. Present criteria pollutants are: carbon monoxide, hydrocarbons, lead, nitrogen dioxide, ozone, sulfur dioxide and total suspended particulate.
Design-hour volume:	The traffic volume for the design hour, usually a forecast of the relevant peak-hour volume, in vehicles per hour.

Dispersion:	The action of mixing air containing a high concentration of pollutants arising from a pollutant source with the ambient air thereby reducing the ambient pollutant concentration.
Facilities/services:	Public and private infrastructure that provides for needs such as transportation, communications, utilities, safety, health, education and general government.
Fee land:	Land in private ownership.
Gabion wall:	A construction method using cylinders filled with earth or concrete to fortify steeper highway slopes and limit need for right-of-way.
Instream flows:	A minimum streamflow maintained in a channel to support aquatic habitats.
Level-of-service (LOS):	A method to provide a qualitative description for operation of highway traffic.
Migration:	Change of population associated with movement into or out of an area.
Mitigation measure:	Measures to reduce adverse impacts on resources in the environment.
National Highway System:	Federal system with 160,000 miles of surface transportation facilities.
Non-point source:	Activity that contributes pollutants to water and air over a broad area rather than through a point source.
Nonattainment Area:	A geographic area in which the quality of the air is worse than federal air pollution standards.
Noxious weed:	Plant of a kind that is of foreign origin, is new to or not widely prevalent in the United States.
Passerine:	Small or medium sized songbirds having grasping feet with the first toe directed backward. Includes more than half of all birds.
Particulate Matter:	Finely divided solids or liquids. Respirable Particulates are less than 10 microns in diameter.
Point source:	A distinguishable, confined means of discharging a pollutant
Pothole:	A round depression in the land often filled with water.
Riparian areas:	Green zones which often border wetlands, lakes, streams, irrigation canals, reservoirs, potholes, springs and bogs.
Transportation System Management:	Recommendations for various transportation improvements.
Transportation Demand Management:	Measures that might help to reduce traffic demand to preserve or enhance traffic operations with highway improvement.

Trust land:	Land to which the federal government holds title as a trustee for the landowner.
Visually Sensitive Resource Areas:	Areas with special visual characteristics identified based on FHWA visual impact assessments for highway projects. Visual impact assessment considers qualities of vividness, intactness and unity. FHWA-HI-88-054
Watershed:	The total area of land between hilltops or mountain ridges draining into a water system.

C. INDEX

INDEX

AASHTO Bicycle Guide 6.6-1, 7.6-3
access control 2-6, 2-7, 2-10, 2-12, 5-14, 5-15, 5-17, 5-35, 5-41, 5-44, 5-45, 5-14, 5-17, 5-35, 5-41, 5-44, 5-45, 6.1-10, 6.2-1, 6.2-13, 7.1-1, 7.1-6, 7.1-7, 7.1-8, 7.1-15, 7.2-1, 7.2-2, 7.2-3, 7.2-4, 7.2-10, 7.2-11, 7.2-12, 7.3-2, 7.4-8, 7.4-10, 7.4-11, 7.4-12, 7.4-13, 7.4-15, 7.5-4, 7.5-5, 7.5-6, 7.5-8, 7.5-10, 7.5-11, 7.5-13, 7.17-3, 7.17-5, 7.17-17, 10-12, 10-13, 10-14, 12-4
accident frequency 6.1-20
accident history 4-6, 5-45, 6.1-14
accident rate 4-1, 4-6, 4-7, 6.1-10, 6.1-11, 6.1-19, 6.1-18, 6.1-20, 7.1-8, 7.1-15
AD 1006 7.3-1, 7.3-3
age 6.1-13, 6.1-16, 6.1-17, 6.1-16, 6.4-4, 6.4-5, 6.6-1, 6.14-4, 6.14-8, 7.1-3, 7.12-6, 7.20-2
agricultural land 6.2-1, 6.2-4, 6.2-5, 6.2-6, 6.2-7, 6.2-6, 6.2-7, 6.2-11, 6.2-13, 7.5-3, 7.5-4, 7.12-10, 7.17-13
agricultural production value 7.5-2, 7.5-3
agriculture 2-1, 6.1-5, 6.2-11, 6.2-12, 6.2-13, 6.5-2, 6.9-3, 6.13-1, 6.14-3, 6.17-1, 6.17-3, 6.17-4, 7.1-8, 7.2-5, 7.2-6, 7.2-7, 7.2-8, 7.2-9, 7.13-2, 7.13-4, 12-2
air quality 2-12, 2-13, 4-6, 5-3, 5-7, 5-19, 5-22, 5-24, 5-26, 5-28, 5-30, 5-32, 5-34, 5-36, 5-3, 5-7, 5-19, 5-22, 5-24, 5-26, 5-28, 5-30, 5-32, 5-34, 5-36, 6.2-11, 6.7-1, 6.7-2, 6.18-1, 7.4-1, 7.7-1, 7.7-2, 7.14-3, 7.18-1, 7.18-2, 7.20-4, 7.20-7, 7.20-8, 8-2, 8-3, 10-11, 10-15, 12-26, 12-27
allotment 6.2-4, 6.2-14, 6.2-16, 6.14-2, 6.14-3, 7.4-7, 7.4-8
alternate alignment 10-13
alternatives under consideration 2-2, 2-10, 4-1, 5-1, 5-16, 5-42, 5-1, 5-16, 5-42, 6.18-1, 7.1-1, 7.1-4, 7.3-1, 7.9-10, 10-8, 10-12, 12-1, 12-2, 12-6
ambient concentrations 6.7-1
American Indian 6.4-3, 6.4-4, 6.4-5, 6.4-9, 6.4-8
approaches 2-13, 4-4, 4-5, 4-6, 4-7, 5-17, 5-23, 5-27, 5-31, 5-34, 5-37, 5-40, 5-41, 5-17, 5-23, 5-27, 5-31, 5-34, 5-37, 5-40, 5-41, 6.1-4, 6.1-5, 6.1-6, 6.1-9, 6.1-10, 6.1-16, 6.1-17, 6.1-25, 6.1-26, 6.1-27, 6.2-5, 6.2-8, 6.2-9, 6.2-8, 6.2-9, 6.2-13, 6.4-15, 7.1-4, 7.1-6, 7.1-7, 7.1-8, 7.1-14, 7.1-15, 7.2-2, 7.2-3, 7.2-10, 7.2-11, 7.2-12, 7.3-2, 7.4-10, 7.4-12, 7.4-13, 7.5-8, 7.5-10, 7.5-11, 7.5-14, 7.7-2, 7.8-6, 7.17-4, 7.17-17, 10-12, 10-14, 12-20, 12-30
Aquatic Lands Conservation Ordinance (ALCO) 2-12, 7.10-8
arterial 2-1, 4-1, 4-3, 4-4, 4-7, 5-7, 6.1-5, 6.1-9, 6.1-10, 6.1-21, 7.1-8, 7.1-9, 7.2-1, 12-2
arterial routes 2-1, 4-1, 6.1-5, 12-2
athletic field 6.15-1, 7.2-5, 7.2-6, 7.2-7, 7.2-8, 7.2-9, 7.15-2, 12-7, 12-11, 12-12, 12-22, 12-32
availability of land 7.2-1, 7.4-4, 7.4-7, 7.4-8
average daily traffic (ADT) 2-1, 4-2, 6.1-4, 6.1-22, 7.1-1, 7.1-2, 12-2
bald eagle 5-33, 6.12-6, 6.12-5, 6.13-1, 6.13-2, 6.13-3, 7.12-5, 7.12-11, 7.13-1, 7.13-5, 7.13-6, 10-16
ballfield 2-2, 5-3, 5-25, 5-29, 5-3, 5-25, 5-29, 6.2-5, 6.2-11, 6.15-1, 7.2-5, 7.2-6, 7.2-7, 7.2-8, 7.2-9, 7.4-12, 7.15-1, 7.15-2, 7.15-3, 12-3, 12-7
barrier effect 4-5, 5-18, 5-24, 5-27, 5-31, 5-37, 5-18, 5-24, 5-27, 5-31, 5-37, 6.1-6, 7.4-1, 7.4-9, 7.5-5
bicycle accident 6.6-4
bicyclist 5-32, 6.6-1, 7.6-3, 7.6-5
bike path 5-45, 7.6-3
billboard 7.2-1, 7.2-4, 7.5-8, 7.5-11, 7.5-14, 10-14
bus 2-3, 5-11, 5-14, 5-11, 5-14, 6.2-9, 6.4-14, 6.4-15, 10-9, 10-10
business district 6.2-5, 6.5-4, 6.5-7, 6.14-5, 7.2-11, 7.5-8, 7.5-10, 7.5-11, 7.5-14, 7.6-8, 7.17-13, 12-11
capacity 2-1, 2-7, 2-10, 2-11, 4-1, 4-4, 4-5, 4-7, 5-11, 5-17, 5-40, 5-11, 5-17, 5-40, 6.1-10, 6.1-21, 6.1-22, 6.1-25, 6.1-26, 6.1-27, 6.4-14, 6.11-3, 6.12-3, 7.1-4, 7.1-6, 7.1-9, 7.1-10, 7.1-12, 7.1-15, 7.2-3, 7.4-1, 7.4-7, 7.4-8, 7.5-1, 7.5-4, 7.5-5, 7.9-6, 7.9-8, 7.9-9, 7.17-4, 7.19-1, 7.20-2, 10-11, 10-12, 10-15, 10-17, 12-2, 12-26, 12-27, 12-28, 12-29
carbon monoxide (CO) 2-10
climate 5-16, 6.1-1, 6.1-2, 6.9-1, 7.5-1
closure 5-17, 5-51, 5-17, 5-51, 6.16-2, 6.16-5, 6.16-11
collector 7.2-1
community cohesion 6.4-7, 6.4-8, 7.4-1, 7.4-9
community growth 6.2-12, 6.2-14

community team 5-37, 5-42, 5-43, 5-44, 5-37, 5-42, 5-43, 5-44, 6.6-2, 7.4-10, 7.4-13, 7.4-14, 7.6-6, 7.6-7, 7.6-8, 10-2, 10-4, 10-5, 10-6, 10-8
commuter 5-11, 5-21, 5-11, 5-21, 6.4-11, 6.4-12, 6.4-13, 6.4-12, 7.4-2, 7.4-5, 7.4-6, 7.4-7, 10-10, 10-11
comparison of alternatives 5-16
congestion 2-10, 4-3, 4-4, 4-5, 5-17, 5-18, 5-24, 5-27, 5-28, 5-31, 5-32, 5-17, 5-18, 5-24, 5-27, 5-28, 5-31, 5-32, 6.1-6, 6.1-25, 6.1-26, 6.4-8, 6.5-6, 6.5-8, 6.5-9, 7.1-15, 7.2-2, 7.4-1, 7.4-2, 7.4-9, 7.4-10, 7.4-11, 7.4-12, 7.4-13, 7.4-14, 7.5-1, 7.5-4, 7.5-5, 7.5-7, 7.5-8, 7.5-9, 7.5-10, 7.5-11, 7.5-12, 7.5-13, 7.17-4, 7.17-10, 7.17-13, 10-15
consolidation 5-17, 5-44, 5-17, 5-44, 6.1-10
continuous two-way left-turn center median 2-3, 2-8, 2-7, 5-11, 5-14, 5-15, 5-17, 5-23, 5-27, 5-31, 5-38, 5-40, 5-41, 5-42, 5-43, 5-50, 5-11, 5-14, 5-15, 5-17, 5-23, 5-27, 5-31, 5-38, 5-40, 5-41, 5-42, 5-43, 5-50, 6.1-4, 6.1-7, 6.6-3, 7.1-9, 7.1-14, 7.2-1, 7.2-2, 7.2-7, 7.5-5, 7.5-7, 7.5-9, 7.5-12, 7.17-4, 12-4, 12-25, 12-26, 12-27, 12-28, 12-29
controversy 2-11
convenience 4-4, 5-14, 5-19, 5-21, 5-44, 5-14, 5-19, 5-21, 5-44, 6.1-9, 6.2-5, 6.5-3, 6.5-5, 6.6-1, 6.6-2, 6.16-6, 6.16-7, 7.4-3, 7.4-8, 7.4-9, 7.4-10, 7.4-11, 7.4-12, 7.5-2, 7.5-4, 7.5-6, 7.5-13, 7.6-1, 7.17-5, 7.20-8, 10-14, 10-15, 12-26
conversion of land 7.2-4, 7.2-10, 7.2-11, 7.5-2, 7.5-3
Corps of Engineers (COE) 7.10-6
corridor preservation 2-7, 5-35, 5-43, 5-35, 5-43, 7.4-11
Council on Environmental Quality (CEQ) 5-1, 7.10-7
cropland 6.2-2, 6.2-4, 6.2-14, 6.5-1, 6.14-3, 7.5-3, 7.17-10
cultural resource properties 5-21, 5-29, 5-21, 5-29, 6.14-4, 7.14-1, 7.14-2, 7.14-3, 7.14-4, 12-18
culture committees 2-14, 6.4-1, 6.14-4, 7.4-2, 7.10-8, 7.14-3, 10-6, 10-10, 12-18
cumulative effect 7.14-2
curb and gutter 5-14, 5-42, 5-43, 5-44, 5-49, 5-51, 5-14, 5-42, 5-43, 5-44, 5-49, 5-51, 6.1-4, 7.6-5, 7.6-8, 7.14-4, 7.17-3, 7.17-17, 7.20-7, 12-24
demographic characteristics 6.4-2
design option 5-15, 12-3, 12-4
design speed 4-3, 4-4, 6.1-8, 6.1-9, 6.1-10, 7.1-4
developed recreation 6.15-1
discrimination 2-14, 7.4-1, 7.18-2
dispersed recreation 6.15-1, 6.15-2, 7.4-13
earnings 5-24, 5-28, 5-24, 5-28, 6.5-1, 6.5-6, 7.4-8, 7.5-1, 7.5-4, 7.5-5, 7.5-6, 7.5-7, 7.5-8, 7.5-9, 7.5-10, 7.5-11, 7.5-12, 7.5-13, 7.20-7, 7.20-8, 10-15
economic development 4-2, 5-18, 5-21, 5-18, 5-21, 6.2-13, 6.4-15, 6.5-9, 7.2-1, 7.4-1, 7.4-4, 7.4-6, 7.4-7, 7.5-1, 7.5-2, 7.5-4, 7.5-6, 7.5-8, 7.5-11, 7.5-13, 7.6-3
efficiency 2-1, 2-10, 2-14, 4-1, 4-4, 4-5, 5-22, 5-26, 5-30, 5-34, 5-37, 5-22, 5-26, 5-30, 5-34, 5-37, 6.1-5, 6.1-6, 6.1-8, 6.17-4, 7.1-9, 7.1-14, 7.1-15, 7.1-16, 7.2-3, 7.3-1, 7.4-1, 7.4-10, 7.4-12, 7.5-6, 7.6-1, 7.18-2, 7.19-1, 7.19-2, 10-14, 12-2
elderly drivers 4-6, 6.1-16
emergency vehicles 4-5, 7.4-13, 7.4-14
emission factors 6.7-2
employment 5-24, 5-28, 5-24, 5-28, 6.4-2, 6.4-8, 6.4-11, 6.4-12, 6.5-1, 6.5-2, 6.5-1, 6.5-3, 6.5-6, 6.5-7, 6.5-9, 6.14-3, 7.2-4, 7.4-2, 7.4-4, 7.4-8, 7.5-1, 7.5-4, 7.5-5, 7.5-6, 7.5-7, 7.5-8, 7.5-9, 7.5-10, 7.5-11, 7.5-12, 7.5-13, 7.20-7, 7.20-8, 10-15
existing highway conditions 6.1-6, 6.1-14
facilities/services 4-5, 6.2-12, 6.2-13, 6.2-16, 6.4-8, 6.4-14, 6.4-16, 6.17-4, 6.17-5, 7.2-4, 7.4-1, 7.4-2, 7.4-9, 7.4-11, 7.4-12, 10-14
Farmland Protection Policy Act 6.3-1, 7.3-1
fatalities 2-10, 4-6, 5-17, 5-40, 5-17, 5-40, 6.1-13, 6.1-14, 6.1-16, 6.1-19, 6.1-18
Federal Aid Primary (FAP) 4-1
Federal Aid Secondary (FAS) 2-1, 4-1, 6.1-2, 12-2
fee land 6.2-4
floodplain 2-12, 5-5, 5-20, 5-25, 5-29, 5-33, 5-5, 5-20, 5-25, 5-29, 5-33, 6.2-12, 6.2-13, 6.11-1, 6.17-3, 7.11-1, 7.11-2, 7.11-4
floodplain development 6.2-12, 6.2-13
FPPA farmland 5-18, 5-23, 5-27, 5-31, 5-18, 5-23, 5-27, 5-31, 6.3-1, 6.3-2, 6.3-3, 6.3-4, 7.3-1, 7.3-2, 7.3-6
frontage road 5-44, 5-45, 5-44, 5-45, 7.1-6, 7.6-8, 7.18-3
future projects 2-1
geographic area 6.1-1
golf course 5-33, 5-49, 5-33, 5-49, 6.1-4, 6.1-9, 6.2-11, 6.2-21, 6.15-1, 7.2-12, 7.4-13, 7.15-2, 12-7, 12-12, 12-13, 12-12, 12-23, 12-32

gray wolf 6.12-5, 6.13-1, 6.13-2, 7.12-1, 7.13-4, 7.13-6, 10-16
grizzly bear 2-10, 2-13, 6.12-1, 6.12-4, 6.12-6, 6.12-5, 6.12-8, 6.13-1, 6.13-2, 7.12-1, 7.13-1, 7.13-2, 7.13-3, 7.13-4, 7.13-6, 10-16
highway-oriented business 5-24, 5-28, 5-36, 5-37, 5-24, 5-28, 5-36, 5-37, 6.4-9, 10-14
historic properties 5-25, 5-33, 5-25, 5-33, 6.14-4, 12-18, 12-24, 12-28, 12-30, 12-32
horizontal curves 2-2, 4-4, 5-1, 5-5, 5-1, 5-5, 6.1-7, 6.1-8, 6.1-17, 7.1-3, 7.17-7, 12-2
housing 5-11, 5-27, 5-44, 5-50, 5-11, 5-27, 5-44, 5-50, 6.2-11, 6.2-12, 6.2-16, 6.2-17, 6.2-18, 6.2-17, 6.2-18, 6.2-21, 6.4-7, 6.4-8, 6.4-9, 6.4-14, 6.6-1, 6.14-4, 7.2-12, 7.4-2, 7.4-3, 7.4-5, 7.8-4, 7.18-1, 7.18-2, 10-3, 10-17
ID Team 5-35, 5-41, 5-42, 5-35, 5-41, 5-42, 10-1, 10-2, 10-5, 10-6, 10-9
in-migration 6.4-6, 6.4-7, 7.4-3
income 6.4-9, 6.4-8, 6.4-9, 6.4-11, 6.5-2, 7.4-3, 7.5-6
injuries 2-10, 4-6, 5-17, 5-40, 5-17, 5-40, 6.1-13, 6.1-19, 6.1-18
interdisciplinary team 7.1-9, 9-1, 10-1, 10-3
intergovernmental cooperation 6.2-1
Intermodal Surface Transportation Efficiency Act (ISTEA) 2-14, 4-1, 7.18-2, 10-14
Jocko River Trout Hatchery 6.15-1, 7.2-5, 7.2-6, 7.2-7, 7.2-8, 7.2-9, 7.15-2
junction density 4-6, 4-7, 6.1-10, 7.1-9
Kicking Horse Reservoir 6.2-14, 6.12-5, 6.13-2, 7.12-9, 12-11
land status 6.2-14, 6.2-15, 7.2-5, 7.2-6, 7.2-7, 7.2-8, 7.2-9, 7.2-10, 7.2-11
land use planning 2-7, 2-10, 5-17, 5-35, 5-43, 5-45, 5-51, 5-17, 5-35, 5-43, 5-45, 5-51, 6.2-1, 6.2-13, 7.2-1, 7.2-2, 7.2-3, 7.2-4, 7.2-10, 7.2-11, 7.2-12, 7.3-2, 7.4-2, 7.8-6, 7.10-10, 7.13-3, 7.17-3, 8-2, 10-14, 12-4
land use study 2-12
landscaped medians 5-14, 5-16, 5-14, 5-16
landscaping 5-14, 5-15, 5-45, 5-14, 5-15, 5-45, 6.17-1, 7.4-10, 7.4-13, 7.4-14, 7.14-1, 7.17-1
left-turn bay 5-46, 5-47, 5-48, 5-46, 5-47, 5-48, 6.1-7, 12-30
level-of-service (LOS) 2-1, 4-1, 5-11, 6.1-5, 6.1-8, 7.1-4, 10-12, 12-2
livestock crossings 5-14, 5-15, 5-14, 5-15, 7.17-3, 7.17-18, 10-14
local economy 6.5-6, 6.5-7, 6.5-8, 6.5-9, 7.20-8
local traffic 6.17-4, 6.17-5, 7.2-1, 7.4-10, 7.4-13, 7.4-14, 7.5-8, 7.5-10, 12-27, 12-28
MCA 60-2-211 5-7, 5-36, 5-7, 5-36
median barrier 5-14, 5-15, 5-14, 5-15
migration 2-10, 6.4-6, 6.4-7, 6.5-8, 6.10-2, 6.12-2, 6.12-3, 6.16-11, 7.4-3, 7.12-2, 7.12-3, 7.12-5, 7.14-2, 10-16
Montana Ambient Air Quality Standards (MAAQS) 6.7-1
National Bison Range 5-7, 6.2-5, 6.2-14, 6.2-16, 6.12-4, 6.13-1, 6.15-2, 6.17-3, 6.17-5, 7.5-4, 7.15-1, 7.17-7, 10-17, 12-7, 12-6, 12-7, 12-21, 12-20, 12-26, 12-30, 12-32
Native American 2-14, 5-21, 5-25, 5-21, 5-25, 6.4-1, 6.14-1, 7.2-11, 7.4-3, 7.14-2, 7.14-3, 10-14
newcomers 6.4-2, 7.4-7
Ninepipe National Wildlife Refuge 6.2-5, 6.10-2, 6.12-3, 6.12-4, 6.13-1, 6.13-2, 6.15-2, 6.17-5, 7.5-4, 7.12-4, 7.12-9, 7.13-3, 7.15-1, 7.17-9, 10-10, 10-16, 10-17, 12-7, 12-6, 12-21, 12-32
Ninepipe Reservoir 6.1-14, 6.10-2, 6.12-2, 6.12-5, 6.12-8, 6.13-2, 6.13-4, 7.1-6, 7.11-4, 7.12-5, 7.12-9, 7.15-1, 12-6
noise level 5-19, 5-24, 5-28, 5-32, 5-19, 5-24, 5-28, 5-32, 6.8-1, 7.8-5, 7.8-6, 7.8-8, 7.8-9, 7.14-1, 7.14-3
non-attainment area 2-10, 6.7-2
nonhighway-oriented business 6.4-9
old freight route 5-7, 7.6-8, 12-26, 12-27, 12-28
out-migration 6.4-6, 6.5-8
painted median 2-3, 5-14, 5-44, 5-50, 5-14, 5-44, 5-50, 7.1-9, 7.17-17
partial access control 2-6, 2-10, 5-14, 5-15, 5-17, 5-41, 5-45, 5-14, 5-17, 5-41, 5-45, 6.1-10, 7.1-1, 7.1-6, 7.1-7, 7.1-8, 7.1-15, 7.2-2, 7.2-3, 7.2-4, 7.3-2, 7.17-5, 12-4
pastureland 6.17-3, 6.17-4
pavement marking 5-50
pedestrian accident 6.6-4
pedestrian crossing 5-43, 6.6-2, 6.6-3, 6.6-4
peregrine falcon 6.12-6, 6.12-5, 6.13-1, 6.13-4, 7.13-1, 7.13-6, 10-16
population growth 2-1, 2-10, 4-3, 5-18, 5-21, 5-18, 5-21, 6.2-13, 6.2-14, 6.4-1, 6.4-2, 6.4-4, 6.4-6, 6.4-7, 6.4-8, 6.4-9, 6.4-11, 6.4-12, 6.4-14, 7.2-1, 7.4-1, 7.4-2, 7.4-3, 7.4-4, 7.4-5, 7.4-6, 7.4-7, 7.4-8, 7.4-14, 7.5-5, 7.8-4, 7.10-1, 7.10-10, 7.13-3, 7.15-1, 7.17-4, 7.17-5, 7.18-1, 10-10, 10-11, 10-14, 12-2
population projection 6.4-6, 7.4-5

powwow 5-23, 5-24, 5-25, 5-36, 5-23, 5-24, 5-25, 5-36, 6.2-5, 6.15-1, 7.4-10, 7.15-2, 12-7
preferred alternative 2-6, 2-7, 2-8, 2-7, 2-10, 2-12, 5-1, 5-17, 5-23, 5-27, 5-31, 5-35, 5-38, 5-37, 5-42, 5-43, 5-44, 5-52, 5-1, 5-17, 5-23, 5-27, 5-31, 5-35, 5-38, 5-37, 5-42, 5-43, 5-44, 5-52, 7.1-1, 7.1-11; 7.1-12, 7.1-13, 7.2-1, 7.2-5, 7.2-9, 7.3-1, 7.3-6, 7.4-1, 7.4-3, 7.5-1, 7.6-1, 7.7-1, 7.8-1, 7.8-2, 7.8-3, 7.8-2, 7.8-3, 7.9-1, 7.9-2, 7.9-7, 7.10-1, 7.10-2, 7.10-3, 7.10-4, 7.10-6, 7.10-9, 7.11-1, 7.11-3, 7.12-1, 7.12-9, 7.13-1, 7.14-1, 7.14-4, 7.15-1, 7.16-1, 7.17-1, 7.18-1, 7.18-3, 7.19-1, 7.20-1, 7.20-5, 7.20-6, 10-1, 10-6, 10-10, 12-4, 12-7, 12-18, 12-19, 12-20, 12-21, 12-20, 12-21, 12-22, 12-23, 12-24, 12-25, 12-26, 12-27, 12-28, 12-29, 12-30, 12-32
preservation of a corridor 2-7, 5-35, 12-4, 12-5
primary highway 4-1, 6.1-14, 6.13-1
principal arterial 2-1, 4-1, 6.1-5, 12-2
property tax 7.5-2
public comment 5-11, 5-35, 5-11, 5-35, 6.2-13, 6.6-3, 7.4-10, 7.4-13, 7.4-14, 10-6
public opposition 5-3, 5-7, 5-24, 5-27, 5-35, 5-36, 5-3, 5-7, 5-24, 5-27, 5-35, 5-36, 10-12
public scoping 5-1, 5-35, 5-36, 5-37, 5-1, 5-35, 5-36, 5-37, 6.4-7, 6.6-1, 6.6-2, 6.6-3, 6.6-4, 7.6-1, 7.6-3, 7.6-8, 10-1, 10-6, 10-12, 10-13, 10-14
purpose and need 2-1, 2-7, 4-1, 5-1, 5-5, 5-40, 5-1, 5-5, 5-40, 7.4-4, 12-1, 12-2, 12-26, 12-27, 12-28, 12-29
quality of life 6.4-2, 6.4-9, 7.4-4
rail 5-11, 6.1-6, 6.4-15, 6.14-3, 6.17-3, 7.1-11, 7.5-4, 7.17-6, 7.19-2, 10-12, 10-13, 10-17
raptor 7.12-5, 7.13-1, 7.13-5, 10-16
recreation 2-1, 4-5, 5-21, 5-25, 5-29, 5-31, 5-33, 5-48, 5-21, 5-25, 5-29, 5-31, 5-33, 5-48, 6.1-5, 6.2-5, 6.2-7, 6.2-9, 6.2-7, 6.2-9, 6.2-12, 6.2-16, 6.2-17, 6.2-21, 6.4-2, 6.5-1, 6.5-2, 6.5-3, 6.5-5, 6.5-9, 6.9-1, 6.10-2, 6.15-1, 6.15-2, 6.15-3, 6.15-2, 6.17-3, 7.2-10, 7.2-11, 7.4-13, 7.4-14, 7.5-1, 7.5-2, 7.5-5, 7.5-7, 7.5-9, 7.5-13, 7.6-1, 7.8-6, 7.10-1, 7.15-1, 7.15-2, 7.15-3, 7.17-3, 10-14, 10-15, 10-17, 12-1, 12-2, 12-6, 12-7, 12-6, 12-12, 12-18, 12-20, 12-21, 12-20, 12-23, 12-25, 12-27, 12-30, 12-32
recreation area 12-1
regional trade 6.5-8, 7.5-5, 7.5-6, 7.5-7
regulation 2-6, 2-7, 2-10, 5-17, 5-35, 5-43, 5-45, 5-51, 5-17, 5-35, 5-43, 5-45, 5-51, 6.2-13, 7.2-1, 7.2-2, 7.2-3, 7.2-4, 7.2-10, 7.2-11, 7.2-12, 7.4-2, 7.10-10, 10-14, 12-4
relocation 2-10, 2-12, 2-14, 5-7, 5-21, 5-26, 5-30, 5-34, 5-36, 5-41, 5-7, 5-21, 5-26, 5-30, 5-34, 5-36, 5-41, 7.1-6, 7.4-12, 7.6-5, 7.6-8, 7.11-3, 7.13-4, 7.17-4, 7.17-5, 7.17-6, 7.18-1, 7.18-2, 12-20, 12-23, 12-24, 12-28, 12-29, 12-30
retail trade 6.5-1, 6.5-2, 6.5-1, 6.5-2, 6.5-3, 6.5-6, 6.5-7, 6.5-8, 6.5-9, 7.5-1, 7.5-6, 10-15
ride-sharing 2-3, 5-11
right-of-way 2-7, 2-12, 5-3, 6.1-2, 6.2-6, 6.2-8, 6.2-6, 6.2-8, 6.16-1, 6.16-2, 6.16-12, 7.1-6, 7.2-4, 7.2-5, 7.2-6, 7.2-7, 7.2-8, 7.2-9, 7.2-10, 7.2-11, 7.3-6, 7.5-2, 7.7-2, 7.12-4, 7.14-3, 7.16-2, 10-14, 12-4
roadway shoulder 4-4, 7.17-18
rodeo grounds 2-2, 5-3, 5-23, 5-25, 5-36, 5-3, 5-23, 5-25, 5-36, 6.2-5, 6.2-11, 6.15-1, 7.4-10, 7.6-6, 7.15-2, 12-3, 12-7
safety 2-1, 2-10, 2-11, 2-14, 4-1, 4-3, 4-4, 4-6, 5-3, 5-5, 5-7, 5-14, 5-15, 5-16, 5-17, 5-19, 5-21, 5-23, 5-24, 5-27, 5-28, 5-31, 5-32, 5-36, 5-37, 5-41, 5-45, 5-50, 5-3, 5-5, 5-7, 5-14, 5-15, 5-16, 5-17, 5-19, 5-21, 5-23, 5-24, 5-27, 5-28, 5-31, 5-32, 5-36, 5-37, 5-41, 5-45, 5-50, 6.1-4, 6.1-6, 6.1-9, 6.1-10, 6.1-16, 6.1-18, 6.2-12, 6.2-13, 6.6-1, 6.6-3, 6.14-3, 6.17-4, 6.17-5, 6.18-1, 7.1-1, 7.1-3, 7.1-4, 7.1-5, 7.1-6, 7.1-7, 7.1-8, 7.1-9, 7.1-14, 7.1-15, 7.2-2, 7.2-3, 7.2-10, 7.3-1, 7.4-1, 7.4-2, 7.4-9, 7.4-14, 7.5-4, 7.6-1, 7.6-3, 7.6-4, 7.6-7, 7.6-8, 7.9-1, 7.9-3, 7.9-8, 7.10-5, 7.10-8, 7.13-5, 7.15-1, 7.15-3, 7.16-1, 7.16-2, 7.17-2, 7.17-3, 7.17-5, 7.17-6, 7.17-7, 7.17-9, 7.17-17, 7.17-18, 7.18-1, 7.18-2, 7.19-1, 7.20-1, 7.20-2, 7.20-8, 10-9, 10-11, 10-12, 10-14, 10-15, 10-16,

12-2, 12-26, 12-27, 12-28, 12-29
sanding 5-24, 5-28, 5-32, 5-24, 5-28, 5-32, 6.7-1, 6.7-2, 7.7-2, 7.9-3, 7.9-8
scenic route 5-35, 5-45, 5-35, 5-45
school 5-24, 5-25, 5-28, 5-36, 5-42, 5-43, 5-44, 5-49, 5-24, 5-25, 5-28, 5-36, 5-43, 5-44, 5-49, 6.1-5, 6.1-6, 6.2-5, 6.2-9, 6.2-16, 6.2-21, 6.4-1, 6.4-14, 6.6-1, 6.6-2, 6.6-3, 6.13-2, 6.14-6, 6.14-5, 6.14-7, 6.15-1, 6.16-7, 7.1-3, 7.1-14, 7.1-15, 7.2-5, 7.2-6, 7.2-7, 7.2-8, 7.2-9, 7.2-10, 7.2-11, 7.4-2, 7.4-9, 7.4-10, 7.4-11, 7.4-12, 7.4-13, 7.4-14, 7.6-4, 7.6-6, 7.6-7, 7.6-8, 7.13-2, 7.14-5, 7.14-4, 7.15-2, 7.17-10, 7.20-4, 10-4, 10-5, 10-8, 10-10, 10-12, 12-7, 12-11, 12-12, 12-18, 12-19, 12-18, 12-22, 12-24, 12-25, 12-28, 12-30, 12-32
school bus 6.2-9, 6.4-14, 10-10
secondary highway 6.1-3, 6.6-2, 7.1-1
Section 106 6.14-4, 6.14-6, 6.14-8
Section 4(f) 2-10, 2-11, 5-36, 5-37, 5-36, 5-37, 6.15-2, 7.14-3, 7.14-4, 7.15-1, 7.15-3, 10-17, 12-1, 12-6, 12-7, 12-6, 12-13, 12-20, 12-21, 12-22, 12-23, 12-24, 12-25, 12-26, 12-27, 12-28, 12-29, 12-30, 12-31, 12-32, 12-33
Section 404(b)(1) 2-12, 7.10-6
Section 6(f) 6.15-2, 7.15-3, 12-12, 12-18, 12-23, 12-24, 12-32
shoulder width 4-4, 6.1-9, 6.6-1, 7.1-3, 7.6-8
sidewalk 5-14, 5-15, 5-42, 5-43, 5-14, 5-15, 5-42, 5-43, 6.6-3, 7.4-13, 7.6-5, 7.6-9, 7.20-7
sight distance 2-14, 4-4, 5-45, 6.1-4, 6.1-8, 6.1-9, 6.1-10, 7.1-1, 7.1-6, 7.17-5, 7.17-6
sign 6.1-2, 6.1-4, 6.1-16, 6.1-27, 6.6-4, 6.15-2, 7.12-6
social mobility 6.4-11
social setting 6.4-1
social stability 6.4-7, 6.4-9, 6.4-8, 6.4-9
social well-being 2-1, 6.4-7, 6.4-8, 6.4-9, 7.4-4, 12-2
speed 4-3, 4-4, 4-5, 5-16, 5-23, 5-24, 5-27, 5-28, 5-31, 5-32, 5-36, 5-41, 5-43, 5-16, 5-23, 5-24, 5-27, 5-28, 5-31, 5-32, 5-36, 5-41, 5-43, 6.1-1, 6.1-2, 6.1-3, 6.1-4, 6.1-5, 6.1-6, 6.1-8, 6.1-9, 6.1-10, 6.1-21, 6.1-25, 6.6-2, 6.6-3, 6.8-1, 6.17-4, 6.17-5, 7.1-3, 7.1-4, 7.1-9, 7.1-14, 7.1-15, 7.4-1, 7.4-10, 7.4-13, 7.4-14, 7.5-6, 7.5-8, 7.5-11, 7.5-13, 7.6-4, 7.6-5, 7.6-6, 7.8-1, 7.8-6, 7.8-8, 7.12-1, 7.12-2, 7.12-6, 7.12-11, 7.13-1, 7.13-6, 10-13, 10-14, 10-15
storm-runoff 4-4
stream crossing 5-20, 5-25, 5-20, 5-25, 6.11-1, 6.11-2, 6.11-1, 7.10-8, 7.11-1, 7.11-4, 10-10
strip development 2-10, 5-17, 6.2-5, 6.2-12, 6.2-13, 7.2-1, 7.2-2, 7.2-3, 7.3-2, 7.5-5, 7.17-1, 7.17-17, 10-14, 10-17
summary 2-1, 2-7, 2-10, 2-11, 2-12, 5-41, 6.1-1, 6.1-7, 6.1-8, 6.1-9, 6.1-14, 6.4-14, 6.5-6, 6.11-1, 6.11-2, 7.2-5, 7.10-1, 7.10-2, 7.10-5, 7.16-2, 7.17-1, 7.18-1, 7.18-3, 7.20-3, 7.20-5, 7.20-6, 10-8, 12-1, 12-4
survey 2-11, 5-40, 5-41, 5-40, 5-41, 6.1-14, 6.2-12, 6.2-13, 6.2-14, 6.4-7, 6.4-8, 6.5-6, 6.5-7, 6.5-8, 6.11-1, 6.11-2, 6.15-1, 6.16-2, 6.16-3, 6.16-4, 7.5-6, 7.5-9, 7.5-11, 7.12-9
taxable value 6.2-17, 6.2-16, 7.5-2, 7.5-3
technical support document (TSD) 6.7-1
terrain 2-14, 5-34, 6.1-1, 6.1-2, 6.1-4, 6.1-18, 6.1-25, 6.10-2, 6.13-1, 6.17-4, 7.1-9, 7.1-10, 7.4-7, 7.17-5, 7.17-15, 7.17-17, 12-6, 12-27, 12-28
threatened and endangered species 5-20, 5-25, 5-29, 5-33, 5-37, 5-20, 5-25, 5-29, 5-33, 5-37, 6.10-2, 6.13-1, 7.10-1, 7.13-1, 7.13-3, 7.13-4
threatened or endangered species 5-20, 5-25, 5-29, 5-36, 5-37, 5-20, 5-25, 5-29, 5-36, 5-37, 10-16
through traffic 5-15, 5-23, 5-24, 5-27, 5-28, 5-31, 5-32, 5-41, 5-14, 5-15, 5-23, 5-24, 5-27, 5-28, 5-31, 5-32, 5-41, 6.1-2, 6.4-8, 6.5-6, 6.5-8, 6.17-4, 7.1-8, 7.1-9, 7.1-14, 7.1-15, 7.1-16, 7.2-2, 7.2-3, 7.2-4, 7.2-10, 7.2-11, 7.2-12, 7.4-9, 7.4-10, 7.4-11, 7.4-12, 7.4-13, 7.4-14, 7.5-5, 7.5-7, 7.5-8, 7.5-9, 7.5-10, 7.5-11, 7.5-12, 7.5-13, 7.5-14, 7.6-4, 7.8-6, 7.15-2, 10-14, 10-15
tourism 2-1, 4-5, 5-18, 6.1-5, 6.2-5, 6.2-17, 6.4-2, 6.5-1, 6.5-3, 6.5-5, 6.5-6, 6.5-7, 6.5-8, 6.5-9, 6.15-1, 6.15-3, 6.17-5, 7.5-1, 7.5-2, 7.5-4, 7.5-5, 7.5-7, 7.5-9, 7.5-13, 7.6-1, 7.15-1, 12-2
trade area 6.5-6, 6.5-7, 6.5-8, 7.5-1, 7.5-6
traffic control 2-15, 6.1-3, 6.1-16, 6.6-2, 7.1-3, 7.4-10, 7.4-13,

7.4-14, 7.5-6, 7.5-8, 7.5-11, 7.5-13, 7.20-2, 7.20-4, 7.20-8
traffic demand 2-3, 2-6, 4-1, 4-3, 4-4, 4-5, 5-11, 5-12, 5-14, 5-42, 5-11, 5-12, 5-14, 5-42, 6.1-5, 6.1-26, 7.1-1, 7.1-4, 7.5-4, 7.17-7, 7.17-9, 12-29
traffic flow 4-4, 5-5, 5-19, 5-23, 5-27, 5-31, 5-5, 5-19, 5-23, 5-27, 5-31, 6.1-5, 6.1-25, 6.1-26, 7.1-10, 7.1-14, 7.1-16, 7.4-9, 7.4-12, 7.5-5, 7.5-7, 7.5-9, 7.5-10, 7.5-11, 7.5-12, 7.5-13, 7.15-1
traffic operation 2-1, 2-3, 2-10, 2-11, 4-4, 4-5, 5-11, 5-14, 5-17, 5-23, 5-27, 5-31, 5-11, 5-14, 5-17, 5-23, 5-27, 5-31, 6.1-4, 6.1-5, 6.18-1, 7.1-1, 7.1-4, 7.1-10, 7.1-13, 7.18-1, 7.18-2, 7.19-2, 10-14
traffic signal 5-42, 5-43, 5-42, 5-43, 6.1-4, 6.1-6, 6.1-29, 6.6-2, 6.6-3, 6.6-4, 7.1-2, 7.4-10, 7.4-11, 7.4-13, 7.4-14, 7.6-6, 7.6-8
traffic volume 2-6, 2-7, 4-1, 4-3, 4-5, 5-7, 5-11, 5-19, 5-20, 5-21, 5-23, 5-24, 5-27, 5-28, 5-31, 5-32, 5-40, 5-41, 5-44, 5-49, 5-7, 5-11, 5-19, 5-20, 5-21, 5-23, 5-24, 5-27, 5-28, 5-31, 5-32, 5-40, 5-41, 5-44, 5-49, 6.1-18, 6.1-20, 6.1-21, 6.1-22, 6.1-27, 6.4-8, 6.17-5, 7.1-1, 7.1-3, 7.1-4, 7.1-5, 7.1-8, 7.1-9, 7.1-10, 7.4-1, 7.4-9, 7.4-11, 7.4-14, 7.6-1, 7.6-5, 7.6-6, 7.6-7, 7.8-5, 7.9-6, 7.12-1, 7.12-6, 7.12-11, 7.13-2, 7.13-3, 7.13-6, 7.17-1, 7.17-4, 7.18-1, 7.19-1, 7.20-2, 10-12, 12-4
transit development plan (TDP) 2-3, 5-42
transportation demand management (TDM) 2-2, 2-3, 4-4, 5-1, 5-11, 5-1, 5-11, 7.1-10, 10-12, 12-2
transportation system management (TSM) 5-41
travel information 7.5-4, 7.5-8, 7.5-11, 7.5-14, 10-17, 12-6
travel time 4-4, 5-18, 7.1-1, 7.4-3, 7.4-4, 7.4-6, 7.4-7, 7.4-8, 7.4-9, 7.4-10, 7.4-11, 7.4-12, 7.5-1, 7.5-2, 7.5-4, 7.5-6, 7.17-5
truck route 2-7, 5-14, 5-15, 5-35, 5-40, 5-43, 5-45, 5-14, 5-15, 5-35, 5-40, 5-44, 5-45, 10-13, 12-4
truck traffic 2-1, 5-44, 7.1-1, 7.1-11, 7.1-15, 7.19-2, 10-17, 12-2
unincorporated communities 6.2-16, 6.2-18, 6.4-1, 6.4-5
unresolved issues 2-11
van pools 5-11
vertical grade 6.1-9
viewing area 7.15-1, 12-7, 12-11
visitor center 7.15-1, 12-7, 12-6, 12-7, 12-21, 12-20, 12-26, 12-27, 12-30, 12-32
waterfowl production area 7.15-1, 12-7, 12-11, 12-21, 12-22, 12-32
wetlands 2-10, 2-12, 2-13, 5-20, 5-25, 5-28, 5-32, 5-35, 5-20, 5-25, 5-28, 5-32, 5-35, 6.2-4, 6.2-7, 6.9-1, 6.10-1, 6.10-2, 6.12-1, 6.12-2, 6.12-3, 6.12-4, 6.12-6, 6.17-1, 7.2-5, 7.2-6, 7.2-7, 7.2-8, 7.2-9, 7.4-2, 7.10-1, 7.10-4, 7.10-5, 7.10-6, 7.10-7, 7.10-8, 7.10-9, 7.10-10, 7.12-1, 7.12-4, 7.12-5, 7.12-11, 7.13-3, 7.17-9, 8-3, 10-10, 10-11, 10-16, 12-6, 12-11, 12-25, 12-26, 12-27, 12-30
wildlife and waterfowl refuge 12-1
wildlife crossing 2-13, 5-20, 5-51, 5-20, 5-51, 7.11-3, 7.12-1, 7.12-6, 7.12-8, 7.12-9, 10-10
wildlife fence 5-14, 5-15, 5-14, 5-15, 7.17-17
wildlife management area 7.15-1, 12-7, 12-11, 12-21, 12-32

12. ~~DRAFT~~FINAL SECTION 4(f) EVALUATION

TABLE OF CONTENTS

12. SECTION 4(f) EVALUATION 12-1
12.1. GENERAL 12-1
12.2. OVERVIEW OF THE PROPOSED ACTION 12-2
12.2.1. Purpose and Need for the Proposed Action 12-2
12.2.2. Alternatives Under Consideration 12-2
12.2.3. The Preferred Alternative 12-4
12.3. SECTION 4(f) PROPERTIES 12-6
12.3.1. Parks, Recreation Areas and Wildlife and Waterfowl Refuges 12-6
12.3.2. Historic Properties 12-18
12.4. USE OF SECTION 4(f) PROPERTIES 12-20
12.4.1. Parks, Recreation Areas and Wildlife and Waterfowl Refuges 12-20
12.4.2. Historic Properties 12-24
12.5. AVOIDANCE ALTERNATIVES 12-25
12.5.1. Parks, Recreation Areas and Wildlife and Waterfowl Refuges 12-25
12.5.2. Historic Properties 12-28
12.6. MEASURES TO MINIMIZE HARM 12-30
12.6.1. Parks, Recreation Areas and Wildlife and Waterfowl Refuges 12-30
12.6.2. Historic Properties 12-30
12.7. COORDINATION 12-32
12.8. CONCLUSION 12-33

LIST OF FIGURES

Figure 12.3-1a, Informal Bison Range Viewing Area 12-8
Figure 12.3-1 National Bison Range Visitor Center 12-9
Figure 12.3-2 Wildlife and Waterfowl Refuges 12-10
Figure 12.3-3 Polson Section 4(f) Properties 12-13
Figure 12.3-4 Ducharme Park 12-14
Figure 12.3-5 Lions Park 12-15
Figure 12.3-6 Polson Municipal Golf Course 12-16
Figure 12.3-7 Seventh Avenue Softball Fields 12-17
Figure 12.3-8, Ravalli School with MDT Preferred Alternative 12-19

LIST OF TABLES

Table 12.3-1 Section 4(f) Parks, Recreation Areas and Wildlife Refuges 12-7
Table 12.4-1 Uses of Parks, Recreation Areas and Refuges by the Preferred Alternatives 12-21
MEMORANDUM OF AGREEMENT FOR THE RAVALLI SCHOOL
MEMORANDUM OF AGREEMENT FOR THE NORTHERN PACIFIC RAILROAD, DIXON-POLSON BRANCHLINE

12. SECTION 4(f) EVALUATION

12.1. GENERAL

Title 49 United States Code (USC) 303 states that "The Secretary may approve a transportation program or project requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance only if--

(1) there is no prudent and feasible alternative to using that land; and

(2) the program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use."

It has been determined that use of land is constituted by the following:

1. When land from a Section 4(f) site is acquired for a transportation project or when there is occupancy of the land by easement, lease or other agreement. This type of use is referred to in this document as a direct use of Section 4(f) land.

2. When the proximity of the transportation project creates impacts that substantially impair the capability to perform any of the site's vital functions. This type of use is referred to in this document as a constructive use of Section 4(f) land.

This Section 4(f) evaluation has been prepared to identify Section 4(f) properties; identify and evaluate uses of Section 4(f) land that may be required; discuss avoidance alternatives that have been considered; identify appropriate measures to minimize harm; ~~and~~ document coordination that has occurred; and list conclusions.

Section 12.2 presents a summary of information about the purpose and need and alternatives under consideration for the proposed action. The following items of the environmental impact statement (EIS) are hereby referenced and made a part of this Section 4(f) evaluation:

- A description of the affected environment and identification and evaluation of potential impacts (Chapters 2, 6 and 7).

- A summary of comments and coordination that have been received and conducted for the proposed action (Chapter 10).

12.2. OVERVIEW OF THE PROPOSED ACTION

12.2.1. Purpose and Need for the Proposed Action

The proposed action is needed to improve transportation on U.S. Highway 93 (US 93), which is important to local, regional and nationwide travel. Transportation demand is high and is expected to continue to increase.

The high rate of population growth in the area served by US 93 from Evaro through Polson and throughout western Montana, combined with the growth in tourism, are sources of growth in traffic on US 93.

US 93 in the area of the proposed action, and for its entire length within Montana, is functionally classified as a principal arterial and is part of the National Highway System (NHS) as established by the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA).

The highway is part of an extensive system of arterial routes that include: Interstate Highway 90, Montana Highways (MT) 28, 35, 135, and 200 in Lake and Sanders counties; MT 83, which is east of the proposed action, in the Swan Valley of Lake and Missoula counties; and Montana secondaries (MTS)~~Federal Aid Secondary (FAS) routes~~ 211, 212, 382 and 559 in Lake and Sanders counties. (Figure 5.1-6)

Traffic is expected to continue to increase at the 1970-90 annual average rate of three percent, slightly more than doubling the existing volume by the design year ~~2015~~2020. ~~In the design year average daily traffic (ADT) will range from 10,510 at the permanent counter south of Ravalli to 13,110 in the Arlee area, 16,050 in the Ronan area and 21,700 in the Polson area.~~ Truck traffic is expected to continue to be 13.7% of total traffic south of MTS~~FAS~~ 212 and 10% north of MTS~~FAS~~ 212. (Figure 7.1-1)

The highway is important to safety, social well-being and the economy. US 93 is the major north-south transportation route in western Montana providing interstate, regional and local access to natural resources-based industries such as agriculture, forestry and mining, tourism and recreation.

The existing roadway has various geometric features that do not meet current standards for safety and design. Existing level-of-service (LOS) is poor, generally LOS D and E, compared with the desired standard of LOS B for rural highways. It is projected that by the design year ~~2015~~2020 capacity of the existing facility will be exceeded and the highway will be operating at LOS F in most sections. Accident numbers per mile are substantially higher than statewide averages.

12.2.2. Alternatives Under Consideration

Alternatives under consideration, described in following sections, include No Action, alignment alternatives, lane configuration alternatives, transportation demand management (TDM) measures, alternate highway routes and design options. (Chapter 5)

No Action

No Action will continue the existing transportation system with no substantial improvement.

Alignment Alternatives

The existing alignment, also referred to as Alignment 1, consists of reconstructing the roadway with only minor adjustments to allow for widening, to improve horizontal curves and vertical grades and curves, and to avoid important features adjacent to the roadway. (Appendix A, aerial photographs and maps)

Arlee alignments: (Figure 5.1-1)

Alignment 1, the existing alignment.

Alignment 2, west of Arlee and passing between the town and the existing railroad tracks.

Alignment 3, east of Arlee passing west of the rodeo grounds, east of the schools and southwest of the fish hatchery.

Alignment 4, leaves US 93 at Dirty Corner (near the Missoula/Lake county line near Milepost 15.1), continues north across the Jocko River, then continues northwest to rejoin the existing highway approximately three miles north of Arlee.

Ronan alignments: (Figure 5.1-2)

Alignment 1 is the existing alignment.

Alignment 2 is a one-way couplet that will carry southbound traffic one block west of the existing alignment on First Avenue Southwest. Northbound traffic will remain on the existing alignment.

Alignment 3 passes along the west edge of the community, approximately 0.6 mile west of the existing alignment.

Alignment 4 passes along the west edge of the community, approximately one mile west of the existing alignment, west of the sewage treatment lagoons and, for a short distance, adjacent to the railroad and a community ballfield.

Polson alignments: (Figure 5.1-3)

Alignment 1 is the existing alignment, with a bridge over the Flathead River constructed adjacent to the existing bridge.

Alignment 2 passes along Caffrey Road south of Polson, connects with Kerr Dam Road, crosses the Flathead River with a new bridge and connects with the existing highway east of the fairgrounds.

Alignment 3 is identical to Alignment 2 along Caffrey Road, then veers west by one-third to one-half mile and crosses the Flathead River with a new bridge at a point approximately 3,500 feet downstream from the Alignment 2 bridge crossing. It continues north along an alignment that is west of the airport and connects with the existing highway 1.5 miles north of Polson.

Lane Configuration Alternatives

Lane configuration alternatives: (Figure 2.3-1)

Lane Configuration A is a two-lane, two-way highway with auxiliary lanes (Figure 5.1-5). Where needed, passing lanes will be added for short distances, designated left-turn bays will be constructed at important intersections, and continuous two-way left-turn center medians will be constructed where there are high numbers of intersections and driveways.

Lane Configuration B is a four-lane highway with two traffic lanes in each direction. ~~A four-foot painted center median is a major design option that will be considered with this lane configuration.~~ Designated left-turn bays will be constructed at important intersections.

Lane Configuration C is a four-lane highway with a continuous two-way left-turn center median.

Lane Configuration D is a four-lane highway with a divided, unpaved center median. Designated left-turn bays will be constructed at important intersections.

Design Options

Major design options include partial access control, wildlife crossings, frontage roads, pedestrian and bicycle facilities and traffic signals. Section 5.1.6 presents detailed information about all design options considered with the alignment and lane configuration alternatives.

12.2.3. The Preferred Alternatives

There are two preferred alternatives that have been identified. The alternative preferred by the Montana Department of Transportation (MDT) is referred to in this document as the MDT Preferred Alternative. The alternative preferred by the Confederated Salish and Kootenai Tribes (CSKT) is referred to in this document as the CSKT Preferred Alternative.

Details of the MDT Preferred Alternative are presented in Section 5.3. The following is a summary of major features~~description~~ of the MDT Preferred Alternative:

Alignment 1, the existing alignment, is recommended as the preferred alignment from Evaro to Polson. At Polson, Alignment 1 is recommended as the designated route for US 93, and Alignment 3, which is approximately 5.8 miles long and passes south and west of Polson, is recommended as a truck route and as an alternate route around Polson.

Preservation of a corridor of land for future highway construction is recommended on Alignment 2 through the Arlee area and Alignment 4 through the Ronan area and will be accomplished by measures such as: 1) cooperative access control and land use planning and regulation with tribal and local governments; 2) purchase of easements, options or right-of-way (ROW) by MDT; and other public/private cooperative methods.

Table 2.3-1 and Figure 2.3-2 present information about the MDT Preferred Alternative for locations throughout the proposed action. Specific locations for the recommended applications of each lane configuration and design option are discussed in Section 5.3.

Lane Configuration A (a two-lane highway with passing lanes and other auxiliary lanes in some areas) is recommended for 3.8 miles in the city of Polson, where a substantial portion of highway traffic is shifted to Alignment 3. Lane Configuration A also is recommended initially for Alignment 3 at Polson until further traffic volume requires a four-lane highway.

Lane Configuration B (a four-lane highway), with ~~a four-foot-wide painted center median and~~ designated left-turn bays where appropriate, is recommended for most of the length of the proposed action (approximately 37.6 miles on the existing alignment and, when warranted by traffic volume, 5.8 miles on Alignment 3 at Polson).

Approximately 14.5 miles of the highway is recommended to be constructed as Lane Configuration C (a four-lane highway with a continuous two-way left-turn center median).

Lane Configuration D (a four-lane highway with a divided, unpaved center median approximately 40 feet wide), is recommended for a short distance (0.4 mile) in the area of the Evaro wildlife corridor.

Details of the CSKT Preferred Alternative are presented in Section 5.4. Following is a summary of major features of the CSKT Preferred Alternative:

With this alternative, the existing alignment, Alignment 1, is recommended throughout the length of the proposed action. Preservation of a corridor for future highway construction is recommended in the Ronan area but not in the Arlee area. Neither an alternative route nor preservation of a corridor for future highway construction around Polson is recommended.

Lane Configuration A is recommended throughout the length of this alternative with continuous two-way left-turn lanes, truck climbing lanes, slow moving vehicle lanes, left-turn lanes and right-turn lanes where appropriate.

12.3. SECTION 4(f) PROPERTIES

12.3.1. Parks, Recreation Areas and Wildlife and Waterfowl Refuges

Table 12.3-1 lists Section 4(f) parks, recreation areas and wildlife and waterfowl refuges near one or more of the alternatives under consideration. The table indicates whether or not direct use will be required of land from the site with any of the alternatives under consideration.

Following sections list and describe the parks, recreation areas and wildlife and waterfowl refuges from which direct use of land may be required with any of the alternatives under consideration.

Arlee Community Park

The Arlee community park is located adjacent to the east side of US 93 in Arlee at Milepost 17.7 next to the building that houses the Jocko Valley Library and the community center. (Sheet 4, Appendix A, aerial photographs and maps) The park has an area of less than one-half acre, includes one picnic table and a park bench and is used primarily by visitors to the community center and the library. There is access to the park from US 93 and B Street, and informal parking space is located on US 93 and B Street. The park is enclosed by a wooden fence, and an asphalt pedestrian and bicycle path is located between the west fence and US 93. The park is owned by Lake County.

National Bison Range

A part of the National Bison Range is located adjacent to the north side of US 93 throughout most of the area from Milepost 27.8 to 29.2, north of Ravalli on Ravalli Hill. (Sheet 6, Appendix A, aerial photographs and maps) The bison range is under the jurisdiction of the U.S. Fish and Wildlife Service (USFWS) and includes approximately 18,500 acres. It is fenced and is undeveloped with mostly steep terrain. Bison and other wildlife that inhabit the bison range roam and graze in this area. There is no formal public access to the bison range from US 93 but there are several access points located adjacent to other public roadways. An informal viewing and parking area (Figure 12.3-1a) has developed adjacent to US 93 using mostly unmaintained sections of old US 93 that remain from before the existing highway was constructed. As indicated below, CSKT operates a visitor center adjacent to US 93 across the highway from the Bison Range.

National Bison Range Visitor Center

The CSKT visitor center is adjacent to the south side of US 93 at Milepost 29.2 on the crest of Ravalli Hill. The visitor center has historical and travel information, covered picnic tables, and public restrooms. The entire site covers approximately eight acres. (Figure 12.3-1 and Sheet 6, Appendix A, aerial photographs and maps)

Ninepipe National Wildlife Refuge

The existing US 93, from approximately Milepost 40.4 to 40.9, is located within the Ninepipe National Wildlife Refuge, near its eastern edge (Figure 12.3-2). Ninepipe Refuge includes approximately 2,000 acres (approximately 1,300 of which is Ninepipe Reservoir) and is on land owned by CSKT, which grants an easement to USFWS to manage Ninepipe Refuge. It is fenced, undeveloped land and borders and surrounds Ninepipe Reservoir. Wildlife that inhabits Ninepipe Refuge roams and grazes in this area. Within this area, the Montana Department of Fish, Wildlife and Parks (MDFWP) operates a fishing access site. Access to the fishing access site is from US 93, but the site is not adjacent to highway ROW and no direct or constructive use will be required.

~~As indicated in Section 6.10, there are several wetlands on Ninepipe Refuge adjacent to and near existing US 93.~~

Table 12.3-1 Section 4(f) Parks, Recreation Areas and Wildlife Refuges

Section 4(f) Property	Direct Conversion of Use by Any Alternative	Direct Conversion of Use by the MDT Preferred Alternative
Arlee Community Park	Yes	Yes
Arlee Powwow Grounds	No	No
Arlee Rodeo Grounds	No	No
Arlee Elementary School Playground	No	No
Arlee Junior High School Playground	No	No
Arlee High School Athletic Field	No	No
Arlee Ballfield	No	No
National Bison Range	Yes	Yes
National Bison Range Visitor Center	Yes	Yes
St. Ignatius Ballfield	No	No
Ninepipe National Wildlife Refuge	Yes	Yes
Ninepipe Wildlife Management Area	Yes	Yes
Kicking Horse Waterfowl Production Area	Yes	Yes
Duck Haven Waterfowl Production Area	Yes	Yes
Ronan Ballfield near US 93	No	No
Ronan City Park	Yes	No
Ronan Ballfield near 13th Avenue S.W.	No	No
Ronan High School Athletic Field	Yes	No
Riverside Park	No	No
Ducharme Park	Yes	No
Lions Park	Yes	No
Polson Municipal Golf Course	Yes	No
Lake County Fairgrounds	No	No
Seventh Avenue Softball Fields	Yes	No

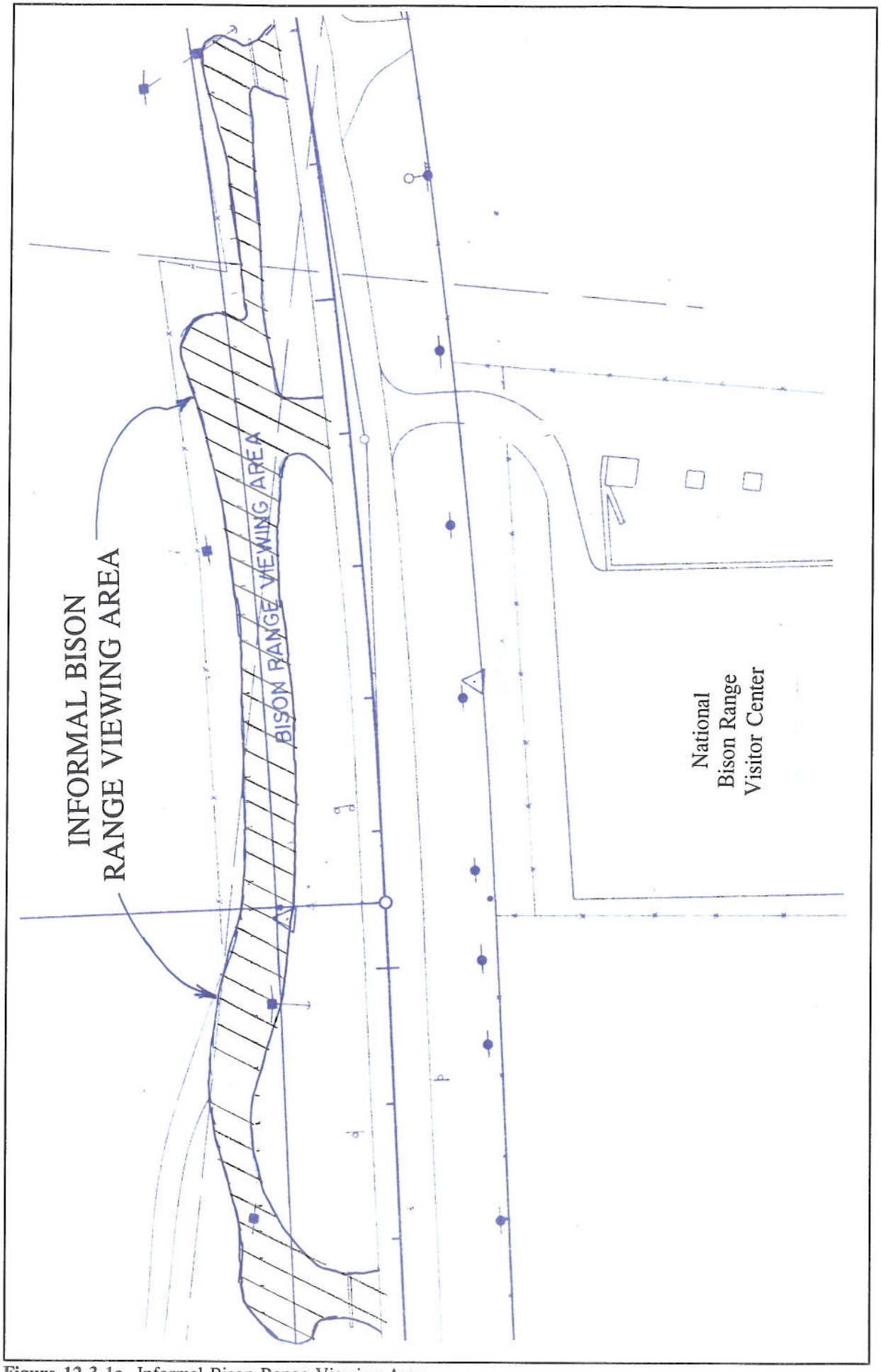


Figure 12.3-1a, Informal Bison Range Viewing Area

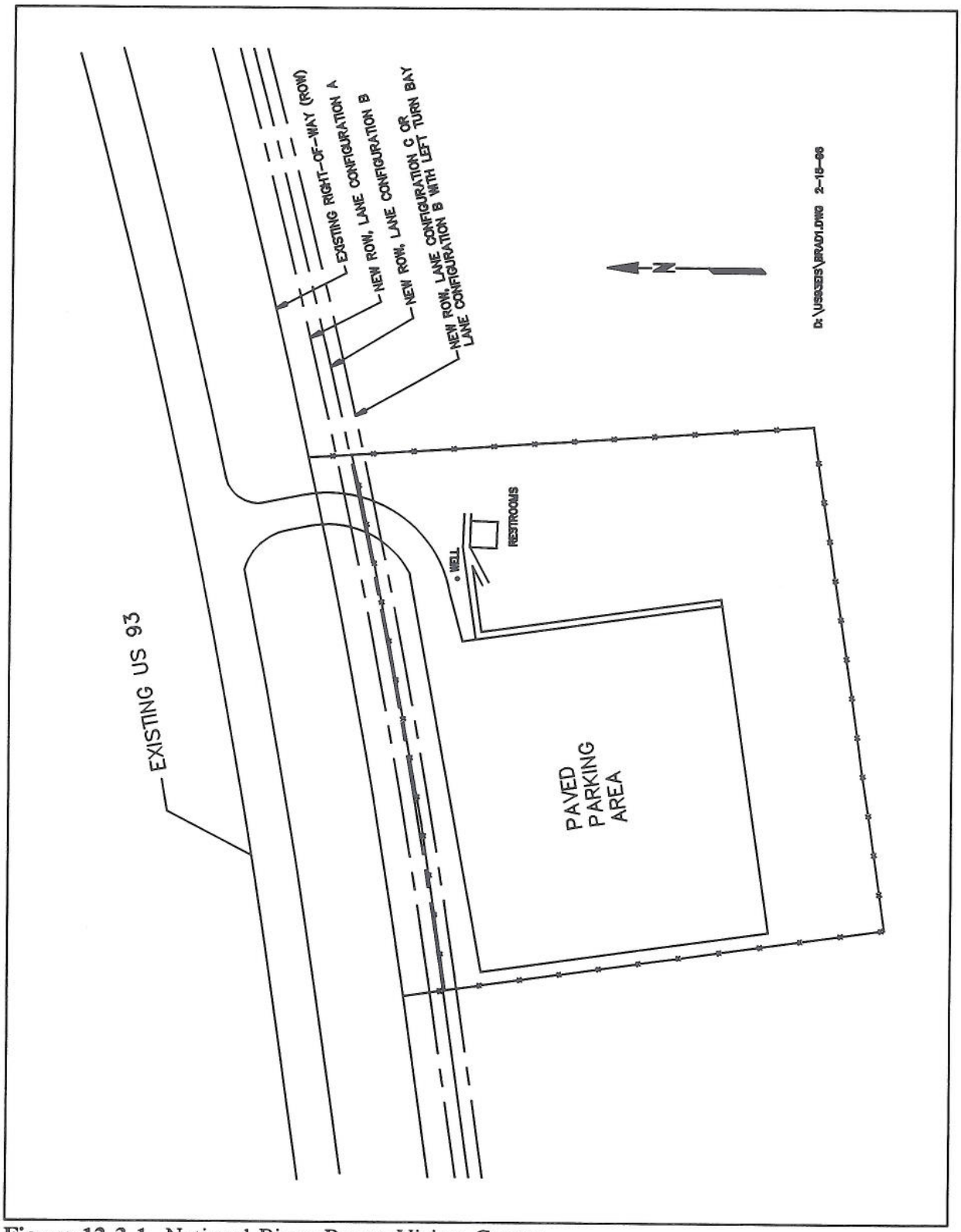


Figure 12.3-1 National Bison Range Visitor Center

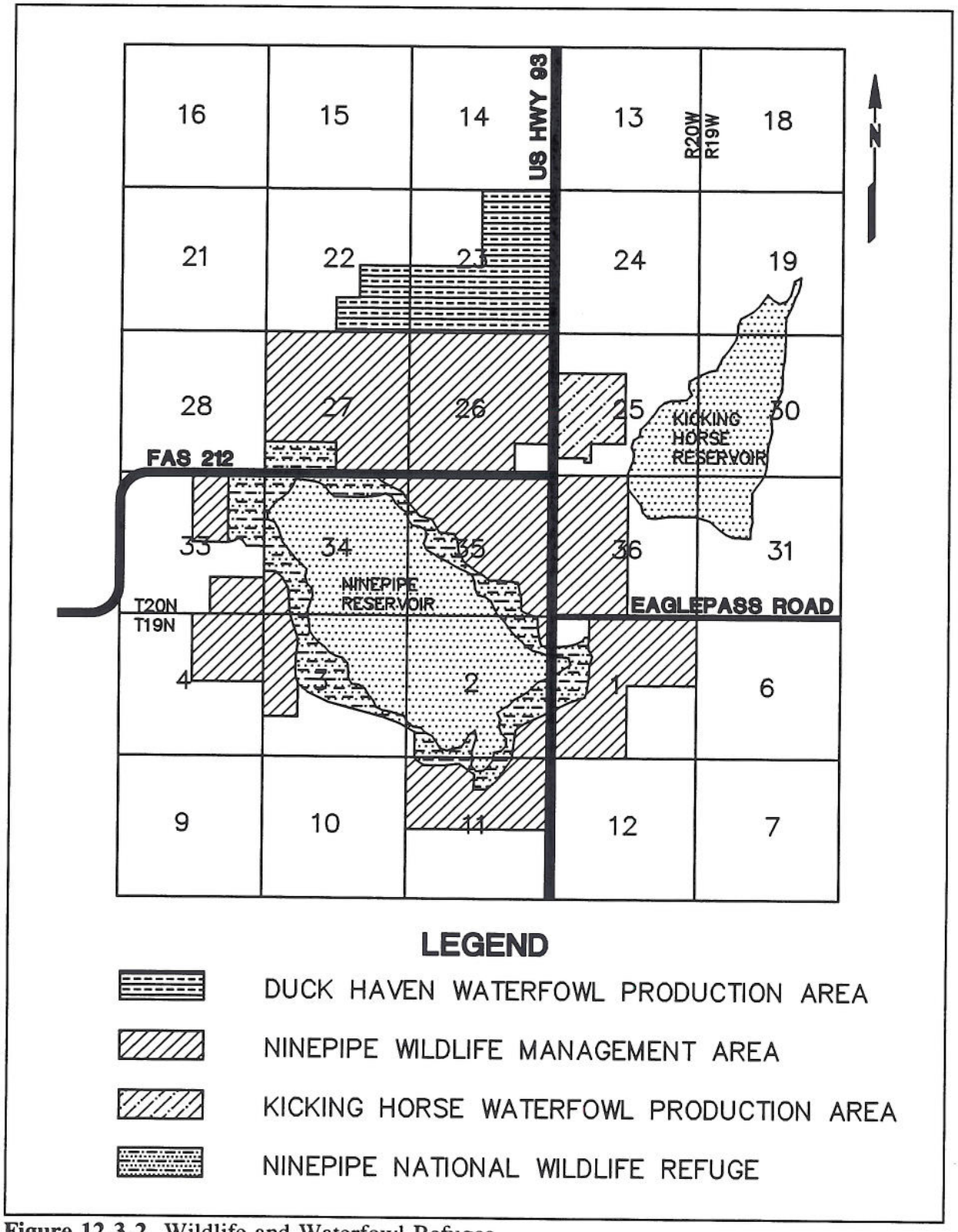


Figure 12.3-2 Wildlife and Waterfowl Refuges

Ninepipe Wildlife Management Area

The Ninepipe Wildlife Management Area (WMA) is adjacent to existing US 93 on the west from Milepost 39.6 to 43.1 and on the east from Milepost 40.1 to 42.1 (excluding Ninepipe Refuge and two small privately owned parcels). (Figure 12.3-2) The WMA land is owned by MDFWP and includes approximately 3,000 acres. This area of the WMA is fenced, undeveloped land and borders and almost surrounds Ninepipe Refuge. Wildlife that inhabits the WMA roams and grazes in this area. Within the WMA, MDFWP operates a wildlife viewing area. Access to the viewing area is from US 93, but the viewing area property is not adjacent to highway ROW.

~~As indicated in Section 6.10, there are several wetlands on the WMA adjacent to and near existing US 93.~~

Kicking Horse Waterfowl Production Area

The existing alignment of US 93, from Milepost 42.2 to 42.8 is located along the western edge of the Kicking Horse Waterfowl Production Area (WPA). (Figure 12.3-2) The Kicking Horse WPA is located just west of Kicking Horse Reservoir, is on land owned by USFWS and includes approximately 180 acres managed to include grassland/wetland complexes to favor nesting waterfowl. This area of the WPA is fenced, undeveloped land. Wildlife that inhabits the WPA roams and grazes in this area. There is no formal public access to the WPA from US 93. Access to the WPA is from an unnamed gravel road that extends eastward from US 93 opposite MTSFAS 212.

~~As indicated in Section 6.10, there are several wetlands on the Kicking Horse WPA adjacent to and near existing US 93.~~

Duck Haven Waterfowl Production Area

The existing alignment of US 93, from Milepost 43.1 to 44.1, is located along the eastern edge of the Duck Haven WPA. (Figure 12.3-2) The Duck Haven WPA is on land owned by USFWS north of Ninepipe Refuge and includes approximately 650 acres managed to include grassland/wetland complexes to favor nesting waterfowl. This area of the Duck Haven WPA is fenced, undeveloped land. Wildlife that inhabits the Duck Haven WPA roams and grazes in this area. There is no formal public access from US 93. Access is from Duck Road and Beaverhead Lane, which are paved county roads that extend westward from US 93.

~~As indicated in Section 6.10, there are several wetlands on the Duck Haven WPA adjacent to and near existing US 93.~~

Ronan City Park

The Ronan city park is located adjacent to First Avenue S.W., one block south of Main Street near Milepost 47.0 of the southbound portion of Alignment 2. The park includes approximately 1.6 acres in a residential area one block west of the existing alignment of US 93. It borders Ronan's central business district on Main Street. Spring Creek meanders through the park, which has walking trails, picnic areas and park benches. There is access from First Avenue S.W. and other city streets in the area. There is both formal and informal parking space on First Avenue S.W. and the other streets that provide access to the park. The park is open, and there are no sidewalks along the perimeter of the park. (Figure 5.1-2)

Ronan High School Athletic Field

The Ronan High School athletic field includes approximately 8.1 acres and is located in the northern end of Ronan, adjacent to buildings and parking lots on the school grounds. (Sheet 11, Appendix A, aerial photographs and maps) The athletic field is near Milepost 47.2 of the southbound portion of Alignment 2. The athletic field is west of US 93 and is separated from the existing highway by dispersed commercial development and open, undeveloped land.

Access to the athletic field is from school grounds. The athletic field is open, and there are no sidewalks along its perimeter. The athletic field, school buildings and school grounds are located in the same general area as several community ballfields.

Ducharme Park

Ducharme Park, located in Polson on the south side of US 93 near Milepost 60.6 at the US 93 intersection with Third Avenue and Seventh Street East, is one acre in size and is publicly owned and managed by the city of Polson. (Figures 12.3-3 and 12.3-4) Activities include passive recreation. The park is accessible via US 93, Third Avenue, or Seventh Street East. The site is grass-covered and contains a mixture of deciduous and coniferous foliage. Unusual characteristics include water and sewer lifts and a sewer drain on the site.

Lions Park

Lions Park in Polson is a scenic turnout located on the north side of US 93 near Milepost 59.5 directly west of the entrance to Country Club Shores and the golf course. (Figures 12.3-3 and 12.3-5) The site is almost two acres in size. It is owned by the Montana Transportation Commission and managed by the Polson Lions Club. Available activities include lake-viewing, picnicking, and obtaining regional activity information. Facilities include a Polson Chamber of Commerce information station, a parking area for 12 to 15 vehicles and two picnic tables. Access is available via US 93. There are no unusual characteristics.

This facility has received Land and Water Conservation Fund (LWCF) financial assistance and is therefore subject to the provisions of Section 6(f) of the LWCF Act, as amended. Direct use of land from this site will require approval of the U.S. Secretary of the Interior. It also will be necessary to substitute other properties of at least equal fair market value and reasonably equivalent usefulness and location for the recreation lands used.

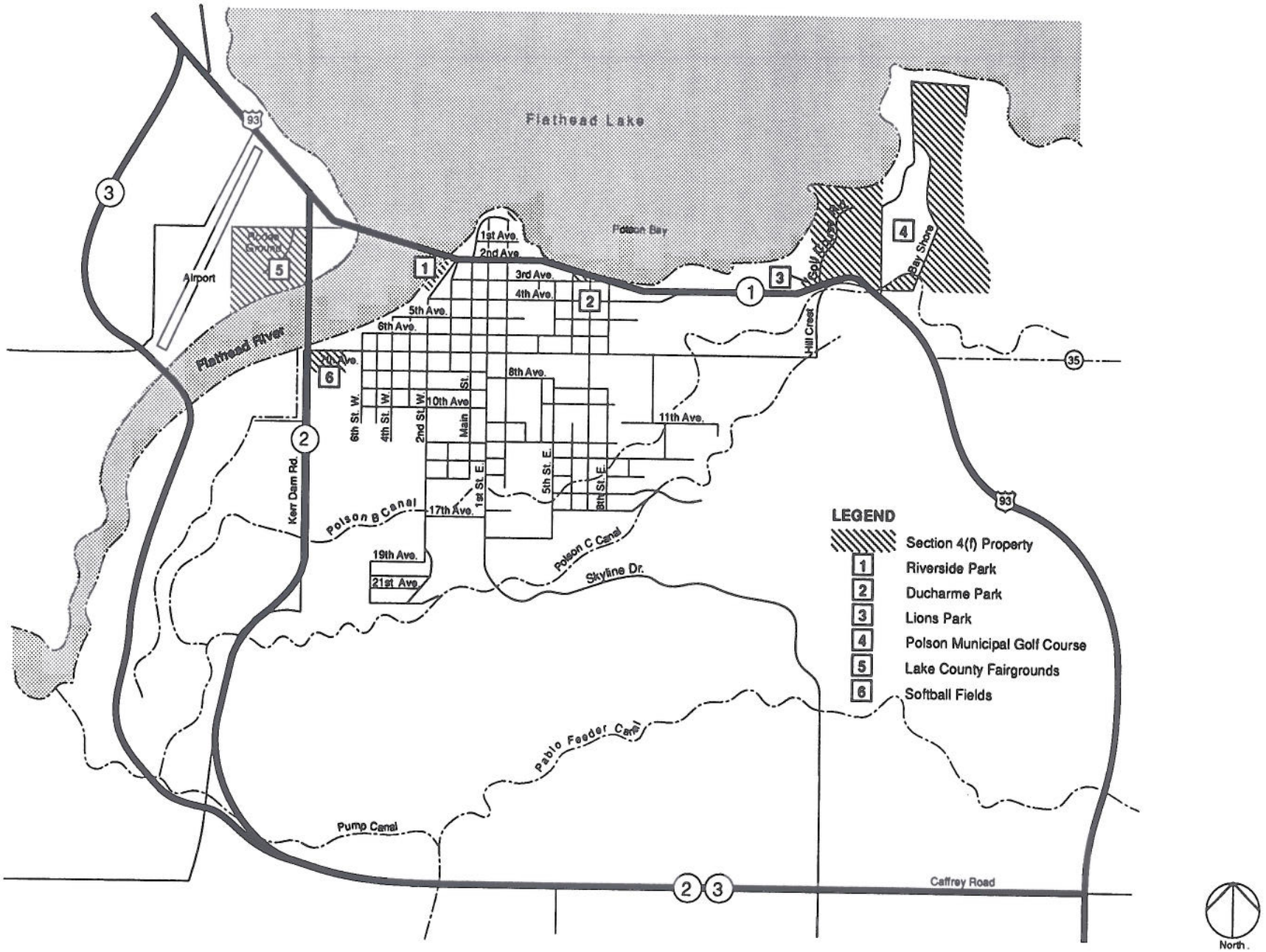
Polson Municipal Golf Course

The Polson Municipal Golf Course is divided into three adjacent properties. The original golf course, the front nine, is located on the north side of US 93, from Milepost 59.3 to 59.5, directly east of Lions Park. (Figures 12.3-3 and 12.3-6) The Country Club Shores residential units, the clubhouse and pro shop are all located between Bay Shore and Bay View drives one block north of US 93. The new course, the back nine, is located directly east of Bay View Drive. The golf course properties are 122 acres in size. It is owned and managed by the city of Polson. Available activities include recreational golfing, golf instruction, dining and retail. Facilities include parking, 18 holes, benches, ball cleaners, a clubhouse with food, pay phones, restrooms and a pro shop, and a golf course maintenance and equipment storage facility. The site has two points of access from US 93. Unusual characteristics include the original clubhouse, which is used for live theater productions, the original pro shop, and a caretaker's cabin on the site.

This facility has received LWCF financial assistance and is therefore subject to the provisions of Section 6(f) of the LWCF Act, as amended. Direct use of land from this site will require approval of the U.S. Secretary of the Interior. It also will be necessary to substitute other properties of at least equal fair market value and reasonably equivalent usefulness and location for the recreation lands used.

Seventh Avenue Softball Fields

The Seventh Avenue softball fields are located near Polson at the southeast corner of Kerr Dam Road and Seventh Avenue near Milepost 61.0 of Alignment 2. (Figures 12.3-3 and 12.3-7) The site is 20 acres in size. The park is owned and managed by the city of Polson. Activities include softball, basketball, picnicking, and passive recreation. Facilities include parking, two softball diamonds, four dugout structures, two backstops, bleachers, restrooms, a concession stand, a picnic pavilion, an asphalt basketball court, a swing set, and a water pump station. An unusual characteristic is that the site is on a high water table and attracts several species of waterfowl.



Polson / Highway 93
Environmental Impact Statement

FIGURE 12.3-3
Polson Section 4(f) Properties

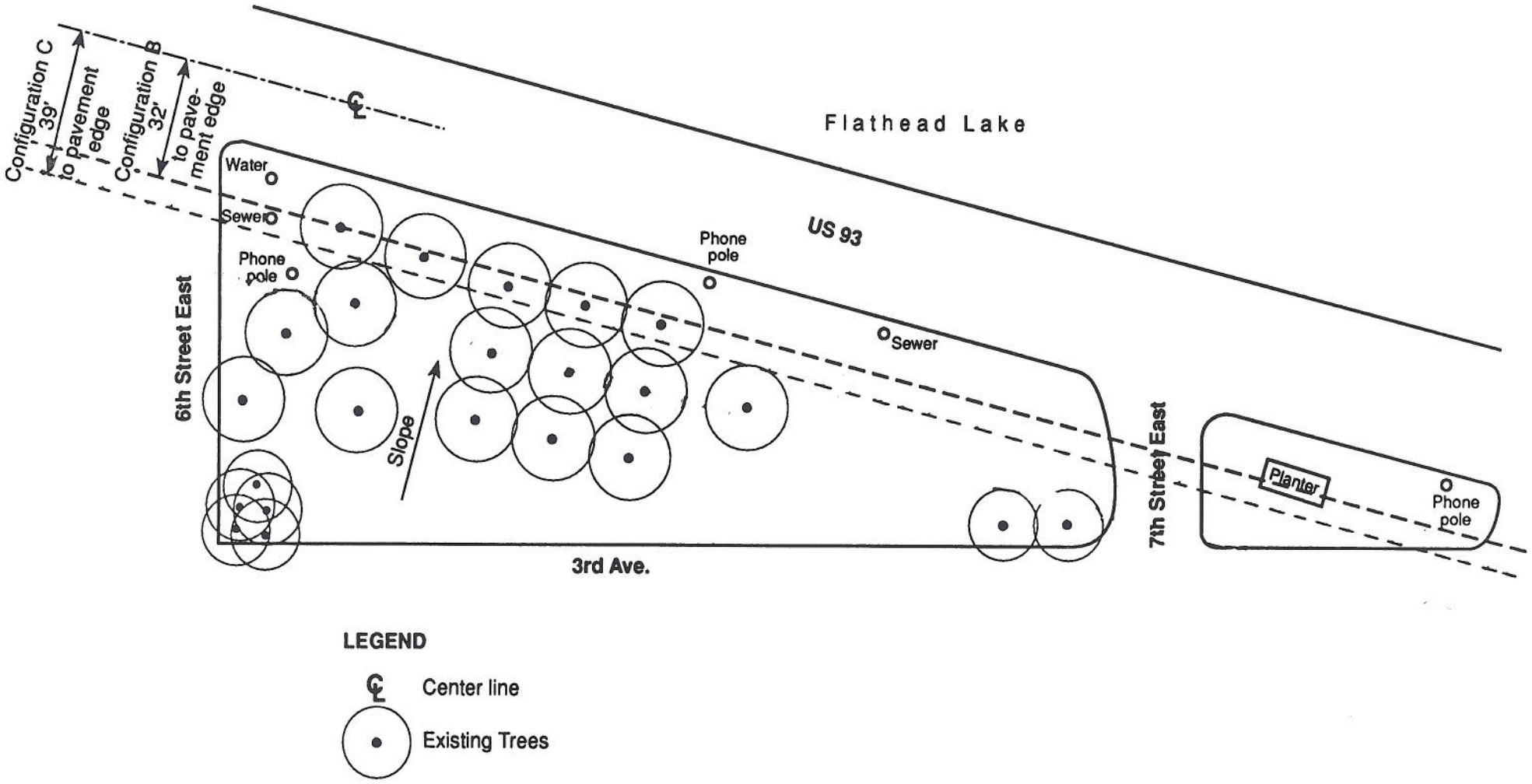


FIGURE 12.3-4
Ducharme Park

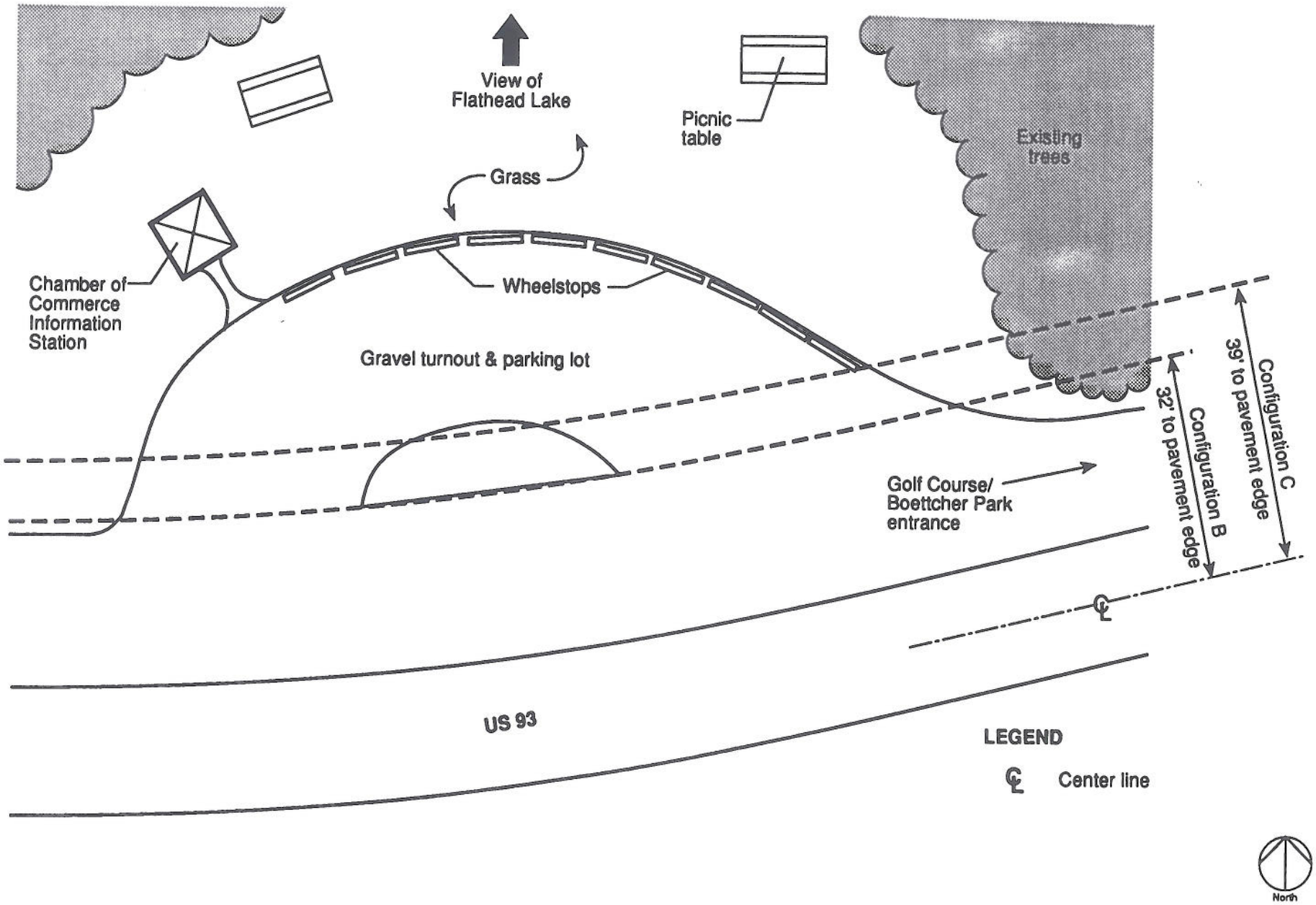


FIGURE 12.3-5
Lions Park

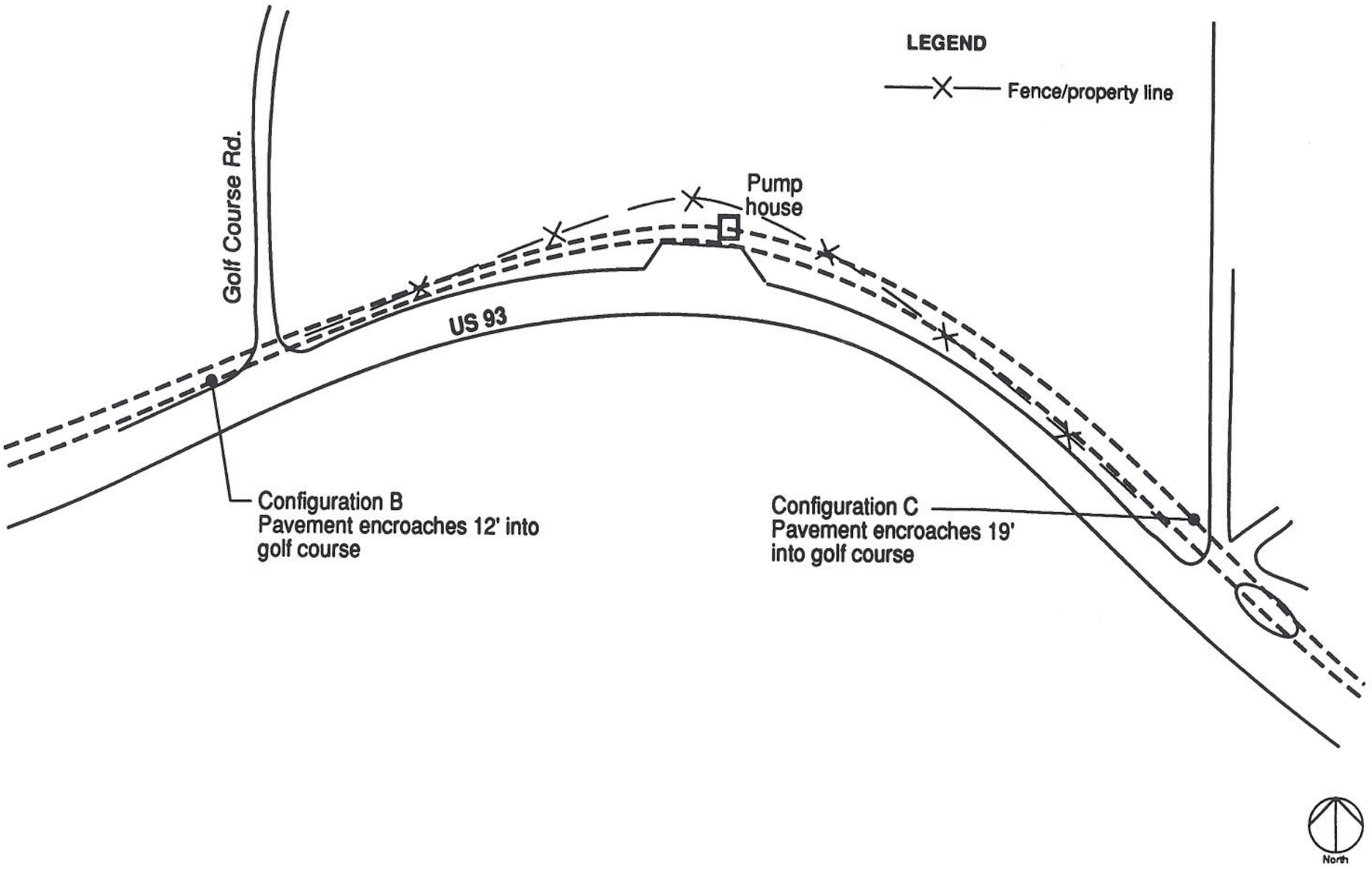


FIGURE 12.3-6
Polson Municipal Golf Course

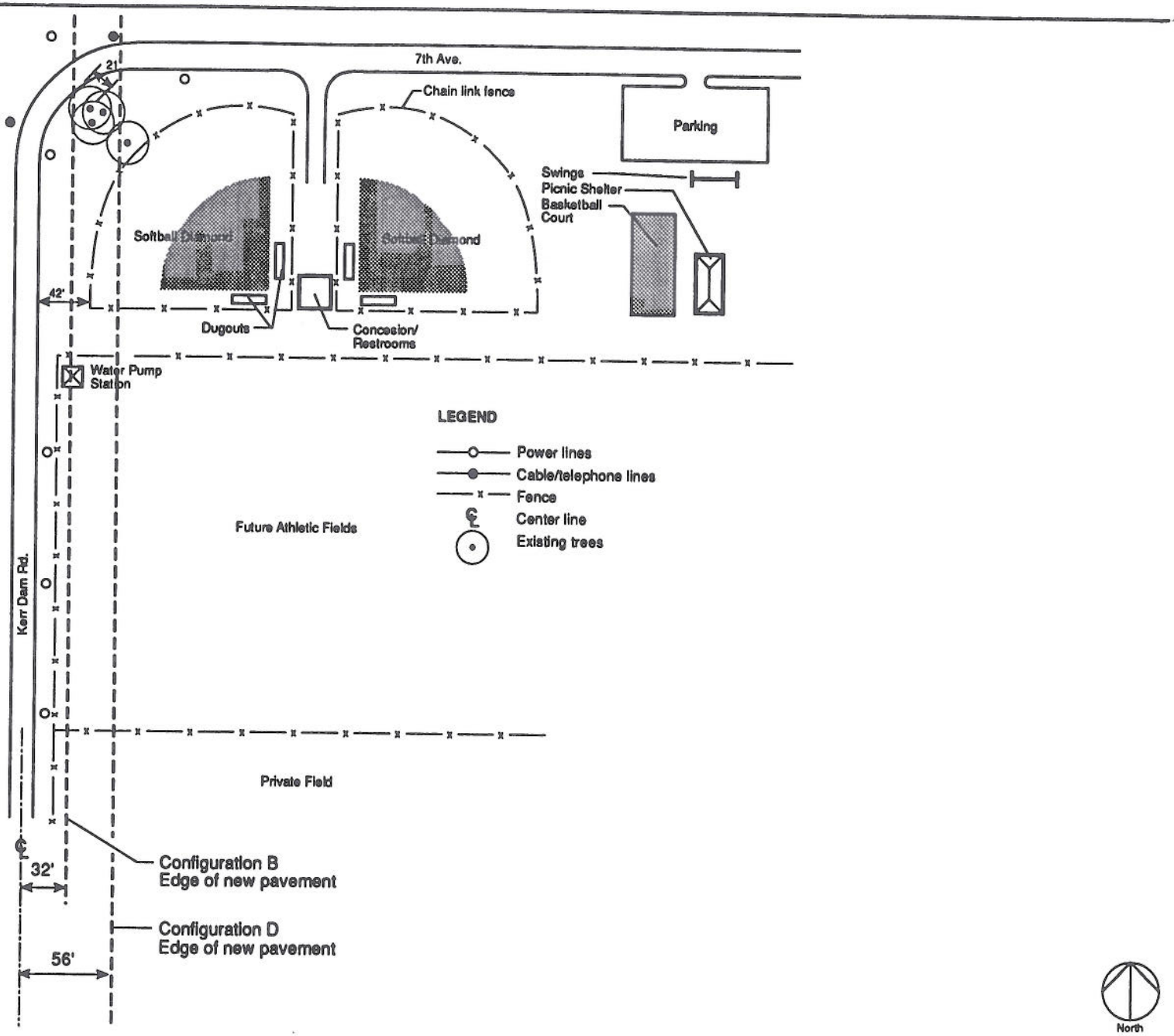


FIGURE 12.3-7
Seventh Avenue Softball Fields

This facility has received LWCF financial assistance and is therefore subject to the provisions of Section 6(f) of the LWCF Act, as amended. Direct use of land from this site will require approval of the U.S. Secretary of the Interior. It also will be necessary to substitute other properties of at least equal fair market value and reasonably equivalent usefulness and location for the recreation lands used.

12.3.2. Historic Properties

A total of 79 historic and prehistoric cultural resource properties have been formally recorded and evaluated during the inventory of the existing highway corridor and the several alternative corridors under consideration.[1] Of these, several properties have been determined eligible for listing in the National Register of Historic Places (NRHP) eligible properties. The following is a list and description of NRHP eligible sites from which direct use of land will be required for the MDT Preferred Alternative and the CSKT Preferred Alternative for the proposed action:

Ravalli School (24LA131)

The Ravalli School (Figure 12.3-8), a one-room facility with Italianate design details, is located adjacent to the east side of the highway within the small community of Ravalli. It is a one story wood frame building with an asphalt-shingled hip roof. Exterior walls are covered with beveled siding, and the roof is covered with asphalt shingles. A square bell tower with a hip roof topped by a flag pole is located on the front of the building. A wooden stoop with wood railing provides access to the front of the building. The building is on a platted lot in Ravalli with an area of approximately 0.66 acres.

Missoula County School District 28 funded the construction of Ravalli School in 1913. For the next nine years the building housed grades one through eight, averaging 31 students per year. When Lake County was formed in 1922, the Ravalli School was closed and students were sent to St. Ignatius for schooling. Between 1923 and 1935 the building was used as a polling place and as an informal social center. The Ravalli Community Club purchased the building from School District 28 in 1935, after which it served as the community center for Ravalli until the late 1960s. The building is now being used as church. Ravalli School has been determined eligible for listing in NRHP under criteria A and C[2].

Northern Pacific Railroad, Dixon-Polson Branchline (24LA89)

The Northern Pacific branchline between Dixon and Polson consists of the railroad grade and track. This branch line has been determined eligible for listing in NRHP under criterion A. This spur line is still in use on a regular basis and connects Polson with the Montana Raillink mainline through Missoula. It is Polson's only railroad connection. It is important for the timber industry and other industries and businesses in the area.

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[1]Pedestrian inventories have not been completed for the Arlee Alignment 3, Arlee Alignment 4, Ronan Alignment 2 and the Ronan Alignment 3. However drive-through inventories have been completed for all of these alignments, and most potential historical cultural resource properties with standing buildings and structures have been identified. Archaeological sites have not been identified. Preliminary judgments regarding the relative impact of the alternative alignments have been prepared based upon these inventories. Permits for these inventories must be obtained from the Tribal Culture Committees. These permits are granted where they are necessary and where they are for a good cause. Because alignments of the MDT and CSKT preferred alternatives have received complete inventories and no culturally significant sites have been identified, it has been determined that obtaining permits and conducting additional inventories is not necessary and is not justified.

[2]Criterion A includes sites that are associated with events that have made a significant contribution to the broad patterns of our history. Criterion C includes sites that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.

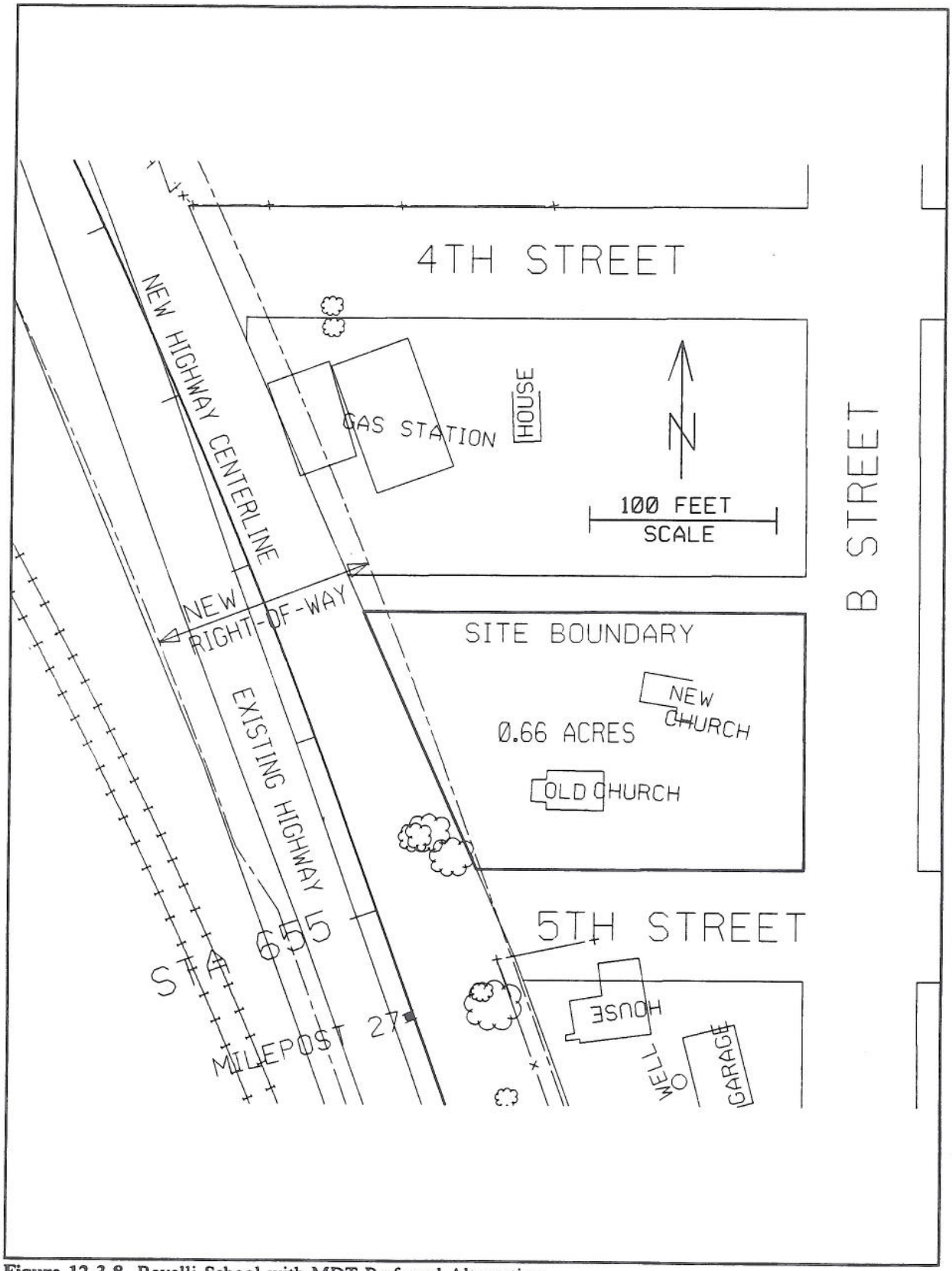

Figure 12.3-8, Ravalli School with MDT Preferred Alternative

12.4. USE OF SECTION 4(f) PROPERTIES

Following paragraphs discuss use of Section 4(f) lands that will be required for each alternative of the proposed action.

No use of land from any Section 4(f) sites will be required with No Action.

Lane Configuration D has not received substantial public or agency support and, in many cases, will cause substantially greater environmental impacts and will require substantially more use of Section 4(f) lands than Lane Configurations A, B or C. It is not part of the CSKT Preferred Alternative and is part of the MDT Preferred Alternative (Section 5.3) only for a short distance (Milepost 10.2 to 10.6) and will impact no Section 4(f) sites. Lane Configuration D is therefore not evaluated further in this document in relation to the use of Section 4(f) lands.

12.4.1. Parks, Recreation Areas and Wildlife and Waterfowl Refuges

Direct use of parks, recreation areas and wildlife and waterfowl refuges required by the preferred alternatives is summarized on Table 12.4-1. Each site is further discussed in following paragraphs.

Arlee Community Park

If Lane Configuration A (the CSKT Preferred Alternative as described in Section 5.4) or Lane Configuration B is constructed on Alignment 1, no direct use of land from this site will be required.

If Lane Configuration C is constructed on Alignment 1 (the MDT Preferred Alternative as described in Section 5.3), a direct use of approximately 0.1 acre of land from this site will be required. Relocation of the bicycle path and the west side of the wooden fence will be required. ~~Relocation of t~~The picnic table and the park bench will not be impacted~~required~~.

Alignments 2, 3 and 4 are not located near this site and will not require direct or constructive use of the land with any of the lane configurations under consideration.

National Bison Range

If Lane Configuration A, B or C is constructed on Alignment 1, a direct use of 1.5, 3.3 or 4.3 acres of Section 4(f) land from this site will be required. As indicated in Sections 5.3, 5.4 and 12.2.3, Lane Configuration B is the MDT Preferred Alternative and Lane Configuration A is the CSKT Preferred Alternative in this area.

The existing informal viewing and parking area adjacent to the north side of US 93 will be removed if Lane Configuration A, B or C is constructed. Removal of the viewing and parking area is required because: 1) it is too close to the existing or future lane configurations and creates several vehicle approaches to the highway that may be unsafe; and 2) it will be necessary to provide space for construction of roadway widening and required improvements to slopes and drainage facilities.

National Bison Range Visitor Center

If Lane Configuration A, B or C is constructed on Alignment 1, a direct use of 0.1, 0.3 or 0.4 acres of Section 4(f) land from this site will be required. As indicated in Sections 5.3, 5.4 and 12.2.3, Lane Configuration B is the MDT Preferred Alternative and Lane Configuration A is the CSKT Preferred Alternative in this area.

Table 12.4-1 Uses of Parks, Recreation Areas and Refuges by the Preferred Alternatives

SITE DESCRIPTION	MILE POST	TOTAL SITE AREA (ACRES)	CSKT PREFERRED ALTERNATIVE		MDT PREFERRED ALTERNATIVE	
			ALIGN-MENT/LANE CONFIG-URATION	DIRECT USE (ACRES)	ALIGN-MENT/LANE CONFIG-URATION	DIRECT USE (ACRES)
Arlee Community Park	17.7	0.5	1/A	0	1/C	0.1
National Bison Range	27.8 - 29.2	18,500	1/A	1.5	1/B	3.3
National Bison Range Visitor Center	29.2	8	1/A	0.1	1/B	0.3
Ninepipe National Wildlife Refuge	40.4 - 40.9	2,000	1/A	0.5	1/B	0.9
Ninepipe Wildlife Management Area	39.6 - 43.1	3,000	1/A	4.8	1/B	10.1
Kicking Horse Waterfowl Production Area	42.2 - 42.8	180	1/A	0.4	1/B	0.9
Duck Haven Waterfowl Production Area	43.1 - 44.1	650	1/A	0.3	1/B	0.8

This table has been revised for the final EIS.
Morrison-Maierle and Carter Burgess. 1994.

Ninepipe National Wildlife Refuge

If Lane Configuration A, B or C is constructed on Alignment 1, a direct use of 0.5, 0.9 or 1.4 acres of Section 4(f) land from this site will be required. As indicated in Sections 5.3, 5.4 and 12.2.3, Lane Configuration B is the MDT Preferred Alternative and Lane Configuration A is the CSKT Preferred Alternative in this area.

~~Section 7.10 describes the acreage of wetland that will be impacted on this site by each of the lane configurations.~~

Ninepipe Wildlife Management Area

If Lane Configuration A, B or C is constructed on Alignment 1, a direct use of 4.8, 10.1 or 13.0 acres of Section 4(f) land from this site will be required. As indicated in Sections 5.3, 5.4 and 12.2.3, Lane Configuration B is the MDT Preferred Alternative and Lane Configuration A is the CSKT Preferred Alternative in this area.

~~Section 7.10 describes the acreage of wetland that will be impacted on this site by each of the lane configurations.~~

Kicking Horse Waterfowl Production Area

If Lane Configuration A, B or C is constructed on Alignment 1, a direct use of 0.4, 0.9 or 1.3 acres of Section 4(f) land from this site will be required. As indicated in Sections 5.3, 5.4 and 12.2.3, Lane Configuration B is the MDT Preferred Alternative and Lane Configuration A is the CSKT Preferred Alternative in this area.

~~Section 7.10 describes the acreage of wetland that will be impacted on this site by each of the lane configurations.~~

Duck Haven Waterfowl Production Area

If Lane Configuration A, B or C is constructed on Alignment 1, a direct use of 0.3, 0.8 or 1.4 acres of Section 4(f) land from this site will be required. As indicated in Sections 5.3, 5.4 and 12.2.3, Lane Configuration B is the MDT Preferred Alternative and Lane Configuration A is the CSKT Preferred Alternative in this area.

~~Section 7.10 describes the acreage of wetland that will be impacted on this site by each of the lane configurations.~~

Ronan City Park

No direct or constructive use of land from this site will be required with the MDT Preferred Alternative or the CSKT Preferred Alternative. ~~, Lane Configuration C on Alignment 1 and preservation of a future highway corridor on Alignment 4. (Sections 5.3 and 12.2.3)~~

No direct or constructive use of land from this site will be required with any of the lane configurations on Alignments 1 or 3.

Construction of the southbound lanes (a one-way, two-lane roadway with widths similar to Lane Configuration A) of Alignment 2 will require a direct use of approximately 0.3 acre of land from this site.

Because no direct or constructive use of Section 4(f) lands will be required with the MDT Preferred Alternative or the CSKT Preferred Alternative, this site is not evaluated further in this document.

Ronan High School Athletic Field

No direct or constructive use of land from this site will be required with the MDT Preferred Alternative or the CSKT Preferred Alternative. ~~, Lane Configuration C on Alignment 1 and preservation of a future highway corridor on Alignment 4. (Sections 5.3 and 12.2.3)~~

No direct or constructive use of land from this site will be required with any of the lane configurations on Alignments 1 or 3.

Construction of the southbound lanes (a one-way, two-lane roadway with widths similar to Lane Configuration A) of Alignment 2 will require a direct use of approximately 0.1 acre of land from this site.

Because no direct or constructive use of Section 4(f) lands will be required with the MDT Preferred Alternative or the CSKT Preferred Alternative, this site is not evaluated further in this document.

Ducharme Park

If Lane Configuration A is constructed on Alignment 1 (the MDT and the CSKT preferred alternatives as described in Sections 5.3, 5.4 and 12.2.3), no direct use of land from this site will be required.

If Lane Configuration B or C is constructed on Alignment 1, a direct use of approximately 0.09 or 0.17 acre of land from this site will be required. Five mature deciduous trees will require removal if Lane Configuration B is constructed and 10 will require removal with Lane Configuration C. A brick planter with coniferous bushes will require removal with either Lane Configuration B or C.

The park would retain its primary current uses including passive recreation and picnicking, but would offer about 25% less space for those users.

Alignments 2 and 3 are not located near this site and will not require direct or constructive use of the land with any of the lane configurations.

Because no direct or constructive use of Section 4(f) lands will be required with the MDT Preferred Alternative or the CSKT Preferred Alternative, this site is not evaluated further in this document.

Lions Park

If Lane Configuration A is constructed on Alignment 1 (the MDT and the CSKT preferred alternatives as described in Sections 5.3, 5.4 and 12.2.3), no direct use of land from this site will be required.

If Lane Configuration B or C is constructed on Alignment 1, a direct use of approximately 0.07 or 0.11 acre of land from this site will be required. This will effectively abolish the entire vehicle turnout and parking lot because it will give way to highway pavement. The chamber of commerce information booth and two picnic tables will require relocation.

Alignments 2 and 3 are not located near this site and will not require direct or constructive use of the land with any of the lane configurations.

Because no direct or constructive use of Section 4(f) or Section 6(f) lands will be required with the MDT Preferred Alternative or the CSKT Preferred Alternative, this site is not evaluated further in this document.

Polson Municipal Golf Course

If Lane Configuration A is constructed on Alignment 1 (the MDT and the CSKT preferred alternatives as described in Sections 5.3, 5.4 and 12.2.3), no direct use of land from this site will be required.

If Lane Configuration B or C is constructed on Alignment 1, a direct use of approximately 0.21 or 0.33 acre of land from this site will be required. This use will impact hole #4 and the tee box for hole #5 due to pavement widening on the north side of US 93. The fairway and green for hole #4 will need to be relocated further to the north, resulting in the removal of several mature coniferous trees, and the teebox for hole #5 will need to be moved further to the north. Six or more mature deciduous trees along the Golf Course's southern boundary will also need to be removed to accommodate highway fill and pavement. With the relocations described above, the park will retain its primary current use.

Alignments 2 and 3 are not located near this site and will not require direct or constructive use of the land with any of the lane configurations.

Because no direct or constructive use of Section 4(f) or Section 6(f) lands will be required with the MDT Preferred Alternative or the CSKT Preferred Alternative, this site is not evaluated further in this document.

Seventh Avenue Softball Fields

No direct or constructive use of land from this site will be required with the MDT Preferred Alternative or the CSKT Preferred Alternative. ~~(Lane Configuration A on Alignment 1 and Lane Configuration B, after initial construction of Lane Configuration A, on Alignment 3).~~

No direct or constructive use of land from this site will be required with any of the lane configurations on Alignments 1 or 3.

Construction of Lane Configuration A, B or C on Alignment 2 will require a direct use of approximately 0.20, 0.31 or 0.55 acre of land from this site. Five deciduous trees will need to be removed, a water pump station will need to be relocated, and power lines will need to be relocated. With Lane Configuration B or C, one softball diamond

will need to be relocated. However, there is adequate room to accommodate this relocation on site. Therefore, the site can be expected to remain fully functional after the relocation of the softball diamond is complete.

Because no direct or constructive use of Section 4(f) or Section 6(f) lands will be required with the MDT Preferred Alternative or the CSKT Preferred Alternative, this site is not evaluated further in this document.

12.4.2. Historic Properties

Ravalli School (24LA131)

Because concrete curb and gutter is planned through Ravalli, ROW requirements are less than in rural areas. The ROW boundary will move only five feet closer to the site with Lane Configuration B, resulting in the direct use of 0.02 acres of land from this site. The ROW boundary will move ten feet closer to the site with Lane Configuration C (the MDT Preferred Alternative in this area) resulting in the direct use of 0.03 acres of land from this site (Figure 12.3-8). Lane Configuration A (the CSKT Preferred Alternative in this area) will not move highway traffic closer to the site while Lane Configurations B or C will place highway traffic approximately 43 or 48 feet closer to the site.

Although the Ravalli School building will not be directly affected by the construction of a new roadway, MDT, with the concurrence of the Montana State Historic Preservation Office (MSHPO), has determined the site will be adversely affected by impacts to its setting if the MDT Preferred Alternative is constructed. The MDT Preferred Alternative will adversely effect the setting of the property by relocating the centerline and the wider roadway closer to the school. As indicated above, the pavement edge will be closer to the property as will the driving lanes, with the MDT Preferred Alternative.

Northern Pacific Railroad, Dixon-Polson Branchline (24LA89)

It has been determined by MDT and MSHPO that this property will be adversely affected by the MDT Preferred Alternative~~proposed action~~. Approximately 1,800 linear feet of railline will be obliterated with the MDT Preferred Alternative, Lane Configuration B on Alignment 1. To replace the obliterated line, about 1,750 feet of new railline will be constructed about 100 to 150 feet from the existing line. Alignment 3 with Lane Configuration B, also part of the MDT Preferred Alternative, will require a new crossing of the railroad.

12.5. AVOIDANCE ALTERNATIVES

This section identifies and evaluates location and design alternatives which would avoid the use of Section 4(f) land.

12.5.1. Parks, Recreation Areas and Wildlife and Waterfowl Refuges

Arlee Community Park

The MDT Preferred Alternative in the Arlee area is Alignment 1 (existing alignment) with Lane Configuration C (a four-lane highway with a continuous two-way left-turn center median).

As explained in Chapter 5, alignment alternatives in the Arlee area, including Alignments 2, 3, 4 and 5, have been evaluated which will avoid the use of Section 4(f) lands. Construction of the proposed action on these alignments would:

- Make it likely that the acquisition of needed ROW would probably not be approved. Since the proposed action is located almost entirely within the Flathead Indian Reservation, any acquisition of tribal lands for ROW must receive the approval of the Confederated Salish and Kootenai Tribes. The Confederated Salish and Kootenai Tribal Council has expressed opposition to the construction of the highway on any alignment except the existing alignment (Alignment 1) in this area.

- Go against strong public opinion which has been expressed in opposition to the construction of the highway anywhere except on the existing alignment.

- Potentially create impacts to a cultural site with spiritual significance to the Tribes ~~on cultural resource sites.~~

- Place the highway closer to schools ~~(Alignment 3)~~. Alignment 1, the existing alignment, is located approximately 900 feet from the grade school, the middle school and the high school in Arlee. Alignment 1 is separated from the schools by two blocks of businesses and residences. Constructing the roadway on Alignment 3 would place the road within 250 feet of a portion of the schools with no buildings, trees or other items between the roadway and the schools.

- Increase noise levels, if Alignment 3 is constructed, at the schools from the current estimated level of less that 50 dBA with current and projected year 2020 traffic volumes to approximately 61 and 65 dBA with current and projected year 2020 traffic volumes.

- Place high volumes of highway traffic (approximately 13,000 vehicles per day in the year 2020) in areas that currently have none.

- Require the conversion of more land to highway ROW. Alignments 2, 3 and 4 will require the conversion of approximately 29, 37 and 140 acres more land to highway ROW than Alignment 1 at a cost of approximately $150,000, $200,000 and $700,000. The ROW on the existing highway must still remain for highway access.

- Require the filling of more wetlands. Alignments 2, 3 and 4 will fill approximately 0.6, 0.4 and 8.3 acres more wetlands than Alignment 1.

- Impact existing highway-oriented businesses by moving traffic away from them. By diverting highway traffic away from the existing alignment, Arlee Alignments 2 and 3 will reduce total sales in Arlee by 38%, or approximately $26 million, through the year 2015. After 2015, annual sales

in Arlee will be similar for the existing alignment and Alignments 2 and 3. Arlee Alignment 4 will reduce sales in Arlee by 67% through the year 2015. Annual sales with Alignment 4 will continue to be less than Alignment 1 after 2015. (Section 7.5.4)

A minor alignment shift to move the roadway to the west sufficiently to avoid direct use of the land has been considered. This would move the highway closer to existing buildings on the west side of the highway. The gas pumping area and much of the parking lot of one gas station/convenience store on the west side of the highway would be restricted and may not be useable.

Lane Configuration A (the CSKT Preferred Alternative), with or without left-turn bays or a continuous two-way left-turn center median, will not meet the purpose and need because it will not provide adequate capacity to accommodate existing and future traffic volumes and it will not help to substantially improve safety.

Lane Configuration B, without the continuous two-way left-turn center median, will not meet the purpose and need because it will not provide for sufficient safe left-turn opportunities to the many businesses, homes and other properties in Arlee.

National Bison Range and National Bison Range Visitor Center

The MDT Preferred Alternative in this area is Alignment 1 (existing alignment) with Lane Configuration B (a four-lane highway ~~with a four-foot-wide painted center median~~).

Following paragraphs list and discuss alternatives that have been considered which will avoid or reduce the use of Section 4(f) properties at the National Bison Range and at the National Bison Range Visitor Center.

Alignment alternatives that have been considered include Arlee Alignment 5 (Section 5.1.2.2) and the Old Freight Route (Section 5.1.2.5). These alignments would:

- Make it likely that the acquisition of needed ROW would probably not be approved. Since the proposed action is located almost entirely within the Flathead Indian Reservation, any acquisition of tribal lands for ROW must receive the approval of the Confederated Salish and Kootenai Tribes. The Confederated Salish and Kootenai Tribal Council has expressed opposition to the construction of the highway on any alignment except the existing alignment (Alignment 1) in this area.

- Go against strong public opinion which has been expressed in opposition to them.

- Cause substantial environmental impacts related to introducing high volumes of highway traffic in areas that currently have very little vehicle traffic. Related impacts will include noise, safety, visual, air quality, social, wildlife, wetlands and cultural resources.

- Noise levels, currently estimated at or below 47 dBA in areas with no substantial highway traffic, would rise to 72, 69 and 64 dBA within 100, 150 and 300 feet of the centerline of the new highway.

- Field reviews that have been conducted along these alternate alignments indicated that wetland impacts would be approximately equal to impacts if the highway is constructed on its existing alignment.

- Require new crossings of the Jocko River and other streams.

- Construction of a new highway along the Old Freight Route would require 680 acres of new ROW as compared with approximately 140 acres for the same length of Alignment 1, the existing alignment. Construction of a new highway along Arlee Alignment 5 would require 360 acres of new ROW, as compared with approximately 40 acres for the same length of Alignment 1, the existing alignment. The ROW on the existing highway will remain and must still remain for highway access. This additional new ROW would include~~Convert~~ large amounts of existing farmland~~ to highway ROW~~.

- Create two highways through the valley -- existing US 93 would have to remain to at least serve local traffic.

Minor alignment shifts have been considered to avoid direct impacts on Section 4(f) lands in these sites. These shifts would:

- Create greater cuts or fills in the steep terrain which would create related adverse environmental impacts and substantially increase construction costs.

- Create greater impacts to the Visitor Center if shifted one direction and create greater impacts to the Bison Range if shifted the other direction.

Construction of Lane Configuration A (the CSKT Preferred Alternative) will reduce the direct use of Section 4(f) lands at these sites. Lane Configuration A, with or without left-turn bays or a continuous two-way left-turn center median, will not meet the purpose and need because it will not provide adequate capacity to accommodate existing and future traffic volumes and it will not help to substantially improve safety.

Recreation Areas and Wildlife and Waterfowl Refuges

The MDT Preferred Alternative in this area is Alignment 1 (existing alignment) with Lane Configuration B (a four-lane highway~~ with a four-foot-wide painted center median~~).

Following paragraphs list and discuss alternatives that have been considered and which will avoid or reduce the use of Section 4(f) properties at Ninepipe Refuge, Ninepipe WMA, Kicking Horse WPA and Duck Haven WPA.

Alignment alternatives that have been considered include several variations of an alignment following the Old Freight Route (Section 5.1.2.5). These alignments would:

- Make it likely that the acquisition of needed ROW would probably not be approved. Since the proposed action is located almost entirely within the Flathead Indian Reservation, any acquisition of tribal lands for ROW must receive the approval of the Confederated Salish and Kootenai Tribes. The Confederated Salish and Kootenai Tribal Council has expressed opposition to the construction of the highway on any alignment except the existing alignment (Alignment 1) in this area.

- Go against strong public opinion which has been expressed in opposition to them.

- Cause substantial environmental impacts related to introducing high volumes of highway traffic into areas that currently have very little vehicle traffic. Related impacts will include noise, safety, visual, air quality, social, wildlife, wetlands and cultural resources.

- Noise levels, currently estimated at or below 47 dBA in areas with no substantial highway traffic, would rise to 72, 69 and 64 dBA within 100, 150 and 300 feet of the centerline of the new highway.

- Field reviews that have been conducted along this alignment indicated that wetland impacts would be approximately equal to impacts if the highway is constructed on its existing alignment.

- Convert large amounts of farmland to highway ROW.

- Construction of a new highway along the Old Freight Route would require 680 acres of new ROW as compared with approximately 140 acres for the same length of Alignment 1, the existing alignment. The ROW on the existing highway will remain and must still remain for highway access. This additional new ROW would include~~Convert~~ large amounts of existing farmland ~~to highway ROW~~.

- Create two highways through the valley -- existing US 93 would have to remain to at least serve local traffic.

Minor alignment shifts have been considered to avoid direct impacts on Section 4(f) lands in these sites. These shifts would:

- ~~Create greater cuts or fills in the steep terrain which would create related adverse environmental impacts and substantially increase construction costs.~~

- Require similar use of Section 4(f) lands on the side toward which the alignment is shifted.

- Require the highway be completely reconstructed rather than overlaying the existing pavement and widening.

Construction of Lane Configuration A (the CSKT Preferred Alternative) will reduce the direct use of Section 4(f) lands at these sites. Lane Configuration A, with or without left-turn bays or a continuous two-way left-turn center median, will not meet the purpose and need because it will not provide adequate capacity to accommodate existing and future traffic volumes and it will not help to substantially improve safety.

With any of the proposed lane configurations, nearly vertical retaining walls using gabions or other structures will be used in some areas to eliminate the normal 6:1 or 4:1 safety slopes that would normally be constructed in this area. Areas where these walls will be used include areas where guardrail currently exists and where most of the larger ponds and potholes adjacent to the highway exist. Wherever these walls are used, new guardrail will be required. Use of these walls will eliminate impacts to ponds and potholes in some areas and substantially reduce impacts in other areas.

12.5.2. Historic Properties

Ravalli School (24LA131)

The MDT Preferred Alternative in this area is Alignment 1 (existing alignment) with Lane Configuration C (a four-lane highway with a continuous two-way left turn center median).

Alignment alternatives have been considered in this area but none have been identified that are feasible and prudent. The highway is bordered on the west by a railroad, west of the railroad is the Jocko River and west of the river the steep slopes of the canyon walls begin. The Community of Ravalli lies immediately adjacent to the east side of the highway and immediately east of Ravalli the steep slopes of the east side of the canyon begin. Other than the existing alignment, there are no practical locations to place the highway in this area.

Minor adjustments to Alignment 1 to move it away from the site are not appropriate because they will require substantial relocation of the Northern Pacific Railroad Grade (24LA199) which is also eligible for NRHP.

Construction of Lane Configuration A (the CSKT Preferred Alternative) or Lane Configuration B will not adequately accommodate existing and projected traffic volumes, improve safety and provide for the substantial number of left turns from US 93 required in the community.

Northern Pacific Railroad, Dixon-Polson Branchline (24LA89)

The MDT Preferred Alternative in this area is Alignment 1 (existing alignment) with Lane Configuration B (a four-lane highway ~~with a four-foot-wide painted center median~~). Alignment 3 will also be constructed with Lane Configuration B, after initial construction of Lane Configuration A, to serve as an alternate route through the Polson area.

As explained in Chapter 5, other alignments have been considered but, because traffic must still be maintained on Alignment 1, the existing alignment, they do not reduce the required use of Section 4(f) lands.

Minor adjustments to Alignment 1 to move the roadway away from the railroad have been considered but are not considered feasible and prudent because:

- Relocation of at least one residence will be required,
- Construction of substantially larger fill slopes will be required with related additional environmental impacts and construction costs, and
- Substantial additional impacts ~~to direct use of land from~~ the Polson Z Canal will occur ~~(24LA90) will be required~~.

Construction of Lane Configuration A on Alignment 1 (the CSKT Preferred Alternative) will reduce the direct use of Section 4(f) lands at these sites. Lane Configuration A, with or without left-turn bays or a continuous two-way left-turn center median, will not meet the purpose and need because it will not provide adequate capacity to accommodate existing and future traffic volumes, and it will not help to substantially improve safety. Construction of Lane Configuration C will require more use of Section 4(f) lands and is not required to adequately and safely accommodate existing and future traffic demand in this area.

12.6. MEASURES TO MINIMIZE HARM

This section identifies and discusses possible measures to minimize the impacts on Section 4(f) properties.

12.6.1. Parks, Recreation Areas and Wildlife and Waterfowl Refuges

Arlee Community Park

With the MDT Preferred Alternative at the Arlee community park, the wooden fence will be relocated or will be replaced with a new similar wooden fence. The pedestrian/bicycle path will also be replaced with a new similar path. Bushes, lawn and other vegetation will be replaced.

National Bison Range and National Bison Range Visitor Center

The informal viewing and parking area that has developed, on highway ROW and on National Bison Range land across US 93 from the Visitor Center, will be removed. This will eliminate the various unsafe approaches to US 93 and remove vehicular and most pedestrian traffic from the area. Traffic will be strongly encouraged to use the Visitor Center parking lot and facilities instead. The Visitor Center is better equipped to accommodate this use with restrooms and regular maintenance including cleanup and garbage removal.

A protected left-turn bay will be provided at the entrance to the Visitor Center to safely and efficiently accommodate left turns into the site. This will further encourage visitors to use the site rather than leaving the highway at random locations.

Recreation Areas and Wildlife and Waterfowl Refuges

In Ninepipe Refuge, Ninepipe WMA, Kicking Horse WPA and Duck Haven WPA, wetlands that are filled or otherwise removed by construction of the proposed action will be replaced by wetlands constructed to provide similar functions and equal or greater value.

Construction of these replacement wetlands will require the acquisition of land which can serve to replace the Section 4(f) lands used by the proposed action. Much of the acquired land will be adjacent to the existing Refuge and the WPAs but farther away from the highway. Wildlife biologists representing agencies with jurisdiction or special expertise related to the proposed action have indicated that relocation of these wetlands and related wildlife habitat will have a beneficial effect because it will move wildlife farther away from the highway -- road kills and other negative impacts will be substantially reduced.

12.6.2. Historic Properties

Ravalli School (24LA131)

MDT and MSHPO have agreed to a plan that mitigates the adverse effects of the proposed action on the Ravalli School[3]. The plan includes three parts: 1) planting of a vegetative buffer to screen the school from the roadway 2) preparation and submittal of an NRHP nomination form for the Ravalli School and 3) installation of an NRHP marker for the building. The plan has not yet been implemented.

[3]Federal Highway Administration, Montana State Historic Preservation Office, Advisory Council on Historic Preservation, Montana Department of Transportation, Memorandum of Agreement, Dirty Corner - Ravalli Highway Project (Evaro - Polson EIS), Missoula/Lake Counties, Montana, F 5-2(34)17, Control No. 1296, July 1994. A copy of this document is included at the end of this Section 4(f) Evaluation.

With this plan, MDT, with the concurrence of MSHPO, has determined there will be no adverse effect to this property as a result of the proposed action. With this plan, the site will remain eligible for the NRHP.

Northern Pacific Railroad, Dixon-Polson Branchline (24LA89)

MDT and MSHPO have agreed to a plan that mitigates the adverse effects of the proposed action on the railroad[4]. The memorandum of agreement (MOA) includes provisions for MDT to contribute funds to the Museum of the Rockies in Bozeman, Montana for the purchase of the Ronald V. Nixon Photograph Collection. This collection documents the history of the Northern Pacific, Great Northern, Union Pacific and the Chicago, Milwaukee, St. Paul & Pacific railroads in Montana from 1910 to 1980. The plan has not yet been implemented.

With this plan, MDT, with the concurrence of MSHPO, has determined there will be no adverse effect to this property as a result of the proposed action. With this plan, the site will remain eligible for the NRHP.

[4]Federal Highway Administration, Montana State Historic Preservation Office, Advisory Council on Historic Preservation, Montana Department of Transportation, Memorandum of Agreement, Ronan - Polson Highway Project (Evaro - Polson EIS), Lake County, Montana, F 5-2(33)48, Control No. 1060, March 1994. A copy of this document is included at the end of this Section 4(f) Evaluation.

12.7. COORDINATION

Correspondence and information has been sent to agencies with jurisdiction for all Section 4(f) Parks, Recreation Areas and Wildlife and Waterfowl Refuges discussed in this document. The correspondence listed potential properties with Section 4(f) significance, made preliminary estimates of the direct use and constructive use required, discussed mitigation measures and asked for additional information, suggestions and comments. The correspondence was sent to the following agencies:

Lake County	Arlee Community Park
US Fish and Wildlife Service	National Bison Range Ninepipe National Wildlife Refuge Kicking Horse Waterfowl Production Area Duck Haven Waterfowl Production Area
Confederated Salish and Kootenai Tribes	National Bison Range Visitor Center Ninepipe National Wildlife Refuge
Montana Department of Fish, Wildlife and Parks	Ninepipe Wildlife Management Area Lions Park[5] Polson Municipal Golf Course[4] Seventh Avenue Softball Fields[4]
City of Ronan	Ronan City Park
Ronan School District No. 30	Ronan High School Athletic Field
City of Polson	Ducharme Park Polson Municipal Golf Course Seventh Avenue Softball Field
Montana Department of Transportation	Lions Park

MSHPO has been consulted and has concurred with the determination of eligibility and the determination of effect, based on the MDT Preferred Alternative, for each of the historic properties. MSHPO has concurred with mitigation plans proposed at historic sites that may be adversely affected. (Copies of MOAs for these historic properties are included at the end of this Section 4(f) Evaluation.)

The United States Department of the Interior has concurred, based on the MDT Preferred Alternative, that there is no feasible and prudent alternative to the use of the parks, recreation areas, wildlife refuges and historic properties listed in this Section 4(f) Evaluation[6].

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[5]As indicated in Section 12.3.1., these sites have been developed using LWCF financial assistance and are therefore subject to the provisions of Section 6(f) of the LWCF Act. The Montana Department of Fish, Wildlife and Parks (MDFWP) has been delegated the responsibility, by the U.S. Department of Interior, to handle LWCF matters in Montana. For that reason, coordination with MDFWP has been and will continue to be conducted for these sites. As indicated in Section 12.4.1., no use of Section 6(f) lands will be required with the MDT Preferred Alternative or the CSKT Preferred Alternative.

[6]Taylor, Willie R., Director, Office of Environmental Policy and Compliance, Office of the Secretary, United States Department of the Interior, letter dated 08 June 1995.

12.8. CONCLUSION

Based upon the above considerations, there is no feasible and prudent alternative to the use of the land from the Section 4(f) properties. The proposed action includes all possible planning to minimize harm to the Section 4(f) properties resulting from such use.

MEMORANDUM OF AGREEMENT FOR THE RAVALLI SCHOOL

SECTION 4(f) EVALUATION

Advisory
Council On
Historic
Preservation

The Old Post Office Building
1100 Pennsylvania Avenue, NW, #809
Washington, DC 20004

Reply to: 730 Simms Street, #401
Golden, Colorado 80401

RECEIVED
AUG 16 1994
ENVIRONMENTAL BUREAU

MASTER FILE
COPY

cc: G. Stockstad
K. Nelrick

August 1, 1994

Dale W. Paulson
Environmental Coordinator
Federal Highway Administration
301 South Park Street
Room 448
Helena, MT 59626

REF: Memorandum of Agreement regarding the Dirty Corner to Ravalli Segment of the U.S. 93 reconstruction (F 5-1(9)6).

Dear Mr. Paulson:

The enclosed Memorandum of Agreement regarding the effects of the Dirty Corner to Ravalli highway reconstruction on the Ravalli School (24LA131) has been accepted by the Council. This action constitutes the comments of the Council required by Section 106 of the National Historic Preservation Act and the Council's regulations. Please send copies of the signed Agreement to the Montana State Historic Preservation Officer and your Federal Preservation Officer.

The Council appreciates your cooperation in reaching a satisfactory resolution of this matter.

Sincerely,

Claudia Nissley
Director, Western Office
of Review

Enclosure

MEMORANDUM OF AGREEMENT FOR THE NORTHERN PACIFIC RAILROAD, DIXON-POLSON BRANCHLINE

SECTION 4(f) EVALUATION

MEMORANDUM OF AGREEMENT
DIRTY CORNER - RAVALLI HIGHWAY PROJECT
(EVARO - POLSON EIS)
MISSOULA/LAKE COUNTIES, MONTANA
F 5-2(34)17
Control No. 1296

WHEREAS the Federal Highway Administration (FHWA) proposes to assist the Montana Department of Transportation (MDT) in funding the Dirty Corner - Ravalli highway project;

WHEREAS FHWA has determined that the undertaking will have an effect on the Ravalli School (24LA131), a property eligible for inclusion on the National Register of Historic Places, and has consulted with the Montana State Historic Preservation Office (SHPO) and the Advisory Council on Historic Preservation (Council) pursuant to Section 106 of the National Historic Preservation Act (16 USC 470) and its implementing regulations, "Protection of Historic Properties" (36 CFR 800);

WHEREAS MDT participated in the consultation and has been invited to concur in this Memorandum of Agreement; and

NOW, THEREFORE; FHWA, the Montana SHPO, and Council agree that the undertaking will implemented in accordance with the following stipulations in order to take into account the effect of the undertaking on historic properties.

Stipulations

FHWA shall ensure that the following measures are carried out:

1) The MDT shall prepare and submit a nomination for the listing of the Ravalli School (24LA131) on the National Register of Historic Places. The nomination will be prepared with the cooperation of the current owners of the property, the Ravalli Community Church.

2) The MDT will purchase and install a National Register of Historic Places marker describing the historic and architectural significance of the Ravalli School when the property is listed.

3) The MDT will install a vegetative buffer between the Ravalli School and U.S. Highway 93 in the vicinity of the property when the reconstruction project is completed. The type of vegetation will be determined by the MDT Agronomist and will be consistent with plant species known to be present in the area.

4) If a dispute arises regarding the implementation of this Agreement, FHWA shall consult with the objecting party to resolve the dispute. If any consulting party determines that the dispute cannot be resolved, FHWA shall request the further comments of the Advisory Council on Historic Preservation pursuant to the Council's regulations.

EXECUTION OF THIS MEMORANDUM OF AGREEMENT and implementation of its terms evidences that FHWA has afforded the Council an opportunity to comment on the Dirty Corner - Ravalli highway reconstruction project and its affects

to historic properties, and that FHWA has taken into account the effect of the Undertaking on historic properties.

Federal Highway Administration — (Date) 6-20-94

Montana State Historic Preservation Office — (Date) 6-10-94

Concurring Parties:

Advisory Council on Historic Preservation — (Date) 7/22/94

Montana Department of Transportation — (Date) 6/22/94

Jon Axline

MEMORANDUM OF AGREEMENT
RONAN - POLSON HIGHWAY PROJECT
(EVARO - POLSON EIS)
LAKE COUNTY, MONTANA
F 5-2(33)48
Control No. 1060

MASTER
FILE
COPY

WHEREAS the Federal Highway Administration (FHWA) proposes to assist the Montana Department of Transportation (MDT) in funding the Ronan - Polson highway project.

WHEREAS FHWA has determined that the undertaking will have an effect on the Northern Pacific Branch Line (24LA89), a property eligible for inclusion on the National Register of Historic Places, and has consulted with the Montana State Historic Preservation Office (SHPO) and the Advisory Council on Historic Preservation (Council) pursuant to Section 106 of the National Historic Preservation Act (16 USC 470) and its implementing regulations, "Protection of Historic Properties" (36 CFR 800);

WHEREAS MDT participated in the consultation and has been invited to concur in this Memorandum of Agreement; and

NOW, THEREFORE; FHWA, the Montana SHPO, and Council agree that the undertaking will be implemented in accordance with the following stipulations in order to take into account the effect of the undertaking on historic properties.

Stipulations

FHWA shall ensure that the following measures are carried out:

1) The MDT will donate $2,500.00 to the Museum of the Rockies in Bozeman, Montana for use toward the purchase of the Ronald V. Nixon Photograph Collection, a collection significant for its documentation of the history of railroad transportation in Montana.

2) The MDT will provide the SHPO with a copy of the donation agreement between the MDT and the Museum of the Rockies in which the conditions for use of the donated funds are detailed.

3) If a dispute arises regarding the implementation of this Agreement, FHWA shall consult with the objecting party to resolve the dispute. If any consulting party determines that the dispute cannot be resolved, FHWA shall request the further comments of the Advisory Council on Historic Preservation pursuant t the Council's regulations.

EXECUTION OF THIS MEMORANDUM OF AGREEMENT and implementation of its terms evidences that FHWA has afforded the Council an opportunity to comment on the Ronan - Polson highway reconstruction project and its affects to historic properties, and that FHWA has taken into account the effect of the Undertaking on historic properties.

Federal Highway Administration — 2-25-94 (Date)

Montana State Historic Preservation Office — 2-14-94 (Date)

Advisory Council on Historic Preservation — 3-9-94 (Date)

Concurring Party:

Montana Department of Transportation — 2/8/94 (Date)

APPENDICES

TABLE OF CONTENTS

A. AERIAL PHOTOGRAPHS AND MAPS

B. TRANSPORTATION DEMAND MANAGEMENT

C. SECTION 404(b)(1) EVALUATION

D. INFLUENCE ON RETAIL TRADE

E. DRIVE-THROUGH EXPENDITURE PATTERNS

F. AIR QUALITY REPORTS

APPENDIX A. AERIAL PHOTOGRAPHS AND MAPS

Aerial Photos

Table 6.10-1, Wetland & Riparian Area Characteristics and Estimated Impact Acreages -- Page 1

Site	MDT[1] Classification	Hydrologic Type[2]	Hydrologic[3] Source	Drainage	Est. Size Range (Acres)	Prominent[4] Functions	MDT[5] Overall Rating (Category)	Estimated Impacts (Acres), Wetland/Riparian					Alternative Alignments
								Preferred Alternative	Lane Config. A	Lane Config. B	Lane Config. C	Lane Config. D	
A1	Em (Ditch)	S	GW, R		<1	SF	IV	0.94/--	0.90/--	0.94/--	0.94/--	0.94/--	
A2	Em (Ditch)	S	R		<1	SF	IV	0.14/--	0.06/--	0.14/--	0.15/--	0.20/--	
A3	Em, Sh	SF	CF, GW		<1	WH, SF	III	tr/0.05	tr/0.04	tr/0.05	0.01/0.05	0.17/0.07	
A27	Em	SF	OBF, R		>10	EC, SF, WH	II	1.63/--	1.33/--	1.63/--	1.80/--	2.24/--	
R1	Fo, Sh (NWR)	TF	GW, R		<1	WH, FC	III	--/0.01	--/0.00	--/0.01	--/0.02	--/0.06	
A4	Em (Ditch)	S	R		<1	SF	IV	0.00/--	0.00/--	0.00/--	0.01/--	0.08/--	
R2	Fo, Sh (NWR)	TF	GW, R		1-5	WH, GDR	III	--/0.50	--/0.28	--/0.50	--/0.63	--/0.94	
A5	Em, Sh	SF	CF		<1	WH, SF	III	0.00/--	0.00/--	0.00/--	0.00/--	0.01/--	
A6	Em (Ditch)	S	R		<1	SF	IV	0.16/0.16	0.1/0.09	0.16/0.16	0.16/0.16	0.16/0.16	
R3	Fo, Sh (NWR)	TF	GW, R		1-5	WH, GDR	III	--/0.30	--/0.17	--/0.30	--/0.38	--/0.58	
A7	Em (Ditch)	S	R		<1	SF	IV	0.25/--	0.10/--	0.25/--	0.25/--	0.25/--	
A28	Fo, Sh	SF	CR, OBF		1-5	WH, FC	III	0.04/--	0.03/--	0.04/--	0.05/--	0.07/--	
A8	Em, Sh	PF, S	OBF	Finley Creek	>10	FCS, EC, GDR, SF, TES, FC, WH, SS	I	0.61/0.20	0.53/0.17	0.61/0.20	0.65/0.22	0.77/0.26	

Table 6.10-1, - Wetland & Riparian Area Characteristics and Estimated Impact Acreages (Continued) -- Page 2

Site	MDT[1] Classification	Hydrologic Type[2]	Hydrologic[3] Source	Drainage	Est. Size Range (Acres)	Prominent[4] Functions	MDT[5] Overall Rating (Category)	Estimated Impacts (Acres), Wetland/Riparian					Alternative Alignments
								Preferred Alternative	Lane Config. A	Lane Config. B	Lane Config. C	Lane Config. D	
A9	Fo, Sh, Em	SF, S	CF, GW		>10	FCS, FC, EC, NC, TES, WH, GDR, U	II	0.11/0.06	0.10/0.05	0.11/0.06	0.12/0.07	0.14/0.08	
A10	Fo, Sh, Em	SF, S	GW, CF		>10	FC, SF, EC, GDR, FCS, TES, WH, SS	I	01.03/0.11	0.49/0.05	0.79/0.09	0.86/0.10	1.03/0.11	
A11	Em (Ditch)	S	R		<1	SF	IV	0.08/--	tr/--	0.06/--	0.08/--	0.08/--	
A29	Fo, Sh, Em	SF	GW, CF		>10	FCS, FC, EC, NC, TES, WH, GDR, U	II	0.07/tr	0.00/0.00	0.01/0.00	0.03/tr	0.07/tr	
A12	Fo, Sh, Em	SF, S	GW, CF		>10	FCS, FC, EC, NC, U, TES, WH, GDR	II	0.27/0.03	0.13/0.01	0.17/0.02	0.21/0.02	0.27/0.03	
A13	Fo, Sh, Em	SF, S	GW, CF		>10	FCS, FC, EC, NC, U, TES, WH, GDR	II	0.03/tr	tr/--	0.01/tr	0.02/tr	0.03/tr	
A14	Fo, Sh, Em	SF, S	GW, CF		>10	FCS, FC, EC, NC, U, TES, WH, GDR	II	0.02/tr	tr/--	0.02/tr	0.04/tr	0.12/0.01	
A30	Em (Ditch)	S	R		<1	SF	IV	0.06/--	0.01/--	0.06/--	0.08/--	0.09/--	
A15	Em (Ditch)	SF, S	R		<1	SF	IV	0.18/--	0.02/--	0.18/--	0.23/--	0.26/--	

Table 6.10-1, - Wetland & Riparian Area Characteristics and Estimated Impact Acreages (Continued) -- Page 3

Site	MDT[1] Classification	Hydrologic Type[2]	Hydrologic[3] Source	Drainage	Est. Size Range (Acres)	Prominent[4] Functions	MDT[5] Overall Rating (Category)	Estimated Impacts (Acres), Wetland/Riparian					Alternative Alignments
								Preferred Alternative	Lane Config. A	Lane Config. B	Lane Config. C	Lane Config. D	
A16	Em (Ditch)	SF, S	R		<1	SF	IV	0.12/--	0.01/--	0.12/--	0.12/--	0.12/--	
A17	Em (Ditch)	SF, S	R		<1	SF	IV	0.10/--	0.09/--	0.10/--	0.10/--	0.10/--	
A18	Fo, Sh, Em	SF, S	GW, CF		>10	FC, EC, NC, FCS, TES, WH	II	0.13/--	0.10/--	0.13/--	0.15/--	0.19/--	
A19	Fo, Sh, Em	PF, S	OBF	Schley Creek	>10	SF, EC, GDR, FCS, WH, FC	I	0.10/0.01	0.06/0.01	0.10/0.01	0.11/0.02	0.17/0.02	
A31	Sh, Em (Ditch)	SF, S	R, GW		<1	SF	III	0.12/--	0.05/--	0.12/--	0.14/--	0.20/--	
A20	Fo, Sh, Em	PF, S	OBF	EF Finley Ck	>10	SF, EC, GDR, FCS, WH, FC	I	0.15/0.10	0.11/0.08	0.15/0.10	0.17/0.10	0.20/0.13	
R4	Fo, Sh, (NWR)	TF	OBF		<1	WH, FC	III	--/0.02	--/0.01	--/0.02	--/0.02	--/0.02	
A21	Fo, Sh, Em	PF, S	GW, CF, CD		>10	FC, EC, NC, FCS, WH, FC	II	0.37/0.10	0.27/0.07	0.37/0.10	0.43/0.10	0.54/0.13	
R5	Sh, (NWR)	TF	R		<1	SF	IV	--/0.19	--/0.15	--/0.19	--/0.15	--/0.15	
A22	Em, (Ditch)	SF, S	CF, R		<1	SF	IV	0.14/0.03	0.06/0.01	0.14/0.03	0.14/0.03	0.14/0.03	
R13	Fo, Sh (NWR)	TF	R		<1	WH, FC	III	--/0.10	--/0.05	--/0.10	--/0.12	--/0.21	
A23	Em, Sh (Ditch)	SF, S	CF, R		1-5	SF, FC	III	0.28/0.07	0.18/0.05	0.28/0.07	0.38/0.09	0.48/0.12	

Table 6.10-1, - Wetland & Riparian Area Characteristics and Estimated Impact Acreages (Continued) -- Page 4

Site	MDT[1] Classification	Hydrologic Type[2]	Hydrologic[3] Source	Drainage	Est. Size Range (Acres)	Prominent[4] Functions	MDT[5] Overall Rating (Category)	Estimated Impacts (Acres), Wetland/Riparian					Alternative Alignments
								Preferred Alternative	Lane Config. A	Lane Config. B	Lane Config. C	Lane Config. D	
A33	Fo, Em, OW (Ex)	PF, S	CF		<1	WH, FC	III	0.00/--	0.00/--	0.00/--	0.00/--	0.00/--	
R6	Sh (NWR)	TF	R		<1	SF	IV	--/0.07	--/0.06	--/0.07	--/0.08	--/0.10	
A34	Em, Sh (Ditch)	SF, S	CF, R		1-5	SF, FC	III	0.13/0.50	0.09/0.38	0.13/0.50	0.14/0.57	0.19/0.74	
A24	Em (Ditch)	SF, S	R		<1	SF	IV	0.10/--	0.05/--	0.10/--	0.10/--	0.10/--	
A35	Em, Sh (Ditch)	SF, S	CF, R		1-5	SF, FC	III	0.50/0.12	0.30/0.07	0.50/0.12	0.61/0.15	0.89/0.22	
A36	Sh (Ditch)	SF, S	R		<1	SF	IV	0.03/--	0.02/--	0.03/--	0.04/--	0.05/--	
A37	Sh, Fo (Ditch)	SF, S	CD		<1	SF	III	0.01/0.03	tr/0.01	0.01/0.03	0.01/0.03	0.01/0.04	
A38	Em, Sh (Ditch)	SF, S	CF, R		1-5	SF, FC	III	0.00/0.00	0.00/0.00	0.00/0.00	tr/0.02	0.05/0.22	
A25	Em, Sh (Ditch)	SF, S	CF, R		1-5	SF, FC	III	0.10/0.01	0.04/tr	0.10/0.01	0.14/0.01	0.23/0.02	
R7	Fo, Sh (NWR)	TF	GW		<1	WH, FC	III	--/0.01	--/0.01	--/0.01	--/0.02	--/0.03	
A39	Fo, Em, OW (Ex)	SF, S	GW, CF		1-5	NC, GDR, WH, FC, SF	II	0.00/--	0.00/--	0.00/--	0.00/--	0.00/--	Arlee 1, 2, 3
R14	Fo, Sh, (NWR)	TF	CD		<1	WH	III	--/	--/0.00	--/0.00	--/0.00	--/0.00	Arlee 1, 2, 3
A26	Em (Ditch)	SF, S	R		<1	SF	IV	0.03/--	0.02/--	0.03/--	0.03/--	0.03/--	Arlee 1, 2, 3

Table 6.10-1, - Wetland & Riparian Area Characteristics and Estimated Impact Acreages (Continued) -- Page 5

Site	MDT[1] Classification	Hydrologic Type[2]	Hydrologic[3] Source	Drainage	Est. Size Range (Acres)	Prominent[4] Functions	MDT[5] Overall Rating (Category)	Estimated Impacts (Acres), Wetland/Riparian					Alternative Alignments
								Preferred Alternative	Lane Config. A	Lane Config. B	Lane Config. C	Lane Config. D	
B1	Em (Ditch)	SF, S	R		<1	SF	IV	0.05/--	tr/--	0.05/--	0.06/--	0.06/--	Arlee 1, 2, 3
R8	Fo, Sh (NWR)	TF	GW		<1	WH, FC	III	--/0.04	--/0.00	--/0.02	--/0.04	--/0.13	Arlee 1
R9	Fo, Sh (NWR)	TF	GW		>10	FCS, TES, WH, FC, EC	II	--/0.29	--/0.27	--/0.27	--/0.20	--/0.40	Arlee1, 3
C1	Em, OW (Ex)	PF, S	GW		1-5	GDR	III	1.01/0.21	.069/0.08	0.95/0.11	1.01/.021	1.48/.015	Arlee 1, 3
								NA	0.59/0.06	0.70/0.08	0.77/0.09	0.94/0.10	Arlee 2
C2	Fo, Sh	PF, SF, S	OBF, GW	Jocko River	>10	TES, SS, EC, GDR, U, REP, FC, WH, FCS	I	1.25/0.14	1.04/0.02	1.16/0.13	1.25/0.14	1.51/0.17	Arlee 1, 2, 3
C3	Em (Ditch)	SF, S	R		<1	SF	IV	0.12/--	0.08/--	0.12/--	0.15/--	1.58/--	Arlee 1, 2, 3
C4	Em, OW (Ex)	PF	GW (Sp)		1-5	REP, GDR	III	0.02/--	0.00/--	0.02/--	0.04/--	0.12/--	Arlee 1, 2, 3
								NA	0.25/--	0.30/--	0.33/--	0.40/--	Arlee 4
A2-1	Em	SF, S	CF, OBF		1-5	SF, EC	III	NA	0.83/--	0.83/--	0.83/--	0.83/-	Arlee 2
A2-2	Em, OW (Ex)	SPF	GW		<1	SF	IV	NA	0.02/--	0.02/--	0.02/--	0.02/--	Arlee 2
A3-1	Sh (Ditch)	TF	CD		<1	SF	IV	NA	0.03/--	0.03/--	0.04/--	0.04/--	Arlee 3
A3-2	Em	SF, S	CF		1-5	SF, EC, WH	III	NA	0.28/--	0.33/--	0.36/--	0.44/--	Arlee 3

Table 6.10-1, - Wetland & Riparian Area Characteristics and Estimated Impact Acreages (Continued) -- Page 6

Site	MDT[1] Classification	Hydrologic Type[2]	Hydrologic[3] Source	Drainage	Est. Size Range (Acres)	Prominent[4] Functions	MDT[5] Overall Rating (Category)	Estimated Impacts (Acres), Wetland/Riparian					Alternative Alignments
								Preferred Alternative	Lane Config. A	Lane Config. B	Lane Config. C	Lane Config. D	
A3-3	Sh (Ditch)	TF	CD		<1	SF	IV	NA	0.02/--	0.02/--	0.02/--	0.02/--	Arlee 3
A4-1	Em (Ditch)	TF	CF		1-5	SF, EC	III	NA	0.03/--	0.03/--	0.04/--	0.04/--	Arlee 4
A4-2	Em (Ditch)	SF	CD		<1	SF, EC	IV	NA	0.03/--	0.03/--	0.04/--	0.04/--	Arlee 4
A4-3	Em (Ditch)	SF	CD		<1	SF, EC	IV	NA	0.03/--	0.03/--	0.04/--	0.04/--	Arlee 4
A4-4	Fo, Sh	TF, S	CD		6-10	WH, FC, FCS	II	NA	0.88/0.22	1.06/0.26	1.16/0.29	1.41/0.35	Arlee 4
A4-5	Fo, Sh	PF, SF, S	OBF, GW	Jocko River	>10	TES, SS, EC, GDR, U, .REP, WH, FC, FCS	I	NA	1.76/0.44	2.11/0.53	2.32/0.58	2.82/0.70	Arlee 4
A4-6	Em, OW	SF, S	R		1-5	WH	III	NA	0.55/--	0.66/--	0.73/--	0.88/--	Arlee 4
A4-7	Em (Ditch)	SF	CD		<1	SF	IV	NA	0.03/--	0.03/--	0.04/--	0.04/--	Arlee 4
A4-8	Em (Ditch)	SF	CD		<1	SF	IV	NA	0.03/--	0.03/--	0.04/--	0.04/--	Arlee 4
A4-9	Em (Ditch)	SF	CD		<1	SF	IV	NA	0.03/--	0.03/--	0.04/--	0.04/--	Arlee 4
A4-10	Em	PF, TF, S	OBF, GW	Spring Creek	>10	FC, FCS, GDR, WH	II	NA	4.40/--	5.30/--	5.80/--	7.05/--	Arlee 4
A4-11	Em	SF, S	GW		6-10	WH, FCS	II	NA	0.21/--	0.25/--	0.27/--	0.33/--	Arlee 4
C5	Em (Ditch)	SF	R		<1	SF	IV	0.00/--	0.00/--	0.00/--	0.00/--	0.06/--	

Site	MDT[1] Classification	Hydrologic Type[2]	Hydrologic[3] Source	Drainage	Est. Size Range (Acres)	Prominent[4] Functions	MDT[5] Overall Rating (Category)	Estimated Impacts (Acres), Wetland/Riparian					Alternative Alignments
								Preferred Alternative	Lane Config. A	Lane Config. B	Lane Config. C	Lane Config. D	
C6	Em (Ditch)	SF	R		<1	SF	IV	0.10/--	0.06/--	0.10/--	0.13/--	0.15/--	
C7	Em	SF, S	GW		1-5	FCS, SF	III	0.23/---	0.17/--	0.23/--	0.28/--	0.43/--	
C8	Em, Sh (Ditch)	SF	R, GW		1-5	SF	III	1.11/--	0.70/--	1.11/--	1.33/--	1.88/--	
C9	Em (Ditch)	SF	R		<1	SF	IV	0.74/--	0.40/--	0.74/--	0.82/--	0.91/--	
C10	Sh	PF, S	GW, OBF	Spring Creek	>10	FCS, TES, SS, SF, GDR, WH, FC, EC	II	0.40/0.10	0.22/0.06	0.40/0.10	0.50/0.12	0.60/0.15	
C16	Em, Sh (Ditch)	SF, S	R		<1	SF	III	0.31/--	0.19/--	0.31/--	0.39/--	0.59/--	
C11	Em (Ditch)	SF, S	R, GW		<1	SF	IV	0.02/--	0.01/--	0.02/--	0.03/--	0.04/--	
C12	Em (Ditch)	SF, S	R		<1	SF	IV	0.00/--	0.00/--	0.00/--	0.00/--	0.00/--	
C13	Em (Ditch)	SF, S	R		<1	SF	IV	0.08/--	0.01/--	0.08/--	0.12/--	0.24/--	
C14	Em	S	GW (Sp)		<1	GDR, SF	III	0.02/--	0.01/--	0.02/--	0.03/--	0.03/--	
C15	Em (Ditch)	SF, S	R		<1	SF	IV	0.06/--	0.02/--	0.06/--	0.09/--	0.17/--	
D1	Em (Ditch)	SF, S	R		<1	SF	IV	0.07/--	0.06/--	0.07/--	0.07/--	0.09/--	
D2	Fo, Sh	SF, S	OBF, GW		1-5	GDR, FC, SF	III	1.20/0.14	1.00/0.10	1.20/0.14	1.32/0.14	1.55/0.17	

Table 6.10-1, - Wetland & Riparian Area Characteristics and Estimated Impact Acreages (Continued) -- Page 8

Site	MDT[1] Classification	Hydrologic Type[2]	Hydrologic[3] Source	Drainage	Est. Size Range (Acres)	Prominent[4] Functions	MDT[5] Overall Rating (Category)	Estimated Impacts (Acres), Wetland/Riparian					Alternative Alignments
								Preferred Alternative	Lane Config. A	Lane Config. B	Lane Config. C	Lane Config. D	
D3	Em (Ditch)	SF, S	R, GW		<1	SF	IV	0.00/--	0.00/--	0.00/--	tr/--	0.08/--	
D4/D5	Fo, Sh	SF, S	GW, OBF		1-5	GDR, FC, SF	III	0.72/0.08	0.66/0.07	0.72/0.08	0.76/0.08	0.82/0.09	
R10	Sh (NWR)	TF	R		<1	SF	IV	--/0.00	--/0.00	--/0.00	--/0.00	--/0.00	
R11	Sh (NWR)	TF	R		<1	SF	IV	--/0.00	--/0.00	--/0.00	--/0.00	--/0.00	
F7	Fo, Sh	S, SF	R, GW		1-5	GDR, SF	III	0.25/0.24	0.24/0.24	0.25/0.24	0.25/0.24	0.25/0.24	
F1	Fo, Sh	S, SF	R, GW (Sp)		1-5	SF, GDR	III	0.74/0.19	0.56/0.14	0.74/0.19	0.80/0.21	0.91/0.23	
F2	Em (Ditch)	SF, S	R		<1	SF	IV	0.00/--	0.00/--	0.09/--	0.10/--	0.10/--	
F3	Em, Sh	SF, S	GW, OBF		1-5	SF, EC, NC	III	0.15/--	0.13/--	0.15/--	0.16/--	0.17/--	
F4	Em, Sh	SF, S	GW, OBF		1-5	SF, EC, NC	III	0.33/--	0.28/--	0.33/--	0.34/--	0.40/--	
F5	Em, Sh	SF, S	GW, OBF		1-5	SF, EC, NC	III	0.11/--	0.08/--	0.11/--	0.12/--	0.14/--	
F6	Em (Ditch)	S	CD		<1	SF	IV	0.00/--	0.00/--	0.00/--	0.00/--	tr/--	
G1	Em (Ditch)	SF, S	R		<1	SF	IV	0.13/--	0.04/--	0.13/--	0.13/--	0.13/--	
G2	Em	S	R, GW		<1	SF	IV	0.07/--	0.06/--	0.07/--	0.08/--	0.10/--	

Site	MDT[1] Classification	Hydrologic Type[2]	Hydrologic[3] Source	Drainage	Est. Size Range (Acres)	Prominent[4] Functions	MDT[5] Overall Rating (Category)	Estimated Impacts (Acres), Wetland/Riparian					Alternative Alignments
								Preferred Alternative	Lane Config. A	Lane Config. B	Lane Config. C	Lane Config. D	
G3	Em, Sh	SF, S	GW, OBF	Sabine Creek	>10	FCS, SF, GDR, WH, FC, EC	II	0.89/0.16	0.47/0.08	0.89/0.16	0.99/0.17	1.19/0.21	
R12	Fo, Sh (NWR)	TF	GW		<1	WH, FC	III	--/0.00	--/0.00	--/0.00	--/0.00	--/0.00	
G9	Em (Ditch)	SF, S	R		<1	SF	IV	tr/--	tr/--	tr/--	tr/--	tr/--	
G4	Em (Ditch)	SF, S	R		<1	SF	IV	0.00/0.00	0.00/0.00	0.00/0.00	0.06/0.05	0.10/0.10	
G5	Fo, Sh, Em	SF, S	GW, OBF	Mission Ck	>10	TES, SF, EC, GDR, WH, FC, FCS	I	1.27/2.97	0.27/0.62	1.27/2.97	1.46/3.40	1.91/4.47	
G6	Em (Ditch)	SF, S	CF		<1	SF	IV	1.00/--	0.77/--	1.00/--	1.13/--	1.59/--	
G7	Em (Ditch)	SF, S	R		<1	SF	IV	0.36/--	0.22/--	0.36/--	0.44/--	0.76/--	
G8	Em (Ditch)	SF, S	R, CF		<1	SF	IV	0.38/--	0.20/--	0.38/--	0.45/--	0.62/--	
H1	Em, Sh	SF, S	GW, OBF		6-10	FCS, SF, WH, FC, EC	II	1.57/0.03	1.31/0.03	1.57/0.03	1.67/0.04	1.95/0.04	
H2	Em	SF, S	GW, OBF		1-5	SF	III	3.08/--	2.22/--	3.08/--	3.55/--	4.48/--	
H3	Em	SF, S	GW, OBF		1-5	SF	III	0.65/--	0.42/--	0.57/--	0.65/--	0.79/--	
H4	Em	SF, S	R		1-5	SF	III	0.06/--	0.05/--	0.06/--	0.07/--	0.07/--	

Site	MDT[1] Classification	Hydrologic Type[2]	Hydrologic[3] Source	Drainage	Est. Size Range (Acres)	Prominent[4] Functions	MDT[5] Overall Rating (Category)	Estimated Impacts (Acres), Wetland/Riparian					Alternative Alignments
								Preferred Alternative	Lane Config. A	Lane Config. B	Lane Config. C	Lane Config. D	
H5	Em	SF, S	GW, OBF		1-5	SF	III	0.11/--	0.09/--	0.11/--	0.12/--	0.15/--	
H6	Em	SF, S	GW, OBF		1-5	SF	III	0.15/--	0.05/--	0.15/--	0.19/--	0.25/--	
H7	Em	SF, S	GW, OBF		1-5	SF	III	0.26/--	0.10/--	0.26/--	0.31/--	0.41/--	
H8	Em (Ditch)	SF, S	CD		<1	SF	IV	0.04/--	0.06/--	0.04/--	0.15/--	0.46/--	
H9	Em	SF, S	GW, OBF		1-5	SF	III	0.44/--	0.29/--	0.44/--	0.61/--	0.77/--	
H10	Em (Ditch)	SF, S	R		<1	SF	IV	tr/--	0.00/--	tr/--	0.02/--	0.18/--	
H11	Em, Sh	SF, S	GW, OBF		1-5	SF	III	0.50/--	0.30/--	0.50/--	0.57/--	0.74/--	
H12	Em (Ditch)	SF, S	R		<1	SF	IV	0.43/--	0.19/--	0.43/--	0.47/--	0.56/--	
H13	Em, Sh	SF, S	GW, OBF		1-5	SF	III	0.48/--	0.28/--	0.42/--	0.48/--	0.63/--	
H14	Em	SF, S	GW(S), OBF		1-5	NC, GDR	III	0.42/--	0.23/--	0.40/--	0.42/--	0.43/--	
H15	Fo, Sh, Em	SF, S	GW, OBF	Post Creek	>10	TES, SF, EC, GDR, REP, WH, FC, FCS	I	1.29/0.07	0.45/0.01	1.00/0.05	1.29/0.07	1.86/0.09	
H16	Em, Sh	SF, S	GW(S)		1-5	FC, SF, GDR	III	0.09/--	0.03/--	0.09/--	0.12/--	0.20/--	

Table 6.10-1, - Wetland & Riparian Area Characteristics and Estimated Impact Acreages (Continued) -- Page 11

Site	MDT[1] Classification	Hydrologic Type[2]	Hydrologic[3] Source	Drainage	Est. Size Range (Acres)	Prominent[4] Functions	MDT[5] Overall Rating (Category)	Estimated Impacts (Acres), Wetland/Riparian					Alternative Alignments
								Preferred Alternative	Lane Config. A	Lane Config. B	Lane Config. C	Lane Config. D	
H17	Em (Ditch)	SF, S	R, GW		<1	SF	IV	0.93/--	0.75/--	0.93/--	0.99/--	1.09/--	
H41	Em (Ditch)	SF, S	CD		<1	SF	IV	0.03/--	0.01/--	0.03/--	0.05/--	0.09/--	
H18	Em (Ditch)	SF, S	R		<1	SF	IV	0.20/--	0.12/--	0.20/--	0.22/--	0.29/--	
$H20_B$	Em (Ditch)	SF, S	GW, CD		<1	SF	IV	0.28/--	0.15/--	0.28/--	0.35/--	0.50/--	
H19	Em (Ditch)	SF, S	CD		<1	SF	IV	0.01/--	0.00/--	0.01/--	0.02/--	0.05/--	
$H20_A$	Em (Ditch)	SF, S	R		<1	SF	IV	0.17/--	0.09/--	0.17/--	0.17/--	0.17/--	
H21	Em	SF	GW, OBF		1-5	SF	IV	0.06/--	0.02/--	0.06/--	0.13/--	0.28/--	
H22	Em (Ditch)	SF, S	R, GW		<1	SF	IV	1.31/--	0.56/--	1.31/--	1.41/--	1.48/--	
H23	Em (Ditch)	SF, S	R, GW		<1	SF	IV	0.46/--	0.19/--	0.46/--	0.51/--	0.67/--	
H24	Em, OW	SF, S	R		1-5	EC, WH, U,	II	0.00/--	0.00/--	0.00/--	0.00/--	0.00/--	
H25	Em, OW	SPF, S	R		6-10	EC, FCS, U, WH	II	0.24/--	0.07/--	0.24/--	0.41/--	0.79/--	
H26	Em, OW	SPF, S	R, GW		6-10	EC, FCS, U, WH	II	0.01/--	0.00/--	0.01/--	0.02/--	0.05/--	
H27	Em, OW	SPF, S	R		6-10	EC, FCS, U, WH	II	0.00/--	0.00/--	0.00/--	0.00/--	0.00/--	

Site	MDT[1] Classification	Hydrologic Type[2]	Hydrologic[3] Source	Drainage	Est. Size Range (Acres)	Prominent[4] Functions	MDT[5] Overall Rating (Category)	Estimated Impacts (Acres), Wetland/Riparian					Alternative Alignments
								Preferred Alternative	Lane Config. A	Lane Config. B	Lane Config. C	Lane Config. D	
H28	Em, OW	SPF, S	R		6-10	EC, FC, U, WH	II	tr/--	0.00/--	tr/--	0.02/--	0.09/--	
H29	Em, OW	SPF, S	R, GW		>10	FCS, SS, EC, U, WH, TES, REP	I	0.05/--	0.00/--	0.05/--	0.21/--	0.80/--	
H30	Em, OW	SPF, G	R, GW		>10	FCS, SS, EC, U, WH, TES, REP	I	0.01/--	0.00/--	0.01/--	0.08/--	0.49/--	
H31	Em OW	SPF, S	R, GW		1-5	FCS, EC, U, WH, TES, REP	II	0.02/--	0.00/--	0.02/--	0.03/--	0.07/--	
H32	Em, OW	SPF, S	R, GW		6-10	FCS, EC, U, WH, TES, REP	II	0.00/--	0.00/--	0.00/--	0.00/--	0.00/--	
H33	Em, OW, Sh	SPF, S	R		6-10	FCS, EC, U, WH, TES, REP	II	0.59/--	0.26/--	0.59/--	0.74/--	1.04/--	
H34	Em, OW	SPF, S	R		6-10	FCS, EC, U, WH, TES, REP	II	0.00/--	0.00/--	0.00/--	0.00/--	0.00/--	
H35	Em, Sh, OW	SPF, S	R		6-10	FCS, EC, U, WH, TES, REP	II	0.28/0.01	0.12/0.01	0.28/0.01	0.37/0.02	0.59/0.03	
H36	Em, OW	PF, S	R, GW(S)		6-10	FCS, EC, U, WH, TES, REP	II	0.03/--	0.00/--	0.03/--	0.16/--	0.49/--	
H37	Em, OW	PF, S	R, GW(S)		6-10	FCS, EC, U, WH, GDR, TES, REP	II	0.04/--	0.00/--	0.04/--	0.17/--	0.50/--	

Site	MDT[1] Classification	Hydrologic Type[2]	Hydrologic[3] Source	Drainage	Est. Size Range (Acres)	Prominent[4] Functions	MDT[5] Overall Rating (Category)	Estimated Impacts (Acres), Wetland/Riparian					Alternative Alignments
								Preferred Alternative	Lane Config. A	Lane Config. B	Lane Config. C	Lane Config. D	
H38	Em	SF, S	R		1-5	EC, U, WH, FCS	II	0.02/--	tr/--	0.02/--	0.04/--	0.13/--	
H39	Em	SF, S	R		1-5	EC, U, WH, FCS	II	0.20/--	0.01/--	0.20/--	0.26/--	0.38/--	
H40	Em, OW	SPF, S	R		1-5	EC, U, WH, TES, REP	II	0.00/--	0.00/--	0.00/--	0.00/--	0.00/--	
I1	Em	SF, S	R		<1	SF, NC	IV	0.09/--	0.01/--	0.09/--	0.10/--	0.11/--	
I2	Em, OW	SF, S	R		1-5	EC, TES, WH, U, REP	II	0.09/--	0.04/--	0.09/--	0.11/--	0.15/--	
I3	Em, OW	SPF, S	R		6-10	EC, TES, U, WH, REP	II	0.01/--	0.00/--	0.01/--	0.20/--	0.84/--	
I4	Em, OW	SF, S	R		1-5	EC, TES, WH, U, REP	II	0.00/--	0.00/--	0.00/--	0.00/--	0.00/--	
I5	Em, OW	SF, S	R		1-5	EC, TES, WH, U, REP	II	0.04/--	0.03/--	0.04/--	0.05/--	0.07/--	
I6	Em, OW	SF, S	R		1-5	EC, TES, WH, U, REP	II	0.23/--	0.09/--	0.23/--	0.34/--	0.59/--	
I7	Em, OW	SF, S	R		1-5	U, REP	II	0.03/--	0.02/--	0.03/--	0.04/--	0.06/--	
I8	Em, OW	SF, S	R		1-5	EC, TES, WH, U, REP	II	0.02/--	tr/--	0.02/--	0.05/--	0.09/--	
I9	Em, OW	SF, S	R		1-5	EC, TES, WH, U, REP	II	tr/--	0.00/--	tr/--	0.02/--	0.10/--	
I10	Em, OW	SF, S	R		6-10	FCS, EC, TES, U, WH, REP	II	0.13/--	0.03/--	0.13/--	0.22/--	0.46/--	

Site	MDT[1] Classification	Hydrologic Type[2]	Hydrologic[3] Source	Drainage	Est. Size Range (Acres)	Prominent[4] Functions	MDT[5] Overall Rating (Category)	Estimated Impacts (Acres), Wetland/Riparian					Alternative Alignments
								Preferred Alternative	Lane Config. A	Lane Config. B	Lane Config. C	Lane Config. D	
I11	Em, OW	SPF, S	R, GW		6-10	FCS, EC, TES, U, WH, REP	II	0.00/--	0.00/--	0.00/--	0.00/--	0.00/--	
I12	Em, Sh	SF, S	GW, OBF	Crow Creek	>10	FCS, TES, EC, GDR, FC, WH	I	0.01/tr	0.00/0.00	0.01/tr	0.04/tr	0.16/0.01	
I13	Em	SF, S	R		<1	SF	IV	0.48/--	0.04/--	0.48/--	0.73/--	1.04/--	
I14	Em	SF, S	R, OBF		1-5	SF	III	0.02/--	0.00/--	0.02/--	0.05/--	0.15/--	
I15	Em	SF, S	R, GW		<1	SF	IV	0.17/--	0.03/--	0.17/--	0.21/--	0.22/--	
I16	Em	SF, S	OBF, CD		<1	SF	IV	0.26/--	0.04/--	0.18/--	0.26/--	0.48/--	
I17	Em	SF, S	R, GW		6-10	SF	III	0.11/--	0.05/--	0.09/--	0.11/--	0.19/--	Ronan 1, 2, 3
								NA	0.83/--	0.99/--	1.09/--	1.32/--	Ronan 4
J1A	Sh	SF, S	GW, OBF	Spring Creek	>10	GDR, U, REP, FCS, FC, EC	II	0.02/--	0.00/--	0.01/--	0.02/--	0.04/--	Ronan 1
								NA	0.01/--	0.02/--	0.02/--	0.03/--	Ronan 2
J2	Em	SF, S	R, GW		1-5	SF	III	0.17/--	0.09/--	0.14/--	0.17/--	0.27/--	Ronan 1
								NA	0.28	0.33	0.36	0.44	Ronan 2
J3	Em	SF, S	R, GW		1-5	SF	III	0.13/--	0.06/--	0.12/--	0.13/--	0.17/--	Ronan 1, 2
K1	Em	SF, S	R, GW		6-10	EC, SF, WH, FCS	II	0.16/--	0.01/--	0.16/--	0.29/--	0.58/--	Ronan 1, 2
								NA	0.69/--	0.83/--	0.90/--	1.10/--	Ronan 3, 4

Site	MDT[1] Classification	Hydrologic Type[2]	Hydrologic[3] Source	Drainage	Est. Size Range (Acres)	Prominent[4] Functions	MDT[5] Overall Rating (Category)	Estimated Impacts (Acres), Wetland/Riparian					Alternative Alignments
								Preferred Alternative	Lane Config. A	Lane Config. B	Lane Config. C	Lane Config. D	
R3-1	Em	SF, S	R, GW		1-5	NC	III	NA	0.37/--	0.38/--	0.42/--	0.51/--	Ronan 3
R3-2	Em	SF, S	R, GW		1-5	NC	III	NA	0.55/--	0.66/--	0.73/--	0.88/--	Ronan 3
J1	Sh, Em	SF, S	OBF, GW	Spring Creek	>10	FCS, EC, GDR, U, FC, WH, REP	I	NA	0.15/0.02	0.18/0.02	0.20/0.02	0.23/0.03	Ronan 3
R3-3	Em (Ditch)	SF	CD		<1	SF	IV	NA	0.03/--	0.03/--	0.04/--	0.04/--	Ronan 3
R3-4	Em	SPF	R, GW		<1	SF	III	NA	0.58/--	0.69/--	0.77/--	0.92/--	Ronan 3
R4-1	Em	SF	R, GW		<1	SF	III	NA	0.42/--	0.50/--	0.54/--	0.66/--	Ronan 4
R4-2	Em (Ditch)	SF	CD		<1	SF	IV	NA	0.03/--	0.03/--	0.04/--	0.04/--	Ronan 4
R4-3	Em	SF	CF		<1	SF	IV	NA	0.03/--	0.03/--	0.04/--	0.04/--	Ronan 4
R4-4	Em	SF	R, GW		<1	WH, SF	III	NA	0.69/--	0.83/--	0.90/--	1.10/--	Ronan 4
R4-5	Em, Sh	SF, S	OBF, GW	Spring Creek	>10	FCS, EC, GDR, U, WH, EC, FC	I	NA	0.50/0.05	0.60/0.06	0.66/0.07	0.80/0.08	Ronan 4
R4-6	Em	SF, S	R, GW		1-5	WH, NC, SF	III	NA	0.55/--	0.66/--	0.73/--	0.88/--	Ronan 4
R4-7	Em (Ditch)	SF	CD		<1	SF	IV	NA	0.03/--	0.03/--	0.04/--	0.04/--	Ronan 4
R4-8	Em	SF, S	R, GW		<1	WH, SF	III	NA	0.28/--	0.33/--	0.36/--	0.44/--	Ronan 4
R4-9	Em	SF, S	R, GW		6-10	WH, SF	II	NA	0.46/--	0.60/--	0.67/--	0.85/--	Ronan 4
R4-10	Em	SF, S	R, GW		6-10	WH, SF	II	NA	0.37/--	0.48/--	0.54/--	0.70/--	Ronan 4

Site	MDT[1] Classification	Hydrologic Type[2]	Hydrologic[3] Source	Drainage	Est. Size Range (Acres)	Prominent[4] Functions	MDT[5] Overall Rating (Category)	Estimated Impacts (Acres), Wetland/Riparian					Alternative Alignments
								Preferred Alternative	Lane Config. A	Lane Config. B	Lane Config. C	Lane Config. D	
R4-11	Em (Ditch)	SF	CD		<1	SF	IV	NA	0.03/--	0.03/--	0.04/--	0.04/--	Ronan 4
R4-12	Em, OW	SPF, S	R, GW		6-10	WH, NC, SF	II	NA	0.69/--	0.83/--	0.90/--	1.10./--	Ronan 4
R4-13	Em, OW	SPF, S	R, GW		6-10	WH, NC, SF	II	NA	0.55/--	0.66/--	0.73/--	0.88/--	Ronan 4
R4-14	Em, OW	SPF, S	R, GW		6-10	WH, NC, SF	II	NA	0.07/--	0.08/--	0.09/--	0.11/--	Ronan 4
K2	Em	SF, S	GW, OBF		6-10	FCS, WH, SF, EC	II	0.16/--	0.01/--	0.16/--	0.29/--	0.58/--	
K3	Em	SF, S	R, GW		6-10	FCS, WH, SF, EC	II	0.60/--	0.36/--	0.60/--	0.74/--	1.05/--	
K4	Em (Ditch)	SF, S	R, GW		<1	SF	IV	0.41/--	0.14/--	0.41/--	0.56/--	0.62/--	
L1	Em, Sh	SF, S	GW, OBF		>10	FCS, TES, GDR, U, FC, WH, EC	I	0.67/.029	0.34/0.14	0.67/0.29	0.75/0.32	0.95/0.41	
L2	Em (Ditch)	SF, S	R		<1	SF	IV	0.36/0.04	0.09/0.01	0.36/0.04	0.37/0.04	0.37/0.04	
N1	Em (Ditch)	SF, S	CD		<1	SF	IV	0.06/--	0.01/--	0.05/--	0.06/--	0.22/--	Polson 1
N2	Em, Sh (Ditch)	SF, S	R, GW		<1	SF	III	0.09/--	0.10/--	0.08/--	0.09/--	0.12/--	Polson 1
O1	Em (Ditch)	SF, S	CD		<1	SF	IV	0.00/--	0.00/--	tr/--	0.01/--	0.21/--	Polson 1
P1	Fo, Sh	TF, S	OBF		<1	TES	III	0.00/--	0.00/--	0.05/--	0.08/--	0.15/--	Polson 1
P2	Em (Ditch)	SF, S	R		<1	SF	IV	0.00/--	0.00/--	0.00/--	0.00/--	0.00/--	Polson 2, 3

Site	MDT[1] Classification	Hydrologic Type[2]	Hydrologic[3] Source	Drainage	Est. Size Range (Acres)	Prominent[4] Functions	MDT[5] Overall Rating (Category)	Estimated Impacts (Acres), Wetland/Riparian					Alternative Alignments
								Preferred Alternative	Lane Config. A	Lane Config. B	Lane Config. C	Lane Config. D	
P3	Em (Ditch)	SF, S	R		<1	SF	IV	NA	0.04/--	0.14/--	0.14/--	0.14/--	Polson 2
P4	Em	SF	R		<1	SF	IV	NA	0.27/--	1.02/--	1.18/--	1.57/--	Polson 2
P5	Em	SF	R, GW		<1	SF	IV	NA	0.06/--	0.22/--	0.32/--	0.55/--	Polson 2
P6	Em (Ditch)	SF, S	R, CD		<1	SF	IV	0.04/--	0.03/--	0.04/--	0.05/--	0.08/--	Polson 3
P7	Em	SF	CF		>10	SS, WH, EC, REP, TES, FCS, FC	I	0.05/--	0.05/--	0.05/--	0.05/--	0.05/--	Polson 3
Flathead River				Flathead River				0.00/--	0.00/--	0.12/--	0.12/--	0.12/--	Polson 1
								NA	0.23/--	0.23/--	0.23/--	0.23/--	Polson 2
								0.18/--	0.18/--	0.18/--	0.18/--	0.18/--	Polson 3

[1] MDT Classification
- Em - Emergent
- Fo - Forested
- OW - Open Water
- Sh - Shrub
- (Ex) - Excavated
- (Ditch) - Roadside or irrigation ditch
- (NWR) - Non-Wetland riparian area

Hydrologic Source
- CD - Canal Discharge
- CF - Channel flow
- GW - Groundwater
- GW(S) - Probable spring
- OBF - Over-bank flow
- R - Runoff/precipitation

[2] Hydrologic Type (Cowardin et.al., 1979)
- PF - Permanently flooded
- SPF - Semi-permanently flooded
- SF - Seasonally flooded
- S - Saturated
- TF - Temporarily flooded

[5] MDT Overall Rating - (as determined using MDT Wetland site evaluation forms)
- I - Exceptional
- II - High
- III - Moderate
- IV -Low

[4] Prominent Functions (as determined using MDT wetland site evaluation forms. Functions rating as "high" or "exceptional" for each wetland are indicated on this table as "Prominent Functions")
- EC - Erosion Control
- FC - Flood control & storage
- FCS - Food chain support
- GDR - Groundwater discharge/recharge
- HD - Habitat diversity
- NC - Nutrient Cycling
- REP - Recreation/Education potential
- SF - Sediment filtration[3]
- SS - Habitat for sensitive species
- TES - Habitat for threatened & endangered species
- U - Uniqueness
- WH - Fish & Wildlife habitat

APPENDIX B. TRANSPORTATION DEMAND MANAGEMENT

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MEMORANDUM

To: Brad Peterson, Morrison-Maierle/CSSA

From: Matt Delich

Date: March 12, 1993, Revised April 6, 1993

Subject: U.S. 93, Evaro-Polson - Transportation Demand Management (File: 9306MEM1)

This memorandum documents the results of analyses applying various transportation demand management (TDM) measures to reduce motor vehicle traffic volumes and improve the level of service on U.S. Highway 93 from Evaro to Polson, Montana. This exercise is not intended to determine how to implement various techniques, but rather to determine the potential impact of various techniques on the motor vehicle traffic using U.S. 93. The potential impact of the various techniques was determined through research of TDM literature, and data collected and analyzed pertaining to travel behavior in the U.S. 93 corridor and similar areas.

Transportation demand management is the art of modifying travel behavior in order to alleviate traffic problems. The specific actions are primarily directed at commuter travel or travel that occurs on a regular basis. In most cases, it is used in large urban areas. It involves the cooperation of many actors, who may include local and state government agencies, employers, and business associations. TDM involves a number of aspects of travel:

- Trip generation - eliminate the trip entirely
- Trip distribution - shift trip from a more congested destination to a less congested destination
- Mode choice - shift from a lower occupancy mode to a higher occupancy mode
- Spatial route selection - shift trip from a more congested route to a less congested route
- Temporal route selection - shift trip from a more congested time period to a less congested time period.

Not all techniques are applicable to rural areas such as the U.S. 93 corridor between Evaro and Polson. The corridor is approximately 54 miles long. Communities and employers are widely spaced. Some employers and other destinations are not in the corridor itself. While arguments could be made that all TDM strategies could be applied to the U.S. 93 traffic,

practically speaking, only a few could have a potential impact on travel behavior. The following techniques were judged to have the greatest potential impact on vehicular traffic:

- Mode Choice - These include carpools, vanpools, and transit development. It would include all techniques like park/ride facilities, pricing incentives, etc., that make transit and paratransit more attractive.

- Temporal Management - These include adjusting travel times to avoid the peak hours, such as flextime, telecommuting, staggered schedules, etc.

The above techniques should be applied to the traffic that is on U.S. 93 on a daily basis. It would not be applicable to the tourist traffic that is a component of the design hour volume (DHV). In order to identify the two components (tourist traffic and normal traffic), the data from the Ravalli Automatic Recorder was analyzed further. Normal traffic months were determined to be October to April. During these months, the daily traffic was less than the average annual daily traffic. From May to September, the daily traffic exceeded the average annual daily traffic. These were considered to be tourist months. With this information, coupled with data contained in "Nonresident Visitor Profile - Highway 93 Travelers," Neal Christensen, U. of Montana, September 1992, it was determined that the tourist traffic component of the 1991 DHV was 185 vehicles. This component would be on all of the analysis segments (A through N). It was also determined that the growth rate of tourist traffic was slightly less than the growth rate of the normal traffic. The year 2015 tourist traffic was projected to be 365 vehicles on U.S. 93. The normal traffic component would be the difference between the projected DHV (Figure 7 of Traffic Analyses for the Project F5-1(9)6, Polson-Evaro EIS, July 1992) and the tourist DHV. Table 1 shows the 1991 and 2015 total DHV and their normal and tourist traffic components.

Transit

A detailed transit demand analysis was performed on the U.S. 93 Corridor[1]. This analysis included a public transit demand estimation and an intercity bus demand estimation. The horizon year was 2015, which is the same as the design year used for the U.S. 93 analyses.

The analysis indicated that the potential public transit demand by the year 2015 could be 1,045 one way passenger trips per day. However, based upon studies in similar areas, it is estimated that the actual ridership would be 700 trips per day. A

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[1]RAE Consultants, Inc., Transit Demand Analysis for US 93 Corridor, 1993

significant portion (62%) of these trips would be by the elderly and disabled. The remainder would be by the general public.

The intercity analysis indicated that if the service were tripled, a demand of approximately 170 could be expected. Based upon studies in similar areas, tripling the service would be the maximum practical increase. There would be a diminishing rate of increase in ridership with a higher level of service. This demand and level of service may best equate to the higher volumes that occur during the peak season.

Based on the analyses conducted, it appears that the alternative transit modes could potentially generate a maximum of 1200 transit and intercity bus trips per day. A more realistic estimate would be 800 trips per day. A conservative estimate (based on 1200 trips per day) indicates that this might remove as many as 100 vehicles from selected segments of U.S. Highway 93 during the design hour.

Carpool

U.S. Census and other data indicates that carpools make up 15-20 percent of the work trips from the various communities in the U.S. 93 corridor. Based upon national data, this is considered to be a very high rate. Carpools are most successful for home-based work trips and home-based school trips. Analysis of travel characteristics of these trips indicated that a very progressive ridesharing program could remove 5-10 percent of all traffic from U.S. 93 during the design hour. This would cause 25-40 percent of the work trips to be by carpool. This is a conservative (high) estimate. The reduction in traffic will vary by segment.

Temporal Management

Persons using U.S. 93 on a regular basis often have the option of changing their time of travel to avoid periods of congestion. This was reflected in a survey of U.S. 93 drivers south of Missoula. It is assumed that the basic characteristics and opinions of those drivers are similar to those in the U.S. 93 corridor north of Missoula. Approximately 10 percent of the regular users of U.S. 93 south of Missoula have changed their time of travel in order to avoid the periods of congestion. This 10 percent factor was applied to each analysis segment of U.S. 93 between Evaro and Polson.

Trucks

Truck traffic on U.S. 93 varies between 10 percent and 14 percent. Trucks have an effect on the operation of the highway. This is particularly true on a two lane highway where heavy trucks can significantly reduce the desired speed of most of the vehicle

population. Research indicates that it will be difficult to remove many of the trucks from U.S. 93 by putting the commodities on the Montana Rail Link system. However, changing travel times of the trucks to avoid the hours when traffic volumes are at the highest can improve the operation of the roadway itself. For this analysis, it was assumed that the percentage of trucks on the various segments was reduced in half. Therefore, the traffic volume was decreased and the percentage of trucks was also decreased.

Summary of the Travel Reductions

To show the total effect of all potential TDM measures, traffic volume reductions described in the previous four subsections of this memorandum should be subtracted from the normal DHV traffic on U.S. 93. The tourist traffic will not be affected by reductions discussed. Table 2 shows the year 1991 and 2015 DHV traffic, adjusted by using the TDM's and their normal and tourist traffic components.

The traffic reductions range from 20-40 percent for the various segments. Research indicates that a reduction in number of trips of only 10-20 percent is considered to be good. Available data from the research is for areas that are much more urban in character, that have a number of large employers who can provide incentives to decrease automobile use, and, as a result, have a greater potential for successful TDM implementation. The reductions shown in Table 2 are considered to be conservatively high. There is some doubt that reductions of 20-40 percent could ever be reached in an area like the Evaro to Polson U.S. 93 corridor. However, it does provide a projection below which traffic is not likely to fall by the design year.

Operation with TDM Reductions

Level of service analysis was conducted on each segment using the current and expected total traffic with the TDM reductions shown in Table 2. The existing cross section was analyzed with the 1991 traffic adjusted by the TDM reductions in order to establish a base operational condition. The results of the 1991 analyses are shown in Table 3. Year 2015 analyses were conducted with a two lane highway (existing), a three lane highway (center turning lane or passing lane), and a multi-lane highway (4 lane plus center turn lane at appropriate locations). The results of the 2015 analyses are shown in Table 4. The two lane highway will generally operate at levels of service D and E. The three lane highway will operate at levels of service D and E, overall. With the multi-lane highway, the operation will be at levels of service A and B. For rural highways, desirable operation is defined as level of service B or better.

These analyses indicate that even with a conservatively high reduction in traffic due to TDM measures, a four-lane highway is necessary to obtain a desirable level of service on U.S. Highway 93.

Capping Tourist Traffic

One of the points in the Flathead Research Organization Plan (letter dated 1/13/93) called for "... capping and eventually reducing the number of individual tourist vehicles traveling Highway 93 during the summer season." While this suggestion is well-intentioned, I am unclear how this would be accomplished. People visit Glacier National Park from all over North America. Their origins are as diverse as there are states. Within the design future (2015), I do not think that this can be accomplished.

However, in spite of this, analyses were performed on each segment using the normal traffic and the tourist traffic capped at its present level. This traffic is presented in Table 5. The analyses were conducted for the same three highway cross sections as shown in Table 6. The two lane highway will generally operate at levels of service D and E. The three lane highway will operate at levels of service D and E, overall. In the predominant (2 lane) direction, the operation will be at level of service A. With a four-lane highway, the operation will be at levels of service A and B.

These analyses indicate that even with the tourist traffic capped and the conservatively high reduction due to TDM measures applied to the normal traffic, a four-lane highway is necessary to satisfy to obtain a desirable level of service on U.S. Highway 93.

Table 1

1991 and 2015 Total Design Hour Volumes

Segment	1991 DHV Components			2015 DHV Components		
	Total	Normal	Tourist	Total	Normal	Tourist
A	725	540	185	1465	1100	365
B	700	515	185	1420	1055	365
C	680	495	185	1375	1010	365
D	680	495	185	1375	1010	365
E	675	490	185	1355	990	365
F	690	505	185	1360	995	365
G	690	505	185	1390	1025	365
H	670	485	185	1360	995	365
I	855	670	185	1730	1365	365
J	835	650	185	1685	1320	365
K	825	640	185	1670	1305	365
L	815	630	185	1640	1275	365
M	820	635	185	1710	1345	365
N	845	660	185	1710	1345	365

Table 2

1991 and 2015 Design Hour Volumes Reduced
Due to Transportation Demand Management Measures

Segment	1991 DHV Components			2015 DHV Components		
	Total	Normal	Tourist	Total	Normal	Tourist
A	455	270	185	1040	675	365
B	440	255	185	1010	645	365
C	420	235	185	970	605	365
D	420	235	185	970	605	365
E	415	230	185	955	590	365
F	430	245	185	960	595	365
G	430	245	185	985	620	365
H	475	290	185	1025	660	365
I	645	460	185	1375	1010	365
J	630	445	185	1335	970	365
K	620	435	185	1320	955	365
L	610	425	185	1295	930	365
M	685	500	185	1435	1070	365
N	710	525	185	1435	1070	365

Table 3

1991 Operation with Transportation Demand Management Reduction

Segment	Two Lane
A	C (A)*
B	N/A
C	C
D	C
E	C
F	C (A)*
G	C (A)*
H	C
I	C
J	N/A
K	C
L	D
M	D
N	C (A)*

N/A - Analysis as a rural highway not applicable due to low speed and interrupted flow

( )* - Level of service in the passing lane direction

Table 4

2015 Operation with Transportation Demand Management Reduction

Segment	Two Lane	Three Lane	FourLane
A	E (A)*	D	A
B	N/A	N/A	N/A
C	E	D	A
D	E	D	A
E	D	D	B
F	D (A)*	D	A (A)**
G	E (A)*	D	A
H	E	D	A
I	E	E	A
J	N/A	N/A	N/A
K	E	E	A
L	E	E	B
M	E	E	A
N	E (B)*	E	A

N/A - Analysis as a rural highway not applicable due to low speed and interrupted flow

( )* - Level of service in the passing lane direction

( )** - Level of service in the uphill direction

Table 5

2015 Design Hour Volumes Reduced
Due to Transportation Demand Management Measures
And Tourist Traffic Capped At Current Level

Segment	Components		
	Total	Normal	Tourist
A	860	675	185
B	830	645	185
C	790	605	185
D	790	605	185
E	775	590	185
F	780	595	185
G	805	620	185
H	845	660	185
I	1195	1010	185
J	1155	970	185
K	1140	955	185
L	1115	930	185
M	1255	1070	185
N	1255	1070	185

Table 6

2015 Operation of Normal Traffic
with Transportation Demand Management Reduction
And Tourist Traffic Capped At Current Level

Segment	Two Lane	Three Lane	FourLane
A	D (A)*	D	A
B	N/A	N/A	N/A
C	D	D	A
D	D	D	A
E	D	D	B
F	D (A)*	D	A (A)**
G	D (A)*	D	A
H	D	D	A
I	E	E	A
J	N/A	N/A	N/A
K	E	D	A
L	E	D	B
M	E	E	A
N	E (A)*	E	A

N/A - Analysis as a rural highway not applicable due to low speed and interrupted flow

( )* - Level of service in the passing lane direction

( )** - Level of service in the uphill direction

APPENDIX C. SECTION 404(b)(1) EVALUATION

APPENDIX C. Draft SECTION 404(b)(1) EVALUATION

Project: F 5-1(9)6, U.S. Highway 93
Evaro through Polson
Missoula and Lake Counties, Montana

This draft Section 404(b)(1) Evaluation, included on following pages, was included in the draft EIS. It was reviewed by the U.S. Army Corps of Engineers who provided review comments. These review comments, dated 02 December 1994, are now included at the end of Appendix C. This draft Section 404(b)(1) evaluation discusses the MDT Preferred Alternative. Since two preferred alternatives are evaluated in the final EIS, no revisions have yet been made. When a single alternative has been identified, this document will be revised and a final Section 404(b)(1) Evaluation will be prepared.

TABLE OF CONTENTS

Draft SECTION 404(b)(1) EVALUATION 1

I. INTRODUCTION 1

II. PROJECT DESCRIPTION 2
- A. GENERAL DESCRIPTION 2
- B. GENERAL DESCRIPTION OF DREDGED AND FILL MATERIAL 2
- C. DESCRIPTION OF PROPOSED DISCHARGE SITES 3

III. FACTUAL DETERMINATIONS 4
- A. WATER CIRCULATION, FLUCTUATION, AND SALINITY DETERMINATIONS 4
- B. PHYSICAL SUBSTRATE DETERMINATIONS 5
- C. AQUATIC ECOSYSTEM AND ORGANISM DETERMINATION 6
- D. EFFECTS ON SPECIAL AQUATIC SITES 6
- E. ACTIONS TAKEN TO MINIMIZE IMPACTS 7
- F. DETERMINATION OF COMPLIANCE WITH APPLICABLE WATER QUALITY STANDARDS 10
- G. POTENTIAL EFFECTS ON HUMAN USES 12
- H. CUMULATIVE EFFECTS ON AQUATIC ECOSYSTEMS 12

IV. FINDINGS OF COMPLIANCE 14
- A. EVALUATION OF PRACTICABLE ALTERNATIVES 14
- B. COMPLIANCE WITH MONTANA WATER QUALITY STANDARDS 15
- C. COMPLIANCE WITH SECTION 307 OF THE CLEAN WATER ACT 15
- D. COMPLIANCE WITH THE ENDANGERED SPECIES ACT 15
- E. SIGNIFICANT ADVERSE EFFECTS ON HUMAN HEALTH AND WELFARE 15
- F. SIGNIFICANT ADVERSE EFFECTS ON LIFE STAGES OF AQUATIC ORGANISMS AND WILDLIFE DEPENDENT UPON AQUATIC ECOSYSTEMS 15

G. SIGNIFICANT ADVERSE EFFECTS ON AQUATIC ECOSYSTEM DIVERSITY, PRODUCTIVITY, AND STABILITY 16
- H. SIGNIFICANT ADVERSE EFFECTS ON RECREATIONAL, AESTHETIC, AND ECONOMIC VALUES 16
- I. APPROPRIATE AND PRACTICABLE STEPS TAKEN TO MINIMIZE ADVERSE IMPACTS OF THE DISCHARGE TO AQUATIC ECOSYSTEMS 16
- J. FISHERIES 16

V. EVALUATION RESPONSIBILITY 17

LIST OF TABLES

Table C-1 Recorded Spills 13
Table C-1 Recorded Spills 13

Draft SECTION 404(b)(1) EVALUATION

APPLICANT: Montana Department of Transportation

PROJECT: F 5-1(9)6, U.S. HIGHWAY 93
EVARO through POLSON
MISSOULA AND LAKE COUNTIES, MONTANA

I. INTRODUCTION

Proposed improvement of U.S. Highway 93, between Evaro and Polson, Montana will result in filling of jurisdictional wetlands and non-wetland waters of the United States so a Section 404 Permit under the Clean Water Act, is required. As part of the Section 404 Permit process, this report examines practicable alternatives (40 CFR Part 230), describes impacts to wetland functions and values, and identifies mitigation measures that will minimize or compensate for lost or degraded wetland functions and values (404(b)(1) guidelines).

The 404(b)(1) guidelines are the substantive criteria in evaluating discharges of dredged or fill material in waters of the United States. Fundamental to these guidelines, dredged or fill material should not be discharged into aquatic ecosystems unless it is demonstrated that such discharges will not have unacceptable adverse impacts to wetlands and aquatic ecosystems.

Wetlands which perform functions important to the public interest include:

(i) Wetlands which serve significant natural biological functions, including food chain production, general habitat and nesting, spawning, rearing and resting sites for aquatic or land species;

(ii) Wetlands set aside for study of the aquatic environment or as sanctuaries or refuges;

(iii) Wetlands the destruction or alteration of which will affect detrimentally natural drainage characteristics, sedimentation patterns, salinity distribution, flushing characteristics, current patterns, or other environmental characteristics;

(iv) Wetlands which are significant in shielding other areas from wave action, erosion, or storm damage. Such wetlands are often associated with barrier beaches, islands, reefs and bars;

(v) Wetlands which serve as valuable storage areas for storm and flood waters;

(vi) Wetlands which are ground water discharge areas that maintain minimum baseflows important to aquatic resources and those which are prime natural recharge areas;

(vii) Wetlands which serve significant water purification functions; and

(viii) Wetlands which are unique in nature or scarce in quantity to the region or local area.

II. PROJECT DESCRIPTION

A. GENERAL DESCRIPTION

The study corridor is 56.3 miles long, and now has a two-lane highway. Farming, rural residence, waterfowl management, and recreation, and tourism are the principal land uses in the area. The study corridor is located in Lake and Missoula counties and, except for approximately one-half mile at the southern end, the study corridor is located within the Flathead Indian Reservation.

Details of the proposed U.S. Highway 93 improvement project are described in the EIS. Reconstruction of the highway and construction of a new bridge across the Flathead River will occur over two construction seasons. Wetlands will be filled through expansion of the roadway and embankment involving several separate construction projects over a period of several years. Construction of footings and piers for a new bridge across the Flathead River will require about 12 months. Fill will be placed in wetlands by earth-moving equipment. The new bridge over the Flathead River will require the streambed to be excavated for placement of footings and piers. Typically, sheet pile coffer dams will be driven around the location of each pier and area of streambed to be excavated. Steel piles will be driven at the footing location and a concrete seal, about 4 to 5 feet thick will be poured underwater to provide a base for construction of the footings. After the concrete seal is in place, the area confined by the coffer dam will be dewatered. Forms and reinforced steel for the footings and piers will then be installed. Construction of the reinforced concrete pier will be initiated after the concrete footings have cured.

Fill placed in or on the floodplain of perennial streams will consist of materials not prone to movement from water action. At sites where fill material will be subject to erosion from streamflow, fill will be protected by rip-rap, fiber matting or by other structural modifications.

B. GENERAL DESCRIPTION OF DREDGED AND FILL MATERIAL

General Characteristics of Fill

Fill material will be excavated locally and will be similar in physical and chemical characteristics to substrates in wetlands that are filled. No borrow or excavation sites have high levels of salinity, acid-generating materials, heavy metals, pesticides or other elements or substances potentially harmful to fish, wildlife, or other aquatic organisms.

Quantity of Material

Quantities of fill material will depend on the lane configuration selected and specific topographic features of affected wetlands. Quantities of fill material to be placed in wetlands will be determined during the final design phase of the project.

Sources of Material

Soil and rock fill material will be excavated in the project area and processed with on-site crushing equipment to meet specifications for "select granular backfill". Potential borrow areas and quarries for fill material have not been identified.

Timing and Duration of Discharge of Fill

Construction activities that will discharge material into wetlands and waters of the U.S. will take place over several construction seasons.

C. DESCRIPTION OF PROPOSED DISCHARGE SITES

The south end of the U.S. Highway 93 project area is at the community of Evaro (Milepost 6.5), at the south end of the Jocko Valley. From Evaro, the highway corridor leads north through partly wooded terrain to Arlee, crosses the Jocko River and a low open bench in the northern Jocko Valley. Wetlands in the Jocko Valley are at Finley Creek, at crossings of other small streams, and in roadside ditches which intercept shallow groundwater. Most are between Evaro and the Schley homesites.

At the north end of the Jocko Valley, the corridor enters the narrow, steep-sided Ravalli Canyon. South of Ravalli, the highway closely parallels a railroad and the Jocko River. North of Ravalli, the corridor climbs steeply to a low pass in grassy, dry, terrain, and enters the Mission Valley. In the Ravalli area, there are a few narrow wetlands in roadside borrow pits which intercept shallow groundwater and collect runoff from the paved roadway and adjacent upland areas.

In the Mission Valley south of Post Creek Hill, most wetlands are narrow, forested or grassy riparian strips at crossings of small streams, which have well-defined channels. In the vicinity of Post Creek, there are many small springs, wet meadows, and several shallow streams.

For about four miles north of Post Creek Hill the corridor leads north through the Ninepipe area of glacial potholes. The potholes are either glacial kettles (shallow, closed depressions left after glacial ice melted) or pingo scars (similar depressions where thick lenses of permafrost ice melted). Much of this area is within the Ninepipe National Wildlife Refuge. Potholes are oval, circular, or irregular, and contain ponds and marshes with cattails and sedges. Some of the potholes are dry in mid to late summer. Potholes contain small wetlands and often non-wetland waters of the United States and collectively have great ecological importance. Most project impacts to wetlands will be along this segment of the corridor.

From the Ninepipe area, the highway corridor continues generally northward to Ronan and Pablo, across a sandy flat with cropland, grassland, and scattered patches of conifer forest. In this section, there are only a few wetlands at waterway crossings and along the roadway ditches.

A draft report entitled "Wetland Inventory and Delineation" (1994) has been prepared by the Montana Department of Transportation. This report depicts wetlands delineated on base maps and discusses wetland functions and values and vegetation composition.

Description of Disposal Methods

Fill material will be placed in wetlands by large earthmoving equipment. Excess materials from adjacent areas of the project will be transported to sites where additional fill is needed to elevate the subgrade of the roadway.

III. FACTUAL DETERMINATIONS

A. WATER CIRCULATION, FLUCTUATION, AND SALINITY DETERMINATIONS

Water

Discussions of existing water chemistry, water circulation characteristics, and water fluctuations are contained in the EIS.

Salinity

The proposed action will not substantially alter salinity in surface water or groundwater within or adjacent to the project area.

Water Chemistry

The proposed action will not cause changes in water chemistry, pH levels, hardness or alkalinity in or adjacent to the project area.

Suspended Sediments

The proposed action will increase suspended sediment in wetlands and surface waters in the immediate project area during construction and operation; however, sediment control measures will reduce the amount of sediment entering off-site surface waters.

Other Water Quality Effects

The proposed action will not affect clarity, color, odor, taste, dissolved gas levels, nutrients or temperature.

Current Patterns, Drainage Patterns, and Circulation

The proposed action will cause localized on-site changes in drainage patterns in the project area; however, these changes will not substantially alter current patterns, normal and low flow events, water velocity, stratification, hydrologic regimes, aquifer recharge, or salinity gradients in perennial streams.

Toxic Materials

Fill material will be excavated locally and is expected to have negligible levels of heavy metals, selenium, pyrites or other potentially detrimental constituents.

Pathogens

The proposed fill material will not introduce pathogens such as viruses or harmful bacteria to surface waters.

Aesthetics

The proposed fill of wetlands and waters of the United States will adversely affect aesthetics of the project area and adjacent lands visible to residents, tourists, recreationists or others who perceive an expanded highway to be objectional because of noise, visual intrusiveness, exhaust fumes, or increased traffic and development.

B. PHYSICAL SUBSTRATE DETERMINATIONS

Substrate Elevation and Slope of Disposal Site

Fill placed in rivers or streams will not change the elevation and slope of streambeds in the project area.

Substrate and Fill Characteristics

In general, wetland substrates consist of hydric soils of sandy or clayey loam texture. Organic material from decomposing hydrophytic vegetation has accumulated at some sites, particularly where runoff is minimal and does not transport substantial amounts of nutrients and sediment from wetlands. Substrates in non-wetland waters of the United States usually differ considerably from wetland substrates. Substrate materials in flowing streams are influenced by velocity of flows, seasonal periodicity of flows, land uses in the watershed (e.g., logging, road building, fire, livestock grazing and residential/commercial development). Fine sediment and organic particulates usually collect in pools and deep runs with

decreased current velocity. Riffles and gravel areas generally occur where current velocity is high, scouring the finer deposited sediments from the interspace of gravel and riffle substrates.

Substrates of perennial streams in the project area are dependent on the history of disturbance in the upstream watershed (e.g., logging, road building, crop growing, livestock grazing, and residential/commercial development); velocity, volume, and periodicity of streamflow; channel morphology; and suspended sediment loads in the streams. During peak seasonal streamflows, usually in the spring snow-melt period, perennial and ephemeral streams in the project area carry increased loads of suspended sediments and organic particulates. Fine sediments collect in pools and deep runs with less water velocity; whereas, riffles with cobbles and gravels are usually flushed of sediment during high-flow periods.

Substrates of pothole wetlands consist of fine sediment and organic accumulation from decomposed hydrophytic vegetation. Runoff from agricultural lands (crops and pasture) carries elevated levels of sediment which are trapped in the undrained potholes.

Erosion and Accretion Patterns

Fill placed in wetlands will not differ greatly in physical composition compared to native substrates. Fill material placed in wetlands will not be expected to move from affected sites since the sites are isolated and predominantly fed by surface water runoff.

Water Circulation, Fluctuation, and Salinity Determinations

The proposed project will not substantially alter the following water quality parameters:

Salinity, pH, and hardness
Suspended sediments
Clarity, color, odor, and taste
Dissolved gases, nutrients, and temperature

The proposed project will not substantially alter streamflow velocity, stratification, aquifer recharge or discharge, normal water level fluctuation, light penetration, salinity gradients, toxic metals or organics, viruses and pathogenic organisms, aesthetics, and primary production (photosynthesis).

Suspended Particulate/Turbidity Determinations

Placement of fill may introduce fine materials into wetlands and surface waters causing temporary increases in levels of suspended sediment immediately following construction. During construction of bridges and culverts, bottom sediments will be resuspended until activities in the stream are concluded. Turbidity levels at river encroachments and affected wetlands probably will be elevated for short periods during and after deposition of fill.

Contaminant Determinations

Herbicides and pesticides are routinely used in agricultural operations on lands adjacent to U.S. Highway 93. Unknown amounts of these materials enter surface waters and wetland from runoff, spills, or from direct application to suppress wetland vegetation.

C. AQUATIC ECOSYSTEM AND ORGANISM DETERMINATION

Wetlands and non-wetland waters of the United States will be affected by widening U.S. Highway 93; construction of bridges and culverts; from altered surface run-off amounts and patterns, adjacent to the highway; and from interception of shallow groundwater. Widening traffic lanes and shoulders will fill wetlands and construction of bridges and culverts will also destroy or degrade wetlands. Increased levels of erosion and sediment from exposed soil during and following construction could be deposited in wetlands, affecting vegetation and hydrology. Increased surface run-off from a wider roadway will increase moisture levels in adjacent wetlands in borrow pits and depressions. As with the existing highway, the improved highway will intercept surface run-off and shallow groundwater, creating wetlands at locations where water is retained for a sufficient period during the growing season to support wetlands.

Filling of wetlands will destroy aquatic invertebrates by burying and will reduce local habitats. Construction activities will dislodge aquatic insects and cause them to be transported downstream by currents. Short-term, localized increases in suspended sediments from fill material and construction in streambeds could adversely affect aquatic insects (e.g., stonefly nymphs) that rely upon sight to obtain food. Impacts to aquatic organisms will be localized and will not cause long-term disruption to or adversely affect the aquatic food chain in the project area.

The proposed project will destroy benthic organisms, invertebrates, reptiles, amphibians and small mammals by burial with fill. No adverse impacts to fish are anticipated because sediment will not be transported to rivers or streams with fish populations.

Impacts to fish are described in the EIS. Impacts will be localized and reduced to insignificant levels by mitigation and avoidance of impacts.

D. EFFECTS ON SPECIAL AQUATIC SITES

Special Land Uses

The proposed project will not affect parks, National and Historic Monuments, National Seashores, wilderness areas, or research sites. Special aquatic sites (sites possessing special ecological characteristics of productivity, habitat, wildlife or with easily disrupted ecological values) within the project area are associated with the Ninepipe National Wildlife Refuge. This refuge consists of numerous wetland complexes including marshes, potholes, vegetated shallows, reservoirs, mudflats, and perennial streams. The Ninepipe Refuge is a crucial breeding area for water fowl, shore birds and other wildlife and an important regional resting and feeding area for migratory waterfowl shore birds and passerine birds. The proposed project will fill wetlands in this special ecological site.

Threatened and Endangered Species

The U.S. Fish and Wildlife Service indicates that grizzly bear is a periodic resident on or near the project area and bald eagles, peregrine falcons and the gray wolf are periodic residents of lands near the project area. The proposed project will not jeopardize threatened or endangered species or their habitat. The U.S. Fish and Wildlife concluded in their Biological Opinion pursuant to the Endangered Species Act that grizzly bears, bald eagles, gray wolves, and peregrine falcons, known to periodically be present on or near the project area will not be adversely affected with implementation of appropriate mitigation.

Effects on Terrestrial Plants and Wildlife

The proposed project will destroy benthic organisms, invertebrates, reptiles, amphibians, small mammals, by covering wetlands and surface water with fill. Habitat for deer, elk, waterfowl, raptors, passerine birds, bear and other wildlife also will be destroyed. Wildlife currently utilizing lost or degraded habitat will be displaced. Displacement of wildlife will result in the reduction in local populations of some species if adjacent undisturbed habitats are at carrying capacity for species displaced.

Portions of plant communities will be lost as a result of wetland filling which will locally reduce forage production and photosynthesis (primary production). This reduction will have a negligible impact on wildlife and livestock given the small acreages of plant communities that will be disturbed or destroyed.

Filling of wetlands will disturb existing plant communities and enhance the proliferation of noxious weeds such as spotted knapweed, whitetop Canada thistle and purple loosestrife. Highway reconstruction and other activities in or adjacent to wetlands or surface waters presents the potential for spreading noxious weeds. Invasion of wetlands by species such as spotted knapweed, Canada thistle and purple loosestrife is a primary concern. These species already have become established in portions of Ninepipe National Wildlife Refuge.

E. ACTIONS TAKEN TO MINIMIZE IMPACTS

The U.S. Highway 93 expansion project will incorporate engineering designs and construction measures to minimize disturbance of wetlands; however, it will not be possible to avoid all impacts to wetlands and waters of the United States. Montana Department of Transportation policy is that when wetland avoidance is not possible, on-site mitigation will be given priority. In the event on-site replacement of wetlands is not feasible due to construction, safety, maintenance or other constraints, off-site mitigation will be considered.

Field studies indicate that opportunities exist for replacing or enhancing wetlands within or near the project area. Hydrology, soils, and vegetation are favorable for developing replacement wetlands or enhancing existing degraded wetlands.

General mitigation measures to be implemented are:

- Avoid wetland impacts during final design phase of the project.
- Minimize removal of wetland and riparian vegetation not directly in conflict with project elements.
- Rapidly revegetate exposed soil to reduce potential erosion and sedimentation and to reduce invasion of noxious weeds.
- Where appropriate, use mulching, netting, and other stabilization and erosion-control measures.
- Place siltation fences at stream crossing and wetlands where high levels of sediment could be generated.

To avoid and minimize the loss of wetlands and riparian areas due to direct and indirect highway construction impacts, the MDT and Confederated Salish and Kootenai Tribes have signed a memorandum of agreement (MOA) to ensure that full and effective mitigation is implemented for unavoidable losses of wetlands and their associated functions and values. According to the MOA, mitigation sequencing will be as follows:

- Avoiding impacts;
- Minimizing impacts;
- Rectifying impacts by repairing, restoring, or rehabilitating the affected environment;
- Reducing or eliminating impacts over time by preservation and maintenance operations during the life of the project;
- Compensating for impacts by replacing or providing substitute resources.

MDT and the Tribes will prepare site development plans for wetlands that are unavoidably impacted by highway construction and improvements. In developing these plans MDT agrees to:

- Consult with the Interagency Wetlands Group, the State Historic Preservation Office, and the Tribal Culture Committees regarding the proposed undertaking;
- Complete planning and environmental documentation in compliance with applicable federal and tribal environmental laws;
- Purchase adequate suitable lands or obtain conservation easements in the name of the Confederated Salish and Kootenai Tribes;
- Design and implement construction and restoration plans for mitigation projects with consultation and concurrence from the Tribes;
- Obtain approval from the U.S. Army Corps of Engineers and the Tribes' Shoreline Protection Board for construction and management plans to mitigate highway construction impacts.

The Tribes will hold title in perpetuity to lands acquired for wetland mitigation. Each proposed development site will be evaluated by the Tribes and MDT on a case-by-case basis and each plan shall designate the project proponent and specific management and financial responsibilities for each proposed mitigation site.

Monitoring of Mitigative Actions

All practicable measures have been taken to avoid or minimize impacts to wetland; however, approximately, 40 acres of wetlands will be lost or degraded as a result of the proposed action. To compensate and restore lost or degraded wetland functions and values, on-site and off-site mitigation measures are proposed.

Potential mitigation sites were identified by field reconnaissance, interpretation of aerial photographs and contour maps, and by consideration of land ownership. Primary features sought in potential mitigation sites were: topographic relief that will allow wetland creation with a minimum of excavation or filling, adequate water availability to sustain hydrophytic vegetation, geotechnical stability, low probability of damage from flooding, proximity to existing wetlands with high wildlife attractiveness.

The primary goal of wetland mitigation is to replace wetland functions and values which will be lost as a result of the proposed project. To determine the success of mitigation, a monitoring program will be initiated immediately after construction of wetlands to assess biological, hydrological, and structural characteristics of constructed wetlands.

Monitoring, conducted to determine the success of achieving target functions and values and hydrological regimes, will include:

- Wildlife species using created wetlands;
- Seasonal, habitat, behavioral, and life history aspects of wildlife use of wetlands;
- Species diversity, canopy cover and wetland indicator status of plants present in wetlands;
- Growth form (i.e., trees, shrubs, and herbaceous species) of plants established on wetlands;
- Seasonal amounts and sources of surface water present in created wetlands;
- Flow characteristics of water in created wetlands;
- Shallow groundwater levels if surface water is not present;
- Structural integrity of dikes, islands, retaining walls, rip-rap, or other constructed elements of wetlands.

Vegetation growth will be monitored in June and August following the first growing season. Species composition, canopy coverage, and growth of seeded and "volunteer" species will be recorded. If seeded species have not become established following the first growing season, supplemental seedings and transplanting will be undertaken. If noxious weeds invade reclaimed wetland and adjacent uplands, they will be removed by mechanical treatment or other approved methods.

Vegetation monitoring will be conducted each August for 5 years to ensure that wetland communities predominate. Wetland indicator status of plant communities will be assessed by following the methodology as described in the Corps of Engineers manual for wetland delineation (U.S Army Corps of Engineers 1987).

Wildlife utilization of wetlands will be monitored in spring and late summer for 5 years following construction. Spring monitoring will assess the use of wetlands by reptiles, amphibians, waterfowl, shorebirds and other species linked to wetland for breeding and reproduction. Late summer monitoring will determine the use of wetlands by deer, elk, bear, and other species for food, water, thermal cover, and security cover. During late summer, ephemeral water sources often dry up and wetlands are sought by wildlife for both water and succulent forage.

Hydrological status of wetlands will be monitored in the spring and fall. Surface water depth will be recorded. If no surface water is present, test holes will be excavated to determine depth to free water and saturated soil.

Constructed portions of wetlands, such as berms and channels, will be inspected in spring and fall to ensure that they have not eroded or become non-functional. Structural problems will be corrected immediately.

Oblique color photographs will be taken each monitoring period. They will be taken from the same vantage point and in the same direction every year, and will reflect material discussed in the monitoring report.

A yearly report will be prepared and submitted to the Corps of Engineers addressing the status of the wetland mitigation program. If mitigation is not progressing as anticipated, consultation will be initiated with the Corps of Engineers to devise remedial measures or specify additional mitigation. If it is determined that additional mitigation is warranted, a map showing proposed mitigation areas will be submitted. The funding mechanism for additional mitigation and monitoring will be described. Annual reports will also include:

- A list of names, titles, and occupational affiliations of individuals conducting monitoring and preparing annual reports.
- A copy of the Corps of Engineers 404 Permit with special conditions or letters of modification attached as appendices.
- Analysis and interpretation of quantitative monitoring data.
- Prints of monitoring photographs.
- Maps of monitoring transects, planting zones, groundwater monitoring sites, and other locations relevant to determining success of mitigation.

When monitoring is complete and success criteria have been met, the Corps of Engineers will be notified in the annual report. The report will include a map delineating jurisdictional wetlands and data sheets providing supporting information.

F. DETERMINATION OF COMPLIANCE WITH APPLICABLE WATER QUALITY STANDARDS

Montana Water Quality Act

The Montana Water Quality Act (75-5-101 et seq., MCA) provides the general framework of most water quality regulations in the state. This act includes a description of administrative agencies, classification and standards, permits, financial provisions, and enforcement, appeal, and penalties. Montana Department of Transportation is coordinating with Montana Department of Health and Environmental Sciences (MDHES) to assure that all water quality issues and requirements, including appropriate permits described below, are being addressed.

Montana Natural Streambed and Land Preservation Act (310 Permit)

Any activity that physically alters or modifies the bed and banks of a stream is required to have a "310 Permit". A permit application will be completed and submitted to the local conservation district office for review and approval.

Montana Floodplain and Floodway Management Act

Construction activities within the designated 100-year floodplain of a stream must obtain a floodplain development permit. A permit application will be completed and submitted to the local floodplain development coordinator for review and approval.

Montana Pollutant Discharge Elimination System (MPDES) Permit

The owner or operator of any point source discharging pollutants into state waters must comply with permit application requirements. A completed permit application will be submitted to the MDHES Water Quality Bureau no less than 180 days prior to the day of commencing operations.

General Discharge for Storm Water

Certain developments are required to complete an application for a general discharge permit for storm water from the MDHES in compliance with 75-5-101 et seq. MCA, ARM 16.20.1301 et seq., and ARM 16.20.601 et seq. This permit is required only if storm water will come into contact with materials as defined in 40 CFR Part 122 (including sediment) and discharge as a point source to state surface waters. A Storm Water Pollution Prevention Plan (SWPPP) must be developed for each facility covered by the permit.

Nondegradation of Water Quality

The MDHES implements the nondegradation policy set forth in 75-5-303, MCA, through the rules in ARM 16.20.701 et seq. and ARM 16.20.1011. In addition, the MDHES currently is proposing new rules for implementation of the nondegradation policy. Under the proposed rules, any person proposing an activity which may cause degradation may complete an "Application for Determination of Significance". If the activity is determined to be significant with respect to degradation, then the applicant must complete an application to degrade state waters for MDHES review. New rules also have been recently proposed for determining mixing zones associated with discharges to state waters.

Clean Water Act, as amended, (Federal Water Pollution Control Act) 33 U.S.C. 1251, et seq.

Montana Department of Transportation has coordinated with COE and EPA. This coordination has identified the need to obtain a 404 Permit for discharge of fill into wetlands.

Fish and Wildlife Coordination Act, as amended, 16 U.S.C. 661, et seq.

Coordination has been ongoing with USFWS and Montana Department of Fish, Wildlife, and Parks. Their comments have been incorporated into the project EIS.

Floodplain Management (Executive Order 11988)

The proposed project has been evaluated and planned to ensure that adverse effects and incompatible developments in floodplains are avoided.

Protection of Wetlands (Executive Order 11990)

Compliance with Section 404 of the Clean Water Act and the 404(b)(1) guidelines will ensure compliance with this order.

G. POTENTIAL EFFECTS ON HUMAN USES

Recreation associated with hunting, in the affected area, will be lost for the life of the project due to loss of wildlife habitat and displacement of wildlife, and restricted access to the project area.

Livestock grazing potential will be lost on areas where rangeland vegetation is destroyed or where livestock are prevented from grazing in close proximity to the highway. This impact will be negligible because the project area comprise only a small portion of range land currently being utilized for livestock production.

The proposed project will not adversely affect municipal, private, or potential water supplies. Private wells are used for domestic and agricultural purposes within the study area. The proposed action will not affect the quality or productivity of these water supplies.

Water-related recreation is important throughout the project area (see EIS). Fishing is a major recreational activity on most of the major streams and boating is of special importance on the Flathead River/Flathead Lake near Polson. The proposed action will have negligible impacts on fishing in streams but could adversely affect boating and associated recreation in the Flathead River. Construction of a new bridge will locally disrupt boating and associated activities and could pose an increased accident risk due to permanent structures (bridge piers) in the water.

H. CUMULATIVE EFFECTS ON AQUATIC ECOSYSTEMS

Cumulative effects are the changes in aquatic ecosystems attributable to the collective effects of a number of individual discharges of fill material. Although the impact of a particular discharge may be a minor change in itself, the cumulative effect of many such changes can result in major impairments of water resources and interfere with the productivity and water quality of surface waters and wetlands.

Currently, the primary effects on surface waters in the project area are caused by contaminants and sediment generated by logging, road building, and forest fire. Losses in wetlands are anticipated from future activities to reconstruct and improve the highway. Increases in regional wetland acreage is anticipated through on-going and planned wetland creation and enhancement projects. Cumulatively, planned and ongoing water quality and wetland projects will offset impacts that will result from temporary loss of wetlands in the project area.

Highway reconstruction and other activities in or adjacent to wetlands or surface waters presents the potential for spreading noxious weeds. Invasion of wetland by species such as spotted knapweed, Canada thistle, and purple loosestrife is a primary concern. These species already have become established in portions of Ninepipe National Wildlife Refuge.

Secondary Effects on Aquatic Ecosystems

Secondary effects are impacts on aquatic ecosystems associated with the discharge of fill materials but do not result from the actual placement of fill material. Secondary impacts to wetlands could result from spills of fuel, oil, hydraulic fluid, or other substances during the construction and operation phases of the project. Spills of such substances have the potential to degrade water quality, diminish wetland functions and values, and cause mortality to fish and wildlife. The Water Quality Bureau of the Montana Department of Health and Environmental Sciences maintains records of spills of substances which have the potential to degrade water quality. Since 1975, there have been 11 recorded spills of material potentially detrimental to aquatic ecosystems and wetlands (Table C-1), five of which entered surface waters.

Table C-1 Recorded Spills

Date	Location	Description
11/24/75	Slough discharging to Mission Creek, west side of St. Ignatius, Highway 93	1,000-1,500 gallons of diesel fuel spilled into Mission Creek due to auto/tanker accident
9/20/75	Finley Creek, 6 miles north of Evaro	BN train derailment. 10,000 gallons of concentrated sulfuric acid spilled killing fish in Finley Creek
6/20/79	Fish hatchery near Ronan	20,000-40,000 fish killed from diesel fuel spraying
12/3/79	Spring Creek in Ronan	Oil spill
3/6/83	Storm sewer at Ronan	250 gallons of crank case oil leaked into storm sewer and entered Spring Creek
10/20/87	Joe's Smoke Ring near Evaro	Tanker rolled off road and spilled 250 gallons of gasoline in ditch
2/18/88	Arlee Junior High School	Student poured toxic chemical on heat register
3/22/89	CENEX bulk plant at Ronan	840 gallons of diesel fuel spilled from overfilling fuel tank
5/1/89	Road in Ronan	Oil applied to road for dust control entered stream
12/13/89	Ravalli, Milepost 22	400-500 gallons of gasoline spilled due to truck wreck
7/29/91	CENEX bulk plant at Ronan	Leaky valve released 10,000 gallons of ammonial nitrate

SOURCE: Water Quality Bureau of the Montana Department of Environmental Quality~~Health and Environmental Sciences~~.

IV. FINDINGS OF COMPLIANCE

A. EVALUATION OF PRACTICABLE ALTERNATIVES

As described in Section 5.1. of the EIS, several alignment alternatives are under consideration for the proposed action including Alignment 1, which closely follows the existing alignment throughout the project length, and:

- In Arlee, in addition to the existing alignment (Alignment 1), three alternative alignments are under consideration. As indicated in Section 5.3., Alignment 1 is the preferred alternative in Arlee.

- In Ronan, in addition to the existing alignment (Alignment 1), three alternative alignments are under consideration. As indicated in Section 5.3., Alignment 1 is the preferred alternative in Ronan.

- In Polson, in addition to the existing alignment (Alignment 1), two alternative alignments are under consideration. As indicated in Section 5.3., Alignment 3 is the preferred alternative in Polson while Alignment 1 will also be improved.

Also as described in Section 5.1. of the EIS, there are four lane configuration alternatives under consideration for the proposed action including:

- Lane Configuration A, a two-lane, two-way highway with passing lanes added for short distances where most critical.

- Lane Configuration B, a four-lane highway with two traffic lanes in each direction. It has been recommended that a four-foot wide painted center median be included wherever Lane Configuration B is constructed.

- Lane Configuration C, a four-lane highway with a continuous two-way left-turn median.

- Lane Configuration D, a four-lane highway with a divided, unpaved center median at least 40 feet wide.

It has been determined that Lane Configuration A, will not meet the purpose of and need for the project (except in Polson where substantial traffic relief will be provided by Alignment 3 which goes around the community). It will provide no substantial improvement in safety or and level of service of the existing roadway. Construction of passing lanes or truck climbing lanes will not improve and could be detrimental to the level-of-service of the opposing traffic lane. Lane Configuration A will not substantially reduce the risk of head-on and rear-end collisions which generally cause more serious injury and damage.

As described in Section 5.3. of the EIS, a combination of lane configurations consisting mostly of Lane Configuration B, with substantial distances with Lane Configuration C and short distances with Lane Configurations A and D, has been selected as the preferred alternative which produces the least impact on wetlands while meeting the purpose and need for the project. This will result in the destruction of approximately 40 acres of wetlands.

B. COMPLIANCE WITH MONTANA WATER QUALITY STANDARDS

The proposed project will be in compliance with both the Montana Water Quality Act and the Montana Stream Protection Act. All work will be done in accordance with Section 319 of the Water Quality Act of 1987. Control of water pollution for both specific and non-point sources will be described in the National Pollutant Discharge Elimination System (NPDES) Permit for the proposed action. The proposed action will require a Clean Water Act-Section 402/NPDES Permit from the Montana Department of Health and Environmental Science's (MDHES Water Quality Bureau.

MDHES Water Quality Bureau must certify that any discharges into state waters will comply with water quality standards before federal permits or licenses can be granted. The authority for this action comes from Section 401 of the Clean Water Act. The certification must be provided to the Corps of Engineers by MDHES prior to issuance of a Section 404 Permit. A Storm Water Erosion Control Plan will be submitted to the MDHES Water Quality Bureau in compliance with the MPDES Regulations.

The Montana Department of Natural Resources and Conservation (DNRC) requires that a temporary water use permit be obtained if construction activities (like dust control) use surface water at a rate of over 35 gallons per minute or use over 10 acre-feet of groundwater.

C. COMPLIANCE WITH SECTION 307 OF THE CLEAN WATER ACT

Section 307 of the Clean Water Act imposes effluent limitations on discharges of materials containing specified toxic pollutants into surface waters. Identified toxic pollutants include aldrin/dieldrin, several DDT compounds, endrin, toxophene, benzidine, and polychlorinated biphenyls. The proposed action will not discharge toxic pollutants identified in Section 307 of the Clean Water Act.

D. COMPLIANCE WITH THE ENDANGERED SPECIES ACT

The proposed action will not adversely affect the endangered gray wolf or peregrine falcon or the threatened grizzly bear. In compliance with Section 7 of the Endangered Species Act, consultation with the USFWS was initiated and completed. The Biological Opinion prepared by the USFWS concluded that the proposed action will not be likely to jeopardize the continued existence of listed species.

E. SIGNIFICANT ADVERSE EFFECTS ON HUMAN HEALTH AND WELFARE

The proposed project will not adversely affect municipal or private water supplies, recreational or commercial fisheries, and most species of wildlife; however, it will adversely affect riparian and wetland vegetation, aquatic insects and other invertebrates, amphibians, reptiles and small mammals associated with wetlands and surface water that will be filled. The localized loss of habitat and some wildlife species will not be a significant adverse effect on human health and welfare. Wetland mitigation will be initiated concurrently or before impacts are realized,thereby, reducing impacts to negligible levels.

F. SIGNIFICANT ADVERSE EFFECTS ON LIFE STAGES OF AQUATIC ORGANISMS AND WILDLIFE DEPENDENT UPON AQUATIC ECOSYSTEMS

The proposed project will adversely affect the life stages of aquatic organisms and other wildlife species with the inability to avoid wetland filling activities; however, impacts on these organisms will be localized and will not significantly affect regional populations. Wetland mitigation on and near the project area will offset localized adverse impacts.

G. SIGNIFICANT ADVERSE EFFECTS ON AQUATIC ECOSYSTEM DIVERSITY, PRODUCTIVITY, AND STABILITY

The proposed project will not significantly affect the diversity, productivity, and stability of aquatic ecosystems. Mitigation will offset localized adverse impacts.

H. SIGNIFICANT ADVERSE EFFECTS ON RECREATIONAL, AESTHETIC, AND ECONOMIC VALUES

The proposed action will not significantly affect recreational or economic values of regional aquatic ecosystems. Loss of wetlands will be mitigated and recreational and economic values will be restored.

I. APPROPRIATE AND PRACTICABLE STEPS TAKEN TO MINIMIZE ADVERSE IMPACTS OF THE DISCHARGE TO AQUATIC ECOSYSTEMS

Potential adverse impacts will be avoided to the extent possible and will include the measures:

- Ensure that developments associated with the project conform as much as possible with the natural characteristics of the area;
- Limit the area of land disturbed and the amount of time that disturbed areas are exposed;
- Stabilize and promptly protect disturbed areas;
- Keep runoff velocities low;
- Prevent water from running over disturbed areas;
- Retain sediments within the project area by filtering runoff as it flows or by detaining runoff for a period that will allow sediment to settle out;
- Ensure that erosion control features are properly functioning.

Other specific mitigation measures to avoid or compensate for lost or degraded wetland functions and values are described in the EIS.

J. FISHERIES

Impacts to fish are described in the EIS. Impacts will be localized and reduced to insignificant levels by mitigation and avoidance of impacts.

V. EVALUATION RESPONSIBILITY

A. PREPARED BY: Morrison-Maierle, INC.

Date: April 1994

B. REVIEWED BY: _____

Date: _____

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
215 NORTH 17TH STREET
OMAHA, NEBRASKA 68102-4978

REPLY TO
ATTENTION OF

December 2, 1994

Planning Division

RECEIVED
DEC 12 1994
MORRISON—MAHLER, Ltd.

Mr. Dale Paulson
Federal Highway Administration
301 South Park
Helena, Montana 59601

Dear Mr. Paulson:

Thank you for the opportunity to review the internal draft Environmental Impact Statement (EIS) along with the Section 404(b)(1) Evaluation for the U.S. Highway 93 Evaro to Polson Project. We apologize for the late response. Our comments are as follows:

Draft EIS:

Page 7.10-2, under the Mitigation section, line 3 states that "Wetlands have been formally delineated with formal wetland surveys." When were the wetlands delineated, and what surveys were used? In order to confirm that these wetlands were correctly delineated, we must know which method of delineation was incorporated, who delineated them, and when.

Under the section Preservation and Maintenance found on page 7.10-4, it was stated that "Annual monitoring will be conducted during the first few years to determine the effectiveness of the mitigation measures and to determine the need for additional mitigation measures or adjustments." Monitoring needs to continue for at least four or five seasons in order to correctly determine whether or not mitigation was successful.

Page 7.10-4, Replacement Wetlands, states that "Some of the sites will be eliminated, others retained, with the goal of matching the mitigation area to the total area affected by the preferred alternatives." Keep in mind that mitigation must not only "match" the amount of acres lost (at least on a 1:1 ratio) but it must also replace functions and values of wetlands lost. Replacement of functions and values is one of the most important aspects of wetland mitigation. On the same page, it was stated that "Revegetation will mostly occur naturally." This must not be assumed. There should be plans to plant natural wetland vegetation in these areas as one cannot assume that the areas will naturally revegetate.

On page 7.10-5, it is stated that "Off-site wetland replacement and enhancement is often desirable because it is more efficient to restore and enhance wetlands in large, off-site tracts..." It must be kept in mind to replace functions and values, not just whatever is most efficient.

Appendix C, Section 404(b)(1) Evaluation:

Page 4, Other Water Quality Effects, states that "The proposed action would not affect clarity..." With increased sediment load, clarity will decrease although it may be short-term and localized.

On page 5, Water Circulation, Fluctuation and Salinity Determinations, it is stated that "The proposed project would not substantially alter...light penetration..." Light penetration will be altered during construction due to increased sediment load.

On page 6, section Contaminant Determinations, please refer to the guidelines on Section 230.11(d) where it states that you must "Determine the degree to which the material proposed for discharge will introduce, relocate, or increase contaminants. This determination shall consider the material to be discharged, the aquatic environment at the proposed disposal site, and the availability of contaminants." It is necessary to include a discussion on contaminants possibly introduced by the discharge, if any, and not just runoff or spills into wetlands along U.S. Highway 93.

On page 6 under Aquatic Ecosystem and Organism Determination, there is no mention of the effects on plankton. More information needs to be included on plankton, benthos, nekton, and the aquatic food web. The first paragraph on impacts to wetlands should be included under section "D. Effects on Special Aquatic Sites" since wetlands are special aquatic sites. Also, in the third paragraph of the same section, it is stated that "No adverse impacts to fish are anticipated because sediment would not be transported to rivers or streams with fish populations" then in the fourth paragraph, it states that "Impacts to fish are described in the EIS. Impacts would be localized and reduced to insignificant levels by mitigation and avoidance of impacts." Will there or will there not be impacts to fish?

Page 6 and 7, section D. Effects on Special Aquatic Sites contains no information on special aquatic sites other than Ninepipe Refuge. There is no discussion of wetlands, mud flats, vegetated shallows, or riffle and pool complexes which are all special aquatic sites as defined in the Guidelines for

Sections 230.41, 230.42, 230.43, and 230.45, respectively. Please refer to the Guidelines and the aforementioned sections to properly address these effects.

The section Monitoring of Mitigative Actions found on page 9 should be titled "Mitigative Actions and Monitoring of these Actions." It states that "All practicable measures have been taken to avoid or minimize impacts to wetlands..." This sentence should read "All practicable measures will be taken..." In the same section in the first paragraph, it is stated that "To compensate and restore lost or degraded wetland functions and values, on-site and off-site mitigation measures are proposed." There is no discussion of wetlands to be affected and what their functions and values are. There should be some discussion of this and a table which summarizes the function and values, acres affected, hydrologic category, vegetative dominance and species type, and hydrologic source. How many acres on- and off-site will be mitigated? The ratio of mitigated wetlands to lost or degraded wetlands should be at least 1:1.

Page 9 summarizes the monitoring of mitigation. It is necessary to know not just total acres but also the number of wetland basins to be impacted. The concern is with edge effect lost, travel distances for wildlife, and total ecosystem impact. Is on-site mitigation possible for all of it? Have all functions to be lost been identified? Is there a guarantee on the hydrology source? It is important to review hydrology records because natural wetlands undergo wet/dry cycles throughout their existence. The ability to fluctuate to improve and also eliminate some unwanted species of plants must exist.

In regards to page 9 under the section Monitoring of Mitigative Actions, there is the statement "Primary features sought in potential mitigation sites were..." Are these based on what is to be lost? It is also stated on page 9 that noxious weeds will be removed by mechanical treatment. This should state "mechanical and chemical treatment." The section about using the Corps of Engineers 1987 manual for assessing wetland indicator status of plant communities is incorrect. For assessing wetland indicator status, one must use the Classification of Wetlands and Deepwater Habitats of the United States, U.S. Department of the Interior, December 1979 and for assessing or identifying wetlands, one would use the Corps of Engineers 1987 manual.

For mitigation purposes, will erosion or siltation be controlled via an incoming water source or is that a function of the original wetland? It is necessary to be sure that all functions originally identified are monitored, not just wildlife use. There needs to be long range (in perpetuity) plans. For example, what will happen to the area five years from now?

On page 12, section H. Cumulative Effects on Aquatic Ecosystems, the second paragraph states that "Losses in wetlands are anticipated from future activities to reconstruct and improve the highway. Increases in regional wetland acreage is anticipated through on-going and planned wetland creation and enhancement projects." What future projects are expected which will impact wetlands? Please provide a map of the region analyzed for cumulative effects. Discussion of the extent of wetland loss in the region, including past losses; present losses occurring due to other activities currently underway; and future losses from reasonably foreseeable projects in the area is also needed.

On page 13 under Secondary Effects on Aquatic Ecosystems there is a discussion of spills in the area as well as Table C-1 which shows records of these spills. This table needs to be restricted to accidents which previously occurred on the highway (i.e., chemicals spilled in the school need not be on the table). It seems that there would be a positive secondary effect with an improved highway as the number of accidents would decrease thus reducing the amount of spills on the highway.

Page 15 contains some of the same information found on pages 10 and 11. Combine these pages to provide one section on Compliance with Applicable Water Standards. Also section B on compliance with water quality standards must not only address compliance, but also present the standards and rationale for compliance or non-compliance with each applicable water quality standard.

Page 15, section D. Compliance with the Endangered Species Act, contains no mention of bald eagles though there was earlier on page 7. This section must include bald eagles although they may not be affected by the project.

Please refer to the enclosed recommended outline for the 404(b)(1) evaluation and include the information which has been circled.

RECEIVED
DEC 12 1994
MORRISON—MAIERLE/CSSA, INC

Should you have any questions regarding the above comments, please feel free to contact Shelly Hatleberg at (402) 221-4621 or Mike Rabbe at (402) 221-4212.

Sincerely,

SIGNED

Robert S. Nebel
Chief, Environmental
Analysis Branch
Planning Division

Copy Furnished:

Brad Peterson
Project Engineer
Morrison Maierle/CSSA
P.O. Box 6147
910 Helena Avenue
Helena, Montana 59604

APPENDIX D. INFLUENCE ON RETAIL TRADE

D. INFLUENCE ON RETAIL TRADE

Highway alignment alternatives will affect highway-oriented and nonhighway-oriented business in Arlee, Ronan, and Polson. Studies conducted by federal and state agencies identify factors that will influence the impacts caused by highway alignment alternatives.

Generally, the studies report that beneficial or adverse effect on business will vary according to unique characteristics of individual communities.[1]

Individual neighborhoods within a community are affected differently, depending on the importance of the original highway route to business and the disruption through traffic causes for neighborhood residents.[2]

Business on alternate highway alignments is predominantly highway-oriented. These are traffic-serving retail businesses, such as gasoline service stations/convenience stores, lodging and eating establishments, and tourism specialty stores. Manufacturing firms also locate operations along alternate highway alignments to take advantage of access to a modern transportation facility and to avoid traffic congestion in communities.[3]

Some guidelines from various studies are presented below to indicate the effects alternate highway alignments may have for business:

1) Alternate highway alignments outside communities generally are considered when congestion caused by a combination of local and through traffic is severe enough to cause disruptions within the community. Disruption will result if congestion creates a barrier that affects the ability of business to attract customers.[4] Often in smaller communities, half or more of traffic is through traffic that doesn't stop to purchase goods and services.[5]

   In communities with stable or growing local populations and economies, diverting through traffic and reducing congestion in business districts improves shopping conditions for local traffic that patronizes nonhighway-oriented business.[6] Typically, there is a short-term decrease in sales in the business district after the construction of an alternate highway alignment, then sales increase as business changes to attract more customers from local traffic.[7]

   Alternate highway alignments affect the sales of highway-oriented business because of reliance on through traffic.[8]

2) Alternate highway alignments can change the boundaries of trade areas and increase or decrease economic activity in communities. Due to increased convenience and reduced travel time, smaller communities are most likely to lose retail sales if travel patterns change to promote travel to larger communities with a

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[1]Iowa Department of Transportation, Office of Project Planning. A Literature Review of Urban Bypass Studies. 1987-1992.

[2]Wisconsin Department of Transportation. Impacts of Highway Bypasses on Wisconsin Communities: Technical Summary. July 1988.

[3]National Cooperative Highway Research Program. Comparative Analysis of Highway Bypass Impact Studies. Nancy L. Bennett and Martin M. Stein. 1973

[4]Wisconsin Department of Transportation. Impacts of Highway Bypasses on Wisconsin Communities: Technical Summary. July 1988.

[5]National Cooperative highway Research Program. Comparative Analysis of Highway Bypass Impact Studies. Nancy L. Bennett and Martin M. Stein. 1973

[6]National Cooperative highway Research Program. Report 18. Community Consequences of Highway Improvement. 1965.

[7]Economic Analysis for Highways. (A Study of 76 Bypassed Cities.) Robley Winfrey.

[8]The Economic Impact of Rural Highway Bypasses (Interim Report). Otto, D. and Anderson, C. Iowa State University. 1991.

greater accumulation of goods and services.[9] Larger communities within 15-30 miles of smaller communities have advantages in attraction of retail activity; a change in travel patterns away from business districts of smaller communities draws retail activity away from the smaller community and toward the larger community.[10,11,12]

a) Smaller communities, compared with larger communities, have more difficulty replacing highway-oriented through traffic because of the concentration of goods and services in larger communities. Smaller communities, compared with larger communities, have highway-oriented sales from through traffic as a larger part of total sales because of the smaller economic base.

b) Smaller communities, compared with larger communities, have more difficulty changing to nonhighway-oriented business because local traffic will use the convenience of the new route to travel around the community during trips outside the community.

3) The effect of alternate highway alignments on business is greatest when the population of a community is small and a high percentage of business sales is due to through traffic.[13]

a) Alternate highway alignments have less adverse effect on highway-oriented business and more beneficial effect on nonhighway-oriented business for communities with at least 5,000 persons than for communities with less than 5,000 persons.[14]

b) The effect of alternate highway alignments on business in communities with populations between 500 and 2,000 depends on local factors:[15]

1) Type of community
   - "bedroom" community for a nearby, larger place
   - isolated community without nearby places that are competitive trade areas
   - destination community for tourism and recreation activities
   - community that is a local trade center, but within a trade area dominated by larger, regional trade centers
2) Location of retail trade business
3) Type of local and through traffic
4) Percentage of local and through traffic
5) Geographic location that provides a natural junction for highways

c) Alternate highway alignments have more adverse effect on business in communities with populations less than 500 because a higher percentage of sales in smaller places than larger places is due to through traffic.[16]

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[9]National Cooperative highway Research Program. Comparative Analysis of Highway Bypass Impact Studies. Nancy L. Bennett and Martin M. Stein. 1973

[10]The Economic Impact of Non-Interstate Bypasses in Rural Areas. Daniel Otto. Iowa State University. 1991.

[11]Wisconsin Department of Transportation. Impacts of Highway Bypasses on Wisconsin Communities: Technical Summary. July 1988.

[12]National Cooperative highway Research Program. Report 18. Community Consequences of Highway Improvement. 1965.

[13]Economic Analysis for Highways. (A Study of 76 Bypassed Cities.) Robley Winfrey.

[14]National Cooperative highway Research Program. Report 18. Community Consequences of Highway Improvement. 1965.

[15]Iowa Department of Transportation, Office of Project Planning. A Literature Review of Urban Bypass Studies. 1987-1992.

[16]Iowa Department of Transportation, Office of Project Planning. A Literature Review of Urban Bypass Studies. 1987-1992.

4) Depending on access control and land use planning and regulation, highway-oriented business develops at locations along the route of alternate highway alignments. Existing highway-oriented business may move from the established business district to the new route, or new business may be developed on the new route.[17,18]

5) Highway-oriented business in the vicinity of the old route generally experiences an immediate loss of trade when the alternate highway route changes the pattern of travel and reduces the volume of through traffic. After a period of adjustment, highway-oriented business that remains on the old route either changes to attract more local patronage, or closes.[19,20]

6) Most new business located near the new route can be associated with the presence of the new highway, rather than random patterns of land development. Although new development may be a result partially of expanding area growth, the new highway will be expected to accelerate growth.[21]

7) Access control and land use planning and regulation for alternate highway alignments allow communities to develop new commercial and industrial areas with access to modern transportation facilities.[22]

Mitigation measures for adverse effect on local business due to alternate highway alignments at Arlee, Ronan, and Polson will include the following factors:[23]

1) Roadway and interchange design characteristics affecting traffic capacity and access.

2) Alternate highway alignments that are located within one-half mile of the original business district provide desired visibility of business in the community for local and through traffic. Alternate highway alignments that are located farther than one-half mile from the business district provide less than desired visibility of business.

3) Anticipated driver behavior.

4) Development potential:
   - Highway location in terms of distance from developed residential, commercial, and industrial areas.
   - Proximity to intersections with access to and visibility from the highway.
   - Availability of onstreet and offstreet parking.
   - Investment capital for finance.

5) Highway signing and billboard restrictions.

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[17]National Cooperative highway Research Program. Comparative Analysis of Highway Bypass Impact Studies. Nancy L. Bennett and Martin M. Stein. 1973

[18]Wisconsin Department of Transportation. Impacts of Highway Bypasses on Wisconsin Communities: Technical Summary. July 1988.

[19]National Cooperative highway Research Program. Comparative Analysis of Highway Bypass Impact Studies. Nancy L. Bennett and Martin M. Stein. 1973

[20]Wisconsin Department of Transportation. Impacts of Highway Bypasses on Wisconsin Communities: Technical Summary. July 1988.

[21]National Cooperative highway Research Program. Comparative Analysis of Highway Bypass Impact Studies. Nancy L. Bennett and Martin M. Stein. 1973

[22]Wisconsin Department of Transportation. Impacts of Highway Bypasses on Wisconsin Communities: Technical Summary. July 1988.

[23]Highway Research Board Bulletin. Predicting the Economic Impact of Alternate Interstate Route Locations. Stroup, R.; Vargha, L.; and Main, R. 1962

6) Vitality, size and diversity of the local economy.

7) Community responses to economic development and investment along the highways and at interchanges or intersections.

8) Community attitudes about marketing and promotional strategies in conjunction with commercial and industrial development along highways and at interchanges or intersections.

9) Land use planning and regulation affecting types of development appropriate for the transportation system.

10) The location of retail trade service centers, which provide highway-related business for tourism, and depend on roadway design, access control and land use planning and regulation for effective shopping environments.

11) Local and regional highway signing and community promotional strategies.

12) Mapping nomenclature designating business loops and through routes.

APPENDIX E. DRIVE-THROUGH EXPENDITURE PATTERNS

E. DRIVE-THROUGH EXPENDITURE PATTERNS

Travel expenditure on U.S. Highway 93 (US 93) makes a valuable contribution to the Lake County economy. Alternate highway alignments at Arlee, Ronan and Polson will affect the trade area boundaries of the communities, but they will not affect the overall potential market for goods and services created by drive-through travelers in the area. As drive-through traffic increases along US 93, expenditures for fuel, food, lodging, and specialty retail items and services also will increase.

By relocating through traffic, alternate alignments will shift the economic benefits of travel expenditure from one local economy to another. Highway alignments routing travelers around established business districts will reduce the drive-through traffic for existing highway-oriented business and correspondingly increase traffic for other business with better highway location.

Estimates of local sales, earnings, and employment attributable to drive-through traveler expenditures were derived from results of the 1993 surveys of Arlee, Ronan, and Polson businesses; 1990 county earnings and employment data developed by the U.S. Bureau of Economic Analysis (1990); 1991 zip code specific earnings and employment data developed the Montana Department of Labor and Industry (1991); and, the 1987 US Censuses of Business. Sales projections assume a three percent per year increase in drive-through travel. Earnings and employment projections were developed using an economic base model with an income multiplier of 1.33 for Ronan and Polson and 1.25 for Arlee. Multipliers were developed using a location quotient technique. An input-out model was developed to estimate the indirect, secondary, and cumulative effects of changes in traveler expenditure patterns.

Arlee

Drive-through travelers are estimated to spend $2 million annually at Arlee business. During construction of Alignment 1, equipment movement, physical barriers, and temporary detours will interfere with traveler access Arlee business and cause short-term decreases in sales. Some drive-through travelers may choose to drive US 83 through the Swan Valley to avoid lengthy construction delays, this will also reduce sales by Arlee business.

Once in operation, Alignment 1, with Lane Configuration A (two-lane highway), will have traffic congestion and limited potential for economic growth similar to No Action. Lane Configurations B and C (four-lane highways) will allow Arlee business to recapture lost sales and to participate fully in the expanding market created by increasing drive-through traffic on US 93.

Alignments 2 and 3 will reroute traffic around the outskirts of Arlee. Depending on access control and land use planning and regulation, new business development along the Alignments 2 and 3 will occur slowly. Eventually new business recapture lost sales. Highway oriented business located along the existing corridor will have difficulty weathering the rerouting of drive-through traffic.

Alignment 4 will route highway travelers two miles to the east of Arlee. Alignment 4 will result in the permanent loss of most of Arlee business sales to highway travelers.

No Action will continue to route highway travelers through the Arlee business district. No Action will result in further growth in local sales to travelers. However, worsening congestion will limit the ability of the local economy to participate fully in the growth of this market. Travelers will have increasing difficultly in making left turns to access cross-highway business.

Table E-1
Local Economic Impact of US 93 Alternate Alignments on Arlee
for selected years 1992-2015

Part A
Estimated Business Sales to Drive-Through Travelers
for Retail and Selected Service Business
in millions of $

	Alignment 1*	Alignment 2 & 3	Alignment 4	No Action
1992	$2.2	$2.2	$2.2	$2.6
1996	1.9	2.6	2.6	2.6
1998	2.7	0.7	0.7	2.7
2000	2.9	1.1	0.8	2.8
2005	3.4	2.1	0.9	3.1
2010	3.7	3.4	1.1	3.4
2015	4.6	4.6	1.2	3.7
Total 1996-2015	$68.0	$41.9	$18.0	$62.7

*Assumes Lane Configurations B and C to provide adequate highway capacity and desirable level-of-service (LOS) in order to minimize the effect of traffic congestion on business.

Part B
Estimated Personal Earnings Attributable to
Business Sales to Drive-Through Travelers
(total earnings are in parenthesis and include estimates of direct, indirect, and secondary earnings)
in millions of $

	Alignment 1	Alignment 2 & 3	Alignment 4	No Action
1992	$0.4 ($0.5)	$0.4 ($0.5)	$0.4 ($0.5)	$0.5 ($0.5)
1996	0.3 (0.4)	0.5 (0.6)	0.5 (0.6)	0.5 (0.6)
1998	0.5 (0.6)	0.1 (0.2)	0.1 (0.2)	0.5 (0.6)
2000	0.5 (0.6)	0.2 (0.2)	0.1 (0.2)	0.5 (0.6)
2005	0.6 (0.7)	0.4 (0.5)	0.2 (0.2)	0.6 (0.7)
2010	0.7 (0.9)	0.6 (0.7)	0.2 (0.2)	0.6 (0.7)
2015	0.8 (1.0)	0.8 (1.0)	0.2 (0.2)	0.7 (0.8)
Totals 1996-2015	$12.2 ($15.0)	$9.0 ($11.2)	$4.0 ($5.0)	$11.0 ($13.8)

Part C
Estimated Full-time Equivalent Employment Attributable to
Business Sales to Drive-Through Travelers
(total employment is in parenthesis and includes direct, indirect, and secondary employment)

	Alignment 1*	Alignment 2 & 3	Alignment 4	No Action
	Employment			
1992	26 (33)	26 (33)	26 (33)	26 (33)
1996	22 (28)	31 (38)	31 (38)	31 (38)
1998	32 (39)	9 (11)	9 (11)	31 (39)
2000	34 (42)	12 (15)	9 (11)	33 (41)
2005	39 (49)	24 (30)	11 (13)	36 (45)
2010	46 (58)	39 (49)	12 (16)	40 (50)
2015	54 (67)	54 (67)	15 (18)	44 (55)
Total 1996-2015	798 (997)	600 (749)	266 (333)	736 (920)

*Assumes Lane Configuration B and C (four-lane highways) will be necessary to provide adequate highway capacity and desirable LOS in order to minimize effect of traffic congestion on business. Assumes Lane Configuration A (two-lane highway) will be similar to No Action.

Ronan

Drive-through travelers are estimated to spend in excess of $7 million annually at Ronan business. During construction of Alignment 1, equipment movement, physical barriers, and temporary detours will interfere with traveler access to Ronan business and cause a short-term decrease in sales.

Once in operation, Alignment 1, with Lane Configuration A (two-lane highway), will have traffic congestion and limited potential for economic growth similar to No Action. Lane Configurations B and C (four-lane highways) will allow Ronan business to recapture lost sales and to participate fully in the expanding market created by increasing drive-through traffic on US 93.

Alignment 2 will develop a parallel one-way couplet, one block west of US 93. The couplet will route south bound traffic off of the existing US 93 corridor, and approximately halve the drive-through traveler market for business along the existing highway corridor. Depending on access control and land use planning and regulation, new business development will occur along the new section of highway, which will eventually recover lost business sales for the local economy. The couplet will result in a long-term decrease in the market available to business along the existing highway.

Alignments 3 and 4 will reroute traffic around to the west of Ronan. Highway oriented business along the existing corridor will experience a substantial decline in sales to highway travelers. Depending on access control and land use planning and regulation, new business development along Alignments 3 and 4 will slowly recover lost sales for the local economy.

No Action will continue to route highway travelers through the Ronan business district. No Action will result in further growth in local sales to travelers. However, worsening congestion will limit the ability of the local economy to participate fully in the growth of this market. Travelers will experience increasing difficulty in making left turns, and will defer purchases to business districts providing customers with more convenient access.

Table E-2
Local Economic Impact of US 93 Alternate Alignments on Ronan
for selected years 1992-2015

Part A
Estimated Business Sales to Drive-Through Travelers
for Retail and Selected Service Business
in millions of $

	Alignment 1	Alignment 2 & 3	Alignment 4	No Action
1992	$7.7	$7.7	$7.7	$7.7
1996	6.5	8.9	8.9	8.9
1998	9.2	5.9	2.8	9.1
2000	9.8	6.9	3.8	9.4
2005	11.3	10.1	7.1	10.4
2010	13.1	13.1	11.3	11.4
2015	15.2	15.2	15.2	12.4
Total 1996-2015	$228.5	$213.7	$174.1	$211.1

*Assumes Lane Configurations B and C to provide adequate highway capacity and desirable level-of-service (LOS) in order to minimize the effect of traffic congestion on business.

Part B
Estimated Personal Earnings Attributable to
Business Sales to Drive-Through Travelers
(total earnings are in parenthesis and include direct, indirect, and secondary earnings)
in millions of $

	Alignment 1	Alignment 2 & 3	Alignment 4	No Action
1992	$1.2 ($1.6)	$1.2 ($1.6)	$1.2 ($1.6)	$1.2 ($1.6)
1996	1.0 (1.3)	1.4 (1.2)	0.5 (0.6)	1.4 (1.9)
1998	1.4 (1.9)	1.1 (1.4)	0.6 (0.9)	1.4 (1.9)
2000	1.5 (2.0)	1.1 (1.4)	0.6 (0.9)	1.4 (1.9)
2005	1.7 (2.3)	1.5 (2.1)	1.1 (1.5)	1.6 (2.1)
2010	2.0 (2.7)	2.0 (2.7)	1.7 (2.3)	1.7 (2.3)
2015	2.3 (3.1)	2.3 (3.1)	2.3 (3.1)	1.9 (2.5)
Totals 1996-2015	$35.0 ($46.6)	$32.7 (43.5)	$30.4 (40.5)	$29.9 (39.8)

Part C
Full-time Equivalent Employment Attributable to
Business Sales to Drive-Through Travelers
(total employment is in parenthesis and includes direct, indirect, and secondary employment)

	Alignment 1*	Alignment 2 & 3	Alignment 4	No Action
	Employment			
1992	79 (105)	79 105)	79 (105)	79 (105)
1996	66 (88)	91 (121)	91 (121)	91 (121)
1998	94 (125)	60 (80)	32 (43)	93 (123)
2000	100 (133)	71 (94)	43 (57)	96 (128)
2005	116 (154)	103 (137)	75 (100)	106 (141)
2010	134 (178)	134 (178)	116 (155)	116 (155)
2015	155 (206)	155 (206)	155 (206)	127 (169)
Total 1996-2015	2,334 (3,014)	2,182 (2,092)	1,812 (2,410)	2,156 (2,867)

*Assumes Lane Configuration B and C (four-lane highways) will be necessary to provide adequate highway capacity and desirable LOS in order to minimize effect of traffic congestion on business. Assumes Lane Configuration A (two-lane highway) will be similar to No Action.

Polson

Drive-through travelers are estimated to spend in excess of $5 million annually at Polson business. Alignment 1 will cause a substantial, but short-term decrease in Polson business sales to travelers. During construction, the narrowness of the corridor will limit customer access to US 93 business, and many drive-through travelers will bypass the Polson business district altogether by using Montana Highway (MT) 35 to travel around Flathead Lake. Once constructed, Alignment 1 will allow Polson business to recapture lost sales and to participate fully in the expanding market created by increasing drive-through traffic on US 93.

Once in operation, Alignment 1, with Lane Configuration A (two-lane highway), will have traffic congestion and limited potential for economic growth similar to No Action. Lane Configurations B and C (four-lane highways) will allow Polson business to recapture lost sales and to participate fully in the expanding market created by increasing drive-through traffic on US 93.

Alignments 2 and 3 will have minimal impact on traveler expenditures in Polson. During initial years of operation, Alignments 2 and 3 will cause many drive-through travelers to drive around the Polson district. Eventually, new business development along the new corridor will cause the Polson economy to fully recover its share of the traveler market. New business development is likely to occur more quickly along Alignment 2 because of its closer proximity to Polson.

No Action will have the least positive long-term impact on the Polson economy. Worsening congestion and installation of addition traffic signals will slow travel times through Polson and prompt knowledgeable drive-through travelers to detour to MT 35. Congestion will also encourage persons to postpone purchases until they pass more accessible business.

Table E-3
Local Economic Impact of US 93 Alternate Alignments on Polson
for selected years 1992-2015

Part A
Estimated Business Sales to Drive-Through Travelers
for Retail and Selected Service Business
in millions of $

	Alignment 1	Alignment 2 & 3	Alignment 4	No Action
1992	$5.3	$5.3	$5.3	$5.3
1996	4.5	6.0	6.0	6.0
1998	6.3	4.1	3.3	6.2
2000	6.7	4.1	3.9	6.3
2005	7.8	6.7	5.8	6.5
2010	9.0	9.0	8.2	6.7
2015	10.5	10.5	10.5	6.7
Total 1996-2015	$157.2	$141.9	$132.2	$130.2

*Assumes Lane Configurations B and C to provide adequate highway capacity and desirable level-of-service (LOS) in order to minimize the effect of traffic congestion on business.

Part B
Estimated Personal Earnings Attributable to
Business Sales to Drive-Through Travelers
(total earnings are parenthesis and include direct, indirect, and secondary earnings)
in millions of $

	Alignment 1	Alignment 2 & 3	Alignment 4	No Action
1992	$1.0 ($1.3)	$1.0 ($1.3)	$1.0 ($1.3)	$1.0 ($1.3)
1996	1.0 (1.4)	1.4 (1.8)	1.4 (1.8)	1.4 (1.9)
1998	1.5 (1.9)	0.8 (1.0)	0.8 (1.0)	1.5 (1.9)
2000	1.5 (2.1)	1.0 (1.3)	0.9 (1.1)	1.5 (2.0)
2005	1.8 (2.4)	1.5 (2.0)	1.3 (1.8)	1.5 (2.0)
2010	2.1 (2.8)	2.1 (2.8)	1.9 (2.5)	1.5 (2.0)
2015	2.4 (3.2)	2.4 (3.2)	2.4 (3.2)	1.5 (2.0)
Totals 1996-2015	$36.2 ($48.1)	$32.6 (43.5)	$30.4 (40.5)	$29.9 (39.8)

Part C
Estimated Full-time Equivalent Employment Attributable to
Business Sales to Drive-Through Travelers
(total employment is in parenthesis and includes direct, indirect, and secondary employment)

	Alignment 1*	Alignment 2 & 3	Alignment 4	No Action
	Employment			
1992	61 (82)	61 (82)	61 (82)	61 (82)
1996	69 (91)	92 122)	92 (122)	92 (124)
1998	97 (129)	50 (67)	50 (67)	95 (127)
2000	103 (137)	63 (84)	60 (80)	97 (129)
2005	119 (159)	102 (136)	89 (118)	100 (133)
2010	138 (184)	138 (184)	125 (167)	102 (136)
2015	161 (213)	161 (213)	161 (213)	103 (137)
Total 1996-2015	2,413 (3,210)	2,179 (2,898)	2,029 (2,699)	1,997 (2,656)

*Assumes Lane Configuration B, C and D (four-lane highways) will be necessary to provide adequate highway capacity and desirable LOS in order to minimize effect of traffic congestion on business. Assumes Lane Configuration A (two-lane highway) will be similar to No Action.

Business Survey

U.S 93 – POLSON BUSINESS SURVEY

Name of Business_____
Address_____

BUSINESS CHARACTERISTICS

1. What is the nature of your business (for example, grocery store, motel, sporting goods store)?

_____

Sectors:			
Construction	10%	Medical	7%
Finance	13%	Retail	38%
Government	5%	Service	19%
Industrial	6%		

2a. How many hours a day is your business open during the summertime? _____ hrs/day
b. How many hours a day is your business open during the off season? _____ hrs/day

	Average Hours Per Day	
	summertime	off season
All Bus.	11.0	9.8
Ret. & Serv.	12.2	10.8
Ret. & Serv. on 93	14.5	12.3
Ret. & Serv. off 93	10.7	9.7

3. Where is your business located relative to U.S. 93?

	All Bus	Ret & Srv	Ret&Srv on 93	Ret&Srv off 93
___ adjacent to and facing U.S. 93 in Polson.	28%	41%	100%	0%
___ within a block of U.S. 93.	20%	21%		36%
___ other location in Polson.	26%	25%		42%
___ on U.S. 93 outside of Polson.	8%	10%		17%
___ outside of Polson and not on U.S. 93.	7%	3%		6%

	All Bus	Ret & Srv	Ret&Srv on 93	Ret&Srv off 93
4a. Where do most of your customers park?				
___ parking lot in front of business.	54%	64%	92%	44%
___ other parking lot.	8%	7%	4%	8%
___ customers park on the street.	35%	30%	4%	47%

b. From what street do most customers turn into your parking lot?_____

All Bus	Ret & Srv	Ret&Srv on 93	Ret&Srv off 93

	All Bus	Ret & Srv	Ret&Srv on 93	Ret&Srv off 93
Percent identifying US 93:	38%	54%	92%	28%

c. What street do your customers most frequently use for on-%street parking?_____

	All Bus	Ret & Srv	Ret&Srv on 93	Ret&Srv off 93
Percent identifying US 93:	9%	13%	28%	3%

5. What stage of development would you classify your business?

	All Bus	Ret & Srv	Ret&Srv on 93	Ret&Srv off 93
___ start-up stage	0%	0%	0%	0%
___ growing business stage	24%	26%	20%	31%
___ mature, more stable business stage	74%	74%	80%	69%

6. What was the approximate dollar volume of this business in 1992? $_____

76% of businesses responded

7. How does your 1992 business volume compare with previous years?

	best ever ☐	above average ☐	average ☐	below average ☐	worst ever ☐
All Bus.	25%	35%	30%	8%	0%
Ret & Srv	31%	28%	30%	12%	0%
Ret & Srv on 93	36%	24%	36%	4%	0%
Ret & Srv off 93	28%	31%	25%	17%	0%

8. What was your <u>typical</u> number of paid employees in 1992? Please include yourself and owners and owner family members being paid by the business)?

number of summertime employees:	full-time_____	part-time_____
All Bus.	7.8	3.7
Ret & Srv	6.5	3.8
Ret & Srv on 93	8.8	5.2
Ret & Srv off 93	4.9	2.8

number of off-season employees:	full-time_____	part-time_____
All Bus.	7.8	2.8
Ret & Srv	4.9	2.4
Ret & Srv on 93	5.9	3.2
Ret & Srv off 93	4.1	2.6

9. What are the most effective ways you advertise your business to potential customers?

	All Bus	Ret & Srv	Ret&Srv on 93	Ret&Srv off 93
___Local Newspaper	35%	44%	40%	47%
___Regional Newspaper	7%	5%	8%	3%
___Radio	26%	28%	28%	28%
___Television	9%	10%	16%	6%
___Billboards	15%	25%	40%	19%
___On Premise Signs	29%	43%	64%	28%
___Direct Mailings	15%	16%	16%	17%
___Telephone Book	35%	34%	28%	39%
___Posters 3 other businesses	7%	7%	8%	6%
___Chamber of Commerce publications	6%	8%	0%	13%
___Word of mouth, customer referrals	70%	69%	64%	25%
___Business location is main advertisement	32%	43%	68%	25%
___Other (explain_____)	7%	8%	4%	11%
___Do not advertise	8%	3%	0%	6%

10. Do you expect your business volume to increase or decrease in the next 5 years.

	Bus	Srv	All on 93	Ret & off 93	Ret&Srv	Ret&Srv
___ business will increase substantially (e.g. grow at +10% or more a year).			22%	26%	12%	36%
___ business will increase steadily (e.g. grow +5% a year).			39%	34%	44%	31%
___ business will increase slowly (e.g. grow +1% to +2% a year).			32%	30%	32%	28%
___ business will stay about the same.			5%	5%	8%	3%
___ business will decrease slightly (e.g. decline at -1% to -2 % a year)			2%	2%	0%	3%
___ business will decrease substantially (e.g. decline at -5% or more a year)			0%	0%	0%	0%

11. In the next 5 years do you expect to do any of the following:	All Bus	Ret & Srv	Ret&Srv on 93	Ret&Srv off 93
___move business to another location.	3%	5%	4%	6%
___add additional business space at existing location.	30%	33%	36%	31%
___increase number of employees.	40%	44%	40%	47%
___sell business.	13%	13%	8%	17%
___close down business without selling.	2%	3%	4%	3%

THE POLSON BUSINESS MARKET

1. What percent of your annual business volume comes from the following customer groups?

		All Bus	Ret & Srv	Ret&Srv on 93	Ret&Sr off 93
drive-through tourists and travelers	____%	10%	17%	24%	12%
tourists intending to spend time in Polson	____%	7%	10%	11%	10%
seasonal residents of Lake County	____%	19%	19%	20%	19%
year-round residents of Lake County	____%	62%	54%	45%	59%

2. Please rate the level of business activity at your business during different months of 1992.

Index: 1=Very Busy ... 5=Very Slow

	Very Busy	Busy	Moderately Busy	Slow	Very Slow	All Bus	Ret & Srv	Ret&Srv on 93	Ret&Sr off 93
Jan.	___	___	___	___	___	3.3	3.7	3.8	3.6
Feb.	___	___	___	___	___	3.2	3.6	3.9	3.5
Mar.	___	___	___	___	___	2.9	3.2	3.5	3.0
April	___	___	___	___	___	2.4	2.9	3.3	2.5
May	___	___	___	___	___	2.2	2.4	3.3	2.5
June	___	___	___	___	___	1.9	2.0	2.6	2.1
July	___	___	___	___	___	1.6	1.4	1.2	1.5
Aug.	___	___	___	___	___	1.7	1.4	1.2	2.0
Sep.	___	___	___	___	___	2.0	2.1	1.2	2.0
Oct.	___	___	___	___	___	2.4	2.6	2.1	2.5
Nov.	___	___	___	___	___	2.7	2.9	3.2	2.7
Dec.	___	___	___	___	___	2.8	3.0	3.2	2.9

3. About what percent of the business's annual volume occurs during the following seasons?

Winter_____% Spring_____% Summer_____% Fall_____%

All Bus.	18%	15%	13%	16%
Ret & Srv	22%	20%	23%	20%
Ret & Srv on 93	37%	44%	48%	41%
Ret & Srv off 93	21%	21%	19%	22%

4. Where are your major competitors located (check all those that apply)?

	All Bus	Ret & Srv	Ret&Srv on 93	Ret&Sr off 93
___ on U.S. 93 in Polson	30%	46%	60%	36%
___ elsewhere in Polson	41%	30%	32%	28%
___ Ronan	22%	20%	16%	22%
___ Big Fork	7%	7%	4%	8%
___ Missoula	29%	38%	28%	44%
___ Kalispell	30%	34%	24%	42%
___ outside of Polson on US 93	11%	15%	12%	17%
___ other	9%	5%	4%	6%

5. Do you feel you have a competitive advantage because of your business's location?

Yes ☐ Maybe ☐ No ☐ Don't Know ☐

All Bus.	44%	19%	28%	6%
Ret & Srv	56%	21%	16%	7%

Ret & Srv on 93	88%	12%	0%	0%
Ret & Srv off 93	33%	28%	28%	11%

If yes, explain:_____

TRAFFIC ISSUES

1a. Does traffic congestion on U.S. 93 restrict potential customers from accessing your business?

	All Bus	Ret & Srv	Ret&Srv on 93	Ret&Sr off 93
DURING SUMMER				
___congestion is frequently a problem	17%	15%	20%	11%
___congestion is occasionally a problem	30%	36%	44%	33%
___congestion is not a problem	46%	43%	36%	47%
DURING OFF SEASON				
___congestion is frequently a problem	7%	5%	12%	0%
___congestion is occasionally a problem	15%	15%	16%	14%
___congestion is not a problem	71%	75%	68%	81%

b. As travel increases on U.S. 93, will traffic congestion become more of a problem for your business?

	All Bus	Ret & Srv	Ret&Srv on 93	Ret&Sr off 93
Yes___	30%	31%	40%	11%
No___	39%	34%	36%	33%
Not Sure___	30%	33%	24%	47%

c. Will increased traffic will be good for your business even if there is more congestion?

	All Bus	Ret & Srv	Ret&Srv on 93	Ret&Sr off 93
Yes___	41%	61%	80%	47%
No___	30%	20%	12%	25%
Not Sure___	28%	20%	8%	28%

2a. Does truck traffic interfere with customers trying to access your business?

	All Bus	Ret & Srv	Ret&Srv on 93	Ret&Sr off 93
___Yes, trucks frequently interfere with customer access.	9%	8%	8%	8%
___Yes, trucks occasionally interfere with customer access.	21%	26%	32%	22%
___No, trucks do not interfere with customer access.	67%	62%	60%	64%

b. If large trucks using U.S. 35 were to be rerouted on to U.S 93 through Polson, what effect would it have on your business?

	Very Positive ☐	Positive ☐	Neutral (no effect) ☐	Negative ☐	Very Negative ☐
All Bus.	4%	7%	57%	20%	10%
Ret & Srv	7%	10%	49%	23%	12%
Ret & Srv on 93	12%	20%	32%	28%	8%
Ret & Srv off 93	3%	3%	61%	19%	14%

COMPARING HIGHWAY ALTERNATIVES

What effect would the following U.S. 93 alternatives have on your business?

1.U.S. 93 Rebuild Alternative

Improve and widen existing highway to 4 lanes and add traffic signals and turn lanes where appropriate. Widening would likely take some land currently used for business driveways and parking. On-street parking would be disallowed.

	Very Positive ☐	Positive ☐	Neutral ☐	Negative ☐	Very Negative ☐
All Bus.	23%	18%	32%	8%	11%
Ret & Srv	30%	21%	21%	10%	10%
Ret & Srv on 93	44%	24%	8%	12%	12%
Ret & Srv off 93	22%	19%	31%	8%	8%

2. One-way Street (Couplet) Alternative

Rebuild 3rd or 4th Ave to handle southbound highway traffic (existing U.S. 93 would serve northbound traffic only).

	Very Positive ☐	Positive ☐	Neutral ☐	Negative ☐	Very Negative ☐
All Bus.	7%	8%	40%	19%	23%
Ret & Srv	12%	7%	39%	21%	20%
Ret & Srv on 93	12%	8%	44%	24%	12%
Ret & Srv off 93	11%	6%	36%	19%	25%

3. Bypass Alternatives

a. Build new 4-lane highway through center of city (generally following 11th and 7th Avenues, with new bridge at 7th Ave and river).

	Very Positive ☐	Positive ☐	Neutral ☐	Negative ☐	Very Negative ☐
All Bus.	7%	10%	35%	8%	28%
Ret & Srv	8%	15%	23%	10%	36%

Ret & Srv on 93	4%	8%	20%	12%	44%
Ret & Srv off 93	11%	19%	25%	8%	30%

b. Build new 4-lane highway along base of Polson Hill to Kerr Dam Road, and Kerr Dam Road to river, with new bridge at river.

	Very Positive ☐	Positive ☐	Neutral ☐	Negative ☐	Very Negative ☐
All Bus.	15%	16%	31%	11%	24%
Ret & Srv	8%	16%	21%	16%	34%
Ret & Srv on 93	8%	8%	20%	16%	48%
Ret & Srv off 93	8%	22%	22%	17%	25%

c. Build new 4-lane highway south and west of city (generally following Caffrey Road and Kerr Dam Road, with new bridge at Kerr Dam Road and river).

	Very Positive ☐	Positive ☐	Neutral ☐	Negative ☐	Very Negative ☐
All Bus.	13%	13%	29%	14%	27%
Ret & Srv	10%	13%	16%	18%	39%
Ret & Srv on 93	4%	8%	16%	12%	60%
Ret & Srv off 93	14%	17%	17%	22%	25%

4. Truck Route Alternative

a. Build new truck route west of Polson (outside of city). Existing route would retain status as U.S. 93.

	Very Positive ☐	Positive ☐	Neutral ☐	Negative ☐	Very Negative ☐
All Bus.	14%	19%	41%	13%	9%
Ret & Srv	13%	18%	34%	20%	12%
Ret & Srv on 93	16%	24%	20%	24%	16%
Ret & Srv off 93	11%	14%	44%	17%	8%

5. No Action Alternative

a. Make no changes in existing Hwy 93 (Highway would stay as is).

	Very Positive ☐	Positive ☐	Neutral ☐	Negative ☐	Very Negative ☐
All Bus.	10%	7%	22%	22%	21%
Ret & Srv	16%	10%	26%	20%	21%
Ret & Srv on 93	28%	12%	32%	8%	16%
Ret & Srv off 93	8%	8%	22%	28%	25%

MISCELLANEOUS QUESTIONS

1. If most through traffic on U.S. 93 were to be rerouted south and west of Polson (e.g. along Kerr Dam Road), how much would it increase or decrease your annual business volume?

% INCREASE IN BUSINESS — % DECREASE IN BUSINESS

__+50% (or more) __+40% __+30% __+20% __+10% __0% (no effect) __-10% __-20% __-30% __-40% __-50% (or more)

	Mean (Average) Response
All Bus.	- 7%
Ret & Srv	- 13%
Ret & Srv on 93	- 24%
Ret & Srv off 93	- 5%

2. Would rerouting of most U.S. 93 traffic south and west of Polson cause you to:

	Yes	No	Not Sure	All Bus	Ret & Srv	Ret&Srv on 93	Ret&Sr off 93
increase number of employees	—	—	—	3%	2%	0%	3%
decrease number of employees	—	—	—	17%	30%	56%	11%
expand size of business or inventory	—	—	—	4%	2%	0%	3%
reduce size of business or inventory	—	—	—	15%	25%	44%	11%
close down business	—	—	—	3%	5%	8%	3%
relocate business to new highway	—	—	—	2%	3%	8%	0%

3. How would <u>new commercial development</u> along a Bypass Highway affect your business?

	Very Positive ☐	Positive ☐	Neutral (no effect) ☐	Negative ☐	Very Negative ☐
All Bus.	3%	15%	55%	16%	11%
Ret & Srv	3%	15%	43%	21%	16%
Ret & Srv on 93	0%	0%	36%	24%	40%
Ret & Srv off 93	6%	25%	47%	19%	0%

4. If large <u>trucks were routed outside of Polson</u>, what effect would it have on your business?

	Very Positive ☐	Positive ☐	Neutral ☐	Negative ☐	Very Negative ☐
All Bus.	6%	19%	68%	5%	2%
Ret & Srv	5%	26%	57%	7%	3%
Ret & Srv on 93	4%	28%	48%	12%	4%
Ret & Srv off 93	6%	25%	64%	3%	3%

5. Do you support local zoning to restrict new commercial development along a <u>Bypass</u> or <u>Truck Route</u>?

	Strongly Support ☐	Support ☐	Neutral/ Undecided ☐	Oppose ☐	Strongly Oppose ☐
All Bus.	36%	23%	28%	7%	6%
Ret & Srv	46%	13%	23%	8%	8%
Ret & Srv on 93	36%	4%	32%	16%	8%
Ret & Srv off 93	53%	19%	17%	3%	8%

6. Are there street, sidewalk or parking lot improvements to exisitng U.S. 93 which you feel would provide an asset to your business?

	All Bus	Ret & Srv	Ret&Srv on 93	Ret&Sr off 93
___ new sidewalk construction	20%	20%	20%	19%
___ sidewalk widening	8%	6%	4%	8%
___ landscaping/streetscaping	27%	33%	20%	42%
___ public parking areas	25%	30%	16%	39%
___ pedestrian crossing improvements	34%	39%	52%	21%
___ other_____	13%	13%	16%	11%

IMPACTS OF HIGHWAY DESIGNATIONS ON TRAVEL PATTERNS

1. How would the following highway designations affect travel patterns by drive-through tourist and traveler customers?

a. New highway would be designated as a TRUCK ROUTE, existing highway would retain status as U.S. 93. Through trucks would be restricted from driving through Polson business district.

	All Bus	Ret & Srv	Ret&Srv on 93	Ret&Sr off 93
___most customers would use the new "Truck Route."	15%	13%	24%	14%
___customers would be evenly split between "Truck Route" and existing "U.S. 93.	31%	36%	40%	33%
___most customers would continue using existing "U.S. 93."	43%	43%	32%	50%

b. New highway would be designated as U.S. 93 BYPASS, existing highway would be designated as BUSINESS ROUTE 93. Highway signs would advertise full services on Business 93 in Polson.

	All Bus	Ret & Srv	Ret&Srv on 93	Ret&Sr off 93
___most customers would use "Bypass Highway."	24%	30%	36%	25%
___customers would be evenly split between "Bypass Highway" and "Business 93"	30%	36%	36%	33%
___most customers would continue using "Business Highway 93" (existing highway).	34%	31%	24%	36%

c. New highway would be designated as U.S. 93 BYPASS, existing highway would become "SCENIC HIGHWAY 93." Highway signs would advertise scenic drive and full services in Polson, and restrict trucks in city.

	All Bus	Ret & Srv	Ret&Srv on 93	Ret&Sr off 93
__most customers would use the new "Bypass Highway."	21%	25%	28%	22%
__customers would be evenly split between "Bypass Highway" and "Scenic Highway 93"	31%	38%	48%	31%
__most customers would continue using "Scenic Highway 93" (existing highway).	36%	34%	20%	44%

POLSON AS A DESTINATION RESORT

1. In the next decade, do you expect Polson to become a much more significant "destination resort" area?

__ visitors with Polson as a destination will increase substantially (e.g. grow at +10% or more a year).
__ visitors with Polson as a destination will increase steadily (e.g. grow +5% or more a year).
__ visitors with Polson as a destination will increase slowly (e.g. grow at +1% to 2% a year).
__ visitors with Polson as a destination will stay about the same.
__ local tourism will never be important, Polson will always be a drive-through community for persons traveling to other destinations.

	All Bus	Ret & Srv	Ret&Srv on 93	Ret&Sr off 93
visitors will increase substantially	32%	28%	24%	31%
visitors will increase steadily	36%	39%	40%	39%
visitors will increase slowly	24%	23%	24%	22%
visitors will stay about the same	1%	2%	4%	0%
will always be a drive-through community	3%	2%	4%	0%

2. What effect will maintaining U.S. 93 at its present location have on long-term of development of Polson as a destination resort?

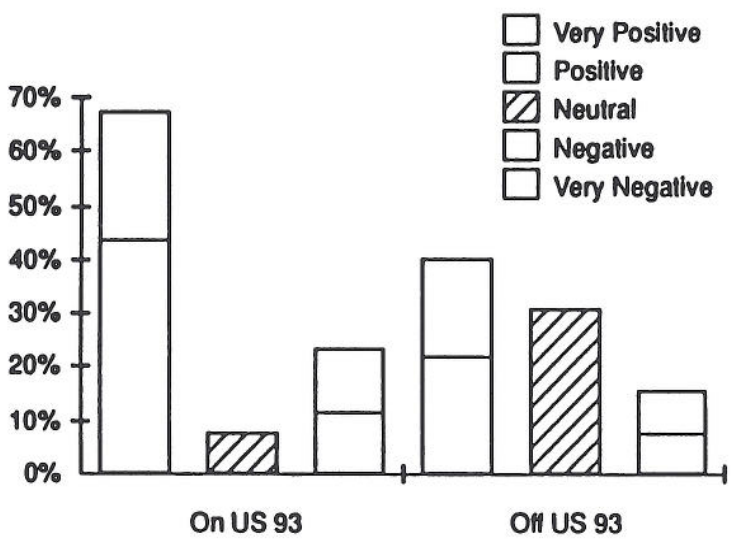
	Very Positive ☐	Positive ☐	Neutral (no effect) ☐	Negative ☐	Very Negative ☐
All Bus.	9%	19%	23%	23%	13%
Ret & Srv	25%	23%	25%	25%	12%
Ret & Srv on 93	24%	28%	28%	28%	9%
Ret & Srv off 93	25%	19%	22%	19%	14%

3. What effect will relocation of U.S. 93 away from the lake have on long-term development of Polson as a destination resort (new highway is assumed to provide travelers with a long distance view of lake)?

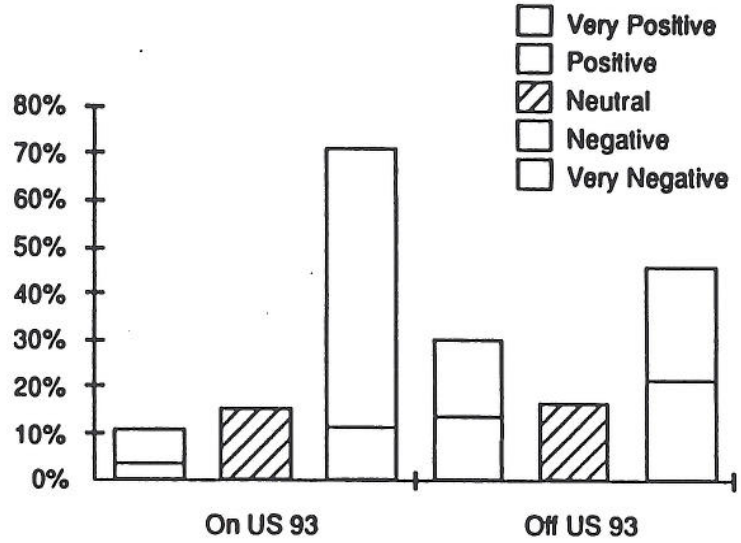
	Very Positive ☐	Positive ☐	Neutral (no effect) ☐	Negative ☐	Very Negative ☐
All Bus.	12%	30%	22%	18%	17%
Ret & Srv	7%	28%	21%	21%	21%
Ret & Srv on 93	0%	20%	28%	24%	28%
Ret & Srv off 93	3%	11%	33%	17%	17%

PLEASE USE THE REST OF THIS PAGE TO MAKE ADDITIONAL SUGGESTIONS AND COMMENTS

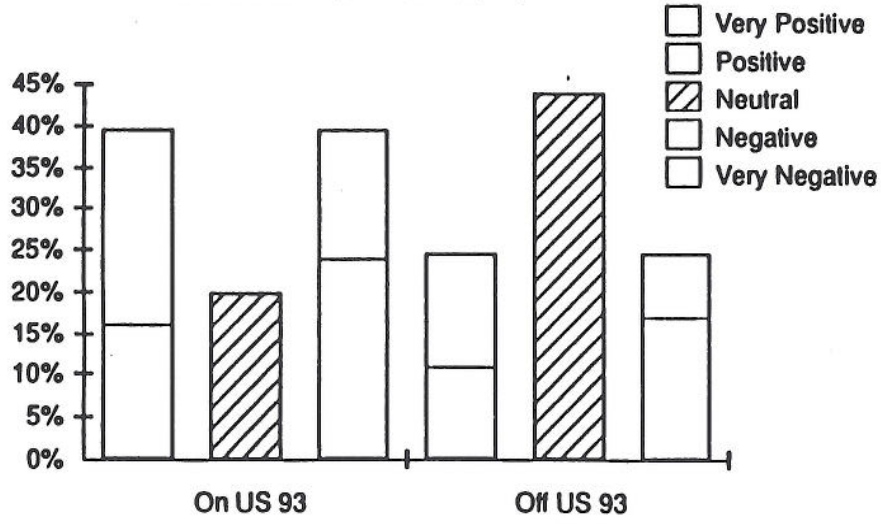
Alternative 1 • Rebuild US 93



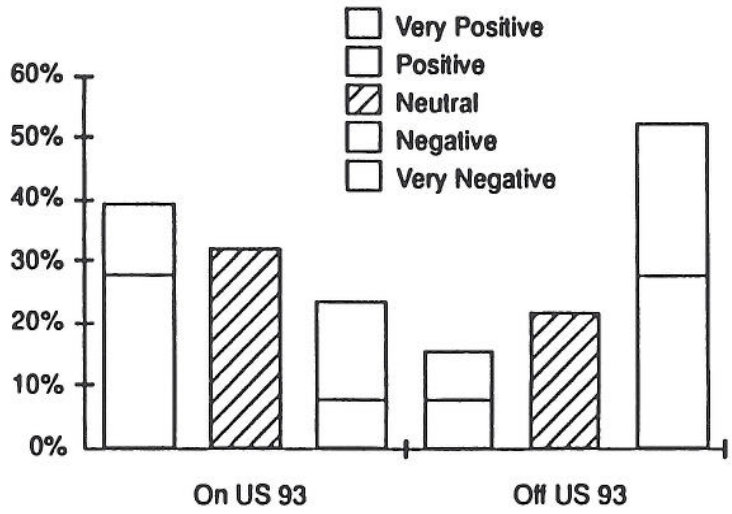
Alternative 2 • Bypass



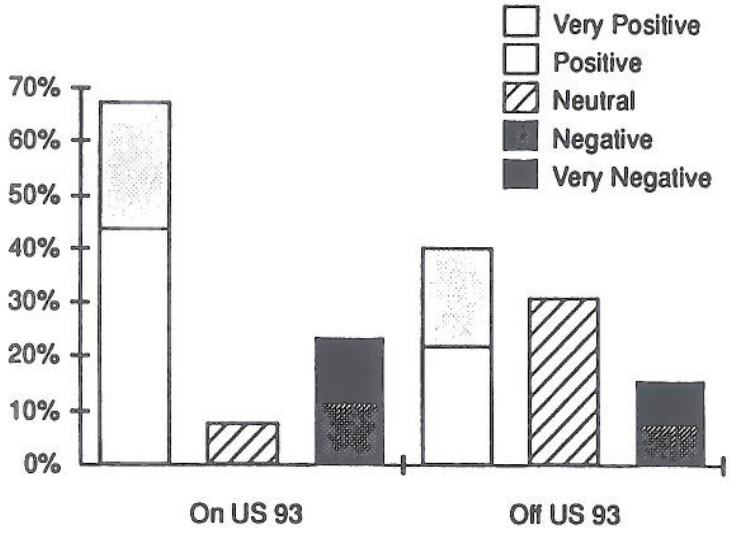
Truck Route Alternative



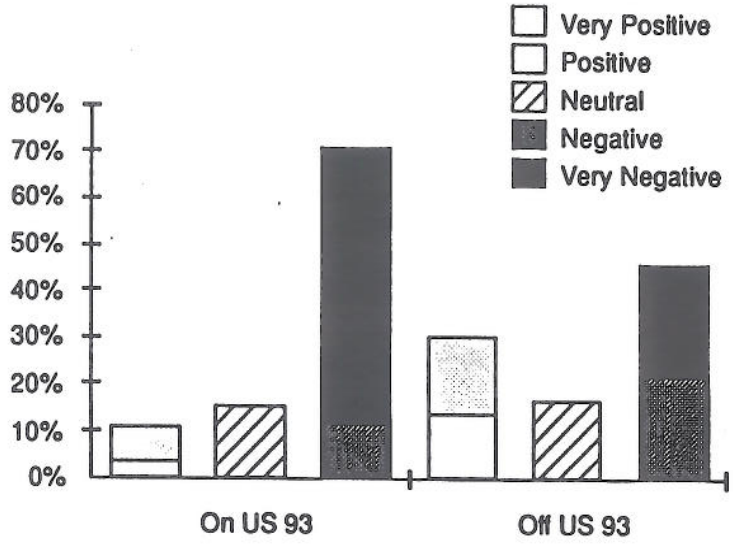
No Action Alternative



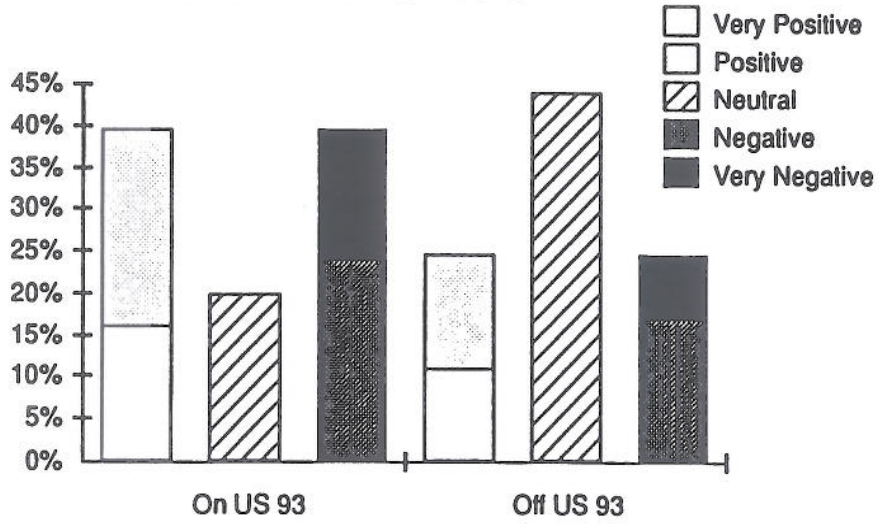
Alternative 1 • Rebuild US 93



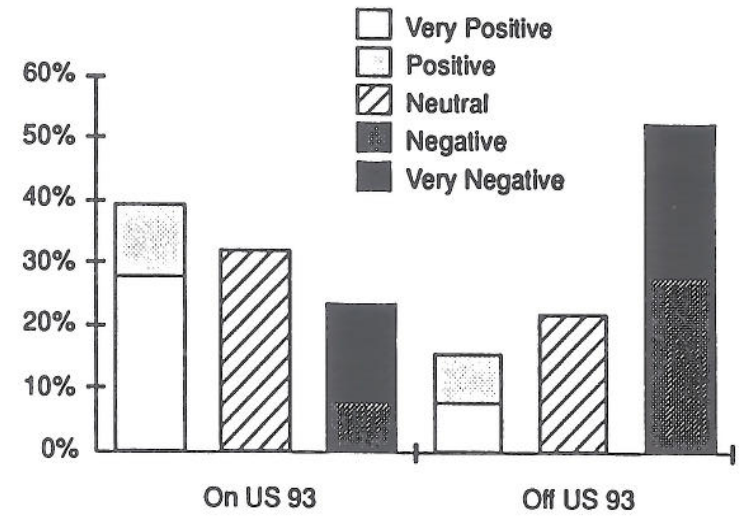
Alternative 2 • Bypass



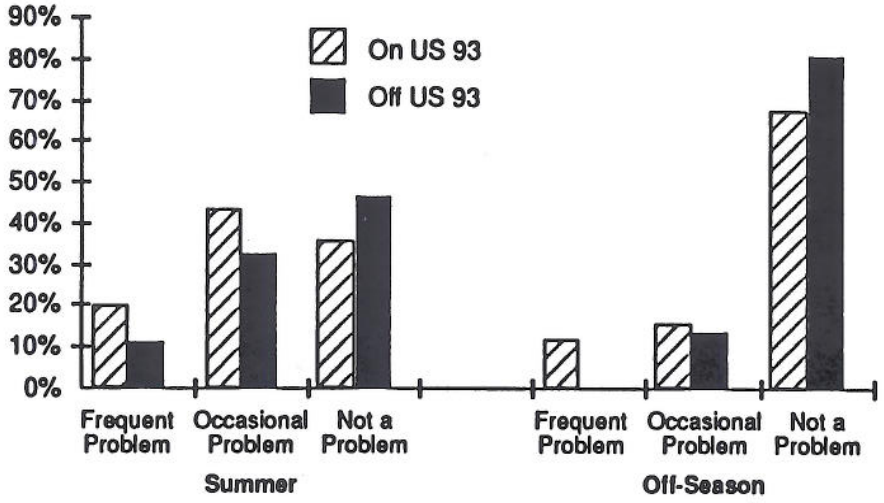
Truck Route Alternative



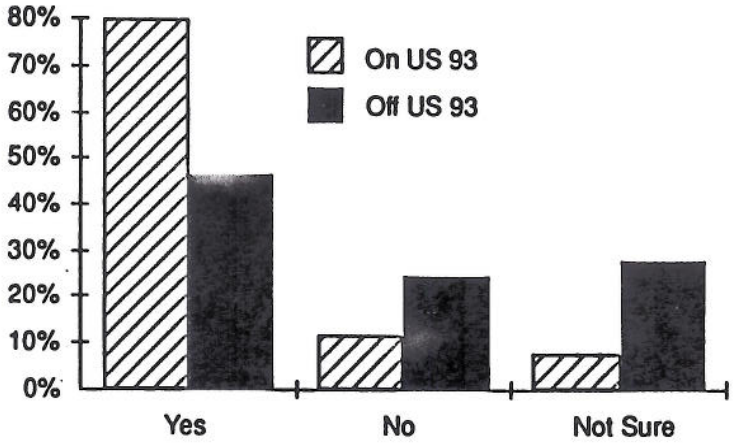
No Action Alternative



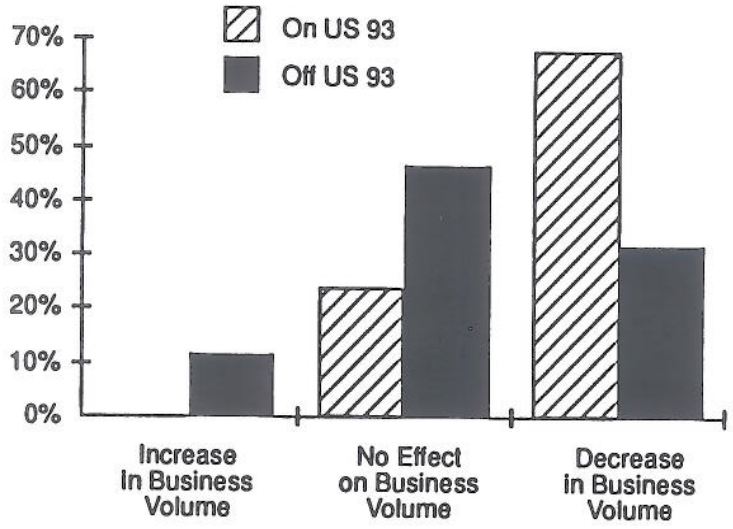
Access to Businesses Restricted by Congestion on US 93



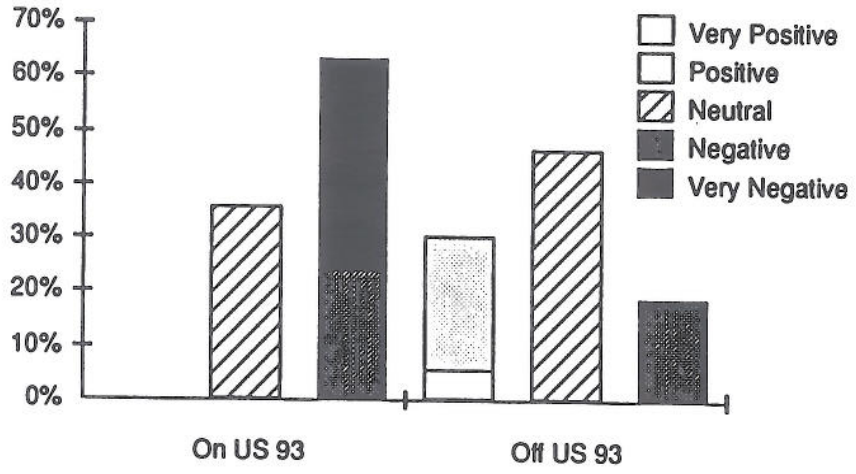
Increase in Congestion on US 93 Good for Business



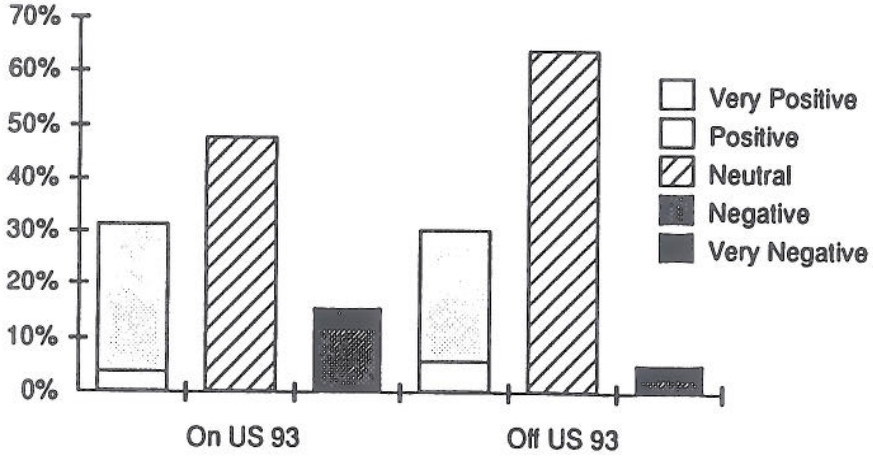
Effect of Alternative 2 on Businesses



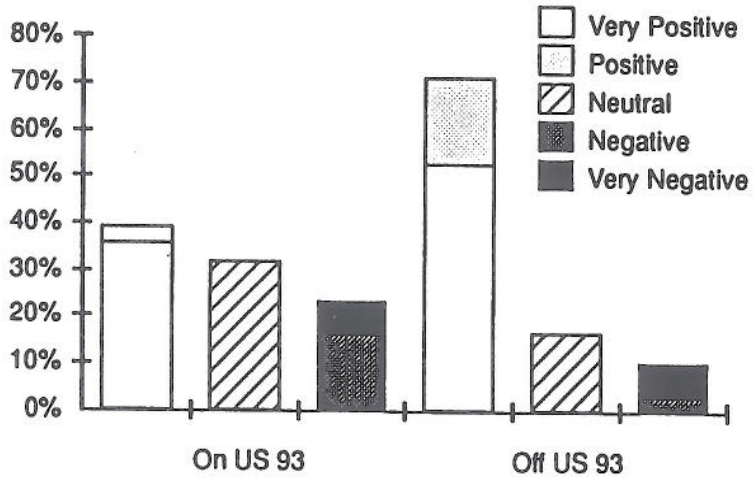
Effect of Commercial Development along Bypass on Businesses

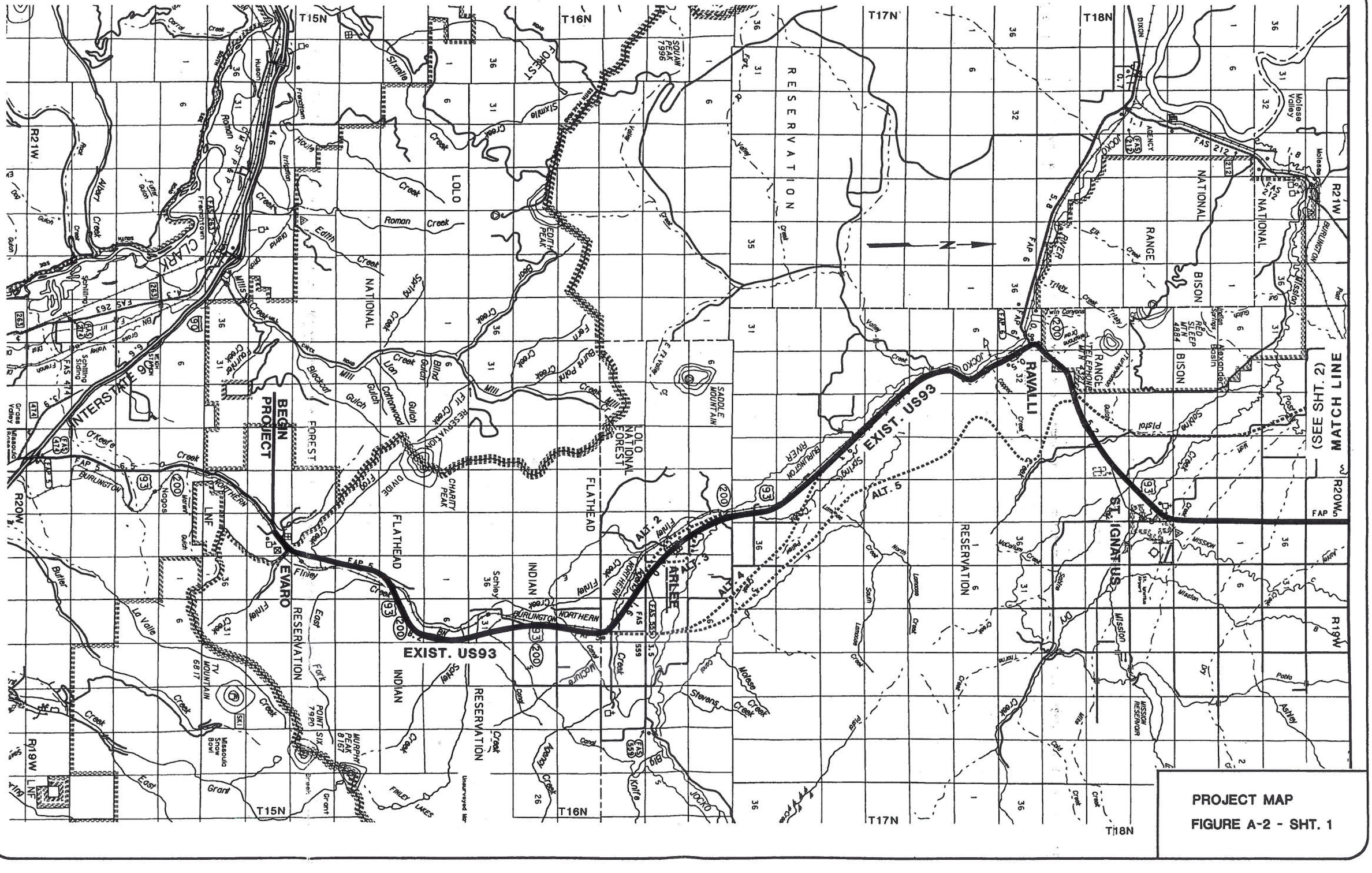


Effect of Routing Trucks to Bypass on Businesses



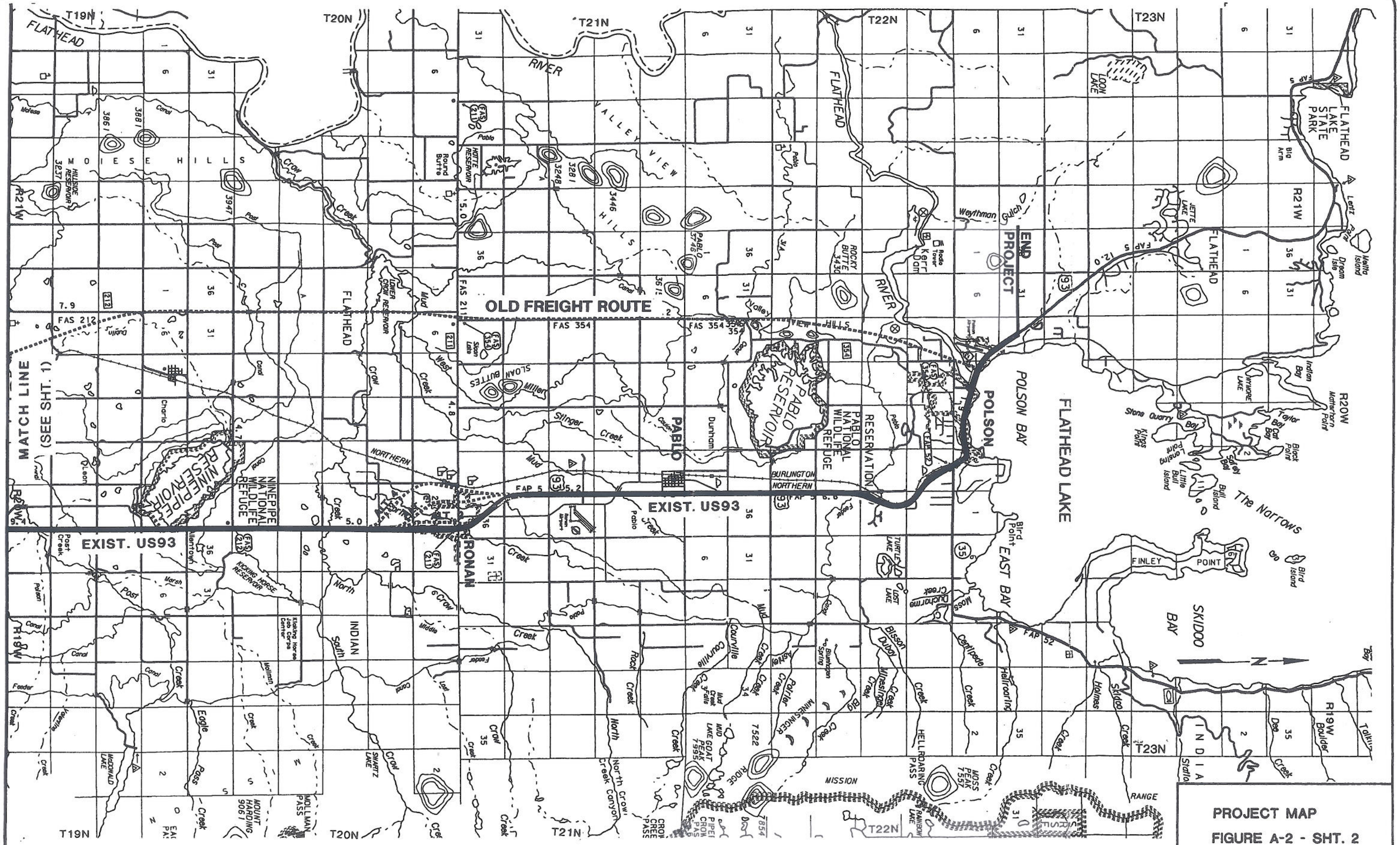
Support of Zoning Restrictions for Commercial Development on Bypass or Truck Route





PROJECT MAP

FIGURE A-2 - SHT. 1


T19N
T20N
T21N
T22N
T23N
R21W
R20W
R19W
FLATHEAD
RIVER
VALLEY VIEW HILLS
MOISE HILLS
OLD FREIGHT ROUTE
FAS 212
FAS 354
FAS 211
EXIST. US93
END PROJECT
POLSON
FLATHEAD LAKE
POLSON BAY
EAST BAY
SKIDOO BAY
FINLEY POINT
The Narrows
FLATHEAD LAKE STATE PARK
JETTE LAKE
LOON LAKE
Weythman Gulch
Crow Creek
Mud Creek
Pablo
Dublin
Post Creek
Dunham
Stinger Creek
Courville Creek
Rock Creek
Eagle Creek
Big Creek
Holmes Creek
Skidoo Creek
Deo Creek
Hellroaring Creek
Bisson Creek
Dubois Creek
Centipede Creek
Duck Farm Creek
Moss Creek
Indian Creek
Ridge
Mission Range
Hillside Reservoir
Hotte Reservoir
Round Butte
Pablo Reservoir
Lower Crow Reservoir
Sloan Lake
Ninepipe Reservoir
Moiese Canal
Crow Creek Canyon
Pablo National Wildlife Refuge
Ninepipe National Wildlife Refuge
Moiese Hills
Valley View Hills
Rocky Butte 3430
Pablo 3746
Sloan Buttes
Mud Lake Goat 7595
Moss Peak 7557
Mount Harding 9061
Swartz Lake
McDonald Lake
Rainbow Lake
Turtle Lake
Lost Lake
Bird Point
Stone Quarry Bay
Kings Point
Black Point
Bull Island
Little Bull Island
Indian Bay
Talkuin Bay
Boulder
Dream Isle
Wyman Lake
Taylor Bay
Carl Bay
Golden Bay
Big Arm
Healy Island
Bird Island
Kerr Dam
Radio Tower
Ronan
Moiese
Charlo
Dixon
Polson
Elmo
Arlee
Valley View
Camp Creek
Middle Crow
North Crow
South Crow
Feeder Canal
Post Canal
Pablo Feeder Canal
Hillside Reservoir 3837
Hotte Reservoir 3281
Round Butte 3248
Pablo 3746
Rocky Butte 3430
Sloan Lake 3547
Mud Lake Goat 7595
Moss Peak 7557
Mount Harding 9061
Ridge 7522
Swartz Lake 7854
Rainbow Lake 3100
Lower Crow Reservoir 3615
Ninepipe Reservoir 3237
Moiese Hills 3881
Moiese Hills 3947
Valley View Hills 3446
Valley View Hills 3281
Moiese Hills 3861
Moiese Hills 3881
Moiese Hills 3947
Valley View Hills 3615
Valley View Hills 3446
Valley View Hills 3281
Valley View Hills 3248
Moiese Hills 3237

MASTER FILE
COPY

FHWA-MT-EIS-95-01-F

F 5-1(9)6 U.S. Highway 93
Evaro - Polson
Missoula and Lake Counties, Montana

FINAL
ENVIRONMENTAL IMPACT STATEMENT
and
SECTION 4(f) EVALUATION

Volume II

Submitted Pursuant To 42 U.S.C 4332(2)(C);
49 U.S.C. 303; MEPA 2-3-104 and 75-1-101
and Executive Order 11990

U.S. Department of Transportation
Federal Highway Administration
and
Montana Department of Transportation

Cooperating Agencies

U.S. Environmental Protection Agency
U.S. Department of Health and Human Services
Confederated Salish and Kootenai Tribes
Advisory Council on Historic Preservation
U.S. Bureau of Reclamation
U.S. Fish and Wildlife Service
U.S. Soil Conservation Service
U.S. Army Corps of Engineers
U.S. Bureau of Indian Affairs
U.S. Department of Housing
and Urban Development

Introduction

In Volume II, the term preferred alternative refers to the Montana Department of Transportation's (MDT) Preferred Alternative, unless otherwise noted.

Volume II presents information about the public hearing and comments received from governmental agencies and the public about the draft environmental impact statement (EIS). Comments and responses to comments are organized in three general categories:

- Written comments from governmental agencies
- Written public comments received before, at and after sessions of the public hearing
- Oral testimony received at sessions of the public hearing in Arlee, St. Ignatius, Pablo and Polson

Each category of comment is organized with three sections of information:

1. An index of the comments received

   The pages for the index are on white paper

2. Copies, summaries or descriptions of the comments received

   These pages are on yellow paper

3. Responses to the comments

   The pages for the responses to comments are on green paper

Comments and responses are numbered, beginning with governmental agencies, then written public comments, and concluding with oral testimony. Each comment with a number has a corresponding number for its response. Agency comments and responses have a prefix "*A-*" prior to the number. Public written comments and oral testimony do not have a prefix preceding the number.

Categories of comment and response are identified at the top of each page, where appropriate.

Table of Contents: Volume II

Section

1. Public Notices For Public Hearing

2. Agency Comment

2.1 Index Of Written Public Comment
2.2 Agency Comment
2.3 Response To Agency Comment

3. Written Public Comment

3.1 Index Of Written Public Comment
3.2 Written Public Comment
3.3 Response To Written Public Comment

4. Oral Testimony Received At Public Hearing

4.1 Index Of Oral Testimony Received At Public Hearing
4.2 Summary Of Public Hearing And Oral Testimony Received At Public Hearing
4.3 Response To Oral Testimony Received At Public Hearing

1. Public Notices For Public Hearing

The following notice of the filing of the Draft Environmental Impact Statement and Section 4(f) Evaluation FHWA-MT-EIS-95-01-D for a project on US Highway 93 from Evaro through Polson in Missoula and Lake Counties, Montana was published in the Federal Register / Vol. 60, No. 52 / Friday, March 17, 1995 / Notices, Page 14433

> *EIS No. 950079, DRAFT EIS, FHW, MT,*
> *US 93 Highway Transportation Project, Improvements between Evaro and Polson, Funding and COE Section 404 Permit, Missoula and Lake Counties, MT, Due: May 08, 1995. Contact: Joel Marshik (406) 444-7632*

1. Public Notices For Public Hearing

A Notice Of Availability Of Draft Environmental Impact Statement And Section 4(f) Evaluation and A Notice of Public Hearing For U.S. Highway 93, Evaro-Polson, Montana F 5-1(9)6, March 16, 1995 were published in three newspapers on the referenced dates:

Char-Koosta News, a newspaper of general circulation, published in Pablo, Lake County, Montana on:

24 March 1995

07 April 1995

Lake County Leader, a newspaper of general circulation, published in Polson, Lake County, Montana on:

30 March 1995

14 April 1995

The Missoulian, a daily newspaper of general circulation, published in Missoula, Missoula County, Montana on:

24 March 1995

11 April 1995

NOTICE OF AVAILABILITY OF
DRAFT ENVIRONMENTAL IMPACT STATEMENT AND SECTION 4(f) EVALUATION
AND NOTICE OF PUBLIC HEARING
FOR U.S. HIGHWAY 93, EVARO - POLSON, MONTANA, F 5-1(9)6
March 16, 1995

The Federal Highway Administration (FHWA) and the Montana Department of Transportation (MDT) are proposing to improve U.S. Highway 93 for a distance of 56.3 miles from Evaro, Montana through Polson, Montana. Copies of the draft environmental impact statement and Section 4(f) Evaluation (draft EIS) are available for review at the Missoula District Office of the Montana Department of Transportation and at U.S. post offices and community libraries in the project area. Copies may be obtained by writing to:

Joel Marshik, Manager, Environmental Services
Montana Department of Transportation
Box 201001
Helena, MT 59620-1001

Sessions of the public hearing for the proposed action will be held from 4:00 pm to 9:00 pm. as follows:

Tuesday, April 25, 1995 at the St. Ignatius Senior Citizens Center, St. Ignatius

Wednesday, April 26, 1995 at the BIA East and West Conference Rooms in the Tribal Complex of the Confederated Salish and Kootenai Tribes in Pablo

Thursday, April 27, 1995 at the KwaTaqNuk Resort, in Polson

Project representatives will be available at each meeting to discuss the proposed action and to receive public comments. Public comments are welcome, are due May 8, 1995 and can be submitted at the public hearing or can be sent to MDT at the above address.

After incorporating public and agency comments, a final environmental impact statement and Section 4(f) evaluation (final EIS) will be prepared and circulated. The Record of Decision will be based on the final EIS.

U.S. ARMY CORPS OF ENGINEERS, SECTION 404 EVALUATION

The District Engineer, U.S. Army Engineer District, Omaha, Nebraska (Corps) is evaluating the proposed action. Permits are issued under Section 404 of the Clean Water Act which regulates the discharge of dredge or fill material in the nation's waters. The purpose of this notice is to inform interested parties of the proposed action and to solicit comments on the issuance of the permits. Participation is encouraged so that the Corps is better able to complete a more thorough public interest review. Comments assist the Corps to make a reasonable decision based on public interest factors.

The following is a brief summary of the draft EIS.

PURPOSE AND NEED

The proposed action is needed to improve transportation on US 93, which is important to local, regional and nationwide travel. Transportation demand is high and is expected to continue to increase.

The existing roadway has various geometric features that do not meet current standards for safety and design. Existing level-of-service (LOS) is poor, generally LOS D, compared with the desired standard of LOS B for rural highways. It is projected that by the design year 2015 capacity of the existing facility will be exceeded, and the highway will be operating at LOS F in most sections. Accident numbers per mile are substantially higher than statewide averages.

ALTERNATIVES

The draft EIS analyzes various alternatives including No Action, several alignment alternatives, several lane configuration alternatives, transportation demand management measures and alternate highway routes.

THE PREFERRED ALTERNATIVE

Based on engineering and environmental evaluations completed to-date, on comments received from the public and on recommendations of local, state and federal agencies involved with or affected by the project, it is proposed that the highway be reconstructed on its existing alignment from Evaro thru Polson. At Polson, Alignment 3, an additional new alignment approximately 5.8 miles long south and west of Polson, is recommended as an alternate route and for truck traffic.

Preservation of a corridor of land for possible future highway construction is recommended through the Arlee area west of the community (Alignment 2) and through the Ronan area west of the community (Alignment 4). Corridor preservation will use measures such as cooperative access control; land use planning and regulation; purchase of easements or right-of-way; or other public/private cooperative methods.

A four-lane highway is recommended from Evaro to Polson. A continuous two-way left-turn center median will be included, mostly in areas with a large number of intersections and turning vehicles. Through Polson, the recommended roadway will include a two-lane roadway with a continuous two-way left-turn center median on the existing alignment and a four-lane highway on Alignment 3, south and west of the community.

SUMMARY OF IMPACTS

The capacity of the highway will be increased substantially, resulting in traffic operation at LOS B in the design year, instead of LOS F with No Action. Operating efficiency will be improved substantially, and congestion will be reduced.

Based on experience near the proposed action, accident rates and frequencies, particularly accidents involving injuries and fatalities, are expected to decline.

With partial access control and land use planning and regulation, strip development and other highway-related development can be better controlled.

Approximately 370 acres of land will be converted to new highway right-of-way.

Approximately 46 acres of farmland that is prime or unique farmland or farmland of statewide or local importance will be converted to highway right-of-way.

The physical prominence of the highway will increase with related barrier effects and visual effects.

The highway will be more desirable for commuters, which may encourage population growth.

Relocation of several buildings, including approximately eight residences, will be required.

About 40 acres of wetlands will be filled or otherwise destroyed. They will be replaced by wetlands that provide similar or better functions and values.

Special wildlife crossings will be constructed in the Evaro area and other areas. This is to benefit grizzly bear and other wildlife by improving migration routes and decreasing or avoiding highway mortality.

Direct use of land from several Section 4(f) properties will be required.

Continuation of major highway traffic through Arlee and Ronan will continue adverse traffic operation and safety conditions. Short-term impact to some businesses will occur during construction.

Carbon monoxide (CO) emissions will decrease. PM_{10} emissions will not differ substantially from No Action, except in Polson where traffic volumes in the city will be substantially reduced.

1. Public Notices For Public Hearing

A Notice Of Changes To The Public Hearing And Comment Period For U.S. Highway 93, Evaro-Polson, Montana F 5-1(9)6, March 16, 1995 was published in three newspapers on the referenced dates:

Char-Koosta News, a newspaper of general circulation, published in Pablo, Lake County, Montana on:

14 April 1995

28 April 1995

Lake County Leader, a newspaper of general circulation, published in Polson, Lake County, Montana on:

13 March 1995

20 April 1995

The Missoulian, a daily newspaper of general circulation, published in Missoula, Missoula County, Montana on:

14 April 1995

21 April 1995

NOTICE OF CHANGES TO THE PUBLIC HEARING AND COMMENT PERIOD FOR U.S. HIGHWAY 93, EVARO - POLSON, MONTANA, F 5-1(9)6

This notice is to advise the public that an additional session of the public hearing for the proposed action will be held on April 24, 1995 at the Cafeteria of the Arlee Elementary School on Fyant Street in Arlee. This meeting is in addition to the three previously advertised sessions of the public hearing. The public hearing for the proposed action will therefore be held from 4:00 p.m. to 9:00 p.m. as follows:

Monday, April 24, 1995 at the Cafeteria of the Arlee Elementary School, Arlee,

Tuesday, April 25, 1995 at the St. Ignatius Senior Citizens Center, 212 North Main Street, St. Ignatius,

Wednesday, April 26, 1995 at the BIA East and West Conference Rooms in the Tribal Complex of the Confederated Salish and Kootenai Tribes in Pablo, and

Thursday, April 27, 1995 at the KwaTaqNuk Resort, in Polson.

At each of the four sessions of the public hearing, a formal presentation and public comment period will be held beginning at 7:00 p.m. Before and after the 7:00 presentation at each hearing, project representatives and displays will be available to explain the proposed project, to answer questions and to receive public comment.

At the request of the Confederated Salish and Kootenai Tribal Council, the public comment period has been extended from May 8, 1995 to June 23, 1995.

2. Agency Comment

Confederated Salish and Kootenai Tribes
Lake Board of County Commissioners
Missoula Board of County Commissioners
U.S. Department of the Interior, Office of Environmental Policy and Compliance
U.S. Department of the Interior, Fish and Wildlife Service
U.S. Department of Housing and Urban Development
U.S. Environmental Protection Agency
U.S. Department of the Army, Corps of Engineers
Confederated Salish and Kootenai Tribes

COMMENT NUMBER	TOPIC(S)
Confederated Salish and Kootenai Tribes (CSKT)	
A-1	Future review of response to comments by CSKT
A-2	Safety is primary concern
A-3	Speed limits
A-4	Adequacy of EIS for considering alternatives
A-5	Comparison of alternatives
A-6	Social and cultural impacts are glossed over
A-7	Effects of proposed action on CSKT
A-8	Consistency with public interest in preserving CSKT sovereignty
A-9	Secondary and cumulative impacts
A-10	ISTEA and balance of environmental, socioeconomic and engineering
A-11	discussion of new growth and development is not adequately analyzed
A-12	Access management
A-13	Section 4(f)
A-14	Section 4(f)-Polson regatta grounds
A-15	Design period is too short and should consider past
A-16	Review of wetlands mitigation plan
A-17	Road maintenance
A-18	Deferring design issues is a mistake
A-19	Photographs are misleading
A-20	Intermediate plans to improve highway during 10 to 15 years
A-21	Difficult to get around in document
A-22	Purpose and need
A-23	NHS is proposed
A-24	Three percent growth rate
A-25	Accidents per mile is misleading statistic
A-26	Passing/left-turn lanes in Polson
A-27	Congestion
A-28	Cooperation of jurisdictions
A-29	CO emissions
A-30	ALCO permit

COMMENT NUMBER	TOPIC(S)
Confederated Salish and Kootenai Tribes (Cont'd)	
A-31	PM10
A-32	ALCO permit
A-33	Construction date
A-34	Tribal roads program
A-35	Road deficiencies
A-36	Polson bridge passing lane
A-37	Approaches and accidents
A-38	Reason for handling Polson differently
A-39	Two-lane alternative is downplayed
A-40	Eight-foot shoulders
A-41	Separate bike path
A-42	Acceleration from turnouts
A-43	Transportation demand management (TDM) may improve LOS levels
A-44	TDM measures
A-45	TDM and preferred alternative
A-46	Total base population is higher due to drivers outside immediate area
A-47	Diverting traffic to alternate highway routes
A-48	MT 200 should be MT 28
A-49	Alternate route evidence
A-50	Frontage roads need NEPA analysis
A-51	Speed limit enforcement
A-52	Preferred alternative in tables in Chapter 5
A-53	Roadway deficiencies
A-54	Access control and Lane Configuration C
A-55	TDM analysis
A-56	Community teams and design process
A-57	Pablo design options
A-58	Access control
A-59	Traffic signals
A-60	Traffic signals

COMMENT NUMBER	TOPIC(S)
Confederated Salish and Kootenai Tribes (Cont'd)	
A-61	Bicycle facilities need NEPA analysis
A-62	Wildlife crossings
A-63	LOS D is exaggerated
A-64	Schools on or near the highway outside communities
A-65	School bus stops
A-66	Speed limit in Pablo
A-67	1994 AASHTO Guidelines
A-68	Approaches
A-69	Accident history and safety audit
A-70	four-lane highway versus two-lane highway
A-71	Accidents in snowy or icy conditions
A-72	Passing lane accident rates
A-73	30th highest hourly volume and seasonal fluctuations
A-74	Update of 1985 Highway Capacity Manual
A-75	Traffic Along Rural Routes (TRARR) Procedure
A-76	Slow moving vehicle turnouts
A-77	LOS and capacity analysis
A-78	Absolute capacity in traffic volume numbers
A-79	Land status table
A-80	Senior citizens center in Ronan
A-81	Undeveloped land
A-82	Agricultural land
A-83	Lumber mill at Pablo
A-84	MRL and spelling
A-85	Draft Comprehensive Resources Plan
A-86	SCS data on creeks and flood hazard potential
A-87	Misleading narrative
A-88	1992 wildlife surveys
A-89	Citations
A-90	Reservation land

COMMENT NUMBER	TOPIC(S)
Confederated Salish and Kootenai Tribes (Cont'd)	
A-91	Water and sewer systems
A-92	Development
A-93	Social setting discussion is inadequate
A-94	Discussion of impacts on homeland is inadequate
A-95	More recent information on lifestyle
A-96	IHS population data
A-97	Commuters inside Lake County
A-98	Growth since 1990
A-99	Community water and sewer systems
A-100	Tribal health and human services department
A-101	Ambulance service
A-102	Bicycle and pedestrian needs on reservations
A-103	Bicycle use
A-104	Assumption in Section 6.6
A-105	Pedestrians and bicyclists using highway
A-106	Pedestrian crossing at St. Ignatius
A-107	Bicycle/pedestrian facility at Pablo
A-108	Bicycle fatality
A-109	Senior apartment complex
A-110	Hot water flow
A-111	Lake levels
A-112	Water quality standards
A-113	Shallow water
A-114	Fish passage
A-115	Fisheries of Jocko River
A-116	Flathead River
A-117	Fisheries of Ninepipe
A-118	Instream flow of Crow Creek
A-119	Cutthroat trout and amphibian table
A-120	Subsistence activities

COMMENT NUMBER	TOPIC(S)
Confederated Salish and Kootenai Tribes (Cont'd)	
A-121	Cultural resources and history
A-122	Hunting and fishing in ceded territory
A-123	Salish Mountains
A-124	Coordinate building character and rustic theme
A-125	Reservation boundary on map is incorrect
A-126	Viewshed impacts
A-127	Tribal forest lands
A-128	Scenery of Mission Valley
A-129	Visually sensitive areas
A-130	Left turns from county roads
A-131	Roadway deficiencies
A-132	Operation at LOS D
A-133	Four grades in Polson
A-134	Relocation of railroad bridge
A-135	Pablo design options
A-136	AASHTO and accident rate
A-137	Access control
A-138	Comparison of lane configurations for safety
A-139	LOS
A-140	LOS in communities
A-141	AASHTO manual
A-142	Access problems with alternative alignments
A-143	Speed limit at Ravalli
A-144	Highway deficiencies
A-145	Improve grades
A-146	Rate and pattern of land use and development
A-147	Uncontrolled left turns
A-148	Continuous two-way left-turn lanes
A-149	Limit to number of approaches
A-150	Lane Configuration D and rate of sprawl

COMMENT NUMBER	TOPIC(S)
Confederated Salish and Kootenai Tribes (Cont'd)	
A-151	Cooperative spirit
A-152	Tribal agricultural lands
A-153	Purchase of development rights on farmlands
A-154	Lane Configurations B, C and D accelerate growth
A-155	Growth factors
A-156	Alternative, non-motorized transportation
A-157	Bicycle paths
A-158	Signing for bicycle paths
A-159	Separate bicycle path
A-160	Maintenance for bicycle paths
A-161	Safety for children
A-162	Bicyclists required to stop or yield
A-163	Signage and education
A-164	Air quality with twice as many lanes
A-165	CSKT wants to evaluate air quality conformity analysis
A-166	Air quality modeling
A-167	STAMINA 2.0 noise model
A-168	"are properly implemented" repeated, P. 7.9-1
A-169	Fisheries and sediment yields
A-170	Erosion control measures
A-171	Permits for fill in wetlands
A-172	Citation for source of wetlands acreage
A-173	Wetlands cumulative impacts
A-174	Fish passage
A-175	Spring Creek near Ravalli
A-176	Impact to wildlife
A-177	Wildlife habitat
A-178	Migratory Bird Act
A-179	Wildlife passage structures
A-180	Bald eagles and road kills

COMMENT NUMBER	TOPIC(S)
Confederated Salish and Kootenai Tribes (Cont'd)	
A-181	Access to parks and quality of recreational experience
A-182	Acreage for parkland
A-183	Energy savings with TDM
A-184	Gravel pits and reclamation
A-185	Update preparers' experience
A-186	Appendix B
A-187	Highway's relationship to long-term cultural environment
A-188	Different design alternatives may make avoidance possible for cultural properties
A-189	Use of 20-year design period
A-190	Comments on the preliminary draft EIS
A-191	Effect on cultural resources from impacts to fish and wildlife
A-192	Effect on cultural resources from impacts to noise
A-193	Effect on cultural resources from impacts to air quality and water quality
A-194	Deficiencies in draft EIS determined in cooperation with Missoula County
A-195	Opposition by the Tribal Council to truck bypass around Polson
Lake County Board of Commissioners	
A-196	Support for proposed action
Missoula County Board of Commissioners	
A-197	Effect of highway improvement on population growth Legal period of applicability for EIS Wildlife overpass Non-motorized transportation and pathways
U.S. Department Of The Interior, Office Of Environmental Policy And Compliance	
A-198	Concurrence about no feasible and prudent alternative to use of parks, recreation areas and wildlife refuges
U.S. Department Of The Interior, Fish And Wildlife Service	
A-199	Concurrence on biological assessment
U.S. Department Of Housing And Urban Development	
A-200	Finding the draft EIS is adequate, provided HUD residential development is prohibited within 1,000 feet of center line of highway

COMMENT NUMBER	TOPIC(S)
U.S. Environmental Protection Agency	
A-201	Air quality conformity analysis
A-202	Air dispersion modeling
A-203	Wetlands
A-204	Water quality, floodplains and stream crossings
A-205	Land use and preferred alternative
A-206	Access control
A-207	Agreement with recommendation of existing alignment
U.S. Department of the Army, Corps of Engineers	
A-208	Discussion of 404 (b) (1) guidelines
Confederated Salish and Kootenai Tribes	
A-209	Confederated Salish and Kootenai Tribes' Comments On Preliminary Final Environmental Impact Statement

Joel Marshik, Manager, Environmental Services
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June 27, 1995

Dear Mr. Marshik,

Thank you for the opportunity to comment on the Draft Environmental Impact Statement (DEIS) for the Evaro to Polson project. These are our general comments:

A-1 It is apparent that many past Tribal letters have been ignored, at least in part. Some of the comments in this letter have been expressed previously, some more than once. We are distressed that this is the case. In order to assure that the Final EIS addresses these comments fully, we are requesting that we have the opportunity to review corrections to the document before it is again released to the public (see letter dated June 22, 1995).

A-2 As always, highway safety is the Tribal Council's primary concern with regards to Highway 93. The Tribal Council has special concern for schoolchildren who must travel on, and cross, Highway 93. For example, due to safety concerns for children the Tribal Council on June 23, 1995 took a position in favor of the two lane design with a center turn lane in the town of Arlee.

A-3 The Council is also still concerned about speed limits in Elmo and Pablo and would appreciate an update on the results of the speed studies in these communities. A Pow Wow is scheduled in Elmo July 20 - 24, 1995 and the Council would like to see pedestrian crossing caution lights installed in Elmo by that date if at all possible.

NEPA Considerations

A-4 To be "adequate", an EIS must consider not every possible alternative, but every reasonable one. Friends of Endangered Species v. Jantzen, 760 F.2nd 976 (9th Cir. 1985), quoted in Citizens for a Better Henderson v. Hodel, 768 F2d 1051 (9th Cir. 1985). The existence of a viable but unexamined alternative renders an EIS inadequate. Brooks v. Coleman, 518 F.2d 17 (9th Cir. 1975). The superiority of any one alternative, in terms of efficiency, cost, or desirability to the project proponent, is irrelevant to the reasonableness of the omitted alternative. Kleppe v. Sierra Club, 427 U.S. 390 (1976). A reviewing court must look exclusively to the EIS itself to determine whether adequate information has been collected to allow the decision maker to make a reasoned determination on a particular issue, in this case an evaluation of various alternatives to improve traffic operation and safety on U.S. Highway 93. The purpose of an EIS, then, is to provide Federal Highway Administration (FHWA) and Montana Department of Transportation (MDT) with enough information to "aid in the substantive decision whether to proceed with the project in light of its environmental consequence" and to provide the public with information and an opportunity to participate in gathering information. Trout Unlimited v. Morton, 509 F.2d 1276 (9th Cir. 1974); Stop 3-H Ass'n. v. Dole, 740 F.2d 1442 (9th Cir. 1984), cert. den. 105 S.Ct. 2344 (1985)

A-4 In the DEIS MDT has neglected to thoroughly analyze all reasonable alternatives other than its preferred alternative. The Tribes have in the past requested that MDT conduct a more thorough analysis on an improved two-lane similar to the alternative proposed by the Flathead Resource Organization (FRO), Alternative A, the two lane alternative which is analyzed in the DEIS does not go far enough in providing decision makers with enough information regarding capacity and safety improvement of this proposed alternative. The FRO proposal differs from Lane Configuration A in that it includes other features, such as increased use of passing lanes, slow moving vehicle turnouts, increased signage and enforcement, that are not necessarily included in the analysis of Alternative A. We feel that the FRO proposal is worthy of a comprehensive analysis, which it did not receive in this EIS.

A-4 In our letter to the MDT dated August 3, 1993, we stated that we were disappointed that the DEIS does not include an alternative which includes a combination of lane configurations, and that we would like to see an alternative which recommends different designs in different areas as is appropriate. In the current version of the EIS, MDT is recommending a preferred alternative which includes a combination of four-lane alternatives, but there are virtually no two lane sections incorporated.

A-5 Furthermore, the preferred alternative is not actually compared to other alternatives in the EIS! The only alternatives which are reviewed are the all-one-design alternatives. Consequently, the reader is unable to determine, in detail, the environmental impacts of the preferred alternative. How many acres of wetland are impacted by the preferred alternative? How much will it cost to build the preferred alternative? What are the right-of-way requirements of the preferred alternative? Some of these basic questions are addressed in the summary, but not in the main body of the EIS. This is a flaw that must be corrected prior to the release of the final EIS.

A-5 The Reservation residents have a great stake in the outcome of this decision and have a right to know and to comment on all reasonable alternatives. MDT and FHWA as the decision makers have a right to know and a duty to disclose the environmental consequences of their decisions.

A-5 The Council on Environmental Quality has described the alternative evaluation requirement of NEPA as the "heart" of the environmental impact statement. 40 CFR 1502.14. MDT has not thoroughly analyzed these proposed alternatives nor has it adequately identified, analyzed, or compared other reasonable alternatives to the proposed action. By limiting its range of alternatives, MDT has not met the goals of NEPA in providing the agency decision maker with a full disclosure document of environmental impacts from the proposed action and an analysis of whether alternatives exist that meet the purpose and need for the improvements.

A-6 The DEIS glosses over social and cultural impacts to the Tribes that have been repeatedly raised by the Tribes. While FHWA's responsibilities to the public under NEPA are great, an additional special relationship exists between the United States and Indian Tribes. This trust relationship requires the FHWA (and MDT, since a substantial amount of federal funds will be used for this project) to carefully disclose and consider significant impacts of the proposed action on the Tribes. This trust responsibility imposes strict fiduciary standards on the conduct of federal executive agencies in their dealings with Indian Tribes. Northern Cheyenne v. Hodel, CV-82-116-BLG (D.Mont.1985), 12 Indian Law Reporter 3065.

A-7 At the very least, Northern Cheyenne requires the FHWA to investigate and consider the impacts of the proposed action upon the Salish and Kootenai Tribes. The Tribes have, on a number of occasions, warned that there are many potential impacts to the Tribal cultural environment of the Flathead Indian Reservation and the ability of the Tribes to maintain a cohesive Reservation community. The FHWA and MDT are required to consider and analyze these impacts and implement measures to mitigate these impacts if at all possible. Id. at 12.

A-8 Additionally, FHWA and MDT are bound to consider the extent to which the proposed action is consistent with the public interest in preserving the status of the Confederated Salish and Kootenai Tribes as a sovereign Nation and in preserving the Tribe's ability to "maintain itself as a culturally and politically distinct entity". New Mexico Navajo Ranchers Association, et. al. v. Interstate Commerce Commission 702 F.2d 227 (1983). The Tribes have, on numerous occasions, raised concerns about the impacts a reconstructed highway would have on population growth on the Reservation, in particular in the increased likelihood of bedroom communities being created, and irreparable social and economic changes to the character of the Flathead Reservation as the homeland to the Tribes. These concerns have not been adequately addressed and analyzed in the DEIS.

Secondary and cumulative impacts

A-9 The 1978 regulations of the Council on Environmental Quality (CEQ) and the general NEPA mandate of environmentally sensitive decision making require agencies to evaluate the potential environmental consequences of all proposed Federal activities and programs. This includes a requirement to examine indirect consequences which may occur in areas beyond the immediate influence of a proposed action at some time in the future. These secondary impacts include changes in land use, water quality, economic viability, and population density. Cumulative effects are impacts which result from incremental consequences of an action when added to other past and reasonably foreseeable future actions 40 CFR 1508.7 and 1508.8. Courts have determined that "secondary" impacts are often as significant as "primary" effects. Coalition for Canyon Preservation v. Bowers, 632 F.2d 774 (9th Cir. 1980).

A-10 Additionally, under the Intermodel Surface Transportation Efficiency Act, the FHWA must now work with MDT as never before to preserve and enhance environmental resources while implementing transportation projects. These commitments require that equal weight be given to environmental issues during the project decision making process that normally emphasizes engineering considerations. These decisions should represent a balance between environmental, socio-economic, and engineering issues. FHWA, Position Paper on Secondary and Cumulative Impact Assessment (1992).

A-11 In this regard, the current discussion of the environmental effects of new growth and development as a result of major highway reconstruction is not adequately analyzed. The DEIS does recognize that "Highway improvement will have an indirect effect with additional population growth due to improved travel conditions for commuters," and that highway improvements will "further increase the desirability of the area as a place to live". It also recognizes that in areas of moderate to rapid development, as is the case in the project area, highway improvement can be an important element of change leading to long term impacts." DEIS 7.4-2. It is likely that highway improvements will have a major effect on the rural character of the Reservation which has not been given adequate attention or detail in order for the decision maker to make an informed decision on the environmental consequences of the alternatives studied in the DEIS. We look forward to results of the Land Use And Growth Projection Study and we expect this information to address this critical issue.

A-12 Also, the Tribes have serious concerns regarding issues relating to access management, or lack thereof. A crucial safety issue identified in the DEIS is the high density of junctions on Highway 93 as a major contributor to the accident rate on this rural highway. The DEIS indicated that currently 34% of the accidents occur at intersections or driveways, and that this percentage is 60% higher than statewide averages. Also, the Tribes believe that the mitigation measures proposed - partial access control - are not sufficient to provide assurances that MDT will follow-up with an aggressive access control plan to address these issues. The DEIS simply states that MDT will develop recommendations on the number and spacing of public and private approaches that will be able to enter directly on the highway. Will MDT recommend elimination of offset accesses and accesses that are dangerous for other reasons, as well? We feel partial access control is grossly inadequate for dealing with this demonstratively dangerous safety issue. Without an enforceable access management plan in place, it is extremely difficult to assess what safety improvements, if any, can be anticipated. An access management plan needs to be developed regardless of the preferred alternative selected.

4(f) Evaluation

A-13 We find the 4(f) evaluation an inadequate discussion of the "feasible and prudent" alternatives to the use of 4(f) properties impacted by the proposed action. Congress has declared it a national policy in preservation of the natural beauty of public parks, recreation area, and wildlife and waterfowl refuges. 23 U.S.C. 138 and Section 4(f) of the Transportation Act of 1966, as amended, 49 U.S.C, 1653(f). Section 4(f) requires that the Secretary of Transportation "shall not approve any program or project which requires the use of any publicly owned land from a public park, recreation area, or wildlife and waterfowl refuge ...

unless (1) there is no feasible and prudent alternative to the use of such land, and (2) such program includes all possible planning to minimize harm..." The implementing 4(f) regulations provide that 4(f) lands may be used only if unique problems or unusual factors are involved in the use of alternatives that avoid the 4(f) property, and further, if the cost, social, economic, or environmental impacts or community disruptions resulting from such alternatives, reach "extraordinary magnitudes" can the 4(f) lands be used. 23 CFR 771.135(a) (2).

A-13 The 4(f) analysis should have taken into account that "use" of parklands or recreation areas within the meaning of section 4(f) includes not only actual, physical takings of such lands but also significant adverse indirect impacts such as: noise, air pollution, and general unsightliness. Such determination of "use" should bear some relevance to the value, significance, and enjoyment of the lands at issue. This is particularly important for wildlife refuges and management areas because the values associated with them include tranquility and the opportunity to observe nature undisturbed by human activity.

A-13 The Tribes and others have proposed other "prudent and feasible alternatives" to the use of 4(f) properties such as the Ninepipes Refuge and Wildlife Production Areas in the Mission Valley. These alternatives (such as FRO's concept of an improved two lane or a combination two and four lane) are prudent and feasible routes that would avoid use of important 4(f) properties and which should have been analyzed in more detail. The existence of an unexamined but viable alternative to the proposed action could render the EIS inadequate and provide a basis for overturning the Secretary of Transportation's decision that these 4(f) properties can be used for highway purposes. Coalition for Canyon Preservation v. Bowers, 632 F.2d 774 (9th Cir. 1980). The 4(f) evaluation does not demonstrate that these alternatives result in cost, social, economic, and environmental impacts or community disruption that reach such an "extraordinary magnitude" that 4(f) lands would be permitted for highway use.

A-13 Inquiry under subsection (2) of section 4(f) requires a balancing of harm to the site by the proposed project, with the harm to the site by another alternative or plan to implement mechanisms to diminish that particular harm. Alder v. Lewis 675 F.2d 1085 (9th Cir. 1982). The 4(f) document is completely devoid of any of this required analysis. The section on avoidance alternatives does not discuss why any of the alternatives evaluated in the document are not "prudent and feasible" and does not provide an inquiry into this balancing of harm associated with each alternative, and does not demonstrate that all possible planning has occurred to minimize harm to these properties.

A-13 The courts have stated that great weight must be placed on the protection of parklands. In Citizens to Preserve Wilderness Park v. Adams 543 F. Supp. 21 (Neb., 1981), the Court held that the Secretary shall find a particular alternative to the use of parkland "feasible" unless it would not be so as a matter of sound engineering, and to find a particular alternative to the use of parkland "prudent" unless there are truly unusual factors present or the cost or community disruption would reach extraordinary magnitude. The primary focus of inquiry is upon the harshness of the problems inherent in the alternative and not upon the comparative freedom from those problems by the use of 4(f) properties. Id. at 27.

A-14 The 4f analysis is incomplete in its identification of properties to be impacted as it does not include the Regatta grounds along the Flathead River. This is the only regatta grounds in Montana, and it would be rendered unusable by two of the three alternatives. This site needs to be considered a 4f property.

Other general comments

A-15 The EIS uses a 20 year time frame for analysis. This may be too short a time period, particularly with regard to cultural issues. The analysis would also be strengthened by looking to the past. What was the impact of the existing highway on cultural issues?

A-16 We wish to reiterate that we want to review wetlands mitigation and that wetlands mitigation strategies should be disclosed in the EIS.

A-17 The EIS does not address road maintenance. Who will pay and where does the money come from?

A-18 We believe that the decision to defer all design issues until the community teams are formed is a mistake. Community involvement in these issues is important, but many are too significant to defer until later. For example, landscaping is a design feature that would beautify the highway, and would also have an impact on the environment.

A-19 The photos that are supposed to show how the highway will look when the preferred alternative is built are misleading. They do not accurately represent the width of the new highway and the degree of change that will take place when the construction is complete.

A-20 Are there plans to take intermediate steps to improve the highway during the next ten to fifteen years? These steps could include elements that would need to be done anyway, such as widening shoulders and appropriate left and right turn bays.

A-21 Overall, it is difficult to get around the document and find the information the reader is looking for. Headers and/or footers that identify the topic addressed on the page would help, as would tabs at the beginning of each section. In our letter of August 3, 1993 we requested an index an glossary be added to the document. This version has an index, but no glossary. Given the large number of technical terms that are used a glossary would be helpful to the public.

Our page-by-page comments are as follows:

Section 2, Summary

A-22 Page 2-1 - title- This should read "Purpose and need for action". Delete "proposed". The EIS should explain why any action is necessary, not just the proposed action.

A-23 Page 2-1, paragraph 4 - Add "proposed" before National Highway System.

A-24 Page 2-1, paragraph 6 - The 3% growth rate is lower than the 4.5% annual growth rate found in the Flathead Lake, East Shore/West Shore Corridor Study. Between 1989 and 1993, MDT figures show ADT increasing between 4.6% and 11%, depending on the segment of the highway. The rate of growth may need to adjusted to more accurately reflect the recent highway trends.

A-25 Page 2-1 - paragraph 7 - Accident numbers per mile as compared to statewide averages (also discussed on Pages 4-1 and 4-6) are misleading. The statewide average is skewed by the large number of highway miles in the sparsely populated eastern 2/3 of the state. It would be more accurate to compare Highway 93's accident numbers per mile with accident numbers for highways located in areas with similar population characteristics.

A-26 Page 2-6, last paragraph - There should not be passing lanes constructed in the 3.8 miles of highway through Polson. This should be changed to continuous left turn lane?

A-27 Page 2-9 - paragraph 7 - The statement "congestion will be eliminated" is not necessarily true. Even with a four or five lane highway, congestion may still occur in urban areas, in areas with multiple approaches, or on holiday weekends and when slow-moving vehicles pass even slower vehicles.

A-28 Page 2-9 - paragraph 9 - This statement assumes all jurisdictions are willing to work together to create these controls, and that landowners would be willing to negotiate closure of accesses. Recent lawsuits by the state and Lake County indicate an unwillingness to work with the Tribes on water quality and other land use related issues. In addition, because the Flathead Reservation is uniquely located between two of the fastest growing areas in the state, new businesses continue to develop along rural stretches of the highway. The commercial potential of land along the highway makes access an even more valuable asset which landowners may not be willing to sell.

A-29 Page 2-9 - paragraph 14 - CO emissions may decrease per vehicle, but by creating additional capacity, won't emissions increase overall as more vehicles utilize the highway?

A-30 Page 2-11, third bullet - A separate ALCO permit will be needed for each action deemed a project by the Tribal Shoreline Protection Office. (see also Page 7.11-1)

A-31 Page 2-11, fifth bullet - Although PM10 conformance evaluations and determinations haven't been made, conclusions are drawn regarding PM10 impacts (see Page 2-10, first bullet). How were these conclusions made?

A-32 Page 2-11, Why are ALCO permit requirements listed as "a major unresolved issue."?

Section 4

A-33 Page 4-1, footnote - The earliest construction may be started is 1998 or 1999, not 1995. It is stated later in the document that construction will be in six phases with each phase taking two construction seasons for a total of 12 years. This places the completion of all construction close to the design year 2020. These figures should be changed to better reflect a closer approximation of the design year which should be closer to the year 2020 - 2025.

A-34 Page 4-2, paragraph 1, Include Tribal, rather than BIA, roads program

A-35 Page 4-4 - It should be noted that road deficiencies (substandard horizontal curves, substandard vertical grades, inadequate sight distance on vertical curves, inadequate shoulders, and an inadequate storm drainage system in Polson) can be corrected without the use of four or five traffic lanes.

A-36 Page 4-4, fifth paragraph - It should be noted (in the sentence about inadequate bridge shoulders on Polson bridge) that there is no passing lane on the Polson bridge

A-37 Page 4-7 - fifth paragraph - Was the high percentage of accidents that involve approaches taken into consideration when determining that the current LOS is "poor". If the number of approaches are not significantly reduced, is it realistic to predict that the LOS will substantially increase with the proposed action?

Section 5

A-38 Page 5-5 - It would be appropriate to explain why Polson was handled differently than the other communities along the highway.

A-39 Page 5-7 - A two lane alternative is down played in the DEIS. Without more development and analysis it can not reasonably be determined whether or not a well designed two lane with climbing lanes, passing lanes, turning lanes, and slow moving vehicle turn-outs , constructed in conjunction with the diversion of some traffic to Highway 83, and implementation of TDM measures would result in substantial improvements in LOS.

A-40 Page 5-8 - 5-5-10 - Although the eight foot shoulders suggested in the preferred alternative are a big improvement, they may not be adequate or the most safe for children when used as a bicycle/pedestrian lane. There is a significant percentage of large trucks and RV's that create aerodynamic lateral force winds that can be dangerous or at least unsettling enough to discourage bicycle use. AASHTO recommends that shoulders be 3.0 - 3.6

meters (10 - 12 feet) for "heavily traveled and high speed highways and those carrying a large number of trucks".

A-41 If it is economically feasible, a separate bike path should be provided to offer the greatest degree of safety for bicyclists and pedestrians, especially in the Ronan to Polson area where more of the bicycle traffic occurs. The path could be within the existing right-of-way slightly separated from the highway by a median, along a frontage road, and/or along segments of old Highway 93. The path would be close enough to the highway and wide enough for easy maintenance. At the least, a pedestrian pathway needs to be constructed between the Salish Kootenai Housing Authority offices and the Tribal Complex. The People's Center has specifically requested this path.

A-42 Page 5-11- first paragraph - Acceleration may be difficult from turnouts, but the same is true for all driveways and intersections. Could acceleration lanes be provided at these turnouts as well as at key intersections? Community members have stated at public meetings that they would use them more if available. More substantial information should be provided on this design option rather than the conclusion given from a telephone conversation.

A-43 Page 5-11- section on TDM - We believe that while TDM measures might not necessarily eliminate the need for highway improvements, such measures may improve LOS levels.

A-44 This section states that TDM measures could include pedestrian/bicycle facilities, air transit, and alternate highway routes, yet they are not considered in the TDM analysis attached in Appendix B. The appendix also notes that, "It will be difficult to remove many of the trucks from U.S. 93 by putting the commodities on the Montana Rail Link system." However, the number of trucks that could be removed should be quantified when it is possible to ship by rail or air. Information related to the aforementioned comments should then be included in a comparison of energy consumption rates among the alternative under consideration.

A-45 The preferred alternative, a combination of the various lane configuration alternatives, should include all TDM factors possible when analyzing energy efficiency. It is important to remember that the efficiency component of ISTEA not only includes the operating efficiency of vehicles, but also challenges transportation officials to evaluate the energy efficiency of alternative modes of transportation improvements. Oil reserves are limited and pedestrian, bicycle, and rail transportation modes are much more fossil fuel efficient than most other forms of transportation (see attached Congressional data (graphic)). Add this comparison to Section 7.19 of Table 5.2-1 as well.

A-46 Page 5-11, fourth paragraph under TDM - It should be noted that there are people from outside the immediate area that drive Highway 93 on a daily basis, so the population figures quoted are lower than the total base population.

A-47 Page 5-12 - alternate highway routes - Was it reasonable to not evaluate in detail alternative highway routes to divert some traffic from Highway 93 to other highway such as Montana 83? We support additional signing and designation of special routes to encourage use of these alternative routes to relieve some of the demand on Highway 93.

A-48 Page 5-12- sixth bullet- MT 200 should include Highway 382 and 28

A-49 Page 5-14, second paragraph - What evidence is there that traffic will not shift to alternate routes in sufficient numbers to reduce volume on Highway 93?

A-50 Page 5-14, paragraph four under design options - Frontage roads would need site specific NEPA documentation,

A-51 Page 5-16, first full paragraph - This section appears to state that MDT will not enforce the speed limit if it is lower than "the speed the majority of drivers are comfortable with". Part of the safety of a highway is determined by the three E's of engineering, enforcement, and education.

A-52 Pages 5-17 - 5-33 - The preferred alternative must also be shown in the matrices in order to better compare impacts.

A-53 Page 5-39 - Lane Configuration A - The Purpose and Need portion of this document states that action is needed to improve safety, level of service, and capacity on Highway 93. Pages 4-3 to 4-7 mention the following points that should be considered for this Lane Configuration:

A-53 The section on roadway deficiencies indicates that Highway 93 has two substandard horizontal curves and substandard vertical grades on four different sections that reduce capacity, level of service, and safety. Twenty substandard vertical curves and "substantially" less than adequate shoulders also create safety problems on Highway 93. In addition, the section on safety states that over 1/3 of the recorded accidents on the highway involved approaches; the number of accidents associated with driveways is 60% higher than the statewide average. This section also states that "high junction density also contributes to substantial reductions in the capacity, service level, and driving comfort of the highway."

A-53 To what degree then would safety, level of service, and capacity be affected if improvements were made in these areas only? Was this analysis, in combination with any potential improvement from feasible TDM strategies, considered in the capacity and LOS analysis for Lane Configuration A?

A-53 Shoulder widths alone can affect capacity. The Traffic Engineering Handbook (Institute of Transportation Engineers, 1992, p. 138) states that each one foot increase in shoulder width increases capacity by 2%. The average shoulder width at present is about 4 feet. Installation of a truck climbing lane improves LOS one step for each 3% of heavy vehicles (See attached information from the 1992 Traffic Engineering Handbook) . The EIS states that TDM measures could further improve capacity by as much as a 40% reduction in volume. This analysis of the aforementioned

capacity, safety, and LOS improvements must be included for Lane Configuration A for comparison with the other alternatives.

A-54 Page 5-40 - paragraph 1 - More specific information is needed as to why access control is not practical for the areas recommended for Lane Configuration C. How does this justification compare to the potential safety hazards of a continuous center turn lane in high speed areas with staggered approaches that could create head-on conflicts? Page 788 of the 1994 AASHTO manual states that "continuous left-turn lanes should be used only in an urban setting where operating speeds are relatively low...". The Federal Highway Administration (6/12/92 correspondence to Edrie Vinson) states that this design, "does not hold up in a rural area. A five lane highway with a continuous two-way left turn median should only be used in urban or suburban areas with extensive development and running speeds 45 miles per hour or less." The document lists several "problems with a 5 lane section" such as: an increase in accident severity if constructed on high speed roads, problems with effective marking when snowpacked, and older drivers having difficulty judging speed of approaching vehicles and making left turns. Your document already states that there is a high rate of accidents involving older drivers on this highway. It would also be safer if businesses could reorient their accesses to side streets or county roads where feasible. Another alternative is to bypass communities.

A-55 Page 5-40-section on TDM- This page (as well as Page 2-11) indicates that a TDM study is being done for Lake County only. Residents from other counties also utilize this segment of Highway 93 for commuting and should be included for analysis.

A-56 Page 5-41- first paragraph - This page, as well as Page 2-6, mentions that community teams will be continued to help select design options. How will the teams be selected? Will meetings be open to the public? Will all of the design options listed on Page 5-14 actually be available for consideration? For example, could right-of-way restrictions preclude the use of wider landscaped medians, frontage roads, or separate bicycle paths in some communities? What other restrictions could apply? What guarantee is there that the community's recommendations will be followed and how will these preferences be documented for the public review process? The Tribes should of course be included in any and all design review teams that may be formed.

A-57 Page 5-41 - Pablo Design Options - A separate bicycle/pedestrian path was recommended by design team members. The wider raised median was recommended to accommodate pedestrians and storage in the median openings for vehicles crossing the highway.

A-58 Page 5-41- Access Control - Why is partial access control not being considered for these communities? There are certain stretches in some of these communities, especially Pablo, where frontage roads, or reverse frontage roads would be possible. If over one-third of the accidents on this highway are access related, why are so many areas being precluded from access management?

A-59 Page 5-41 - under traffic signals - The traffic light at the Hwy 93/Hwy 35 junction has been installed - this should be noted. (Also see Page 6.1-27)

A-60 Page 5-41 - under traffic signals - Add Clairmont/Pablo West Road. (Several changes are planned in the Pablo area that may generate enough traffic to warrant traffic signals sooner)

A-61 Page 5-42 - end of page - Bicycle facilities will likely need a NEPA analysis as well.

A-62 Page 5-43 - under wildlife crossings - We suggest "closure of dead end roads and rerouting through roads from other accesses".

Section 6

A-63 Page 6.1-4- third paragraph - The LOS of Highway 93 is listed as "D". This seems to overstate the time delay (75% of the time a vehicle is on the road). Although there may be substantial delays during peak seasons and commuting hours, 75% of the time seems exaggerated.

A-64 Page 6.1-4 - ninth paragraph - The document incorrectly states that there are no schools on or near the highway. Both Two Eagle River School and Salish Kootenai College are on the highway. Document also states that there are only "a few" businesses. Please state the number of businesses that are present on a given date.

A-65 Page 6.1-5 - third bullet - School bus stops along the highway should be listed here with the other school concerns. Turnouts for school buses should be included in the preferred alternative.

A-66 Page 6.1-5 - fourth paragraph- The speed limit is also a major concern in Pablo, as discussed at every community meeting. This was also raised as a concern at the community of Pablo's meetings regarding land use planning and at several Tribal Council meetings and in multiple correspondence to MDT. Why isn't it listed here as a specific concern?

A-67 Page 6.1-7 - reference - Did the analysis use the most recent (1994) AASHTO guidelines?

A-68 Page 6.1-9 - On this page numerous problems are described with many of the existing approaches. However, in the first paragraph it states that permits for new approaches are only issued if they will not create a safety hazard. Why did the State grant the permits for the existing approaches if they created a safety hazard?

A-69 Page 6.1-13 - accident history - In the Tribes letter of September 14, 1993 we stated, "To adequately evaluate the safety considerations we will need more detailed information and the factual basis or assumptions of the accident data used in the DEIS

and supplemental documents...We strongly recommend that MDT complete a safety audit of the project route." Although the DEIS does include a general aggregate data on traffic accidents, it does not provide a complete picture of why accidents are occurring or identify current inadequacies in the highway and may not give an accurate description of safety considerations and what counter-measures might be effective in addressing them. Collision diagrams combined with traffic data and physical and environmental information can provide a tool for analysis of accident causes and determination of effective safety improvements to the highway.

A-70 Page 6.1-16 - comparison of 4 lane vs 2 lane - This does not provide an accurate comparison of accident rates for the following reasons: 1. the Evaro section is not typical of conditions on the rest of the highway. This section is less developed, has no major intersections, and much steeper terrain with more demand for passing, and 2. While the density of junctions may be similar to other areas along the route, the type and use of these intersections may be quite different. There are no major intersections with county or state roads in the Evaro section with high usage as there are in other areas of the proposed route.

A-71 Page 6.1-18 - Why isn't it noted that the number of accidents involving snowy or icy conditions jumped more than 50%?

A-72 Page 6.1-18 - third paragraph- Discussion of passing lane accident rates: How would the percentage of accident rates differ if proper shoulder widths were in place? Are there other factors that affect the transition areas, such as that all three end, and two begin, on curves? The conclusion that the existing passing lanes in the project area are high-accident locations is contrary to the experience of passing lanes nationwide. Our research shows that, in general, the use of passing lanes on a two lane rural highway reduces accidents by approximately 30%. It appears that design deficiencies and engineering of the current passing lanes and transitions lanes, as well as lack of appropriate signing, is a likely cause of the problems related to their use.

A-73 Page 6.1-19- Use of the 30th highest hourly volume of the year to determine ADT may not be an accurate measure in an area, such as the project area, which experiences seasonal fluctuations in ADTs. Please quantify these seasonal fluctuations and take this into account in the highway design recommendations.

A-74 Page 6.1-20 - reference - MDT relies on the 1985 Highway Capacity Manual for the basis for its LOS analysis. These procedures have been updated recently to take into account the number of access points per mile, with the capacity and level of service reduced as the number of access points increase. Taking into account the number of access points is particularly critical on this project route where 681 approaches have been identified and the accident rate related to approaches is significantly higher than state-wide averages. Applying the new procedures, without limited access, could result in a lower LOS for the 4 lane alternatives identified in the DEIS.

A-75 Also, use of the Traffic Along Rural Routes (TRARR) procedure could provide more accurate information on two-lane capacity and LOS.

A-76 Page 6.1 - 25- first paragraph - To what degree could slow moving vehicle turnouts improve this problem?

A-77 Page 6.1 - 26 - The capacity analysis using level of service is not quite adequate. Several staff members commented that their driving experience on the highway was better than LOS D. Please show data to backup your conclusions that passing capacity is zero, and that drivers are delayed up to 75% of the time. What are current vehicle speeds? Analysis should be done to determine speeds on highway segments using the 10 mile per hour pace, median, and 85th percentile methods. This would tell if people are traveling at design speeds or are truly being delayed.

A-78 In addition, quantifying the absolute capacity of the highway in traffic volume numbers (using the Highway Capacity Manual) and comparing those with the current and projected traffic volumes could give a better idea of the problem of when capacity exceeds design. It is also more reasonable to develop a more sophisticated method of traffic volume projections than using past growth. Capacity analysis should also consider various development scenarios and the resultant trips generated. This section is important in the EIS because lack of capacity and poor LOS is the basis for the purpose and need for the project. In addition, capacity should be linked to safety concerns.

A-79 Page 6.2-2, land status table - This table is very misleading. Nearly 1/3 of the total area of Lake County does not even fall within the Reservation boundary, whereas the entire study area for this project does. This data ignores the Missoula County portion of the project area and is very outdated. In addition, allotment land is trust land owned by individuals, whereas "Tribal" land is owned in common by all Tribal members. Tribal land status data would be much more accurate here. The Tribes have previously requested that this data be changed.

A-80 Page 6.2-3 - first paragraph - A senior citizens center is also adjacent to the existing alignment through Ronan.

A-81 Page 6.2-3 - second paragraph - The only stretch of undeveloped land in the area is a one mile section just south of Schley which the Tribes manage as a wildlife corridor.

A-82 Page 6.2-3 - third paragraph - In the first sentence add "agricultural" to "mostly open land". In the second sentence add "and some commercial development" to "adjacent to the highway in the Post Creek area".

A-83 Page 6.2-3 - fourth paragraph - In the second sentence change this to read " A lumber mill at Pablo and concrete plant at Polson create the heaviest concentration of industrial activity, with commercial strip development scattered between the two communities".

A-84 Page 6.2-6 - eighth paragraph - River should be capitalized. MRL should be spelled out as it is not commonly used.

A-85 Page 6.2-9 - Reference should be made here and on the following pages to the Tribes' Draft Comprehensive Resources Plan. Goals and objectives for use of all land related resources are included in the last chapter of Volume II. Refefence should also be made to the Tribal/County Land Use and Growth Projection Study, especially with regard to the study's public opinion poll on land use and Highway 93 issues and a more comprehensive list of measures for managing growth and development.

A-86 Page 6.2 - 10 - first paragraph - SCS data also shows Mud Creek, Spring Creek in Ronan, and Agency Creek, as well as other areas, as having flood hazard potential.

A-87 Page 6.2-10 - sixth paragraph - Narrative is misleading and inaccurate. (See comments on the table on Page 6.2-2).

A-88 Page 6.2-10 - under Wildlife - Revise to: "Two 1992 surveys conducted by the Tribal Wildlife Management Program and a survey conducted by the Bureau of Indian Affairs (BIA), independent of the community opinion survey in the Lake County General Plan, found local residents support measures to protect wildlife".

A-89 Page 6.2-10 - Add citations: Non-Indian Bird Hunters on the Flathead Reservation: Patterns of Use and Wildlife Management Scoping Issues. David Rockwell and Dale Becker. Unpublished report prepared by the Tribal Wildlife Management Program, Confederated Salish and Kootenai Tribes, Pablo, Montana, October 1992.

A-89 Patterns of Use and Wildlife Management Scoping Issues: Tribal Member Hunting on the Flathead Indian Reservation. David Rockwell and Dale Becker. Unpublished report prepared for the Tribal Wildlife Management Program, Pablo, Montana, October 1992.

A-90 Page 6.2-11-first full paragraph - This paragraph should be prefaced with the following facts: Until 1904, all land in this area was owned in common by the Salish, Pend d'Oreilles and Kootenai Tribes. The Flathead Allotment Act then forced Tribal people to become enrolled and take land allotments. Amendments to the Act gave several hundred acres of land to church organizations, thousands to the State of Montana for school purposes, and thousands more were set aside for townsites, power reserves, the National Bison Range, general government needs, and 2 to 5 acre lots around Flathead Lake. In spite of Tribal protest, the federal government opened the Flathead Reservation to settlement in 1910.

A-91 Page 6.2-14 - first paragraph - The Tribes have built and maintain several community water and sewer systems for homesites in the non-urban portion of the project area.

A-92 Page 6.2-14 - fourth paragraph - KwaTaqNuk is one of the larger land developments in the area. The golf course and Pamida store may cover larger land areas than KwaTaqNuk. The grocery store, Tribal People's Center, elementary school expansion, and housing development have all been completed in the Pablo area. The Salish Kootenai Housing Authority office has moved to the industrial area near Salish Kootenai electronics. Other development is the possible expansion of Mission Valley Power across from the new IGA store and expansion of Salish Kootenai College behind Joe's Jiffy Stop. The new development near the golf course in Polson may have up to 249 residential units.

A-93 Page 6.4-1- social - Discussion of the social setting is wholly inadequate as it should provide a background on the project area being a Reservation community. Generally, the following factors should be considered: social institutions (educational, family, economic, political, religious, and recreation), ways of life (leisure and cultural opportunities, personal security, stability and change, basic values, community identity). This is of special importance because FHWA has a heightened legal obligation to consider the project's social and cultural impacts on the Tribe.

A-94 Also, the Tribal Council has expressed concerns about the impacts the project will have on its homeland which is not adequately addressed in the document.

A-95 Page 6.4-1, lifestyle - Is there any more recent information than June 1983?

A-96 Page 6.4-5 - Flathead Indian Reservation - Indian Health Service eligibility figures provide a more accurate figure regarding the proportion of the Indian and non-Indian population on the Flathead Indian Reservation.

A-97 Page 6.4-9 fifth paragraph - Are the numbers 145 (2%) in 1980 to 1,500 (18%) in 1990 correct? That seems like a tremendous change for ten years.

A-98 Page 6.4-11- last paragraph - The rates of population and housing increases since 1990 should also be noted. There appears to have been substantial growth between the Wye in Missoula and Arlee.

A-99 Page 6.4 -13 - second paragraph - The Tribes operate community water and sewer systems at Turtle Lake (east of Polson), St Ignatius Southside, and three homesites east of Ronan. They also operate community water systems in Arlee, Schley, Evaro, and the Mission Dam area east of St. Ignatius, as well as other systems outside the highway project area.

A-100 Page 6.4 - 13 - third paragraph - The Indian Health Service is now called the Tribal Health and Human Services Department.

A-101 Page 6.4 - 13 - fourth paragraph - Ambulance services may also be available in St. Ignatius.

A-102 section 6.6 - overall - This section should take into consideration the greater need for bicycle and pedestrian facilities on Indian Reservations. See the letter from the Federal Highway Administration to MDT dated August 26, 1992, which states: "It is important to keep in mind the needs on Indian Reservations. Indian homes are often spread out along a major road, not grouped together in a subdivision...The exposure rate is high and separate bike paths need to be considered between housing developments and local communities on Indian Reservations."

A-103 Page 6.6 - 1 -table - Why were these the only areas where bicycle use was counted? Most are rural, whereas greater use occurs in or near communities. The table is misleading.

A-104 Page 6.6 - 1 - footnote, last sentence - On what basis have you made this assumption?

A-105 Page 6.6 - 2 - sixth paragraph - Staff mentioned that they had witnessed pedestrians and bicyclists utilizing the highway right of way south of Arlee between town and the Jocko Road. Didn't Arlee businessman Tony Hoyt recommend a bicycle/pedestrian facility be constructed here?

A-106 Page 6.6-2- eighth paragraph - At the most recent public hearing for the highway in St. Ignatius, comment was made about the need for safe pedestrian crossing to and from Doug Allard's store and museum.

A-107 Page 6.6 - 3 - fourth paragraph - Community team members recommended a bicycle/pedestrian facility for the east side of the highway in Pablo. A facility between Pablo and Ronan has also been recommended due to the fact that middle school and most high school students living in Pablo attend school in Ronan and need safe, alternative transportation if unable to drive to and from extracurricular activities.

A-108 Page 6.6 - 4 - Didn't a bicycle fatality occur just south of Ronan within the last few years?

A-109 Page 6.6 - last paragraph - last sentence - Near which senior apartment complex?

A-110 Page 6.9-1 - first paragraph- The description of how water flows does not read clearly and is confusing if you are unfamiliar with the area and its water resources.

A-111 Page 6.9-1 - fourth paragraph- The discussion of lake levels would be more complete if the required time periods for specific elevations were also listed. (This is in the license for Kerr Dam).

A-112 Page 6.9-3, Table 6.9-2 - Water quality standards by the State of Montana do not apply on the Flathead Indian Reservation. On February 27, 1995, the Environmental Protection Agency approved the TAS (Treatment as a State) application from the Salish and Kootenai Tribes to administer Section 303 of the Clean Water Act. The Tribes have now adopted water quality standards of Reservation-wide applicability. These became effective April 27, 1995.

A-113 Page 6.9-5 last paragraph - The statement that none of the shallow wells have any commercial or domestic use is in conflict with the statement on Page 7.9-5 that says that wells in Arlee mostly draw water from a shallow aquifer developed in sand and gravel of the alluvial fan deposited by the Jocko River. Also note that this problematic wording was commented on by the Tribes in their August 3, 1993 letter (Page 4).

A-113 It is likely that shallow water is used for domestic purposes at several locations along the route. Pablo was not singled out in the EIS as an area of concern. However, Pablo has many shallow wells, many of them very old, hand dug wells, which are not recorded. These wells in the Pablo area are mostly in the shallow aquifer.

A-114 Page 6.11-1 - fish passage - There are no instream flow requirements for Spring Creek near Ravalli, Sabine Creek, or Spring Creek near Ronan as yet, although these streams do have fisheries values. This comment was made in the Tribes August 3, 1993 letter (Page 5). These same creeks are not referenced in Table 6.12-1 - are they not being considered for fish passage?

A-115 Page 6.12-1- fifth and sixth paragraph - There is some incorrect information as to the fisheries of the Jocko River. The Jocko River, upstream of Arlee, is managed primarily for native species. The Jocko River below Arlee is a non-native rainbow and brown trout fishery. Lake trout have also been recently discovered within this area. Eastern brook trout are scattered throughout this drainage. Fishing regulations are catch-and-release for all species except brook and lake trout. Also please note that the Jocko River does not flow between the towns of Arlee and Ronan (Ronan is not within the Jocko River drainage).

A-116 Page 6.12-1 - seventh paragraph- This paragraph refers to the section of the Flathead River that is crossed by the existing highway bridge at Polson only. The facts presented in this paragraph can not be correctly extrapolated to the entire South Bay of Flathead Lake.

A-117 Page 6.12-2 - second paragraph - This paragraph speaks to the fisheries resources of Ninepipe Reservoir which is much more diverse that the stated largemouth bass and yellow perch populations.

A-118 Page 6.12-3 - table - As mentioned in the Tribes letter of August 3, 1993, the instream flow listed for Crow Creek is incorrect. In order to make this table meaningful, the specific location for each stream should be listed, as several of these streams have different instream flow requirements at different locations within the drainage. The most logical choice would be to list the instream flow requirement at the location closest to the highway crossing.

A-119 Page 6.12 - 5 - table - Note that cutthroat trout and the three other fish species listed in the table are incorrectly identified as "amphibians".

A-120 Page 6.14 - 1 - second paragraph - Subsistence activities are not just an activity conducted in the past as this paragraph indicates.

A-121 Page 6.14-1 - third paragraph - Add "and cultural" after "history".

A-122 Page 6.14 - 2 - second paragraph, first sentence - Delete this sentence and add: "The Salish and Kootenai also retained the exclusive right to hunt, fish, and gather resources according to their traditions within the Reservation boundaries, and a right, held in common, to hunt and fish on open and unclaimed lands within their ceded territory"

A-123 Page 6.17 - 1 - first paragraph - Salish Ranges should be changed to Salish Mountains.

A-124 Page 6.17 - 1 - last paragraph - Some attempt has been made to coordinate building character with a rustic theme (cedar siding on several buildings, spilt rail fence at community center).

A-125 Page 6.17 - 2 - The Reservation boundary on the southern portion of the map is incorrect. The divide forms the Reservation boundary to the east and should also be labeled properly.

A-126 Page 6.17 - 3 - fourth and sixth paragraphs - Although development has impacted the viewshed in many areas, the majority of the Mission Valley corridor remains outstanding aesthetically, especially in the undeveloped agricultural and wildlife management areas. The Mission Mountains, devoid of clearcuts due to Tribal wilderness status, along with the kettle ponds along the roadside, attract tourists and locals for their photogenic appeal.

A-127 Page 6.17 - 4 - first paragraph - This should be corrected to say, "Tribal forest lands to the west". The word "climbs" should be dropped in the last sentence.

A-128 Page 6.17 - seventh paragraph - The scenery of the Mission Valley is a primary asset for living and working in this valley.

A-129 Page 6.17 - 5 - visually sensitive resource areas - Aren't the Mission Mountains a visually sensitive area?

Section 7

A-130 Page 7.1-1- fourth paragraph - Left turns from the county roads will also be impacted by increased traffic volumes. Will there be mitigation for this impact? Will warrants for traffic signals for Highways 200, 212 and major county roads be studied as well?

A-131 Page 7.1-3 - 7.1-6 - Page 7.1-3 states that roadway deficiencies will not be improved for the No Action Alternative and Page 7.1-6 states that roadway deficiencies would be corrected for the Lane Configuration A alternative. Given the comments provided above for Page 5-39, there should be some difference in level of service for the two alternatives, however, they are rated the same on Page 7.1-5. This should be corrected.

A-132 Page 7.1-3 - table - Page 6.1-26 states that much of the highway currently operates at LOS D. Page 7.1-5 states that in 2020 with Lane Configurations B, C, and D, the highway will operate at LOS B. Why then are the estimated travel times to Missoula, listed here, almost identical for today and 2020 with Lane Configuration B,C, and D if the LOS will be two steps different?

A-133 Page 7.1-6 - fourth paragraph- Will there be any improvement for the four grades in Polson listed on Page 6.1-8? If not, why not?

A-134 Page 7.1-6 - last paragraph - Will the relocation of the railroad bridge create any impacts that will need to be addressed?

A-135 Page 7.1 - 7 - second full paragraph - See comment for Page 5-41, fourth paragraph.

A-136 Page 7.1-7 - sixth paragraph - The EIS quotes AASHTO as stating that the accident rate is higher on multi-lane arterials than on two lane arterials. This could be clarified by adding the reasons for this (because of heavier volumes, more intersections and development along multi-lane undivided arterials than on two lane arterials).

A-137 Page 7.1-7 - Intersections and driveways - See other comments in this letter regarding the Tribes concern about access control issues and the need to further address these concerns in this document.

A-138 Page 7.1-7 - Safety - This section is inadequate in that it does not provide a comparison of the lane configurations relative to safety issues. Since safety has been a major issue of the Tribes and is stated as a purpose for the need for the proposed project, this section should provide a substantial analysis of the possible safety hazards related to the number of approaches and intersections, or increased hazards to pedestrians and school children along the proposed route and in the rural towns, and hazards related to crossing a wider highway.

A-139 Page 7.1-8 - Level-of-Service - Use of level of Service B to establish the capacity for this rural highway may be high and could lead to over design of the highway. Other states in this region have used LOS C for rural highway capacity analysis (Idaho, Nevada, Washington, Colorado, Kansas, and Nebraska), while South Dakota and Utah use Level of Service D.

A-140 Also, some communities may be willing to accept a lower level of service in return for an alternative that has less environmental impacts. Certainly ISTEA recognizes this and does not require strict adherence to national design standards but rather emphasizes community desires in designing a highway that will effect the character of their region.

A-141 Page 7.1-8 - third paragraph, last sentence - This sentence conflicts with Page 788 of the 1994 AASHTO manual which states, "continuous left-turn lanes should be used only in an urban setting where operating speeds should are relatively low..." Use of these lanes should not be encouraged unless speed limits are reduced.

A-142 Page 7.1-9 - Discussion on Arlee, Ronan, and Polson Alignments - If access problems contribute to over 1/3 of the accidents on this highway, why will there be "little or no opportunity to [control access] to the highway in these communities on the existing alignment"? As the highway is widened, it would seem the perfect opportunity to encourage access onto side streets or to at least consolidate the number of approaches for each business.

A-143 Page 7.1-9 - first bullet - Will the speed limit in Ravalli stay at 45 mph? A speed zone study is soon to be undertaken for the Pablo area, for possible speed reduction. Wherever raised medians, continuous left turn lanes, and/or curbing (urban typical) are proposed, speeds should be reduced from 55 mph.[1] "In general, continuous left-turn lanes should be used only in an urban setting where operating speeds are relatively low..." (AASHTO 1994, p 778).

A-144 Page 7.1-10 - third paragraph - This section (7.1.3) does not state that deficiencies will be corrected on the existing alignments if alternative alignments are constructed.

A-145 Page 7.1-10 - last paragraph - Again, why will "there be little or no opportunity to improve grades and alignments of approaches and intersections, nor to reduce their numbers"? Why couldn't access be purchased as with alignments 3 or 4?

A-146 Page 7.2-1 - second paragraph - As the Missoula and Kalispell areas continue to grow, however, the rate and pattern of land use and development will most likely be accelerated with Lane Configuration B,C, or D in areas within an hours commuting distance of these major employment centers.

A-147 Page 7.2-2 - first paragraph- No Action and Lane Configurations A,B, and C will allow traffic to make uncontrolled left turns across opposing lanes of traffic. They will also require vehicles to slow down and stop in the left lane, which is usually thought of as the faster passing lane. For safety, left turns should only be allowed at designated left turn bays at major intersections. "Traffic safety is greatly enhanced if turning vehicles can be stored clear of the lanes used by through vehicles" (AASHTO 1994, p 537).

A-148 Continuous two way left turn lanes should not be used on high volume, high speed highways either, such as is proposed in Evaro and Post Creek. All discussion of Lane Configuration C must include the fact that it is only recommended in areas "where operating speeds are relatively low" (AASHTO).

A-149 Page 7.2-3- fifth paragraph- Will there be a limit to the number of approaches in an area for safety?

A-150 Page 7.2-3 - sixth paragraph - Lane Configuration D (by creating barriers and restricting left turn access) and access management (including creation of frontage roads where feasible) would limit strip development. Partial access control could help manage the rate of sprawl.

A-151 Page 7.2-4 - second paragraph - last sentence- Change to read: "Efforts by ... to develop the Land Use and Growth Projection Study (to be appended to the Final EIS) could be ... However, recent lawsuits by the state and Lake County have dampened the cooperative spirit considerably." See comments for Page 2-9, ninth paragraph.

A-152 Page 7.3-1 - How many acres of Tribal agricultural lands will be impacted? Where are these areas located? Why were the farmland conversion impact ratings done for segments of the highway rather than the entire length? If the highway was reviewed as a whole, would it change the total points and perhaps raise the points above 160?

A-153 Page 7.3-1 - mitigation- This should also include purchase of development rights on prime and other important farmlands to mitigate for the loss of these and a percentage of future farmlands lost to development from growth spurred by highway development.

A-154 Page 7.4-2- third and fourth paragraphs - Lane Configurations B,C, and D could accelerate growth, as seen in the southern part of the project study area. Land Configuration A, with TDM and road deficiency corrections could improve capacity on an interim basis until resource management strategies are negotiated.

A-155 Page 7.4-2 - fifth paragraph, second sentence - This sentence seems very biased. What is the basis for determining which factors have more influence?

A-156 Page 7.6-3 - second paragraph - Of course the path for alternative, no-motorized transportation proposed by the petitioners would have some physical separation between

equestrians and others, and a soft surface for equestrian use. It should also be noted that due to a short time frame for comment at the time, the petition was never widely circulated.

A-157 Page 7.6-3 - fifth paragraph - If bicycle paths are separated far enough from the roadway, the concern that one direction of bicycle traffic must ride against motor vehicle traffic is not a problem.

A-158 Page 7.6-3- sixth paragraph - Proper signing could mitigate the possibility that when the bicycle path ends, bicyclists will tend to continue to travel on the wrong side of the road.

A-159 Page 7.6-3 - seventh paragraph - If the separate bicycle path is utilized with Lane Configuration A it will have less environmental impacts than would occur with Lane Configuration B,C, or D.

A-160 Page 7.6-3 - eighth paragraph - If maintenance is a concern with a separate bike path, then communities can "adopt a walkway" for maintenance.

A-161 Page 7.6-3 - ninth paragraph - Safety for children should be the primary concern for decision about the method for providing for bicycle travel.

A-162 Page 7.6-3 - tenth paragraph - Why would bicyclists traveling on a bike path be required to stop or yield? Wouldn't this path be considered the through traffic and the cross traffic would be required to stop?

A-163 Page 7.6-3- eleventh paragraph - Signage and education could mitigate the possibility that stopped cross street motor vehicle traffic or vehicles exiting side streets or driveways may block the bicycle path crossing.

A-164 Page 7.7-1 With twice as many lanes to sand and gravel, won't air quality impacts be greater during winter periods with regard to PM10? What about quality impacts during construction - hot batch plants, gravel crushers, and activity in gravel mines?

A-165 We request the opportunity to evaluate the air quality conformance evaluations on Ronan and Polson once they are complete.

A-166 Page 7.7-2 - references - Was air quality modeling done using the most updated model available (based on FHWA 1981 guidance)? have new models been developed since the enactment of ISTEA?

A-167 Page 7.8-1 - references- Is the STAMINA 2.0 noise model the most updated model based on FHWA administrative guidance issued in 1978?

A-168 Page 7.9-1- last paragraph- "are properly implemented" is repeated twice.

A-169 Page 7.9-2 - table - The fisheries program notes that the predicted sediment yields are alarming from a salmonid management perspective. The MDT should make a commitment to using all available technologies and practices to minimize sediment yields during after construction. Note that there is no information in this table about sediment yields from the preferred alternative.

A-170 Page 7.9-2, second paragraph - What are proposed for the improved erosion control measures?

A-171 Page 7.10-2 - under Mitigation - We suggest, " Permits for placing fill in wetlands along any alternative...". Also, add an "and" between 11990 and section, and delete "amended" after Clean Water Act.

A-172 Page 7.10 - 2 - under Replacement Wetlands - citation of the source of acreage needs to be added.

A-173 Page 7.10 - 7 - Cumulative impacts - The wetlands to be created or enhanced for mitigation for highway projects will be of much lower quality, because they will be the cattail ditches so near roads they are dangerous for wildlife, and less diverse than some of the other wetlands destroyed. This will partially mitigate for losses in functions and values. The last sentence of this paragraph should read - No net loss in wetland resources is (unofficial) national policy with respect to wetland mitigation.

A-174 Page 7.11-2 - last paragraph - The DEIS makes a strong commitment to fish passage at all stream crossing for the existing alignment (except Arlee, Ronan, and Polson). This commitment must be met regardless of the final alternative chosen.

A-175-176 Page 7.11-3 - Spring Creek near Ravalli - In their letter of August 3, 1993, the Tribes stated that the reconstruction of Jocko Spring Creek is a major issue that will need to be addressed. The DEIS states that all lane configurations will require relocation of the channel for at least 300 to 400 feet. The MDT should commit to a policy of no net loss of stream length for this and all other stream channelization projects. A tentative design for this stream crossing, including mitigation measures, should be included in the Final EIS.

A-177 7.12-1 - seventh paragraph - Draws the conclusion that lane configuration A may provide slightly less impact risk to wildlife than will the wider lane configurations. Doesn't address the recommendations made by the Tribal biologists in their wildlife study on the Evaro corridor which stated that Alternative A is the preferred alternative for mitigating wildlife impacts in the Evaro area due to the minimum potential to impact wildlife habitat.

A-178 Also the statement that "the types of habitat that will be lost with all lane configurations are not especially important" is also contrary to the wildlife study which documents the Evaro area as an important habitat linkage area and movement corridor.

A-178 Page 7.12-5 - The Migratory Bird Act prohibits more than just killing - it includes such things as harm, harass, wound, pursue, etc. It applies to all birds except house sparrows, pigeons, and starlings.

A-179 Page 7.12-7 - second paragraph under Wildlife passage structures - Modify with the following addition:

> "Although this design provides adequate features to allow for passages of ungulates and small and medium-sized mammals, similar designs have not been used by grizzly bears and wolves in crossing the Trans-Canada Highway in Banff National Park. In fact, gray wolves there have been segregated on either side of the highway by its construction, according to wildlife research biologists with Parks Canada. As a result, the need exists to re-evaluate the proposed design and potential alternative designs.

A-180 Page 7.13-1 - Bald eagles are attracted to road kills.

A-181 Page 7.15-1 - The EIS states that highway improvements will improve access to parks. What about the quality of the recreational experience? Highway improvements could increase the number of tourists. More tourists and increased use will mean decreased recreational quality.

A-182 Page 7.15-2 and 7.15-3 - Mitigation - Additional acreage should be purchased and dedicated as parkland or recreational land to replace those parks and recreation acres lost to construction and right-of-way.

A-183 Page 7.19.1 - There is no discussion on energy savings for each alternative with TDM, alternative modes of transportation, speed limit enforcement, etc.

A-184 Page 7.20 -1 - What about the number and location of gravel pits, and how they will be reclaimed?

A-185 Page 8-2 - under list of preparers - update Becker's experience to six years of experience as Tribal Wildlife Program Manager, and add Sue Ball - B.S., M.S. Wildlife Biology - six years as Tribal Wildlife Biologist. Similar updates are probably appropriate for all preparers. Even though some Tribal staff worked under a contract with Morrison Maierle on some special projects, Tribal staff should not be listed as representatives of Morrison Maierle but under: list of preparers, agencies, Confederated Salish and Kootenai Tribes.

Appendix B

A-186 No consideration is given to park and ride facilities in the TDM section. This would be a beneficial and timely opportunity now to include these facilities at relatively little cost. A significant number of people seem supportive of car/vanpooling. Several strategic locations could be identified, such as Arlee, St Ignatius, Ronan, and Polson. A TDM coordinator will soon be hired in Lake County who could assist in this endeavor. This person should work on a reservation-wide basis rather than limiting their efforts to Lake County.

The Tribes appreciate the opportunity to comment on this EIS and all other highway projects in Montana. We hope to review a substantially improved final EIS.

Sincerely,

Michael T. Pablo, Chairman
Confederated Salish and Kootenai Tribes

attachments

TABLE 5-1
Facility Types

Facility	Chapter
Uninterrupted Flow Facilities	
Freeways	
Basic Freeway Segments	3
Weaving Areas	4
Ramp and Ramp Junctions	5
Freeway Systems	6
Multilane Highways	7
Two-Lane Highways	8
Interrupted Flow Facilities	
Signalized Intersections	9
Unsignalized Intersections (3-Way STOP-YIELD-Controlled Approaches; 4-Way STOP-Controlled Intersections)	10
Arterials	11
Transit	12
Pedestrians	13
Bicycles	14

SOURCE: *Highway Capacity Manual*, 1985, Special Report 209 (Washington, DC: Transportation Research Board), p. 1-3.

unsignalized, urban arterials, bus transit, pedestrian facilities, and bikeways. Table 5-1 provides a summary of facility types included in the 1985 *Highway Capacity Manual*.

Capacity. The expression "capacity" depends on the units being observed (vehicles, passenger car equivalents, pedestrians), the time period, and the area of the facility being considered (lane, width in feet, area). Because each facility type covered by the 1985 *Highway Capacity Manual* has specific units for expressing capacity, Table 5-2 is presented as a summary.[1] In terms of passenger car units, capacity under ideal conditions is characterized by 2,000 passenger cars per hour per lane (pcphpl) for uninterrupted flow along freeways and multilane highways. On two-lane rural highways, capacity ranges from 2,000 to 2,800 passenger cars per hour (pcph), total for both directions of flow, depending on the directional split of volume. At signalized intersections, 1,800 passenger car units (pcu) can depart from the stop line for each hour of green time, on a per lane basis.

The 1985 *Highway Capacity Manual* lists some of the highest recorded traffic volumes by facility type. Although these values should not be considered typical, nor should they be considered as being achievable on all facilities of a given type, they do indicate the general upper limits of capacity. Note that in most cases the units are in terms of "vehicles" rather than passenger car units. Table 5-3 indicates the highest of the volumes listed in the 1985 *Manual*.

Levels of service. "Level of service" is defined as those operational conditions within a traffic stream as perceived by users of the traffic facility. The concept of level of service was originally defined as being a qualitative measure of operational conditions. Such a measure would ideally cover factors such as speed and travel time, delay, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. In practice, levels of service have been and continue to be defined by one or two measures of effectiveness for each facility type. These measures relate much more to speed, delay, and density than they do to qualitative factors or to safety.

For each facility type, six levels of service, A through F, are defined. For uninterrupted flow along freeways and highways, Level of Service A represents free flow with individual vehicles being unaffected by the presence of other vehicles. Level of Service E represents operating conditions at capacity, while Level of Service F defines breakdown flow conditions. For facilities with interrupted flow, a measure of effectiveness is used to define level of service ranges. Table 5-4 lists the measures of effectiveness used for each facility type in the 1985 *Highway Capacity Manual*. The primary measure is listed, although secondary measures typically are used to complement the analysis of level of service.

TABLE 5-2
Capacity by Facility Type

Facility	Units of Traffic	Time Period[a]	Area	Capacity Units Expressed As	Capacity (Ideal Conditions)
Freeway-basic section	Passenger-car units	Hour	Lane	pcphpl[b]	2,000[c]
Freeway-weaving area	Passenger-car units	Hour	Lane	pcphpl	1,900
Freeway-ramp junction	Passenger-car units	Hour	Merge or diverge area	pcph	2,000
Freeway-one-lane ramp	Passenger-car units	Hour	Ramp roadway	pcph	1,700
Two-lane highway	Passenger-car units	Hour	Both lanes	pcph	2,800[d]
Multilane highway	Passenger-car units	Hour	Lane	pcphpl	2,000[e]
Signalized intersection	Passenger-car units	Hour of Green	Lane	pcphgpl	1,800[f]
Unsignalized intersection—stop or yield controlled	Passenger-car units	Hour	Lane or movement	pcph	1,000[g]
Unsignalized intersection—four-way stop	Vehicles	Hour	Entering lane	vphp[h]	450
Urban arterial	(Capacity usually measured and controlled by most restrictive signalized intersection)				
Transit-freeway bus lane	Buses	Hour	Lane	bphp[i]	1,330
Pedestrians-walkway	Pedestrians	Minute	Foot of effective width	p/min/ft	25
Bikeway	Bicycles	Hour	Lane (one-way)	bike/hr	2,150[j]

[a]Time periods of 1 hour are usually based on a peak 15-minute volume expanded to an "hourly rate of flow."
[b]Passenger cars per hour per lane.
[c]Research completed in 1989 (NCHRP Project 3-33) indicates that capacity may be 2,200 pcphpl for multilane highways.
[d]For 50-50 volume split by direction.
[e]Saturation flow rate, in passenger cars per hour of green per lane.
[f]Potential capacity with no conflicting volume and critical gap of 6.0 sec.
[g]Middle of reported range.

TABLE 12.10
Service Flow Rates per Lane for Use in Planning Analyses of 70-mph Design Speed Highways with 12-Foot Lanes

Type of Terrain	Level of Service	Percentage of Trucks: 0%	5%	10%	15%	20%
		Service Flow Rate				
Level	A	700	700	650	650	600
	B	1,100	1,050	1,000	1,000	1,000
	C	1,400	1,350	1,300	1,250	1,250
	D	1,750	1,700	1,650	1,600	1,550
	E	2,000	1,950	1,850	1,800	1,750
Rolling	A	700	600	550	500	500
	B	1,100	950	850	800	700
	C	1,400	1,200	1,100	1,000	900
	D	1,750	1,500	1,350	1,250	1,100
	E	2,000	1,750	1,550	1,450	1,250
Mountainous	A	700	500	400	350	300
	B	1,100	800	650	550	450
	C	1,400	1,050	850	700	600
	D	1,750	1,300	1,050	850	750
	E	2,000	1,500	1,200	1,000	850

SOURCE: Transportation Research Board, *Highway Capacity Manual, 1985* (Washington, D.C.: TRB, 1986), Table 7-13, p. 7-20.

highways are the same as for freeways; however, since the speed-flow relationship is different, the resulting speeds and maximum flow rates are different. Level of service criteria for multilane highways are given in Table 12.11. Recent research has indicated that maximum flow on multilane highways occurs at a lower density than on freeways.[3] As a consequence, these values from the *Highway Capacity Manual* may be modified in the next few years.

Planning computation. In a typical planning application, an estimate of average daily traffic must be compared to a service flow rate to determine the probable number of lanes required for a desired level of service. The average daily traffic estimate is reduced to a directional design hour value by applying the design hour and directional factors.

[3]From Reilley, William R.; Harwood, Douglas W.; Shoen, James M.; Kuehl, Robert O.; Bauer, Karin; and St. John, Andrew D. Capacity and Level of Service Procedures for Multilane Rural and Suburban Highways, prepared for National Cooperative Highway Research Program, Transportation Research Board, National Research Council, unpublished work, May 1989.

If the roadway under consideration is to be of 70-mph design with adequate lane widths and clearances, the service flow rate is modified by the peak-hour factor, the facility type, and the development environment (f_d) obtained from Table 12.9. The adjusted service flow rate is then divided into the design hour volume (DHV) to determine the needed number of lanes.

12.4.2 Two-lane highways

A two-lane highway has one lane assigned to traffic in each direction. Passing of slower vehicles requires using the opposite lane when gaps in the opposing traffic stream and sight distance conditions permit. The two-lane highways discussed in this section are rural road sections not influenced by marginal activities, entering or turning traffic, or traffic signals. Sections with such influences should be analyzed as urban/suburban arterials.

Two-lane highways make up about 96 percent of all highway mileage in the United States; however, most of that mileage serves a land access function and is rarely subjected to traffic demands which tax its traffic-carrying capacity. About 275,000 miles of U.S. two-lane roads and streets perform an arterial function and thus may be subject to higher traffic demands and level of service expectations.

As flow rates in either direction on a two-lane highway increase and as sight distances are restricted, the need to pass slower vehicles in order to sustain a desired speed increases while the ability to pass becomes increasingly difficult. As a result, speeds are reduced below the drivers' desired speed, and queues form with increasing regularity.

Levels of service. Two measures of effectiveness are applied to two-lane highways to reflect these two phenomena: average travel speed (S) is used to estimate the decline from desired speed and percent time delay is used as a measure of the time spent in queues traveling at less than desired speed. These criteria are given in Table 12.12 and are illustrated in Figure 12.7.

Percent time delay is defined as the average percentage of time that all vehicles are delayed while traveling in platoons due to an inability to pass. Since this is a difficult

TABLE 12.11
Level of Service Criteria—Multilane Highways

Level of Service	Density (pc/mi./ln)	70-mph Design: Speed (mph)	70-mph Design: Maximum Service Flow (pc/hr./ln)	60-mph Design: Speed (mph)	60-mph Design: Maximum Service Flow (pc/mi./ln)	50-mph Design: Speed (mph)	50-mph Design: Maximum Service Flow (pc/mi./ln)
A	≤ 12	≥ 57	700	≥ 50	650	—	—
B	≤ 20	≥ 53	1,100	≥ 48	1,000	≥ 42	850
C	≤ 30	≥ 50	1,400	≥ 44	1,300	≥ 39	1,150
D	≤ 42	≥ 40	1,750	≥ 40	1,600	≥ 35	1,450
E	≤ 67	≥ 30	2,000	≥ 30	2,000	≥ 28	1,900
F	> 67	< 30	Var.	< 30	Var.	< 28	Var.

SOURCE: Transportation Research Board, *Highway Capacity Manual, 1985* (Washington, D.C.: TRB, 1986), Table 7-1, p. 7-7.

TABLE 5-25
Operational Improvements for Two-Lane Highways

Action	Improves	Relative Improvement
1. Reduce "No Passing" zones	Capacity and LOS	2 to 10 pcph increase for each 1% of total length reduced
2. Increase lane width	Capacity and LOS	5% to 15% capacity increase per 1 ft increase
3. Improve shoulder width	Capacity and LOS	2% increase in capacity per 1 ft increase
4. Install truck-climbing lane	Capacity and LOS	1 LOS better for each 3% heavy vehicles

Note: All "relative improvements" are for a given set of base conditions and will vary widely as conditions vary.

current operating level of service. Consider a two-lane rural highway which carries 180 vph in the peak hour, with a 60-mph design speed, 11-foot lanes, and 2-foot shoulders. In mountainous terrain, with 80% of the 10-mile section having no passing zones. The directional split is 60/40, with 5% trucks, 10% recreational vehicles, and no buses.

First, the actual flow rate is computed as 180 vph/PHF. In this case, a PHF of 0.87 is taken from actual field data. The actual service flow rate is 207 vph. Using equation (5.7), the service flow rate for each level of service (A, B, C, D, E) is computed. The directional adjustment factor is 0.94 for all levels of service. The lane width/shoulder width factor is 0.75 for LOS A through D and 0.88 for LOS E. The factors for trucks and recreational vehicles are taken from Table 5-24 and the f_{HV} adjustment is computed for each level of service. Calculation of the service flow rate indicates 23, 127, 211, 371, and 941 vph for levels of service A through E, respectively. Comparison of the actual service flow rate of 207 vph with the calculated maximum flow rates shows that current conditions are operating just within Level of Service C. When the actual service flow rate exceeds 211 vph, conditions will move into Level of Service D.

Operational improvements for two-lane highways

In addition to factors that might be controlled by the highway agency, such as lane width, shoulder width, and to a lesser extent vehicle mix, there are a number of design and traffic treatments that are applied in practice. Among these are improvements in passing sight distance, paving shoulders, adding a third lane, constructing passing lanes, adding continuous two-way left-turn median lanes, and constructing climbing lanes. Better geometrics at intersections and turnouts for slow-moving traffic can also be used to improve operations. Table 5-25 provides a summary of operational techniques that can be used to improve level of service and capacity on two-lane highways. The table shows in a general way the impact a given improvement can have on two-lane highway operations.

Signalized intersections

Traffic signals provide a complex type of operation for traffic flow. Signals allocate green time between conflicting movements. This time allocation depends on signal timing and phasing and creates the need to stop each conflicting movement on a regular basis and then to allow it to flow. This stop-and-go operation creates not only lost time but also the need for change intervals between traffic phases. During the past several decades, several procedures have been developed for analyzing the capacity, level of service, and specific operating conditions at signalized intersections. Most of these procedures are based either on a series of equations and adjustments that lead to estimates of measures of effectiveness such as delay or queue length, or on a more simple calculation that provides a summation of traffic volume passing through the middle of the intersection. This latter type of procedure is generally termed "critical movement."

Regardless of the type of procedure used, the traffic, geometric, and control conditions at a signalized intersection all contribute to the operational efficiency. Thus, in the very simple "critical movement" type of analysis, a large number of these factors have simply been subsumed or have gone unrecognized. In the more complex and complete operational procedures that produce direct estimates of traffic measures, most or all of the measurable factors remain explicit in the analysis and can be varied and studied by the traffic engineer.

Critical movement analyses

This simple type of analysis provides a quick estimate of the ability of a signalized intersection to accommodate a total hourly volume of traffic. In the 1985 *Highway Capacity Manual*, this type of procedure is called the "planning procedure." For each phase of a traffic signal timed in a traditional manner, the analyst sums up the maximum volume per lane that conflicts on each of the two major streets. Thus, for the north-south street, the highest sum of a through-lane volume added to the opposing left-turn-lane volume is considered as the critical volume for north-south. The same summation is performed for the east-west street. The two critical sums are then added to obtain a critical volume for the intersection as a whole, in terms of vehicles per hour. The planning procedure does not contain a specific list of LOS A through F, but rather gives general ranges of operation defined by ranges of the critical volume. Table 5-26 lists the ranges used. Two other alternative critical movement procedures are briefly discussed at the end of this chapter.

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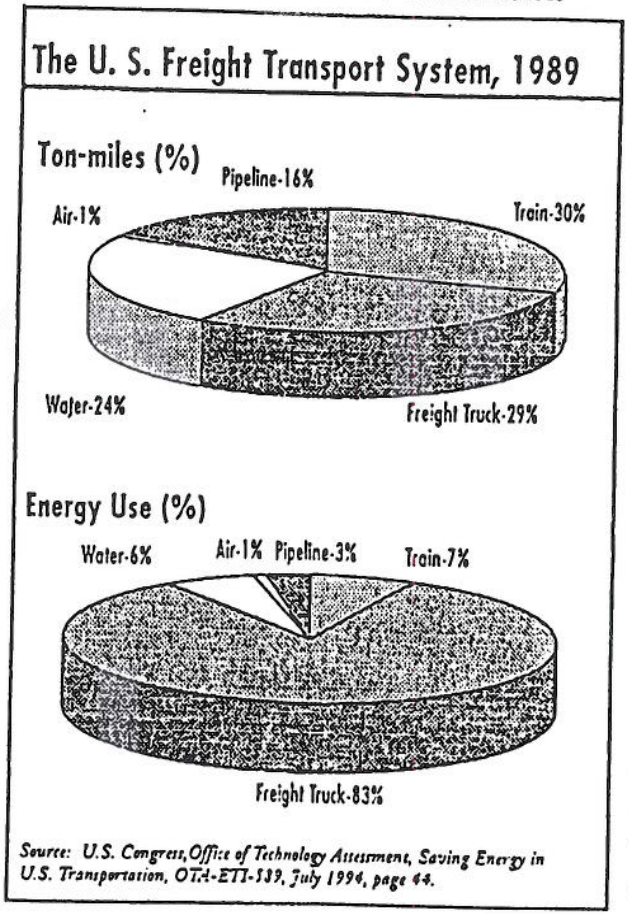
Traffic congestion, deteriorating facilities, and the development of new infrastructure in exurban areas have diminished the advantages of locating in the city. As a

To counteract these dispersing forces, community leaders have started implementing innovative measures aimed at retaining businesses and revitalizing



Source: U.S. Congress, Office of Technology Assessment, Saving Energy in U.S. Transportation, OTA-ETI-539, July 1994, page 44.

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June 23, 1995

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Chairman Michael T. Pablo
Confederated Salish & Kootenai Tribes
P.O. Box 278
Pablo, MT 59855

Dear Chairman Pablo:

We are writing to you concerning our continuing concerns regarding the Montana Department of Transportation's plans for U.S. Highway 93 and the Draft Environmental Impact Statement. In general, our concerns remain the same as we expressed in our review of the Preliminary Draft Environmental Impact Statement.

We would simply reemphasize a few points and add a few others in regard to this document.

A-187 1. We continue to have concerns about the highway's relationship to the long-term cultural environment of the Reservation, and our cultural survival. We feel the DEIS still does not make clear, objective comparisons between the different lane configurations and their impact on growth and development on

the Reservation. This is true in the chapter dealing with "Cultural Resources" as well as other chapters.

A-188 2. The MDOT essentially dismisses our concerns by saying the Culture Committees have only suggested mitigating the impacts by "avoidance" as if this were not possible. However, we feel different design alternatives may in fact make avoidance feasible, although this is difficult to clearly assess from the DEIS as it now stands.

A-189 3. Perhaps the biggest shortcoming of the DEIS continues to be the consideration of impacts for only 20 years into the future. The Tribes have been here for thousands of years and will, Creator willing, be here for thousands of years more. Whatever is done with this highway will impact our future for many generations to come. To restrict consideration of these impacts for less than the span of a single generation seems unwise and dangerous.

A-190 4. Again, we refer to our comments on the PDEIS. These have been nodded to in the DEIS, but it is apparent that they have in no way influenced or modified or even mitigated the basic gist of the document.

Sincerely,

Antoine Incashola
Assistant Director, Flathead Culture Committee

cc: Ginger Thomas, Karen Atkinson, Janet Camel

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Chairman Michael T. Pablo
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P.O. Box 278
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Dear Chairman Pablo:

As an addendum to our letter of June 23 regarding the Highway 93 issue, we would like to raise two additional concerns about the Draft Environmental Impact Statement.

A-191 1) As the DEIS now stands, the chapters on "Cultural Resources" (6.14 and 7.14) make no mention of the highway's impacts on animal populations. These instead are restricted to the "Fish and Wildlife" and "Threatened and Endangered Species" sections. We wish to emphasize, however, that impacts to animal species also constitute cultural impacts. We maintain a special relationship with the animals that goes to the heart of our cultural ways. Our Elders have consistently expressed their distress and concern about the highway's impact on animals -- both directly, in terms of animals being killed by cars on the roadway, and indirectly, by animals being pushed out of their homes, which we fear may be spurred by certain design alternatives. Our

culture is hurt as these animals are hurt, whether it is turtles killed on the road, or by the roads and homes that follow the road being built where grizzly bears live.

A-192 2) We continue to have concerns about several of the other environmental impacts that are predicted in the DEIS. These include noise impacts, water quality, and air quality, all of which are crucial to our cultural ways.

Noise in the vicinity of the highway is predicted to double or triple if a four-lane road is built. This appears to be based on conservative estimates that do not anticipate higher traffic speeds or greater traffic volumes with this design, which would raise the noise levels even higher. It also does not appear to take into account the noise generated by secondary development that may be increased by such a design. We wonder how much noise levels would increase throughout the Reservation area, if all these factors were taken into consideration for each of the design alternatives. Solitude, a pristine environment, and privacy are required for many of our cultural practices. Traffic noise can already be heard by people high up on the western face of the Mission Range. Worsening this situation would also worsen the cultural impacts.

A-193 Likewise, air quality and water quality are also important concerns for our cultural survival. In these and many other areas, the DEIS does not seem to consider secondary and indirect impacts in estimating the changes that would occur with each of the design alternatives.

Thank you for your kind attention to these matters.

Sincerely,

Antoine Incashola
Ass't. Director, Flathead Culture Committee

CC: Ginger Thomas, Karen Atkinson, Janet Camel

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Mr. Joel Marshik, Manager
Environmental Services
Montana Department of Transportation
2701 Prospect Avenue
P.O. Box 201001
Helena, MT 59620-1001

Subject: F 5-1(9)6, Evaro-Polson, EIS

Dear Mr. Marshik:

A-194 On June 15, the Missoula County Commissioners and planning staff met with Tribal Council and Natural Resources Department representatives to discuss the Evaro wildlife corridor and other issues presented in the Draft Environmental Impact Statement (DEIS) for U.S. Highway 93. As a result of this meeting, we agreed that there are several deficiencies in the document. These deficiencies must be addressed and followed by an opportunity for both of our governments to review the corrections to the document before it is released again for public comment. These deficiencies include but are not limited to:

* Several existing road deficiencies are mentioned in the DEIS, yet there is no mention as to what degree correction of these deficiencies could improve the safety and capacity of the corridor. This information is needed for evaluating the alternatives. The American Association of State Highway and Transportation Officials and the Somers to Whitefish project recommend 10-foot shoulders where feasible. If wider shoulders are known to improve capacity, then 10-foot shoulders should be evaluated for this project as well.
* Although Transportation Demand Management (TDM) is described, it is not fully incorporated into the analysis of the alternatives. In addition, TDM studies are only being conducted in Lake County. These studies should be conducted for the other counties affected by the proposed highway reconstruction.
* The DEIS does not make an effort to correlate with other proposed highway projects and corresponding environmental documents in western Montana, such as on Highway 200 from Ravalli to Dixon and other sections of Highway 93, both south in Ravalli County and north from Somers to Whitefish.

* Table 6.2-1 outlines Land Use and Land Status in Lake County. This table is not very useful since much of the county is outside the Reservation boundary and, therefore, the DEIS study area.
* As a result of recent interagency meetings between biologists (including MDT staff), significant changes to the DEIS regarding wildlife mitigation, particularly at Evaro and Ninepipe, are forthcoming. We are unable to comment on several of the alternatives until this information is available.
* The preferred alternative is not shown in the Comparison of Impacts summary tables (pp. 5-17 through 5-21).
* One-third of the accidents on this stretch of Highway 93 are related to existing approaches. MDT should describe specific access management steps to improve the situation.

In addition to the deficiencies listed here, each of our respective governments has additional comments which have been mailed to you in separate correspondence. We look forward to working with you on revisions of the DEIS.

Sincerely,

Confederated Salish and Kootenai Tribes

Michael T. Pablo, Chairman
Tribal Council

Missoula Board of County Commissioners

Fern Hart, Acting Chair

xc: Mr. Jim Weaver, MDT District Engineer, P.O. Box 7039, Missoula, MT 59807
Mr. Ray Brown, MDT Tribal Liaison; Montana Department of Transportation; 2701 Prospect Ave.; Helena, MT 59620-1001
Mr. Horace Brown, Missoula County Surveyor, 200 W. Broadway, Missoula, MT 59802
Ms. Ginger Thomas, DEIS ID Team CS&KT Liaison
Missoula Co. Rural Planning Office
Tribal Resource Planning Office
Chairman Chrono, DOL Chrono, Sam Morigeau, Karen Atkinson, Dale Becker

THE CONFEDERATED SALISH AND KOOTENAI TRIBES
OF THE FLATHEAD NATION
P.O. Box 278
Pablo, Montana 59855
(406) 675-2700
FAX (406) 675-2806

JUN 14 1995

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Joseph E. Dupuis - Executive Secretary
Vern L. Clairmont - Executive Treasurer
Bernice Hewankorn - Sergeant-at-Arms

TRIBAL COUNCIL MEMBERS:
Michael T. "Mickey" Pablo - Chairman
Rhonda R. Swaney - Vice Chairwoman
Carole McCrea - Secretary
Lloyd Irvine - Treasurer
Louis Adams
Elmer "Sonny" Morigeau Jr.
Henry "Hank" Baylor
D. Fred Matt
Donald "Donny" Dupuis
Mary Lefthand

May 24, 1995

Mr. Joel Marshik, Manager
Environmental Services
Montana Department of Transportation
2701 Prospect Avenue
P.O. Box 201001
Helena, MT 59620-1001

Subject: F 5-1(9)6, Evaro-Polson, EIS

Dear Mr. Marshik:

A-195 On April 18, representatives from the Polson community met with our Council to express concerns about the proposed truck bypass around Polson for U.S. Highway 93. They wish to preserve the cliffs and wildlife along the river, and voiced concern over the amount of traffic that would be routed through the area and the resulting noise level between the cliffs. As a result of this meeting, the Tribal Council voted to oppose the proposed truck bypass around the City of Polson, as presented in the Draft EIS for Highway 93. Please accept this letter as documentation of that opposition.

Sincerely,

Confederated Salish and Kootenai Tribes

Rhonda Swaney

Michael T. Pablo, Chairman
Tribal Council

jmc
xc: Mr. Ray Brown, MDT Tribal Liaison; Montana Department of Transportation; 2701 Prospect Ave.; Helena, MT 59620-1001
Chairman Chrono
Sam Morigeau
DOL Chrono
Karen Atkinson
Ginger Thomas
Planning File
ref: form.letter.mdot

No. 5
Ltr

LAKE COUNTY COMMISSIONERS
106 4th Ave East
Polson, MT 59860
Phone 406-883-7204
Fax 406-883-7283

MAR 28 1995

MASTER FILE COPY

cc: Consultant Dang
Morrison + Maierle
Jim Weaver

March 23, 1995

Joel Marshik
Montana Department of
Transportation
P. O. Box 201001
Helena, MT 59620-1001

Dear Mr. Marshik:

A-196 The Lake County Board of Commissioners wishes to offer our support for the recommended improvements for Highway 93 after three years of study.

The need to begin the major improvements continually grows with increased local population and tourist activities. It is also apparent that the project rights-of-way need to be secured as soon as possible before development complicates the purchases such as the case in the Kalispell/Whitefish area.

We urge the state to pursue the recommendations as soon as possible after final public review!!

If we can be of assistance feel free to call on us.

Sincerely,
BOARD OF LAKE COUNTY COMMISSIONERS

Dave Stipe, Chairman

Mike Hutchin, Member

Barry Baker, Member

jd

MISSOULA COUNTY

BOARD OF COUNTY COMMISSIONERS
200 W BROADWAY ST
MISSOULA MT 59802-4292
(406) 721-5700

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ENVIRUMENTAL BUREAU

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MORRISON-MAIERLE/CSSA, INC.

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June 22, 1995

cc: Jim Weaver
Preconstruction
Morrison &
Maierle

Mr. Joel Marshik, Manager
Environmental Services
Montana Department of Transportation
2701 Prospect Avenue
P.O. Box 201001
Helena, MT 59620-1001

Re: F 5-1(9)6, Evaro-Polson, EIS

Dear Mr. Marshik:

A-197

We have reviewed and evaluated the Draft Environmental Impact Statement (DEIS) for Highway 93. This is a major project which will have significant impacts on our County and we appreciate your attention to items we would like to see addressed more comprehensively. Some of our concerns are shared with the Confederated Salish and Kootenai Tribes and are expressed in a joint letter mailed to you under separate cover (copy attached). A number of other concerns, however, are felt especially by Missoula County. It is the purpose of this letter to outline those concerns and request appropriate action.

The EIS should present more data that compare benefits and consequences of an expanded highway. Projections indicate population will grow and traffic will increase. The DEIS recognizes these trends but does not fully address the social and cultural impacts of the preferred alternative. At a minimum, the DEIS should address the potential affects a multiple lane highway may have on the settlement and traffic patterns of an increased population. We understand that research has been conducted regarding these impacts as part of the development of the DEIS, but results have not been incorporated into the text. This information should be made available.

Our understanding is that once the final EIS is accepted, it will be valid for two years. If construction has not begun in that time, the EIS will be re-opened for comment. In that event, we would like to reserve the opportunity to comment again. We are particularly interested in securing the opportunity to comment so that if new data is available to support a wildlife overpass, that section of the EIS may be re-evaluated.

We also feel that more attention should be paid to non-motorized transportation and request that local communities be given an opportunity to further evaluate these needs before the EIS is completed. Pathways leading into and out of communities should be incorporated into the design. Plans should be developed to allow for continuing these pathways to accommodate future growth.

Thank you for the opportunity to comment on this document. Please keep us informed of the process steps and timelines related to the EIS and possible highway construction.

Sincerely,

BOARD OF COUNTY COMMISSIONERS

Barbara Evans
Barbara Evans, Chairman

Fern Hart
Fern Hart, Commissioner

Michael Kennedy/ss
Michael Kennedy, Commissioner

United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

ER-95/209

JUN 8 1995

Mr. Henry D. Honeywell
Division Administrator
Federal Highway Administration
301 South Park Street
Helena, Montana 59626-0056

Dear Mr. Honeywell:

A-198 This is in response to the request for the Department of the Interior's comments on the Draft Environmental Impact Statement/Section 4(f) Evaluation for US-93 between Evaro and Polson, Missoula and Lake Counties, Montana.

We concur that there is no feasible and prudent alternative to the use of the parks, recreation areas and wildlife refuges named in Table 12.4-1 on page 12-18 and the two historic sites, Ravalli School and the Northern Pacific Railroad, the Dixon - Polson Branchline. We also concur with the proposed measures to minimize harm to the above Section 4(f) resources. Mitigation measures to parks, recreation areas and wildlife refuges should be coordinated with and approved by the appropriate administering agencies, and evidence to that effect should be included in the Final Section 4(f) Evaluation. A signed copy of the Memorandum of Agreement concerning measures to avoid or minimize harm to the Ravalli School and the Northern Pacific Railroad, the Dixon-Polson Branchline should be included in the Final Section 4(f) Evaluation.

The Department of the Interior has no objection to Section 4(f) approval of this project by the Department of Transportation, providing that the mitigation measures discussed above are adequately documented in the Final Section 4(f) Evaluation.

We appreciate the opportunity to provide these comments.

Sincerely,

Willie R. Taylor
Director, Office of Environmental
Policy and Compliance

United States Department of the Interior

FISH AND WILDLIFE SERVICE
ECOLGICAL SERVICES
100 N PARK, SUITE 320
HELENA MT 59601

MASTER FILE COPY
cc: Consultant file

M.44 (I)

RECEIVED
DEC 07 1995
ENVIRONMENTAL BUREAU

December 4, 1995

Mr. Joel Marshik, Manager
Environmental Services
MT. Dept. Of Transportation
2701 Prospect Ave.
Helena, MT 59620-1001

Dear Mr. Marshik:

A-199 This is in response to your letter of October 16, 1995, received October 18, requesting Fish and Wildlife Service (Service) review of the biological assessment pertaining to your proposed reconstruction of U.S. Highway 93, Evaro-Polson (F 5-1(9)6) in Missoula County and Lake County, Montana.

The Service has reviewed the biological assessment and concurs with your determination that the proposed project is not likely to adversely affect the threatened grizzly bear (Ursus arctos horribilis), the endangered gray wolf (Canis lupus), the endangered peregrine falcon (Falco peregrinus), and the endangered bald eagle (Haliaeetus leucocephalus). Therefore, pursuant to S402.13 (a) of 50 CFR, formal consultation is not required.

If, after public review and comment, the final project design is changed so as to have effects on threatened and endangered species other than those described in the October 1995 biological assessment, a revised evaluation will need to be prepared. The Service will then issue a concurrence/nonconcurrence letter addressing the revised biological assessment.

We appreciate your efforts to ensure the conservation of these endangered species as a part of your responsibilities under the Endangered Species Act, as amended.

Sincerely,

Kemper M. McMaster
Field Supervisor
Montana Field Office

cc: Kalispell ES Suboffice

406 444 7245

Hodnik H28 19

APR 17 1995

U.S. DEPARTMENT OF
HOUSING AND URBAN DEVELOPMENT
ROCKY MOUNTAIN, DENVER
FIRST INTERSTATE TOWER NORTH
633 17TH ST.
DENVER, COLORADO [illegible]

MASTER FILE COPY

April 12, 1995

cc: Missoula District
Reconstruction
Marian Mpierle

Post-it™ Fax Note 7671	Date 4-17-95	# of pages 4
To Brad Peterson	From Jeff Marshik	
Co./Dept.	Co. MDT	
Phone #	Phone # 444-7632	
Fax #	Fax #	

A-200

This is in response to your request for comments on the U.S. Highway 93 Evaro-Polson, Montana, F 5-1(9)6 Draft Environmental Impact Statement (DEIS).

The Department of Housing and Urban Development (HUD), has reviewed your DEIS with consideration of the areas of responsibility assigned to HUD. This review considered the impact of the project on housing and community development in the area. Within these parameters we find the DEIS adequate for our purposes provided that residential development is prohibited within 1000 feet of the centerline of Highway 93 to prevent adverse noise effects from highway vehicle traffic.

If I may be of further assistance, please contact me at (303) 672-5285.

Sincerely yours,

Howard S Kutzer

Howard S. Kutzer
Regional Environmental Officer
Office of Operational Support

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII, MONTANA OFFICE
FEDERAL BUILDING, 301 S. PARK, DRAWER 10096
HELENA, MONTANA 59626-0096

5/1/95

MASTER FILE COPY

cc: Jim Weaver
Reconstructio
Maiule & Mai

RECEIVED
MAY 1995

Ref: 8MO

May 2, 1995

Mr. Joel Marshik, Manager, Environmental Services
Montana Dept. of Transportation
2701 Prospect Avenue
P.O. Box 201001
Helena, Montana 59620-0001

Re: Comments on Draft Environmental Impact Statement, U.S. Highway 93-Evaro-Polson, Montana, F 5-1(9)6

Dear Mr. Marshik:

In accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, the U. S. Environmental Protection Agency, Region VIII, Montana Office (EPA) has reviewed the Draft Environmental Impact Statement (DEIS) for the U.S. Highway 93, Evaro-Polson project.

The Federal Highway Administration (FHWA) and Montana Department of Transportation (MDT) propose to improve 56.3 miles of U.S. Highway 93 between Evaro and Polson, Montana. The DEIS states that the project is needed to improve transportation on U.S. Highway 93, which is important to local, regional and nationwide travel. The proposed highway project is located within the Flathead Indian Reservation.

The DEIS analyzes several alignment alternatives, including various alignments through and around Polson, Ronan, and Arlee, several lane configuration alternatives, and transportation demand management measures. A preferred alternative, of a four-lane highway, with varying lane configurations, on the existing alignment from Evaro through Polson has been identified. A truck bypass around Polson has also been recommended as part of the preferred alternative. We are enclosing our comments for your consideration as you complete the Final Environmental Impact Statement (FEIS).

In regard to air quality conformity for the Polson and Ronan nonattainment areas, we draw your particular attention to the need to show either that projected PM-10 emissions from construction activities and/or normal use and operation associated with the highway "build" scenario are lower than those for the "no-build" scenario, or that emissions from building the

project will be lower than emissions in 1990. Any emissions increase from the project over the "no-build" scenario in the future years must be mitigated in order for the project to conform. The FEIS must identify a specific mitigation strategy, quantify its emission benefits, include written commitments to carry out the mitigation measures (e.g., use of chemical deicer) from the agencies which will be responsible for implementation, and include a schedule for implementation of the mitigation measures. These commitments must be obtained prior to making a conformity determination for the project.

Based on the procedures EPA uses to evaluate the adequacy of the information in the EIS and the environmental impacts of the proposed action and alternatives, the DEIS for the U.S. Highway 93-Evaro-Polson project will be listed in the Federal Register in category EC-2 (environmental concerns, insufficient information). This category indicates that EPA has identified areas of potential impacts, specifically concerning air quality, water quality, and the preservation of wetlands and environmentally sensitive areas, which should be mitigated in order to fully protect the environment. Also, the EIS requires resource information in order to fully assess environmental impacts that should be avoided.

The EPA appreciates the opportunity to review and comment on the DEIS. If we may provide further explanation of our concerns please contact Mr. Steve Potts of my staff in Helena at (406) 449-5486 ext. 232; or if you have questions regarding the air quality conformity issues please contact Mr. Jeff Houk in our Denver Regional Office at (303) 293-1766; or for questions regarding air dispersion modeling please contact Mr. Shawn McCaffrey at (303) 293-0958. Thank you for your consideration.

Sincerely,

John F. Wardell, Director
Montana Office

Enclosures

cc: Bill Geise/Arlene Butler, EPA, 8WM-EA, Denver
Jeff Houk, EPA, 8ART-AP, Denver
Gene Reetz/Dave Ruiter, EPA, 8WM-WQ, Denver
Bob McInerney/Doug McDonald, COE, Helena
Bob Nebel, COE, Planning Division, Omaha
Dale Paulson, FHWA, Helena
Kevin Shelley, USFWS, Kalispell
Jeff Chaffee/Gretchen Bennitt, Montana AQB, Helena
Lee Roberts, EPA, Denver, 8OEA
Michael T. Pablo, Chairman, CSKT, Pablo
Shawn McCaffrey, EPA, 8ART-TO, Denver

Printed on Recycled Paper

EPA Comments On Draft Environmental Impact Statement (DEIS) for the U.S. Highway 93, Evaro-Polson Project

ORGANIZATION

1) We encourage inclusion of a comprehensive Table of Contents at the beginning of the FEIS. This would allow the reader to more easily locate specific sections or topics of interest, and enable the reader to identify the entire content and organization of the EIS at a glance. It would also be helpful to include tabs identifying new Chapter and Appendix headings. It is unwieldy to the reader to scatter the Table of Contents throughout the EIS.

UNRESOLVED ISSUES WITH OTHER AGENCIES

1) We note for Section 2.6 of the DEIS that the Confederated Salish & Kootenai Tribes (CSKT) has recently received Clean Water Act (CWA) approval to establish tribal Water Quality Standards. The CSKT will also obtain CWA Section 401 certification authority over Federally licensed or permitted activities that may result in a discharge to waters of the U.S., including wetlands.

A-201 **AIR QUALITY**

Conformity

1) Both Polson and Ronan are classified as PM-10 air quality nonattainment areas. The segments of the proposed highway project located within the Polson and Ronan nonattainment areas must be shown to conform to State or Federal Implementation Plans. Since neither Polson nor Ronan has a PM-10 State Implementation Plan (SIP), there is no mobile source "emission budget" for PM-10. In such situations the FHWA and MDT must show either that projected PM-10 emissions from construction activities and/or normal use and operation associated with the "build" scenario must be lower than those for the "no-build" scenario, or that emissions from building the project will be lower than emissions in 1990. Emissions must be calculated within the Polson and Ronan nonattainment area boundaries.

   While the analysis does provide traffic estimates and emissions rates for different scenarios, it does not summarize total emissions for the build and no-build scenarios, as required by the conformity rule. Also, the analysis must account for any other regionally significant roadway projects which are expected in the project area over the analysis timeframe similar to the regional analysis which was completed for Kalispell in 1994.

2) Any emissions increase from the project over the "no-build" scenario in the future years must be mitigated in order for the project to conform. The FEIS must identify a specific mitigation strategy, quantify its emission benefits, include written commitments to carry out the mitigation measures (e.g., use of chemical deicer) from the agencies which will be responsible for implementation, and include a schedule for implementation of the mitigation measures. These commitments must be obtained prior to making a conformity determination for the project.

   Also, the FHWA and MDT should calculate the benefit of any transportation demand measures and apply them to the "build" scenario to make this demonstration. The public should have access to the emissions information upon which the record of decision is ultimately based, and the conformity rule requires the conformity determination to be accompanied by its supporting documentation. The control measures for limiting PM-10 emissions from the construction activities and/or normal use and operation associated with the project must be included in the final plans, specifications, and estimates for the project.

3) We draw your attention to the methodology used for the air quality impact analysis and conformity determination for the Whitefish portion of the U.S. Highway 93 Somers-Whitefish Project. We recommend that this same methodology be used for the U.S. Highway 93 Evaro-Polson Project. The results of the analysis and conformity determination should be disclosed in the FEIS in accordance with the above two comments.

A-202 Air Dispersion Modeling

1) On page 7.7-2 it is stated that the SCREEN model was used for the air dispersion modeling for the potential PM-10 impacts of the project. EPA believes that the CALINE 3 dispersion model should be used in lieu of SCREEN to model the potential PM-10 impacts of the project. If the modeling results show exceedances of the NAAQS, those particular road segments should be mitigated appropriately to show compliance.

2) The air quality analysis should indicate whether or not the baseline date for PM-10 has been triggered in the vicinity of the project. If this is the case, a Class I PSD increment analysis for PM-10 should be conducted to evaluate the effect of this project and other changes in emissions that have occurred since the baseline date was triggered.

3) A conservative screening visibility analysis should be conducted to determine if visibility impairment is expected within the Flathead Indian Reservation.

A-203

WETLANDS

1) The Wetlands Section 7.10 of the Environmental Consequences Chapter fails to clearly disclose the direct wetland impacts of the preferred alternative. Table 7.10-1 identifies wetland impacts of the alternative lane configurations along the existing alignment. The preferred alternative, however, involves a combination of lane configurations along different segments of the 56.3 mile highway project. A reader cannot clearly identify the wetland impacts of the preferred alternative by reviewing Table 7.10.

The FEIS should correct this deficiency and include a clearer display of the wetland impacts of the preferred alternative, including acreage, and function and value of impacted wetlands to the extent that function and value information is available. This information is needed to assess the functions and values of impacted wetlands, and the adequacy of the wetlands mitigation plan in replacing these lost functions and values. We note that mitigation to provide compensation for unavoidably lost wetlands should focus upon replacement of lost wetland functions and values.

We recommend that the individual wetlands in the proximity of the highway, shown in the Appendix A aerial photographs, that will be encroached upon due to implementation of the preferred alternative, be specifically identified (i.e., To what extent will each wetland shown in the aerial photos be impacted?). This will allow the EIS reader to better evaluate avoidance/minimization measures, and individual wetland impacts.

2) It is stated on Page 7.10-2 that the wetland mitigation goal is "no net loss of wetland area or quality." As noted above it would be more consistent with National Wetlands Policy to state that the goal of wetland mitigation is "no net loss of wetland function and value."

3) The analysis and disclosure of less environmentally damaging alternatives to placement of fill in wetlands or other aquatic resource habitats needs to be strengthened. The discussion of avoidance on page 7.10-3 should include a more thorough analysis of all possible alternatives to avoid and minimize wetland and aquatic resource habitat impacts. These alternatives can include project design changes including roadway alignment reconfiguration, modifications to size and configuration, bridges, construction on pilings as opposed to fill, abandonment of realignment proposals in

highly sensitive areas, or use of safety devices to meet road safety objectives.

4) We understand from discussions with Corps staff that the proposed site for the new Polson truck bypass Flathead River bridge may impact a special aquatic site possessing valuable ecological characteristics (such sites are defined in 40 CFR Part 230 Subpart E). Particular attention should be paid to avoidance of impacts at special aquatic sites. We recommend evaluation alternative bridge locations that avoid special aquatic sites.

5) A specific detailed wetland mitigation plan that provides for adequate replacement of lost wetland functions and values will need to be prepared and approved by the appropriate agencies before implementation of the proposed project. This mitigation plan should include consideration of both direct, indirect, and cumulative effects. It should contain a statement of goals, a monitoring plan, long-term management/protection objectives and a commitment to conduct additional work, if required, to meet the goals of the plan. The wetland mitigation plan may be prepared and submitted under separate cover and referenced in the FEIS.

6) The draft 404(b)(1) Evaluation in Appendix C does not fully address 404(b)(1) requirements. Among the more important information missing from the draft US 93 Evaro-Polson 404(b(1) Evaluation are the following:

* Identification of the location, size, and type of the individual of 404 discharge sites in waters of the U.S., including wetlands, and the estimated quantity of fill placed in each site, for the preferred alternative.

* Adequate discussion of "appropriate and practicable steps to minimize potential adverse impacts of the discharges on the aquatic ecosystem" (i.e., specific discussion of project modifications to avoid and minimize discharges to streams and special aquatic sites, and a detailed mitigation plan to provide compensation for unavoidable wetland impacts).

* Adequate discussion and evaluation of individual 404 fills for findings of compliance for 40 CFR Part 230.11, Subpart B, Factual Determinations, and potential impacts for Subparts C, D, and E (i.e., Endangered Species Act determinations; evaluation of individual river and creek culverts, bridge spans, and other fill encroachments for adequate flood flow capacity, sediment and bedload transport, fish & wildlife passage; etc.,).

* Evaluation of timing and duration of 404 discharges to streams during construction to determine that disruption of

the migration or other movement of indigenous aquatic species shall not occur, and that discharges in spawning areas shall not occur, unless no other practical alternatives exist.

We also refer the FHWA and MDT and their consultant to the draft 404(b)(1) Evaluation for the US 93 Somers-Whitefish Project (included in Appendix B of the Somers-Whitefish FEIS), which addresses 404(b)(1) matters for a highway project more completely than the draft Evaro-Polson 404(b)(1) Evaluation.

A-204 WATER QUALITY/FLOODPLAINS/STREAM CROSSINGS

1) It would be helpful if the project maps in the Appendix (Figure A-2) that show stream locations in relationship to proposed project alignments were referenced at the beginning of Section 6.9. Review of these maps allows for better understanding of water quality, watershed, and fisheries impacts.

2) It is stated on page 6.9-5 that Polson is in the process of delineating a wellhead protection area to the south and east of town surrounding the municipal water supply wells and including a buffer area. It is also stated that a wellhead protection area is proposed on property owned by the public schools on the east side of Arlee. We recommend that the boundaries for these proposed wellhead protection areas be identified on a map that shows these areas in relation to proposed highway alignments. This will assist in evaluation and understanding of potential highway impacts upon these areas.

3) The discussion of wellhead protection areas on page 7.9-5 and 7.9-8 does not clearly describe or disclose the potential for contamination of ground water in these areas and potential risks to public health. An assessment of activities and potential contaminants used in the highway project should be conducted to determine risk of the project to ground water. Mitigation measures should be developed to assure that the potable ground water is adequately protected from the identified risks.

4) Section 6.11.3 (page 6.11-1) neglects to note that the Flathead River is also crossed with a bridge.

5) The statement on page 7.9-2 (end of 1st paragraph) that, "expected sediment introduction into the river resulting from a major storm occurring during construction will amount to three to four percent of current sediment loadings", is unclear. Does this refer to three to four percent of the 115 tons per day noted in the previous sentence? (i.e., Is it predicted that sediment delivery to the Jocko River during construction could be 3.5 to 4.6 ton per day?)

Sediment loadings to area streams from storm water runoff during construction should be described more clearly. We note that the FHWA and MDT should assure that all appropriate sediment and erosion control measures are provided for during project planning and design, and implemented during construction to minimize sediment delivery to streams and to assure protection of water quality and aquatic habitat. Stormwater runoff permit and pollution prevention plan requirements should be prominently identified and described in the FEIS. We encourage MDT to contact Mr. Paul Montgomery of the EPA Office in Helena at (406) 449-5486 ext. 234 regarding storm water permitting requirements.

6) Maintenance and Debris Disposal - Road standards and design have a major effect on scheduled and unscheduled maintenance needs. The needs for normally scheduled maintenance and debris disposal from ditch cleaning, sanding as well as anticipated but unscheduled maintenance, such as debris from slumps, should be analyzed and planned for during the design phase of construction and reconstruction projects. Practices of expediently sidecasting material over the shoulder, filling depressions and widening shoulders can have an adverse effects upon streams, wetlands, and riparian areas, and are inappropriate. Plans for long term normal as well as emergency maintenance programs should be disclosed in the NEPA document. Plans for management of roadside vegetation through the use of herbicides also require disclosure.

7) Winter maintenance - The EPA is concerned about the proximity of streams, wetlands and riparian areas to roads. Winter maintenance often results in the introduction of sediment either directly or indirectly to the stream and associated riparian and wetland resources. The impacts of winter maintenance activities are more a matter of a long term indirect and cumulative effects than of one specific incident. Snow plowing subsequent to sanding moves sand off the roadbed to the adjacent ditch line and fill slopes. When this sand moves into streams and wetlands adverse impacts occur. When winter highway maintenance activities potentially affect streams and wetlands the effects of the program should be disclosed in the NEPA document. This should include the steps taken to minimize and mitigate the unavoidable effects on waters of the United States (i.e. sediment traps, reuse of sanding material, maintenance program requirements, etc.) as well as a discussion of the effects themselves.

8) We support widening of the existing bridges at the Flathead River, Jocko River, and Post Creek stream crossings as noted in Section 7.11.3. We also support provision of an adequate span on the proposed new Flathead River bridge, wherever it may ultimately be located (note our comment # 4 under WETLANDS), to provide sufficient flood flow capacity, improved fish passage, and minimal encroachment upon the river channel and riparian area.

We also note from review of Table 6.11-1 (page 6.11-2) that Mission Creek and Crow Creek have significant drainage areas (48.6 and 49.3 square miles, respectively). Both streams are stated to have "important fishery values" (page 6.12-1). It is noted (page 7.12-3) that a 40-75 foot bridge span is being considered for the Mission Creek crossing for bear and other wildlife passage. We recommend that the FHWA and MDT construct a bridge at the Mission Creek crossing, and also consider construction of a bridge at the Crow Creek crossing with adequate spans to provide flood flow capacity, improved fish passage, reduced channel/riparian area encroachment, and opportunities for wildlife passage.

9) The unavoidable channel change for Spring Creek near Ravalli should be carefully planned and designed to allow construction of a stable and biologically functional stream channel (e.g., incorporating aquatic habitat features such as pools, riffles, spawning gravels, etc.,). Enclosed is a copy of the publication "Handbook for Reclamation of Placer Mined Stream Environments in Western Montana." Inter-Fluve, Inc., 1991. This Handbook (prepared to provide guidance for reconstruction of stream channels disturbed by placer mining) provides instruction on planning, design, and construction of stable, biologically functional stream channels. This guidance is useful for planning, designing, and constructing channel changes.

9) Provisions for hazardous waste containment in case of a spill should be described.

A-205 **LAND USE AND PREFERRED ALTERNATIVE**

1) The EPA is concerned that construction of a four lane highway from Evaro to Polson may induce and hasten changes in the pattern of land use, population density or growth rate, which may result in adverse effects to air and water resources, wetlands and wildlife habitat, and other natural systems. We believe a more thorough analysis and disclosure of the potential for the preferred alternative to induce or hasten land use changes and growth rates, that result in adverse effects to air and water resources, and wetlands and wildlife habitat, and other environmentally sensitive areas should be included in the FEIS.

A-206 2) EPA encourages the FHWA and MDT to use access control to the greatest extent possible to support compact development within existing communities rather than strip development, and to discourage induced development in environmentally sensitive areas such as wetlands, riparian areas, floodplains, important wildlife habitat, and in prime and unique farmland.

A-207 3) We agree with the recommendation of Alignment 1 along the existing US 93 corridor from Evaro to Polson. We believe utilization of this existing highway corridor for an improved highway is environmentally preferable to construction of a new highway along alternative alignments.

4) We suggest that FHWA and MDT analyze the potential for traffic congestion at the transition of the two lane (lane configuration A) to four lane highway (lane configuration C) at Polson, and plan and design accordingly to minimize such congestion.

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
215 NORTH 17TH STREET
OMAHA, NEBRASKA 68102-4978

REPLY TO ATTENTION OF

March 5, 1996

Regulatory Branch
PO Box 5, Omaha, Nebraska 68101-0005

A-208

Mr. Dale Paulson
Federal Highway Administration
301 South Park, Room 448
Drawer 10056
Helena, Montana 59626-0056

Dear ~~Mr. Paulson~~ Dale:

This letter is in response to your request that the Corps of Engineers comment on the two-lane highway improvement alternative that is stated in the Draft Environmental Impact Statement (DEIS). As stated in your letter of January 23, 1996, the Confederated Salish and Kootenai Tribes requested that the two-lane highway analysis be included in the EIS.

The National Environmental Policy Act requires that reasonable alternatives be presented and evaluated in detail in an Environmental Impact Statement (EIS). Reasonable alternatives are defined by the Council on Environmental Quality as those that are practical or feasible from a technical or economic standpoint.

As a cooperating agency, we recognize that the lead agency retains the right to determine what alternatives should or should not be carried forward in the DEIS for further consideration. We feel, however, that you should be made aware of our needs as it pertains to an alternative (b)(1) perspective.

The 404(b)(1) guidelines (40 CFR Part 230.10 (a)), are the substantive criteria for evaluation of discharges of dredged or fill material under the Clean Water Act and provide that no discharge or dredged or fill material be permitted if there is a practicable alternative that would have less adverse impact upon the aquatic ecosystem, as long as the alternative does not have other significant adverse environmental consequences. Practicable alternatives are those that are reasonable from a logistical, technical, and economic standpoint.

With regard to the two-lane highway alternative--you will have to determine if it is a reasonable alternative. If it is, we would like the EIS to show the comparison of the two-lane

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highway alternative presented in relation to the other alternatives from a environmental perspective with regard to its impacts on aquatic resources (acres, functions, and values) from a technical, logistical and economic analysis.

If this alternative is dismissed as not being reasonable, based upon the preliminary assessment of these comparisons or other screening criteria (possible safety, capacity, etc.), it would still have to be included in the write-up for alternatives considered and dismissed as part of chapter two narrative in the EIS.

We would like the opportunity to review your screening criteria; especially any environmental criteria. If you determine that the two-lane alternative is a reasonable alternative which meets your purpose and need, then we will likely have to identify it as a practical alternative for purposes of 404. Once this is done we will have to compare its impacts to the other alternatives and, if its impacts to the aquatic ecosystem are less than the other alternatives, then the two-lane alternative would be the one we would have to permit.

We believe it is inappropriate for us to comment on whether or not the two lane alternative is a reasonable one or not. We believe that this is essentially a purpose and need determination for which your agency is better suited than ours. Recognize, as I have stated above, that if you determine the two-lane alternative to be a reasonable one under NEPA, then we will have to consider it a practical alternative under 404.

Sincerely,

Richard D. Gorton
Chief, Regulatory Branch
Operations Division

Copy Furnished:

Mr. Joel Marshik
Montana Department of Transportation
2701 Prospect Avenue
PO Box 201001
Helena, Montana 59620-1001

THE CONFEDERATED SALISH AND KOOTENAI TRIBES
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April 5, 1996

A-209

Mr. Joel Marshik
Manager, Environmental Services
Montana Department of Transportation
2701 Prospect Avenue
P.O. Box 201001
Helena, MT 59620-1001

RE: TRIBAL COMMENTS ON THE DRAFT FINAL ENVIRONMENTAL IMPACT STATEMENT FOR THE HIGHWAY 93 - EVARO TO POLSON PROJECT

Dear Mr. Marshik:

Please accept this letter as the official comments of the Confederated Salish and Kootenai Tribes on the Draft Final Environmental Impact Statement for the Highway 93 - Evaro to Polson Project. The Tribes' comments are these (all citations are to section and page numbers within the DFEIS):

VOLUME I

Page 2-7: Paragraph 9: Given the number of towns and access points along the highway, it is unrealistic to say that "congestion will be eliminated" with a four-lane design. Granted, additional travel lanes will increase capacity, but even interstate highways experience congestion during peak travel times without the access conflicts that exist on Highway 93.

Page 5-35: Second paragraph: Delete the third sentence which reads: "The CSKT, which is also a member of the ID Team, has not made a recommendation for a preferred alternative." Substitute a statement which identifies that the Tribes have recommended a preferred alternative and identify how the Tribal preferred alternative is incorporated into the EIS. Upon review of this section and the Tribes' statement of preferred alternative, it appears that the Tribal preferred alternative could easily be inserted section by section in the existing format. To do so would only require subsection headings denoting the ID Team preferred alternative and the Tribes' preferred alternatives within each substantive section.

Page 5-38: Table 5.3-2, second row, change Unnamed Road to Kicking Horse Road.

Section 6.1: Speed plays a key role when considering stopping distances for access and other traffic operation and is a critical factor when judging LOS. Little mention is given regarding average travel speeds along different segments of the highway. Average travel speeds should be included in the substance of this section delineated by highway segment.

This EIS fails to fully meet the spirit and intent of ISTEA with regard to energy efficiency. The EIS should more adequately analyze this project's potential impact on energy consumption with regard to different modes of transportation and the different alternatives. For instance: (a) no analysis of the relative efficiency of alternative modes of transport is made (i.e. rail vs. auto/truck); (b) no estimate of increased fuel consumption related to highway stimulated growth is made; and (c) no analysis of what impact increased capacity will have on the incentive to carpool, walk, bicycle or take fewer trips is made.

MDT proposes more than six miles of continuous left-turn lane in areas without a quantified daytime speed limit. As the Tribes commented previously (6/12/92 correspondence), FHWA recommends this design only "in urban areas with extensive development and running speeds of 45 miles per hour or less." FHWA lists problems such as an increase in accident severity, ineffective marking when snowpacked and difficulty for older drivers in judging approaching vehicle speeds and making left turns. In response, this document should stipulate that speed limits must be lower in all areas where continuous left-turn lanes are built unless access is designed so that simultaneous deceleration by two vehicles travelling in opposite directions in the turn lane can be safely accomplished at the pace speed.

Page 6.1-3: Table 6.1-1, the column regarding speed limits should be changed to reflect recent changes in Montana Traffic law. The segments with a speed limit denoted as "55" now are 55 mph at night and "reasonable and prudent" during daylight hours. Also, research by the Tribal Planning Office shows that many more highway segments have only 1-2 feet of paved shoulder than is indicated in the column regarding shoulder width.

Page 6.2-6: Second paragraph, reference should be made to Table 6.2-4 here, otherwise no reference is made to it.

Page 6.4-3: This section has been amended to state that the Indian population is steadily increasing on the Flathead Reservation. The Tribal Planning Office concurs with this general thesis, but objects to the percentages used to support this thesis in the DFEIS because that data as stated is misleading and fails to fully account for cumulative effects on Indian population density. While the Indian population grew 36% from 1980 to 1990, when compared to the total Reservation population, the growth rate was only 7%. And although the rate was higher than non-Indian growth in the 80's, the trend throughout this century has been that non-Indian growth has outpaced Indian growth. For example, using the EIS population data for 1970-1980 and defining the percentage of Indian growth as it relates to the whole Reservation population, should result in showing that Indian population increased only 6% while non-Indian population increased 15%. The culture committees and elders can attest to the impacts of this disparate growth rate.

Page 6.7-1: Fifth paragraph, delete the last sentence which states "EPA regulations, NAAQS regulations and local tribal regulations apply." Insert in its place the following: "EPA regulations, and NAAQS regulations apply and are supported by local Tribal Air Quality Program oversight. The federal government maintains enforcement authority. Such authority necessarily recognizes Tribal Class I Air Quality Redesignation for the Flathead Reservation."

Page 6.7-2: Regarding section 6.7.4: The control strategies to prevent NAAQS exceedence contained within the TSD should be added to the mitigation activities which MDT has committed to in writing. At present, there is no Federal Implementation Plan in place for remedying Non-Attainment Areas within the Flathead Indian Reservation. The State Implementation Plan is only enforceable against off-Reservation sources. In the absence an enforceable implementation plan, the simplest and clearest method to assure enforceability of the control strategies is for MDT to identify the control strategies in this section and commit to carrying such control strategies out as mitigation in section 7.7.5 of this document.

Page 6.14-1: Second paragraph, delete the term "gathered" and replace it with "harvested". Representatives of the Kootenai Culture Committee believe that the term "harvested" more accurately represents the historical activities undertaken by their ancestors.

Fifth and Sixth paragraphs, delete the last three sentences of the fifth paragraph (begins with "In signing") and the entirety of the sixth paragraph. Replace with: The Hellgate Treaty provided that the Confederated Salish and Kootenai Tribes "ceded, relinquished, and conveyed" to the United States their "right, title, and interest" in much of what is now Western Montana, reserving the present Flathead Indian Reservation to the exclusive use and occupancy of the Tribes. Pursuant to the Hellgate Treaty, the Tribes also retained certain specific proprietary and usufructuary rights to the use of their off-Reservation aboriginal homelands. The Tribes reserved to themselves hunting , fishing, harvesting and grazing rights in their aboriginal territory, as well as the right of passage through such aboriginal territory, in perpetuity, among other rights. The Tribes reserved as their "permanent homeland" an area of land known today as the Flathead Indian Reservation.

Sections 6.14 and 7.14: The following comments are submitted by the Flathead Culture Committee: We repeat our concerns from our letter to then-Chairman Pablo on June 26, 1995, which were not responded to by the MDT:

"1) As the DFEIS now stands, the chapters on "Cultural Resources" (6.14 and 7.14) make no mention of the highway's impacts on animals populations. These instead are restricted to the "Fish and Wildlife" and "Threatened and Endangered Species" sections. We wish to emphasize , however, that impacts to animal species also constitute cultural impacts. We maintain a special relationship with the animals that goes to the heart of our cultural ways. Our Elders have consistently expressed their distress and concern about the highway's impacts on animals -- both directly, in terms of animals being killed by cars on the roadway, and indirectly, by animals being pushed out of their homes, which we fear may be spurred by certain design alternatives. Our culture is hurt as these animals are hurt, whether it is turtles killed on the road, or by the roads and homes that follow the road being built where grizzly bears live."

"2) We continue to have concerns about several of the other environmental impacts that are predicted in the DFEIS. These include noise impacts, water quality, and air quality, all of which are crucial to our cultural ways."

"Noise in the vicinity of the highway is predicted to double or triple if a four-lane road is built. This appears to be based on conservative estimates that do not anticipate higher traffic speeds or greater traffic volumes with this design, which would raise the noise levels even higher. It also does not appear to take into account the noise generated by secondary development that may be increased by such a design. We wonder how much noise levels would increase by such a design. We wonder how much noise levels would increase throughout the Reservation area, if all these factors were taken into consideration for each of the design alternatives. Solitude, a pristine environment, and privacy are required for many of our cultural practices. Traffic noise can already be heard by people high up on the western face of the Mission Range. Worsening this situation would also worsen the cultural impacts."

"Likewise, air quality and water quality are also important concerns for our cultural survival. In these many other areas, the DFEIS does not seem to consider secondary and indirect impacts in estimating the changes that would occur with each of the design alternatives."

We would add only that the MDT's response to Tribal comments seems to continue their pattern of presenting (and shoring up) an argument for a multi-lane highway, rather than an objective and even-handed assessment of all the alternative and the various impacts.

Page 7.7-1: Generally: The Air Quality Section of the DFEIS is deficient relative to supporting assumptions of decreased tail pipe and PM/10 emissions. One case in point is the Polson bypass (Section 7.7.2, paragraph 1, page 7.7-1). This section purports that the bypass will reduce emissions in Polson. The conformity analysis found in appendix F of the DFEIS states "the diversion of just 1,000 vehicle per day, for example, would reduce daily PM/10 emissions in Polson by approximately 160 pounds." Such assumptions should be supported by quantitative modeling data which incorporates prevailing wind speed, wind direction, the location of the bypass, etc.

Section 7.7.1: Although Appendix F of the DFEIS issues a decision on the required conformity analysis, no quantification data as provided to support the decision. There should be condensed data table available to the reader to view and verify the conformity analysis decision.

Page 7.7-2: The mitigation measures should not be discretionary. The word "considered" should be deleted and replaced by "undertake."

Page 7.15-1: Third paragraph, delete "quantity" and replace it with "quality".

Page 7.20-1: Third paragraph, delay the construction start date of "no earlier than 1996" to 1999 or other more realistic year.

VOLUME II

Page 2.3-3: A-14, the statement: [t]he regatta grounds are part of the Lake County Fairgrounds" is not correct. The regatta is an event that has been cooperatively sponsored by several local government entities in the past. The regatta historically has been held annually, but has not been held since 1993. The actual race occurs on the Flathead River, just downstream from the bridge at Polson. There are boat launch and grandstand facilities for the regatta located on the north bank of the River within the Lake County Fairgrounds. The bed and banks of the River are beneficially owned by the Tribes, with title held in trust by the United States. The surfaceof the River is under regulatory jurisdiction of the Tribes and is not a part of the Fairgrounds. In the past, the Tribes have issued special Tribal Recreation Permits sanctioning the event. However, there has been no special designation of the reach of River upon which the regatta occurs as either a park or a recreation ground by the Tribes. Federal law (49 U.S.C. § 302) authorizes "the Federal, State, or local officials having jurisdiction over the . . . site" as the appropriate body to make the determination of whether or not the site is a park or recreation area for purposes of 4(f) designation. State and county officials have no jurisdiction over the Flathead River. Either the Tribes or the Superintendent of the Flathead Agency, BIA are the "officials" with such jurisdiction in this instance. Neither the Tribes, nor the Superintendent have specifically reviewed this site with regard to its 4(f) status, thus it is premature to conclude that this not a 4(f) site until it is reviewed and a determination made.

Page 2.3-6: MDT's response #A-38 to the Tribes is not accurate. Polson was in fact handled differently from the other communities. A special study was commissioned early in the NEPA process for Polson. A separate consultant was hired for the project who, among other things, conducted an exit poll at voting places during an election to gather opinion regarding the Polson bypass issue. No other communities had similar study.

Page 2.3-22: A-187 (A-6), the following comments are submitted by the Flathead Culture Committee: The MDT argues that a multi-lane configuration, by making commuting easier for tribal members and so preventing the need for them to leave the Reservation, "may contribute to the retention of 'the preponderance of tribal people in certain areas of the reservation.'"

The MDT knows and has admitted that the four-lane would make commuting far easier. They know and have admitted this would bring in many more non-Indians (we feel they have underestimated these numbers). They know that these new non-Indians would dwarf whatever tiny numbers of tribal members might turn to commuting to Missoula after construction of such a highway (if indeed any would). So they know their plan would further reduce the percentage of tribal members among the Reservation's total population, especially in crucial areas for our tribal survival such as for our Salish language to survive, for our people to raise their children with a clear and strong sense of their identity, of who they are as a people and as a sovereign nation. They know their plan would strike a devastating blow to our people, to our culture which is now already under siege. We are working hard to hang onto our ways against great odds, but if this highway is built, it will become even more difficult.

The MDT knows all of this; they acknowledged it already. So their statement in A-6 is, to be frank, just a grotesque lie. They show themselves willing to resort to any level of falsehood and misrepresentation to sell their product. This statement seems to us only further proof that the MDT, an extremely powerful agency, is completely unfeeling and indifferent toward the effect of their road-building upon a people who have been lied to, manipulated, and abused by virtually every white agency and white official we have been forced to deal with in our history.

We can imagine only one truth in the MDT statement. A four or five-lane plan might lead to termination in a couple of decades, just as the railroad led to the opening of the Reservation. If that were to happen, we would all have to commute to Missoula seeking jobs, since the Tribes would no longer exist.

Page 2.3-22: A-189 (A-15), the following comments are submitted by the Flathead Culture Committee: If the EIS cannot estimate its impacts farther than 20 or 30 years, but it is clear that will have some kind of impacts far into the future beyond that point, then the project should not be built. That is the wisdom of the Elders. Consider the impacts for many generations to come. If one cannot anticipate the impacts, then a conservative approach is best -- hold off. The failure of non-Indian society to abide by this simple wisdom has brought repeated, unanticipated disasters to our country and our world.

This section mentions the EIS's discussion of the historical impact of the railroad (6.14). We are concerned, however, that this remains merely a discussion. Essentially, the EIS has acknowledged the devastating impact of the railroad on the Reservation, and the many ways in which we could expect their plan for Highway 93 to have a similar impact. The MDT essentially is saying, who cares? They realize they could not possibly "mitigate" such an impact. They appear to be arguing that some small cultural "education" programs would offset the impact of $200 million construction project.

Regarding the last paragraph: the point must be repeated that while yes, the transportation system is not the only factor affecting growth, it is the biggest single factor that we have the power to control.

We trust that these comments will be duly noted and incorporated in the Final EIS. If you have any questions regarding these comments, please contact Joe Hovenkotter, Tribal Legal Department at (406)675-2700 ext. 460.

Sincerely,

Rhonda Swaney

Rhonda Swaney
Chairwoman - Tribal Council

Confederated Salish and Kootenai Tribes

A-1 Revision of the draft environmental impact statement (EIS) has been coordinated with the Confederated Salish and Kootenai Tribes. Revisions have been developed with tribal staff, and pertinent new information is available for review by the tribal council. A copy of the final EIS has been provided to the Tribes for review before it is released to the public.

A- 2 Comment noted.

For the communities Arlee, Ronan and Polson, the draft EIS and final EIS identify a highway bypass as the safest alignment alternative. This is because traffic (most importantly heavy truck traffic) will be removed from inside the communities where homes and businesses are congregated and where school children and other pedestrians cross the highway.

Bypasses are not designated as part of the preferred alternative at Arlee and Ronan because of opposition from the community teams (including representatives of the Confederated Salish and Kootenai Tribes), officials of local schools and government, residents of the communities, and business persons in the communities. The opposition is due mainly to concern about adverse impacts to businesses.

A-3 A private engineering firm, designated by the Tribes, has been hired by the MDT to conduct the referenced speed studies. No results of the studies are available at this time. Results will be provided to and discussed with the tribal council when they are received.

A-4 There probably is an infinite number of combination alternatives that can be evaluated with the proposed action. For that reason, tables in the document show, segment by segment, what impacts will occur with each lane configuration. A reader can readily extract information from the document for each specific segment and determine what impacts will occur.

The preferred alternative, which includes mostly Lane Configurations B and C, was developed by the Interdisciplinary (ID) Team. Two-lane sections were not included in the preferred alternative (except through Polson where substantial traffic will be removed by a bypass) because two lanes will not adequately accommodate existing or projected traffic volumes.

Lane Configuration A includes all features of the proposal made by the Flathead Resource Organization for an improved two-lane highway, except slow-moving vehicle turnouts.

A-5 Impacts of the preferred alternative are listed in tables in the final EIS.

A-6 Additional information was added to Sections 6.4 and 7.4, Social, and 6.14 and 7.14, Cultural Resources, to address the social and cultural issues of impacts associated with growth and development.

Section 7.4 in the final EIS presents an estimate of commuter-related population growth for the Flathead Indian Reservation. The estimate of commuter-related population growth is based on assumptions about increasing rates of growth for the overall population and economy of the region, including the Flathead Indian Reservation and Missoula County.

The estimate represents the effects of improvement of the transportation system combined with a mix of other factors that are a part of overall growth and development. The total amount of growth in the estimate should not be attributed solely to the proposed action to improve US 93.

A number of variables will influence the "ability of the Tribes to maintain a cohesive reservation community." However, growth in the population of the reservation (with all its attendant secondary effects), is of particular concern.

Confederated Salish and Kootenai Tribes (Cont'd)

The rate of population growth is increasing in many rural areas of western Montana. It is likely the rural areas and small towns of the reservation will be attractive to anyone seeking to live in such an environment. An increase in population within the reservation could result in an increase in the types of social problems that one typically associates with larger cities (drug abuse, youth gangs, etc.) Such social problems are not compatible with the cultural values and practices of the Salish and Kootenai people.

Alternatively, an improved transportation corridor also may produce positive effects on the cultural environment of the reservation. With an improved roadway, tribal members may find it is possible to retain their residency on the reservation while working in urban areas such as Missoula. This and other factors (such as the proportionately higher rate of increase in the Indian population of the reservation) may contribute to the retention of the preponderance of tribal people in certain areas of the reservation. This is a concern of the Flathead Culture Committee.[1]

Also, there are people employed on the reservation who prefer to live in an urban area to be closer to university facilities, larger schools, shopping and other amenities. Improvement of the transportation system facilitates this.

Analysis of the effects of an increased commuter-related population for cultural resources in Sections 6.14 and 7.14 has been coordinated with the Flathead and Kootenai culture committees.

A-7 Refer to Response A-6.

A-8 Refer to Response A-6.

A-9 Comment noted.

A-10 Comment noted.

A-11 Refer to Response A-6.

A-12 Section 7.1.3.2 discusses the process MDT will use to provide access management for the proposed action. An access control plan will be developed for the proposed action after completion of the final EIS and record of decision (ROD). The Montana Department of Transportation will coordinate the access control plan with the Confederated Salish and Kootenai Tribes, Lake and Missoula counties and incorporated communities St. Ignatius, Ronan and Polson.

A-13 As explained in Section 12.1 of the Section 4(f) Evaluation contained in the draft EIS and final EIS, impacts such as "noise, air pollution, and general unsightliness" are considered "constructive use" of the site. In Section 12.4 of the Section 4(f) Evaluation, it is indicated, for each site, whether constructive use will occur.

Lane Configuration A, a two-lane improved highway similar to the Flathead Resource Organization's (FRO) concept, has been evaluated in the Section 4(f) Evaluation and elsewhere in the draft EIS and final EIS.

As indicated in Section 5.3.2 of the draft EIS and final EIS, an improved two-lane highway will not meet the purpose and need of the proposed action and is therefore not considered a reasonable and prudent alternative.

[1]Letter from Flathead Culture Committee to Mr. Michael T. Pablo, Chairman of the Confederated Salish and Kootenai Tribes. June 4, 1992.

Confederated Salish and Kootenai Tribes (Cont'd)

A-14 The Section 4(f) legislation applies to publicly owned land of public parks or recreation areas; wildlife/waterfowl refuges; land of a historic site of National, State or local significance.

Section 4(f) use can occur in two ways. One is a "use" when land from a Section 4(f) site is acquired for a transportation project. The other is when the proximity impacts of the transportation project on the Section 4(f) site, without acquisition of land, are so great that the purpose for which the Section 4(f) site exists are substantially impaired (constructive use). Such substantial impairment would occur when the proximity impacts of Section 4(f) lands are sufficiently serious that the value of the site in terms of its prior significance and enjoyment are substantially reduced or lost.

The following addresses both potential 4(f) uses regarding the regatta grounds:

1. Direct Use - The alignment including the new bridge proposed as part of the preferred alternative, Alignment 3, would not require the use of any property from the Lake County Fairgrounds. The regatta grounds are part of the Lake County Fairgrounds. The route of Alignment 3 is located just south of Polson airport, several hundred feet south of the fairgrounds.

The Flathead River is not a 4(f) site. In general, rivers are not subject to the requirements of Section 4(f), with the exception of wild and scenic rivers and publicly-owned rivers which are designated as recreational trails.

2. Constructive Use - The regatta grounds viewing area is located on the Lake County Fairgrounds. The fairground site is 47 acres; activities include rodeos, county fairs, livestock displays, powwows, and regatta races. Facilities include an enclosed rodeo arena, a half-mile track, an announcer's box, bleachers, animal pens, corrals, a barn, a powwow ring, and a regatta dock. The fairgrounds are owned and managed by Lake County. Under the 4(f) definition, the fairgrounds, including the regatta area, is considered a 4(f) site.

The annual regatta event is viewed from the regatta grounds as well as other locations along the Flathead River. The regatta grounds are not used solely for the annual regatta viewing, but are used for other events throughout the year including fireworks viewing. The boat access is used by boat recreationists during summer months.

The regatta grounds are a portion of the Lake County Fairgrounds [a 4(f) site] containing a variety of facilities and uses. The regatta grounds are used for recreation other than the annual race boat event. The value of the fairgrounds and the regatta grounds in terms of its prior significance and enjoyment would not be substantially reduced or lost. Therefore, constructive use does not apply to the regatta grounds.

A-15 The analysis in the final EIS uses the mechanisms available through national transportation policy to address current needs for the transportation system. The analysis in the final EIS does not make assumptions about change that may occur over a period as long as 50 years for cultural and transportation issues.

The current needs of the transportation system do not present any indication that there will be further expansion of US 93 after the 20-year design period.

The Montana Department of Transportation and the Federal Highway Administration provide commitments in the final EIS to coordinate transportation and access management with tribal and local land use planning and regulation. MDT and FHWA also provide commitment to participate in mitigation measures to support cultural preservation through education.

Confederated Salish and Kootenai Tribes (Cont'd)

The impact of the construction of the current highway and the railroad are discussed in Section 6.14 of the draft EIS and the final EIS.

For the existing development adjacent to the roadway, people with commercial interests have taken advantage of their proximity to the highway. Strictly commercial establishments (a bar, several restaurants, a restaurant/motel complex), as well as complexes that combine businesses/residential units (e.g., an art gallery, a post and pole plant, a trailer sales lot, a trading post/historic village) are prominent along the roadway.

When the roadway was rerouted around St. Ignatius, new development occurred not within town but adjacent to the new road. Based upon the character of existing development adjacent to the roadway, the highway has been a factor in drawing commercial development.

The importance of the roadway to existing businesses (some of which are owned by tribal members) can be seen by the comments received during the scoping meetings. Virtually all business owners demanded that the proximal relationship between the business and the roadway be maintained. The financial success of some of these businesses may be dependent upon the retention of unrestricted access.

A few residential subdivisions also have occurred adjacent to the roadway, where parcels of a few acres in size have been subdivided from larger landholdings. Typically they contain single family residences and a few outbuildings. However, the amount of residential development that has resulted from the presence of the roadway appears to be less than the commercial development. Much of the land adjacent to the highway remains in agricultural use.

Although an improved highway may influence some people in their decision to move to a rural area, in many cases, development occurs in spite of a lack of infrastructure. A "carrying capacity study" prepared for Missoula County within the past few years shows that virtually all privately owned riparian lands within the county had been subdivided, even though infrastructure such as roads, sewers, water, gas and electric services were not assured. Although development had not taken place, the structure within which development could occur had already been superimposed upon areas containing elements that are desirable for homesites (i.e., proximity to a water source or the availability of a view). Although an improved roadway may result in the development of rural subdivisions, it would have to be counted as only one contributing factor in the trend towards rural subdivisions.

A-16 The Montana Department of Transportation is coordinating the development of a wetlands mitigation plan with the Confederated Salish and Kootenai Tribes, based on the terms and conditions contained in the wetlands memorandum of agreement (MOA).

A-17 Existing US 93 and any improvements to it are maintained by the Montana Department of Transportation using state and federal funding.

A-18 With nearly 60 miles of highway involved with the proposed action, it is not practical nor desirable to address all design issues in the draft EIS and final EIS. Major issues, however, such as the roadway alignment and the number of lanes to be constructed, are discussed in detail. The ID Team and the community teams have recognized this and have proposed that close coordination continue after the record of decision has been completed for the proposed action -- this will allow valuable citizen involvement in all phases of the proposed action.

Confederated Salish and Kootenai Tribes (Cont'd)

A-19 These photo representations were completed by independent photographers and graphic artists using computer simulation software and equipment and based on preliminary engineering plans that have been completed. No attempt was made to influence the outcome of the representations. They attempt to provide an approximate visual representation of changes that may occur with various alternatives.

A-20 This type of work has occurred and will probably continue to occur, as part of normal highway maintenance activities, in areas where it is most needed.

A-21 Footers have been added to the bottom of each page identifying the chapter and section. A list of abbreviations is included in Section 11 of the draft EIS and final EIS. A glossary with definitions of technical terms has been added to the final EIS.

A-22 The change was made in Section 2.1 in the final EIS.

A-23 It is correct that, at the time of publication of the draft EIS, the NHS only was proposed and had not yet been designated by the U.S. Congress. The NHS, including US 93, was approved by Congress in late-1995.

A-24 It is recognized that growth rates currently are higher than three percent per year. A careful study of highway growth rates over the past 50 years indicates that there historically have been periods with higher growth rates, but there also have been periods with very low growth rates. This growth rate study indicates that, during the 50-year period and during any given 20-year period, growth rates (taking into account years with high and low growth rates) have been very close to three percent per year.

A-25 US 93 has the highest volumes of traffic for rural primary highways in Montana.

The final EIS presents an analysis that shows safety has been improved where two-lane highways with high volumes of traffic have been widened to four lanes. Other rural primary highways with volumes of traffic similar to US 93 already are, or in the near future will become, four-lane highways; two-lane highways were not adequate for their volumes of traffic.

A-26 The change was made in Section 2.3.2 in the final EIS.

A-27 If the preferred alternative, as described in the draft EIS, is constructed, the capacity of the highway will be increased to several times that of the existing highway. Congestion will be reduced for through traffic, including on busy holiday weekends and for passing slow-moving vehicles. The draft EIS and final EIS acknowledge access to the highway from multiple approaches will continue to be difficult.

A-28 Comment noted.

A-29 The referenced text in Section 2.4 has been changed to indicate comparison between No Action and the preferred alternative is made for predicted concentrations of CO and PM_{10}. It is true that the CO emission factors for each vehicle will decrease from 1994 to 2020 and that the number of vehicles will increase over that same time period. On balance, CO concentrations in 2020 for the preferred alternative are expected to be substantially less than No Action and approximately the same as 1994 conditions. CO concentrations with No Action in 2020 are expected to be substantially more than 1994 current conditions. The referenced text also reflects the change regarding the relative PM_{10} concentrations which results from using the new model, CAL3QHC.

Total CO emission increases as a result of an improved highway will be very minor and will be more than offset by improved operating efficiency.

Confederated Salish and Kootenai Tribes (Cont'd)

A-30 The change was made in Section 2.7 in the final EIS.

A-31 The conformity analysis must demonstrate that the proposed action will reduce the total emissions in the area when compared with No Action. It does not otherwise address impacts of alternatives on air quality.

A-32 The draft EIS discloses that ALCO permits will be required. In the final EIS, this is listed as a required tribal action.

A-33 This footnote has been revised in the final EIS to indicate the year 2000 as the earliest year construction may be completed and the year 2020 as the design year.

A-34 The change was made in Section 4.1 in the final EIS.

A-35 This section, along with Section 6.1.2, discusses existing conditions of the highway and makes no attempt to discuss methods of correcting deficiencies. Methods proposed for correcting deficiencies are noted in Section 7.1.3.1 of the draft EIS and final EIS. It is noted that, with any of the proposed lane configuration alternatives (including Lane Configuration A, the improved two-lane highway), geometric design standard deficiencies will be corrected.

A-36 The change was made in Section 4.3 in the final EIS.

A-37 The high percentage of accidents that involve approaches was not taken into consideration when determining that the current LOS is "poor" -- there is no technique, in the 1985 or 1994 Highway Capacity Manuals, or elsewhere, to do so.

The number of approaches also was not taken into account because, at the time the draft EIS was published, there was no standard technique in the Highway Capacity Manual to do so. Since the 1994 Highway Capacity Manual has been published and made available (in May 1995), the number of approaches per mile has been considered for LOS evaluation of four-lane highway alternatives.

As indicated in Section 7.1.3.4 of the final EIS, even with the high number of existing approaches, LOS will be substantially improved with a four-lane highway and will be LOS B or better through the design year 2020.

There is still no standard technique to evaluate the effect of number of approaches per mile on LOS for a two-lane highway.

A-38 The study of three communities, Arlee, Ronan and Polson, and the study of the existing alignment, outside Arlee, Ronan and Polson, were completed to comply with the National Environmental Policy Act (NEPA).

There were some differences in the study of Polson. A separate consultant was hired to complete the environmental analysis of the proposed action for Polson. Also, a survey that was conducted in Polson on election day 1992 was not conducted in other communities.

Other types of special studies were done that included Polson, Arlee and Ronan. For example, the evaluation of economic effects for alternate highway routes was completed for each community.

Though results of the evaluation of alternatives through Polson may be different from other communities (a bypass is recommended as part of the preferred alternative), the process used to study Polson was not handled differently than other communities along the route where bypasses are under consideration.

Confederated Salish and Kootenai Tribes (Cont'd)

Chapter 10 in the final EIS presents details about the coordination of studies for Polson, Arlee, Ronan and other communities of the Flathead Indian Reservation.

A-39 A two-lane highway is not downplayed in the draft EIS. However, it is noted in various sections that an improved two-lane highway will not accommodate existing or projected traffic volumes and therefore does not meet the purpose and need for the proposed action. Despite various efforts and evaluations, no combination of climbing lanes, passing lanes, turning lanes, slow moving vehicle turn-outs or TDM measures has been developed that will produce any substantial improvement in traffic operation on an improved two-lane highway in this area.

A-40 The American Association of State Highway and Transportation Officials (AASHTO) indicates that bicycle lanes in areas without curb and gutter should be at least four feet wide; a width of five feet wide or greater is preferable, and additional widths are desirable where substantial truck traffic is present or where vehicle speeds exceed 35 mph[2].

As indicated in Section 7.6.3 and Figure 7.6-1, the eight-foot-wide shoulders will provide approximately a 6.75 foot wide separation between trucks and bicyclists. This is considered adequate and is in accordance with AASHTO.

A-41 Providing for bicyclists on the shoulder is generally more accommodating in rural circumstances and may be better than providing a separate parallel bike path in rural areas between communities. This is explained in Section 7.6.3 of the draft EIS and final EIS.

A-42 According to AASHTO[3], where slow-moving vehicle turnouts exist,

> *"The driver of the slow-moving vehicle, if there are following vehicles, is expected to pull out of the through lane and remain in the turnout only long enough for the following vehicles to pass before returning to the through lane. When there are only one or two following vehicles this maneuver can be accomplished without it being necessary for the driver of the vehicle in the turnout to stop. However, when this number is exceeded it will require the driver to stop in order for all the following vehicles to pass. Turnouts are most frequently used on lower volume roads where long platoons are rare and in difficult terrain with steep grades where construction of an additional lane may not be cost effective."*

With the high traffic volumes on this road, platoons of more than two vehicles are frequent. When slower moving vehicles pull into the turnout, they will frequently be required to come to a complete stop. Most of these slower-moving vehicles will be RVs and trucks which accelerate slowly -- with the high traffic volume on the through lane, it will be difficult for them to re-enter the traffic stream. Because of these difficulties, few drivers will use them and, when they do, additional safety problems will be created as slower-moving vehicles try to re-enter the main traffic stream.

A-43 This question has been addressed in Section 7.1.3 of the final EIS. As indicated in that section, traffic operation may be improved, but not sufficiently to provide an acceptable LOS without improvements to the highway.

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[2]American Association of State Highway and Transportation Officials, Guide to the Development of Bicycle Facilities, 1991.

[3]American Association of State Highway and Transportation Officials, A Policy on Geometric Design of Highways and Streets, 1990, page 270.

Confederated Salish and Kootenai Tribes (Cont'd)

A-44 The effects of TDM on energy efficiency are discussed in Section 7.19 of the final EIS.

A-45 The effects of TDM on energy efficiency are discussed in Section 7.19 of the final EIS.

A-46 The change was made in Section 5.1.4 in the final EIS.

A-47 Alternate highway routes were evaluated in sufficient detail to determine that, though signing and designation of special routes may be good ideas, it is not practical or desirable to transfer sufficient traffic to these routes to substantially improve operation on US 93.

A-48 References to MT 200 in the sixth and seventh bullet statements should have been to MT 28 instead. The change was made in Section 5.1.5 in the final EIS.

A-49 As indicated in the draft EIS and final EIS, these alternate travel routes have longer travel distances than US 93 from Missoula to Polson and Kalispell. Even though these routes currently have better levels-of-service than US 93 (LOS A and B on these routes compared with LOS D and E on US 93) and similar scenery, particularly in the Seeley-Swan area of MT 83, substantially fewer travellers use the alternate routes. It would be difficult to change the current condition where, even though these travel routes are very desirable and less stressful, travelers choose to use the congested US 93 route because of much shorter travel distances, with less travel cost and travel time.

A-50 Comment noted.

A-51 The comment concludes something that is not stated or implied in the referenced paragraph. The paragraph states what is known to law enforcement and transportation agencies throughout the country in saying that ". . . enforcement of speed limits lower than the speed the majority of drivers are comfortable with has, in the past, normally proven unsuccessful".

A-52 The preferred alternative is identified in Tables 5.2-1 through 5.2-4 of the final EIS.

A-53 Traffic volumes have been updated to the years 1994 and 2020 in the final EIS (from 1991 and 2015 in the draft EIS). Analysis of LOS has been updated using the 1994 Highway Capacity Manual. LOS also has been refined to show the differences between No Action and the improved two-lane highway.

Results of these new analyses are included in Section 7.1.3.4 of the final EIS and show a slight improvement in LOS and capacity with an improved two-lane highway. The updated analyses also consider TDM measures and impacts.

Increasing the width of a narrow shoulder improves LOS until the width reaches six feet. As shown on Table 5-23 of the 1992 Traffic Engineering Handbook and Table 8-5 of the 1994 Highway Capacity Manual, wider shoulders are treated the same as six-feet-wide shoulders in LOS and capacity analyses.

A-54 As shown on Tables 2.3-1 and 5.3-1, Lane Configuration C, a four-lane highway with a continuous two-way left-turn lane (C2WLTL[4]), is part of the preferred alternative mostly in areas where speed limits and operating speeds are lower. These include areas where the highway approaches and passes through the communities of Arlee (speed limit 35 miles per hour {mph}), Ravalli (speed limit 45 mph), Ronan (speed

[4]The final EIS refers to this lane Configuration as Lane Configuration C, a four-lane highway with a continuous two-way left-turn center median.

Confederated Salish and Kootenai Tribes (Cont'd)

limit 25 mph) and Polson (speed limit 25 mph). This comprises 8.1 miles of the total 14.5 miles of Lane Configuration C proposed in the preferred alternative.

Another 5.1 miles of Lane Configuration C is proposed within and approaching the communities of Evaro, Post Creek, and Pablo. These are areas where substantial development already has occurred along the highway and elimination of existing access points will be difficult. These also are areas where (particularly in Pablo) travel speeds may be reduced in the future.

As discussed in Section 5.3.4 of the draft and final EIS, construction of the raised median, curb and gutter, pedestrian crossings and possible future traffic signals is likely to cause a decrease in vehicle speeds and a decrease in the speed limit.

Approximately 1.3 miles of Lane Configuration C are proposed in areas where substantial numbers of approaches already exist, but where travel speeds are similar to the remainder of the highway between communities.

The following information is from a literature search provided to the ID Team by the Federal Highway Administration[5]:

> *"Considerable evidence shows that a C2WLTL is a cost-effective method of increasing the operational efficiency and safety of a highway where there is a demand for left-turns off of and onto the major roadway."*
>
> *"Speed limits from 25 to 55 mph will accommodate C2WLTLs.[6]"*
>
> *"Accident reductions averaging about 35% have been attributed to C2WLTLs."*
>
> *"C2WLTLs also increase capacity and are well accepted by the driving public."*

A-55 The transit development plan (TDP) for Lake County is being prepared independently of this EIS and is for the purpose of assessing existing transit services and developing recommendations for future improvements. It is expected the study will account for residents of other counties that use this segment of US 93.

A-56 With the nearly 60 miles of highway involved with the proposed action, it is not practical or desirable to address all design issues in the draft EIS and final EIS. Major issues such as the roadway alignment and the number of lanes to be constructed are discussed in detail the EIS. The ID Team and the community teams have recognized this and have proposed that close coordination continue after the record of decision has been completed for the proposed action -- this will allow valuable citizen involvement in all phases of the proposed action.

A-57 As documented in the minutes of the Pablo Community Team meetings, a footpath or a bikepath is recommended on the east side of US 93 from College Street to Clairmont Road. This was noted in Section

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[5]Federal Highway Administration, Montana Division, Studies on Safety Concerns of 5-lane C2WLTL vs. 4-Lane Divided Highway, letter, with attachments, dated 22 July 1991.

[6]After Congress repealed the national speed limit of 65 mph on interstates and 55 mph on other highways in 1995, Montana automatically reverted to its former law that has the "basic rule:" A driver may not drive at speeds exceeding what is "reasonable and prudent" for traffic, road and weather conditions.

Confederated Salish and Kootenai Tribes (Cont'd)

7.6.5 of the draft EIS, remains in the same section in the final EIS and has been added to Section 5.3.4 of the final EIS.

A-58 It is noted that it will be desirable to implement partial access control wherever practical. Within the heavily developed sections of Arlee, Ravalli, Ronan, Pablo and Polson, curb and gutter is proposed to be installed to effectively limit and control access to the highway. Outside these more heavily developed areas, access control should and will be considered and implemented wherever practical.

A-59 This has been noted in the final EIS.

A-60 Clairmont/Pablo West Road is included on the following page.

A-61 Some bicycle facilities may need a separate NEPA document.

A-62 "Closure of dead-end roads," has been changed to read "Closure of dead-end roads and rerouting through roads from other accesses,".

A-63 As indicated in Sections 6.1.4 and 6.1.5, LOS was calculated using techniques in the 1994 Highway Capacity Manual. It is based on the 30th highest hourly volume (30 HV) in accordance with nationally accepted standards and practices.

The 30 HV probably does represent volumes during peak seasons and commuting hours. The uses of these standard methods makes it possible to compare the operation on this highway with others throughout the state and nation. As indicated in Section 6.1.5, with LOS D, the percentage of time vehicles are delayed approaches 75%, but does not necessarily equal 75% and may be less.

A-64 The paragraph refers to areas outside communities. The schools referenced in the comment are considered to be in Pablo. A change was made in the final EIS to clarify the paragraph.

A-65 These bullet statements describe characteristics of traffic within the existing communities. School bus stops along the highway are outside of communities and are not discussed here. Discussion of school bus stops has been added to Sections 5.1, 6.6 and 7.6.3 of the final EIS.

A-66 As indicated in the paragraph preceding these bullet statements, they describe characteristics of traffic in the existing communities and were not intended to list all concerns at specific sites. It is indicated in the first bullet statement that the speed limit in Pablo, as with the remainder of the highway outside Arlee, Ravalli, Ronan and Polson, is 55 mph.[7] Speed concerns and proposed mitigation measures in Pablo are discussed in Sections 5.3.4, 6.6 and 7.6.5 of the final EIS.

A-67 As indicated by the footnote on Page 6.1-7 of the draft EIS, the 1990 Edition of AASHTO's "A Policy on Geometric Design of Highways and Streets" was used. The 1994 Edition is the same as the 1990 Edition, except that the 1994 Edition uses metric units.

A-68 This paragraph was intended to show that, under current policies and regulations and with no access control resolutions in-place, it is very difficult for the Montana Department of Transportation to control the approaches being constructed along the highway. As indicated in Section 7.1.3.2, the purchase of partial

[7]After Congress repealed the national speed limit of 65 mph on interstates and 55 mph on other highways in 1995, Montana automatically reverted to its former law that has the "basic rule:" A driver may not drive at speeds exceeding what is "reasonable and prudent" for traffic, road and weather conditions.

Confederated Salish and Kootenai Tribes (Cont'd)

access control from landowners along the highway will be desirable and will help reduce the number of existing approaches and control the number of future approaches. In Section 5.3.4 it is indicated that partial access control is recommended along most of the highway as part of the preferred alternative.

A-69 Using a computer data base consisting of all reported accidents investigated by the Montana Highway Patrol, the Montana Department of Transportation identifies accident cluster areas on all state and federal highways in Montana. When a cluster area is identified, an evaluation is conducted of accidents at the site to identify trends in what may be causing the accidents.

An evaluation also is conducted to identify highway and other site conditions that may contribute to the accidents. Any highway revisions or improvements that will help reduce accidents are then identified and a cost/benefit analysis is performed. The proposed improvements are compared to and prioritized with other accident cluster sites, based on the cost/benefit ratio, and decisions are made concerning which sites can be improved with available funding.

This type of audit was conducted for US 93 from I-90 to Polson and is presented in the report "Highway Traffic Collision Countermeasures on U.S. Highway 93 Corridor, P-5 Milepost 0 to Milepost 59.3", completed in January 1992 by the Montana Multi-disciplinary Traffic Safety Task Force. This report identifies several different cluster sites and other concerns, particularly related to elderly drivers, and proposes countermeasures. Recommendations of the report are summarized in Section 6.1.3 of the draft EIS and the final EIS.

As indicated in the draft EIS and the final EIS, implementation of some of these recommendations occurred in 1994. Others are more extensive and expensive and will be implemented as sections of the highway are reconstructed. As final design for each section of US 93 is completed, these countermeasures and others identified by future traffic and accident data will be incorporated in the plans.

A-70 It is acknowledged that not all characteristics of US 93 from I-90 to Evaro are exactly the same as from Evaro to Polson. However, US 93 from I-90 to Evaro generally has conditions that are typical of conditions found on segments of US 93 between Evaro and Polson.

Evaluation of this section of highway was completed, at the request of the ID Team, because of concern expressed that four-lane highways may be less safe than two-lane highways. The ID Team consensus, at the inception of the study, was that US 93 from I-90 to Evaro would
be a very good highway section to evaluate because of its proximity to the proposed action and because driver characteristics, traffic volumes and characteristics, weather conditions, terrain and junction densities are similar (not necessarily identical) to US 93 from Evaro to Polson.

There are approximately 10 intersections per mile on this section of highway compared with approximately 10 intersections per mile on the section from Evaro to Polson. There also is an intersection with a major county road, and two campgrounds that are commercial developments that generate traffic turning on and off the highway. There also is a long level segment of highway that is typical of segments north of Evaro. Evaro Hill has a steep grade typical of the grades on Ravalli, Post Creek and Polson hills.

A-71 It is noted in Table 6.1-10 that accidents on icy or snowy roadways increased from 16 to 25.

A-72 It is correct and was acknowledged in the draft EIS that shoulder widths are not adequate on existing passing lanes. It is acknowledged that transition lengths and other factors may not be in accordance with current design standards on existing passing lanes.

Confederated Salish and Kootenai Tribes (Cont'd)

It is likely that accident rates would be reduced if these areas were improved to meet current standards, but actual numbers are not known and cannot be calculated with reasonable accuracy. An attempt to follow-up on and review the referenced research showing a 30% reduction in accidents where passing lanes are used was not successful because the source of the comment could not be determined by tribal staff.

A-73 The 30th highest hourly volume is a standard used throughout Montana and the United States. This allows proper comparison of traffic volumes and operation on this highway with other highways throughout the state and nation.

Other reasons for the use of the 30th highest hourly volume are explained in Section 6.1.4 of the draft EIS and the final EIS. Use of the 100th or the 200th highest hourly volume, though not standard, would reduce volumes by approximately 10 to 15% and would not substantially change results of LOS computations.

A-74 The 1994 Highway Capacity Manual did not become available until spring of 1995. For that reason, the analysis of LOS in the draft EIS used the 1985 Edition. Analysis of LOS in the final EIS used the 1994 edition and takes into account the number of access points per mile on the four-lane alternatives. The 1994 Highway Capacity Manual does not include techniques for evaluating the effects of access points on two-lane highways.

A-75 The Traffic Along Rural Routes Procedure (TRARR) is a method of analyzing two-lane highways which was developed in Australia and is promoted by UMA Engineering, a private traffic engineering firm. UMA indicates that the procedure would carefully analyze each mile of the highway to help determine if sections of the existing two-lane highway could, for possibly the next 10 to 15 years, continue to operate at an acceptable LOS if improvements such as passing lanes are added[8].

UMA recognizes that, by the design year 2020, projected traffic volumes will warrant a four-lane highway throughout the length of the corridor, but interim improvements may be useful. UMA estimates it will cost $50,000 to $60,000 to complete the TRARR analysis for this highway.

The TRARR model was used to evaluate a range of design options for improving traffic performance on two-lane rural roads in Australia[9]. Options for improvement included auxiliary lanes, widening to four-lanes and improving alignments. The study indicated that addition of auxiliary lanes was effective for improving travel times and reducing delay on highways with lower traffic volumes, but at traffic volumes ranging from 5,000 to 6,800 vehicles per day, widening to four lanes was preferable to adding auxiliary lanes or improving alignments.

Traffic volumes on the existing highway already range from approximately 5,300 to 10,700 vehicles per day and are projected to more than double by 2020, the design year. It is likely the use of the TRARR model will indicate that a four-lane highway is warranted on most sections of the highway with current traffic volumes and will be warranted on all sections of the highway well before the 2020 design year.

The concept of the TRARR model is not substantially different from the preferred alternative and current proposal for construction scheduling by the Montana Department of Transportation. The proposal is to first convert the highway between Ronan and Polson (with the heaviest traffic volumes) to four lanes and then convert other sections. This process is estimated to require 10 to 20 years to complete, and by the time the design year 2020 is reached, the entire highway would be converted to four lanes.

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[8]Miller, Ed, UMA Engineering, telephone conversations in August and September 1995.

[9]Hoban, C. J., Simulation Study of Guidelines for Rural Road Improvements, Transportation Research Record 971, Pages 93-95, 1984.

Confederated Salish and Kootenai Tribes (Cont'd)

A-76 Slow-moving vehicle turnouts would have little or no effect on this problem. According to AASHTO[10], where slow-moving vehicle turnouts exist,

> *"The driver of the slow-moving vehicle, if there are following vehicles, is expected to pull out of the through lane and remain in the turnout only long enough for the following vehicles to pass before returning to the through lane. When there are only one or two following vehicles this maneuver can be accomplished without it being necessary for the driver of the vehicle in the turnout to stop. However, when this number is exceeded it will require the driver to stop in order for all the following vehicles to pass. Turnouts are most frequently used on lower volume roads where long platoons are rare and in difficult terrain with steep grades where construction of an additional lane may not be cost effective."*

With the high traffic volumes on this road, platoons of more than two vehicles are frequent. When slower moving vehicles pull into the turnout, they will frequently be required to come to a complete stop. Most of these slower-moving vehicles will be RVs and trucks which accelerate slowly -- with the high traffic volumes on the through lane, it will be difficult for them to re-enter the traffic stream. Because of these difficulties, few drivers will use them and, when they do, additional safety problems will be created as slower-moving vehicles try to re-enter the main traffic stream.

A-77 As indicated in Section 6.1.5 of the draft EIS and the final EIS, existing LOS for each section of the highway was determined using standard, nationally accepted methods based on existing traffic volumes and characteristics and existing physical conditions of the highway. As indicated in Section 6.1.4 of the draft EIS and the final EIS, the 30th highest hourly volume has been used for the calculations. It is recognized that this volume probably occurs mostly during the summer during the peak traffic season. During other times, particularly during winter months, traffic volumes are lower, passing opportunities are greater, delay is less and LOS is better.

A-78 The capacity (LOS E) of the existing highway is discussed in Section 6.1.6 of the final EIS. The capacity of the improved two-lane highway and the preferred alternative is discussed in Section 7.1.3.4 of the final EIS.

As discussed in various meetings of the ID Team, at public meetings and public hearings, and with tribal staff, the method of projecting future growth, based on the past 50 years of traffic records on US 93, seems to be the best representation of future growth at this time.

No method for linking safety with LOS has been identified.

A-79 Land use information available from the *Flathead Reservation Comprehensive Resources Plan* has been added to the final EIS. Table 6.2-1 has been changed to include information about the Flathead Indian Reservation in the area of the proposed action.

A-80 The change was made in Section 6.2.3.4 in the final EIS.

A-81 The change was made in Section 6.2.3.4 in the final EIS.

A-82 The change was made in Section 6.2.3.4 in the final EIS.

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[10]American Association of State Highway and Transportation Officials, A Policy on Geometric Design of Highways and Streets, 1990, page 270.

Confederated Salish and Kootenai Tribes (Cont'd)

A-83 The change was made in Section 6.2.3.4 in the final EIS.

A-84 The change was made in Section 6.2.3.5 in the final EIS.

A-85 Information from the *Flathead Reservation Comprehensive Resources Plan* about goals and objectives of the Confederated Salish and Kootenai Tribes for land use has been added to Section 6.3.3.6 of the final EIS.

Reference is made to the availability of information from the *Tribal/County Land Use and Growth Projection Study* for future planning activities, such as developing an access control plan for the proposed action. Specific information from the *Tribal/County Land Use and Growth Projection Study* has not been released for publication in the draft and final EIS.

A-86 The change was made in Section 6.2.3.7 in the final EIS.

A-87 Information from the *Flathead Reservation Comprehensive Resources Plan* has been added to Section 6.2.4 of the final EIS.

A-88 The change was made in Section 6.2.3.7 in the final EIS.

A-89 The change was made in Section 6.2.3.7 in the final EIS.

A-90 The change was made in Section 6.2.5.1 in the final EIS.

A-91 The change was made in Section 6.2.5.2 in the final EIS.

A-92 The change was made in Section 6.2.6 in the final EIS.

A-93 Additional information was added to the beginning of Chapter 6, Affected Environment, and Section 6.4.1 to provide emphasis about the importance of the social setting for the Flathead Indian Reservation.

Sections 6.4 (Social), 6.5 (Economics), 6.14 (Cultural Resources) and 6.15 (Parks and Recreation) of the draft and final EIS contain information to address the items in this comment.

A-94 Additional information was added to Section 6.14 (Social) and 7.14 (Cultural Resources) to address this issue in the final EIS.

Sections 7.4 (Social) and 7.14 (Cultural Resources) in the draft and final EIS contain information to address the issue of impacts on the homeland of the Confederated Salish and Kootenai Tribes.

A-95 No additional information is available about lifestyle for Section 6.4.2 in the final EIS.

A-96 The Tribal Health and Human Services Department, which was formerly the Indian Health Service, does not maintain information about the proportion of the Indian and non-Indian population on the Flathead Indian Reservation. Their records are for persons who use their services rather than for the entire population. The Tribal Health and Human Services Department recommended contacting the Tribal Office of Administration and Budget to determine whether to adjust information from the U.S. Census. The Tribal Office of Administration and Budget indicates it maintains only records of enrolled tribal members. It should be noted the *Flathead Reservation Comprehensive Resources Plan* refers to information in the U.S. Census when discussing the population of Native Americans on the Flathead Indian Reservation.

Confederated Salish and Kootenai Tribes (Cont'd)

A-97 These numbers are from information in the U.S. Census for 1980 and 1990.

A-98 Information was added to Section 6.4.3.4 to discuss the recent patterns and rates of growth for the period 1990-94.

A-99 This information has been added to Section 6.4.5 in the final EIS.

A-100 The change was made in Section 6.4.5 in the final EIS.

A-101 The change was made in Section 6.4.5 in the final EIS.

A-102 The Federal Highway Administration statement has been included in Section 6.6.

A-103 These counts were conducted as part of the license plate survey that was conducted by Morrison-Maierle, Inc. to determine geographic origins of vehicles traveling the highway. The count locations were near the intersections of US 93 and other major federal and state highways to obtain the fullest possible counts of vehicles. Section 6.6 of the draft EIS and the final EIS recognizes that bicycle traffic is concentrated in communities.

A-104 Inexperienced bicyclists, including children, do not commonly travel long distances on highways.

A-105 This is acknowledged in Section 6.6 in the final EIS.

A-106 This is acknowledged in Section 6.6 in the final EIS.

A-107 It is correct that the community team indicated that, with the recommended alternative at Pablo, a foot or bicycle path would be appropriate from College Street to Clairmont Road. It is also acknowledged that a bicycle path has been recommended from Pablo to Ronan.

A-108 Since 1991 (the last year of accident data provided in the draft EIS), several accidents involving pedestrians and bicyclists have occurred. This paragraph has been revised and a table has been added which lists the type, location and injury severity with these accidents.

A-109 Refer to Response A-108.

A-110 This paragraph has been reworded in Section 6.9.1.1 to read more clearly.

A-111 A discussion of time periods for specific elevations has been added.

A-112 It is acknowledged in the draft EIS and final EIS, in a footnote to Section 6.9.2.1, that these data are presented for information only and Montana Water Quality Standards do not apply on the Flathead Indian Reservation. The information concerning the recent TAS application approval has been added to the footnote in the final EIS.

A-113 The paragraph has been reworded to resolve the conflicts, and the additional information provided has been added to Section 6.9.2.4 in the final EIS.

A-114 Section 6.11.4 has been revised to clarify that fish passage is important for various streams along the proposed action. Specific streams and proposed crossings are described in Sections 6.12.1 and 7.12.2.1

A-115 The change was made in Section 6.12.1 in the final EIS.

Confederated Salish and Kootenai Tribes (Cont'd)

A-116 This has been clarified in Section 6.12.1 in the final EIS.

A-117 The referenced paragraph in Section 6.12.1 has been revised in the final EIS.

A-118 The instream flow for Crow Creek has been corrected in Section 6.12.1 in the final EIS.

A-119 The change was made in Section 6.12.6 in the final EIS.

A-120 Information has been added to Section 6.14.1 in the final EIS to indicate both the Salish and Kootenai people continue to practice various subsistence activities, as well as other traditional cultural activities.

A-121 The change was made in Section 6.14.1 in the final EIS.

A-122 The change was made in Section 6.14.2 in the final EIS.

A-123 The change was made in Section 6.17.1 in the final EIS.

A-124 This has been noted in Section 6.17.1 in the final EIS.

A-125 The reservation boundary has been corrected on this figure in Section 6.17.1 in the final EIS.

A-126 This information has been added to Section 6.17.1 in the final EIS.

A-127 The change was made in Section 6.17.1 in the final EIS.

A-128 This information has been added to Section 6.17.2 in the final EIS.

A-129 This paragraph has been revised to list the Mission Mountains as a visually sensitive resource area.

A-130 Where it is determined the volume of left turns from a county road or other important intersection is sufficient to warrant, separate left-turn lanes can be considered. As indicated in Section 5.3.4 of the draft and final EIS, approximately 46 left-turn bays are recommended. At this time, traffic volumes and characteristics at Highways 200, 212 and other county roads do not meet warrant criteria for consideration of traffic signals. In the future, traffic volumes will be monitored and, as warrants are met at these intersections, traffic signals can be considered.

A-131 Traffic volumes have been updated to the years 1994 and 2020 (from 1991 and 2015 in the draft EIS). LOS analyses have been updated using the 1994 Highway Capacity Manual. LOS analyses have also been refined to account for the differences between No Action and the improved two-lane highway. Results of these new analyses are included in Section 7.1.3.4 of the final EIS and show that the differences are small and are generally not great enough to change LOS.

A-132 Sufficient information is not available to accurately estimate travel times to Missoula with a new highway and increased traffic volume. Table 7.1-1 in the draft EIS has been removed and tables have been renumbered in Section 7.1 of the final EIS.

A-133 The four grades in this area are short (0.1 to 0.6 miles) and are only slightly above the four percent maximum recommended for 60 mph design (4.2 to 4.8%). Speeds through Polson will be lower. With the preferred alternative, as described in Section 5.3.1 of the draft EIS, the existing highway will not be reconstructed in this area; these grades will not be improved with the proposed action.

Confederated Salish and Kootenai Tribes (Cont'd)

A-134 As indicated on the referenced page in Section 7.1.3.1 of the draft EIS and final EIS, this bridge will not be relocated but will be reconstructed and/or widened at its existing location. Impacts are described and evaluated and mitigation measures are proposed in Section 7.11, and in other locations, of the draft EIS and final EIS.

A-135 Refer to Response A-58 for Page 5-41, fourth paragraph.

A-136 As suggested, this paragraph has been clarified in Section 7.1.3.3 in the final EIS.

A-137 Comment noted.

A-138 Additional information discussing the safety hazards related to the number of approaches and intersections has been added to Section 7.1.3.3 of the final EIS. The effects of a wider highway on pedestrian convenience and safety are discussed and evaluated in Sections 7.1.4, 7.6.3, 7.6.4 and 7.6.5 of the draft EIS and final EIS.

A-139 AASHTO recommends LOS B for the design of arterial highways in rural areas with level or rolling terrain, LOS C in mountainous terrain and LOS C for urban or suburban highways[11]. AASHTO further explains:

> *"As may be fitting to the conditions, the highway agency should strive to provide the highest level-of-service (LOS) feasible. In heavily developed sections of metropolitan areas, conditions may necessitate the use of LOS D for freeways and arterials, but such use should be rare and at least LOS C*
> *should be strived for. For some urban and suburban highways, conditions may necessitate the use of LOS D."*[12]

Discussions with other highway agencies of states in this region indicate use of policies to design to LOS B and LOS C in rural areas.[13]

A-140 Comment noted.

A-141 As shown on Tables 2.3-1 and 5.3-1, Lane Configuration C, a four-lane highway with a C2WLTL, is part of the preferred alternative mostly in areas where speed limits and operating speeds are lower. These include areas where the highway approaches and passes through the communities of Arlee (speed limit 35 mph), Ravalli (speed limit 45 mph), Ronan (speed limit 25 mph) and Polson (speed limit 25 mph). This comprises 8.1 miles of the total 14.5 miles of Lane Configuration C proposed in the preferred alternative.

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[11]American Association of State Highway and Transportation Officials, A Policy on Geometric Design of Highways and Streets, 1990, Table II-6.

[12]American Association of State Highway and Transportation Officials, A Policy on Geometric Design of Highways and Streets, 1990, Page 89.

[13]Other states in the region use LOS B and LOS C as guidelines for design of rural highways. States using LOS B include Idaho, New Mexico, South Dakota, and Wyoming. States using LOS C include North Dakota, Nevada and Oklahoma. Colorado is changing from LOS C to LOS B because highways with growth in traffic have been under-designed with LOS C. Utah doesn't specify a guideline and uses cost, safety, environment and operation as factors to consider. Officials of the departments of transportation of these states were contacted by telephone to obtain this information.

Confederated Salish and Kootenai Tribes (Cont'd)

Another 5.1 miles of Lane Configuration C is proposed within and approaching the communities of Evaro, Post Creek, and Pablo. These are areas where substantial development already has occurred along the highway and elimination of existing access points will be difficult.

These also are areas where (particularly in Pablo) travel speeds may be reduced in the future. As discussed in Section 5.3.4, construction of the raised median, curb and gutter, pedestrian crossings and possible future traffic signals is likely to cause a decrease in vehicle speeds and a decrease in the speed limit.

Approximately 1.3 miles of Lane Configuration C are proposed in areas where substantial numbers of approaches already exist, but where travel speeds are similar to the remainder of the highway between communities.

The following information is from a literature search provided to the ID Team for the proposed action by the Federal Highway Administration[14]:

> *"Considerable evidence shows that a C2WLTL is a cost-effective method of increasing the operational efficiency and safety of a highway where there is a demand for left-turns off of and onto the major roadway."*
>
> *"Speed limits from 25 to 55 mph will accommodate C2WLTLs.[15]"*
>
> *"Accident reductions averaging about 35% have been attributed to C2WLTLs."*
>
> *"C2WLTLs also increase capacity and are well accepted by the driving public."*

A-142 If the highway is constructed on the existing alignment through these communities, it will be necessary to continue to provide access to the highway for business and residences. There will be little opportunity to construct frontage roads or alternative accesses.

Limiting access to the highway in these communities would create a barrier that would divide the community. It would be practical to provide a highway with very few access points outside the communities if one of the alternative alignments (other than the existing alignment) were selected in these communities. However, experience at scoping meetings and public hearings indicates that the public is opposed to bypass routes in Arlee and Ronan.

A-143 It is not known, at this time, if the speed limit in Ravalli will stay at 45 mph. Refer to Response A-141 for a discussion of continuous two-way left-turn lanes.

A-144 Comment noted.

A-145 If the highway is constructed on the existing alignment through these communities, it will be necessary to continue to provide access to the highway for businesses and residences. Because of the proximity of homes and business to the highway, there will be little opportunity to construct frontage roads or alternative

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[14]Federal Highway Administration, Montana Division, Studies on Safety Concerns of 5-lane C2WLTL vs. 4-Lane Divided Highway, letter, with attachments, dated 22 July 1991.

[15]After Congress repealed the national speed limit of 65 mph on interstates and 55 mph on other highways in 1995, Montana automatically reverted to its former law that has the "basic rule:" A driver may not drive at speeds exceeding what is "reasonable and prudent" for traffic, road and weather conditions.

Confederated Salish and Kootenai Tribes (Cont'd)

accesses. Limiting access to the highway in these communities would create a barrier that would divide the community.

A-146 Refer to Response A-6.

A-147 It is correct that, where no left-turn bay is provided or if Lane Configuration A, B or D is constructed, vehicles turning left will be required to slow down in the through traffic lane. If Lane Configuration C is constructed, the C2WLTL will provide a safe area for vehicles to decelerate and turn left.

As explained in Section 5.3.4, existing intersections and the warrant for protected left-turn bays have been carefully evaluated. As a result, the preferred alternative therefore includes approximately 46 intersections where protected left-turn bays are recommended in addition to the approximately 14.5 miles of the highway that are recommended to be constructed using Lane Configuration C, which includes the C2WLTL.

A-148 As shown on Tables 2.3-1 and 5.3-1, Lane Configuration C, a four-lane highway with a C2WLTL, is part of the preferred alternative mostly in areas where speed limits and operating speeds are lower. These include areas where the highway approaches and passes through the communities of Arlee (speed limit 35 mph), Ravalli (speed limit 45 mph), Ronan (speed limit 25 mph) and Polson (speed limit 25 mph). This comprises 8.1 miles of the total 14.5 miles of Lane Configuration C proposed in the preferred alternative.

Another 5.1 miles of Lane Configuration C is proposed within and approaching the communities of Evaro, Post Creek, and Pablo. These are areas where substantial development already has occurred along the highway and elimination of existing access points will be difficult. These also are areas where (particularly in Pablo) travel speeds may be reduced in the future. As discussed in Section 5.3.4, construction of the raised median, curb and gutter, pedestrian crossings and possible future traffic signals is likely to cause a decrease in vehicle speeds and a decrease in the speed limit.

Approximately 1.3 miles are proposed in areas where substantial numbers of approaches already exist, but where travel speeds are similar to the remainder of the highway between communities.

The following information is from a literature search provided to the ID Team for the proposed action by the Federal Highway Administration[16]:

> *"Considerable evidence shows that a C2WLTL is a cost-effective method of increasing the operational efficiency and safety of a highway where there is a demand for left-turns off of and onto the major roadway."*
>
> *"Speed limits from 25 to 55 mph will accommodate C2WLTLs.[17]"*
>
> *"Accident reductions averaging about 35% have been attributed to C2WLTLs."*
>
> *"C2WLTLs also increase capacity and are well accepted by the driving public."*

[16]Federal Highway Administration, Montana Division, Studies on Safety Concerns of 5-lane C2WLTL vs. 4-Lane Divided Highway, letter, with attachments, dated 22 July 1991.

[17]After Congress repealed the national speed limit of 65 mph on interstates and 55 mph on other highways in 1995, Montana automatically reverted to its former law that has the "basic rule:" A driver may not drive at speeds exceeding what is "reasonable and prudent" for traffic, road and weather conditions.

Confederated Salish and Kootenai Tribes (Cont'd)

A-149 With limited access control, the number of approaches will be limited to those approved by the Montana Transportation Commission.

A-150 Comment noted.

A-151 The change has been made in Section 7.2.1.3 in the final EIS.

A-152 The conversion impact ratings were done, by the US Natural Resources Conservation Service, by sections over a period of several years, as requested by various consultants working on each specific project. If all of the ratings were combined, the resulting rating would be close to an average of the separate ratings. Total area impacted by a project is not one of the factors that determine the rating.

Information provided by the Confederated Salish and Kootenai Tribes has been used to estimate impacts of lane configurations on tribal farmland.

The preferred alternative will affect 80 to 85 acres of tribal agricultural land. Approximately one-half of this amount is required by the new roadway proposed on Polson Alignment 3.

Lane Configuration A, a two-lane highway, will affect 10 to 15 acres of tribal agricultural land on the existing alignment.

A-153 Comment noted.

A-154 Refer to Response A-6 and Response A-13.

A-155 The sentence has been revised to indicate the importance of factors that affect growth and development will vary, depending on local and regional conditions.

A-156 Comment noted.

A-157 Comment noted.

A-158 Comment noted.

A-159 It is documented throughout the draft EIS and final EIS that Lane Configuration A will have less impact on land use, wetlands and many other resources because it is narrower than Lane Configurations B, C and D.

A-160 Comment noted.

A-161 Comment noted.

A-162 At an intersection of a public road and a bicycle path, away from US 93, it is assumed that bicycle traffic will be required to stop. It may be possible, depending on the desires of tribal and local governments, to require motor vehicles to stop and allow bicycles to travel through the intersections.

A-163 Comment noted.

A-164 It is true there will be twice as many lanes to sand with a four-lane roadway. However, traffic volumes and speeds will be approximately the same so approximately the same amount of dust will be stirred by

Confederated Salish and Kootenai Tribes (Cont'd)

motor vehicles. Air quality impacts and mitigation measures are discussed in Section 7.7 of the draft EIS and final EIS and Appendix F of the final EIS.

The analysis shows four-lane highways will result in slightly lower impacts than an improved two-lane highway. Current sanding practices do have sand applied to the passing lane upon occasion, depending upon road and weather conditions. Since the analysis considers the worst-case situation, it was assumed that sand was applied in the same amount to the driving lanes and passing lanes.

A-165 The air quality conformity analysis was completed by the Montana Department of Transportation. It has been coordinated with tribal staff, and copies of the draft and final document have been provided to tribal staff.

A-166 The analysis of air quality impacts in the final EIS does use the most current model. The analysis uses CAL3QHC Version 2.0, which was released in September 1995. The model used in the draft EIS also was the most current model available at that time.

A-167 As indicated in the draft EIS and final EIS, Stamina 2.0 is consistent with methods outlined in the Federal Highway Administration Highway Traffic Noise Prediction Model, Report Number FHWA-RD-77-108, December 1978.

A-168 The change was made in Section 7.9.2 in the final EIS.

A-169 As indicated in Section 7.9.2, the Montana Department of Transportation has committed to completing a storm water erosion control plan and a plan for runoff control of hazardous materials for each project. Each plan will be prepared in accordance with the most current version of the Montana Department of Transportation's Standard Erosion Control Work Plan.

This standard plan has been developed over a number of years with use on a variety of projects. It is regularly updated based on actual project experience in Montana, and it includes the use of current best management practices in the state and nation.

The Montana Department of Transportation has committed to use all available technologies and practices to minimize sediment yields during and after construction.

A-170 The improved erosion protection measures are described in Section 7.9.2 of the draft EIS and final EIS under the subheading Mitigation.

A-171 The change was made in Section 7.10.2 in the final EIS.

A-172 Sites and potential for producing replacement wetlands are continually being updated and expanded for the proposed action and other transportation projects in the region. This section has been revised accordingly and, where appropriate, citations have been added in the final EIS.

A-173 The comment that "wetlands to be created or enhanced will be of much lower quality, because they will be the cattail ditches so near roads they are dangerous for wildlife, and less diverse than some of the other wetlands destroyed" is not correct. As indicated in Section 7.10.2 of the draft EIS and final EIS, wetland replacement will be diverse and will replace filled wetlands with wetlands of equal or better functions and values.

Many of the replacement wetlands will be away from the highway where it is more efficient to restore and enhance wetlands in large, off-site tracts and where wildlife will be farther away from the highway.

Confederated Salish and Kootenai Tribes (Cont'd)

Biologists for tribal, federal and state governments that have been involved with the preparation and review of the draft EIS and final EIS are in agreement that this concept will provide wetlands that are equal to and, in some cases, better than existing conditions.

A-174 The last sentence of the referenced paragraph in Section 7.11.3 has been revised in the final EIS as suggested.

A-175 Several options for relocation of Jocko Spring Creek have been discussed with the Tribal Natural Resources Department and with other biologists. Acceptable solutions are discussed in Section 7.11.3 of the final EIS.

A-176 Refer to Response A-175.

A-177 As indicated in Section 5.3.2, Lane Configuration A will not meet the purpose and need for the proposed action.

A-178 The referenced paragraph in Section 7.12.2.3 has been revised in the final EIS to more accurately reflect the wording of the Migratory Bird Treaty Act.

A-179 As discussed in Section 7.12.2.4 of the final EIS, the crossing design has been reevaluated and includes an overpass for wildlife instead of an underpass. It has been documented by Parks Canada that similar overpasses have been used by grizzly bears and wolves.

A-180 Comment noted.

A-181 This potential impact is noted in Section 7.15.2 of the final EIS.

A-182 Comment noted.

A-183 Section 7.1.3.4 of the final EIS discusses TDM measures.

A-184 As indicated in Section 7.20.2 of the draft EIS and final EIS, no specific borrow sites have been identified for fill materials, gravel base courses and asphalt concrete aggregate. As final design is completed for each of the construction projects, these borrow sites will be identified and evaluated.

Borrow material removal will be subject to applicable rules and regulations of the Montana Open Cut Mining Act -- a mine reclamation plan will be required. An erosion control plan, as described in Section

7.9 also will be required and will be developed by the Montana Department of Transportation. Table 7.20-2 summarizes gravel, plant mix and borrow quantities required for each section of the roadway.

A-185 The changes were made in Tables 8-2 and 8-4 of the final EIS.

A-186 As indicated in Section 5.3.3 any highway improvement should be designed to ". . . accommodate and promote increased use of TDM." Increased use of car-pooling is an important component of TDM.

The Montana Department of Transportation is interested in providing park-and-ride facilities where they will be used by the public. It agrees that this (a time when major highway improvements are being contemplated) would be a beneficial and timely opportunity to include these facilities at relatively low cost.

Confederated Salish and Kootenai Tribes (Cont'd)

The transit development plan currently being prepared for Lake County is expected to include recommendations for the location of park-and-ride facilities, as well as any needed pull-outs or parking areas for buses.

A-187 Refer to Response A-6.

A-188 Text discussing the process for minimizing impacts to cultural resources has been added to Section 7.14.1 The process to identify and avoid cultural resources will have to be balanced with the need to maintain confidentiality with regard to cultural properties.

A-189 Refer to Response A-15.

A-190 Comments were not received from the Flathead and Kootenai culture committees about the preliminary draft EIS.

A-191 Text discussing the effects of fish and wildlife impacts on traditional cultural practices has been added to Section 7.14.1.

A-192 Text discussing the effects of noise impacts on traditional cultural practices has been added to Section 7.14.1.

A-193 Text discussing the effects of water and air quality impacts on traditional cultural practices has been added to Section 7.14.1.

A-194 Refer to Response A-40 and Response A-186 for information about highway shoulders.

Refer to Response A-39 for information about TDM.

Comment noted. The environmental analysis for US 93 from Evaro through Polson will be used by the Montana Department of Transportation in conjunction with the environmental documents for other projects planned for western Montana.

Refer to Response A-79 for information about Table 6.2-1 and land use.

Comment noted about the Evaro wildlife corridor. Information has been added to Section 5.3.4 and Section 7.12.2.4 about mitigation of impacts for the Evaro wildlife corridor.

Comment noted about the Ninepipe National Wildlife Refuge. Information has been added to Section 7.10 about mitigation of impacts for the Ninepipe National Wildlife Refuge.

Refer to Response A-4 and Response A-5 for information about presentation of information about the preferred alternative in tables.

Comment noted about safety. Refer to Response A-69 for information about accidents and safety.

A-195 Comment noted.

Lake County Board of Commissioners

A-196 Comment noted.

Missoula County Board of Commissioners

A-197 Additional applicable information has been added to the final EIS to address social and cultural impacts that may result from the preferred alternative.

The referenced wildlife overpass is recommended, in Section 7.12.2.4 of the final EIS, as part of the preferred alternative.

As indicated in Section 5.3.3 of the draft and final EIS, any highway improvement should be designed to ". . . accommodate and promote increased use of TDM." Also, as indicated in the draft and final EIS, highway design will allow for continuation of existing pathways, such as the pathway north of Arlee. Pathways leading into and out of communities may be a good idea, and proposed highway improvements will be designed to accommodate them where appropriate. As indicated in Section 7.6 of the draft and final EIS, the preferred alternative, with eight foot wide shoulders, will adequately and safely accommodate bicycles and pedestrians throughout its length.

U.S. Department of the Interior, Office of Environmental Policy and Compliance

A-198 Comment noted. Refer to Response A-6.

U.S. Department of the Interior, Fish and Wildlife Service

A-199 Comment noted.

U.S. Department of Housing and Urban Development

A-200 Comment noted.

U.S. Environmental Protection Agency

A-201 The air quality conformity analysis and determination has been completed as discussed in Section 7.7 and Appendix F of the final EIS. It has been coordinated with tribal staff, and copies of the draft and final document have been provided to tribal staff.

A-202

1) The CAL3QHC Version 2.0 release of CALINE 3 was used in the current analysis to permit modeling the impacts at intersections as well as on the free flow traffic segments of the highway. The necessary mitigation strategies on each segment are included in Section 7.7 and Appendix F of the final EIS.

2) The baseline date and concentrations have not been triggered on the Flathead Indian Reservation as of January 1996.

3) The primary visibility impacts on the Flathead Indian Reservation are related to regional agricultural burning, local slash burning, residential heating, and fugitive dust from wind erosion of agricultural fields during periods of high winds or stable conditions. Additional visibility impacts may be contributed by traffic on US 93 during periods of inversion. However, the prevailing meteorology of the area keeps the atmosphere mostly clear.

A-203 1) The impacts of the preferred alternative on each specific wetland, including acreage and function and value, are specifically identified in the final EIS.

2) The goal of "no net loss of wetland function and value" is stated in the final EIS.

U.S. Environmental Protection Agency (Cont'd)

3) The mitigation measures suggested are discussed in Section 7.10 of the final EIS.

4) The wetland on proposed Polson Alignment 3 of the preferred alternative has been carefully evaluated and, as with all wetlands that may be impacted by the proposed action, particular attention has been paid to avoidance of impacts.

5) As discussed in Section 7.10 of the final EIS, a specific detailed wetland mitigation plan has been prepared that meets EPA and COE specifications.

6) The draft 404(b)1 evaluation is included as Appendix C of the final EIS. No revisions have yet been made to the draft 404(b)1 evaluation because the Confederated Salish and Kootenai Tribes have identified a CSKT Preferred Alternative that is different from the MDT Preferred Alternative in the final EIS. When MDT and CSKT agree on a single preferred alternative, a final Section 404(b)(1) Evaluation will be prepared.

A-204 1) Reference to Figure A-2 has been added, as suggested.

2) Figure 6.9-2 has been added to show the boundaries of the wellhead protection area in Polson. Calls and inquiries have been made to various state and local agencies, but no information on the wellhead protection area in Arlee has been found.

3) Information on potential impacts to groundwater has been added to Section 7.9.

4) The Flathead River bridge crossing is now noted in Section 6.11.3.

5) The statement on page 7.9-2 at the end of the first paragraph has been clarified in the final EIS.

As indicated in Section 7.9.2, the Montana Department of Transportation has committed to completing a storm water erosion control plan and a plan for runoff control of hazardous materials for each project. Each plan will be prepared in accordance with the most current version of the MDT's Standard Erosion Control Work Plan. This standard plan has been developed over a number of years with use on a variety of projects. It is regularly updated based on actual project experience in Montana, and it includes the use of current best management practices.

MDT has committed to use all available technologies and practices to minimize sediment yields during and after construction.

6) Refer to Paragraph 5) above.

Expediently sidecasting material over the shoulder is not allowed by the Standard Specifications of the Montana Department of Transportation. Construction of widened shoulders and filling depressions is done in a systematic manner that involves carefully placing material in layers and then compacting each layer to specified densities.

7) Refer to Paragraph 5) above.

A-205 Refer to Response A-6.

A-206 Comment noted.

A-207 Comment noted.

U.S. Department of the Army, Corps of Engineers

A-208 Comment noted.

Confederated Salish and Kootenai Tribe

A-209 Response to the comment from the Confederated Salish and Kootenai Tribes is presented on the following pages.

Montana Department of Transportation

2701 Prospect Avenue
PO Box 201001
Helena MT 59620-1001

Marc Racicot, Governor

May 30, 1996

A-209 Rhonda Swaney
Chairwoman - Tribal Council
Confederated Salish and Kootenai Tribes
P.O. Box 278
Pablo, Montana 59855

Re: F 5-1(9)6, Evaro - Polson EIS, 05 April 1996 letter from CSKT

Thank you for your review and comment in the referenced letter concerning the preliminary final environmental impact statement (EIS).

As summarized in Attachment A, we have used information in your letter to revise and improve the final EIS.

Please contact me with any comments or questions.

Sincerely,

MONTANA DEPARTMENT OF TRANSPORTATION

Joel M. Marshik, P.E.
Environmental Services Manager

Attachment

Copies, with attachments: Federal Highway Administration
Morrison-Maierle, Inc.

ltcsk01.fin

An Equal Opportunity Employer

May 30, 1996

Attachment A
Responses to Comments
CSKT Letter of 05 April 1996
Tribal Review of Preliminary Final EIS

Volume I

Page 2-7, Paragraph 9: The suggested revision has been made.

Page 5-35, Paragraph 2: As suggested, the entire 29 February 1996 letter from the Tribal Council which outlines the Tribes' preferred alternative, has been included in the document. The MDT Preferred Alternative (generally a four-lane highway) and the CSKT Preferred Alternative (generally Lane Configuration A, a two-lane highway) are now discussed and evaluated throughout the document.

Page 5-48, Table 5.3-2: The suggested revision has been made.

Section 6.1. Information concerning average travel speeds, segment by segment, on this highway is not available at this time.

Section 5.1.4 and 7.1.3.4. and Appendix B in the draft EIS and final EIS discuss the limited potential for alternative forms of transit to reduce traffic volume or increase operation of highways in rural areas. The analysis of TDM applied theoretical rates of ridership for mass transit that approximately double the rates that studies show are reasonable for considering TDM in rural areas. Even with "inflated" rates of ridership, the analysis shows TDM will not allow an improved two-lane highway to obtain adequate level-of-service for current and expected volumes of traffic.

As indicated in Section 7.19.2 of the final EIS, a four-lane highway will provide better energy efficiency than an improved two-lane highway because traffic operation, or level-of-service, is better for the four-lane highway than for the two-lane highway. Vehicles on the four-lane highway will operate with less congestion of traffic, with less demand for acceleration and deceleration than will occur on an improved two-lane highway.

Even with the current poor levels-of-service on the existing highway, no substantial amounts of carpooling, walking, bicycling or reduction of trips is occurring for travel between towns along the highway or to areas such as Missoula or Kalispell. Increasing the level-of-service of the highway will probably not be a factor that will encourage these conditions. It may be correct to assume that as conditions deteriorate further, possibly to a point where highway travel becomes very undesirable, carpooling, walking, bicycling and reduction of trips may increase significantly.

The Tribes' comment is noted about inclusion of Lane Configuration C with MDT's preferred alternative for locations with speed zones higher than 45 miles per hour (mph). As indicated in the response to Comment A-148 in the final EIS:

"Considerable evidence shows that a C2WLTL is a cost-effective method of increasing the operational efficiency and safety of a highway where there is a demand for left-turns off of and onto the major roadway."

"Speed limits from 25 to 55 mph will accommodate C2WLTLs."

"Accident reductions averaging about 35% have been attributed to C2WLTLs."

"C2WLTLs also increase capacity and are well accepted by the driving public."

The response to the Tribes' Comment A-148 in Volume II of the final EIS provides additional discussion about the proposed locations of Lane Configuration C with the MDT preferred alternative.

Page 6.1-3, Table 6.1-1: The final EIS will note that after the federal government rescinded the national 55 mph speed limit, Montana reverted to a prior traffic law that establishes a discretionary guideline of reasonable and prudent speed to observe traffic, road and weather conditions. Table 6.1-1 has been revised to reflect this.

Any information available from the Tribal Planning Office, regarding existing widths of paved shoulders, will be appreciated.

Page 6.2-6, Paragraph 2: The reference to Table 6.2-4 has been clarified.

Page 6.4-3: The text that was added to the preliminary final EIS has been revised to present information from the Flathead Conservation Resources Plan about population growth for 1980-90.

Page 6.7-1, Paragraph 5: The recommended change has been made to clarify applications of regulations for air quality.

Page 6.7-2, Regarding Section 6.7.4: Committed mitigation measures are identified in Section 7.7. of the final EIS.

Page 6.14-1, Paragraphs 2, 5 and 6: The change has been made to replace "gathered" with "harvested" in Paragraph 2.

The recommended changes to Sections 5 and 6 have been made.

Sections 6.14 and 7.14: We have previously noted the comments of the culture committees about cultural values associated with wildlife, noise, air quality and water quality. In response to these comments, changes were made previously and were included in the preliminary final EIS. These changes are shown as shaded text on Pages 7.14-2 and 7.14-3 of the preliminary final EIS. These changes will be included in the final EIS.

Page 7.7-1: As stated in the analysis in Appendix F, implementation of the MDT Preferred

Alternative with committed mitigation measures will include several items that will reduce PM_{10} emissions. Since this demonstrates that implementation of the MDT Preferred Alternative will improve air quality emissions in Polson, as compared with the No Action Alternative, no further quantification is necessary.

Page 7.7-2: Committed mitigation measures are identified in Section 7.7. of the final EIS.

Page 7.15-1, Paragraph 3: The change was made to replace the word "quantity" with "quality."

Page 7.20-1, Paragraph 3: The change was made to indicate 1999 instead of 1996 may be the earliest start date for a construction project.

Volume II

Page 2.3-3, A-14: Comment noted about Section 4(f) properties, the Regatta Grounds and the Flathead River.

Page 2.3-6, A-38: The response to Comment A-38 has been revised.

Page 2.3-22, A-187 (A-6): These comments, stating the viewpoint of the Flathead Culture Committee, are noted. The referenced paragraph has been removed.

Page 2.3-22: A-189 (A-15): These comments, stating the viewpoint of the Flathead Culture Committee, are noted.

3. Written Public Comment

Received Before Public Hearing
Received At Public Hearing
Received After Public Hearing

COMMENT NUMBER	AUTHOR	AFFILIATION	TOPIC(S)
1	Webb Taylor Harrington	Missoula resident	Favor preferred alternative Safety/traffic operation
2	Stephen S. Ellis M.D.	Polson property owner	Favor a four-lane highway Safety/traffic operation Traffic volume
3	LaVonne Bennett	Bandon, Or. resident	Land ownership
4	Dixie and Gary McLaughlin	Missoula residents	Favor highway improvement Safety/traffic operation Wildlife structures
5	Mrs. Charles Scott	Ronan resident	Safety/traffic operation Construction schedule
6	Lila Normandeau	Ronan resident	Favor preferred alternative
7	Sonia Jarrett	Missoula resident	Favor highway improvement Safety/traffic operation High traffic volume
8	Barbara Hesler	Polson property owner	Favor bypass of Polson Economics and tourism High traffic volume Access and left turns
9	Greg Jacobson Detective	Missoula Police Department	Favor four-lane highway Safety/traffic operation Wildlife
10	Warren L. Little	Missoula resident	Pedestrians and bicyclists
11	Allowee Briggs	Polson resident	Favor four-lane highway Safety/traffic operation
12	Elizabeth and Dale Smith	Arlee residents	Information on specific parcel
13	Jack Cheatham	Arlee resident	Request information
14	Horst H. Schwarz	Polson resident	Favor preferred alternative Safety/traffic operation
15	Dorothyann L. Schwarz	Polson resident	Favor preferred alternative Safety/traffic operation Wetlands
16	Ron Petet	Arlee resident	Favor Arlee Alignment 2
17	John T. Felton	Felso Industries	Favor preferred alternative Safety/traffic operation
18	Meggen Ryan Hartse	Evaro resident	Wildlife Request information
19	Robert Flansaas	Trout Creek resident	Favor four-lane highway Safety/traffic operation
20	John W. Browne	Belmont, CA resident	Request information

COMMENT NUMBER	AUTHOR	AFFILIATION	TOPIC(S)
21	Tony Hoyt	Flathead Resource Organization	Oppose preferred alternative[2,3] EIS process and public involvement Safety/traffic operation and control/speed Social Land use
22	Ruby Vanderburg	Arlee resident	Oppose preferred alternative Land use Social Construction and maintenance cost Wildlife Safety/traffic operation and control/speed Right-of-way
23	Lilie Willison	Arlee resident	Oppose Arlee alternative alignment Safety/traffic operation and control/speed Economics and tourism Social Wetlands
24	Jackee Johnston	Arlee property owner	Favor Arlee Alignment 2 Safety/traffic operation and control/speed
25	Mort Lytle	Arlee property owner	Highway design
26	Wayne McCreesh	Yellowstone Pipeline Company	Request information

3.1 Index For Written Public Comment Received At St. Ignatius Public Hearing

COMMENT NUMBER	AUTHOR	AFFILIATION	TOPIC(S)
27	Bill Bick	St. Ignatius resident	Development Safety/traffic operation and control/speed Highway design
28	P. Murphy	St. Ignatius resident	Favor alternative alignment at St. Ignatius
29	John Yatchak	St. Ignatius property owner	Wildlife Highway design
30	Thelma Olsen	St. Ignatius resident	Favor four-lane highway Safety/traffic operation Construction schedule
31	Al Roesch	St. Ignatius resident	Favor four-lane highway Safety/traffic operation Construction schedule
32	Marie B. King	Ravalli resident	Favor four-lane highway Safety/traffic operation
33	Jeanine Allard	Allard's Trading Post	Safety/traffic operation Access and left turns Economics and tourism
34	Esther V.M. Hamel	St. Ignatius resident	Favor Ronan and Polson alternative alignments Safety/traffic operation Construction schedule Wildlife
35	Goldie Knuppel	St. Ignatius resident	Favor Arlee, Ronan and Polson alternative alignments Safety/traffic operation Social

COMMENT NUMBER	AUTHOR	AFFILIATION	TOPIC(S)
36	Art Mangels	Pablo property owner	Access and left turns Highway design
37	Dan Bartel	Ronan Ace Hardware	Favor Ronan existing alignment Economics and tourism
38	Ben Adams	Polson resident	Wetlands Irrigation
39	Shannon Burke	Pablo resident	Oppose preferred alternative Cultural resources
40	Mary Herak	Charlo resident	Oppose preferred alternative EIS process and public involvement Wildlife Access and left turns
41	John Plouffe	Flathead Irrigation Project	Favor Ronan and Polson alternative alignments Wildlife
42	Joe McDonald President	Salish Kootenai College	Oppose four-lane highway Noise Safety/traffic operation and control/speed Access and left turns Pedestrians and bicyclists
43	Karen Krogstad	Ronan resident	Safety/traffic operation

3.1 Index For Written Public Comment Received At Polson Public Hearing

COMMENT NUMBER	AUTHOR	AFFILIATION	TOPIC(S)
44	Dudley H. Page	Polson resident	Favor preferred alternative, except favor Arlee and Ronan alternative alignments Economics and tourism Access and left turns Safety/traffic operation and control/speed Highway design
45	Jens Gran	Polson resident	Favor Polson preferred alternative High traffic volume Highway design Land use Social
46	Clarence Brazil	Polson resident	Favor preferred alternative Economics and tourism Safety/traffic operation and control/speed
47	Rocky Shriver	West Polson Mall	Oppose Polson Alignment 3 Economics and tourism Recreation Noise Visual
48	Geraldine Bayh	Polson property owner	Favor Polson preferred alternative Economics and tourism
49	(No first name given) Shriver	Polson resident	Oppose Polson Alignment 3 Safety/traffic operation and control/speed Highway design Economics and tourism Social
50	Joan Bennett	Polson resident	Favor Polson preferred alternative Safety/traffic operation and control/speed Highway design Economics and tourism Land use Social
51	Hettie B. Beumett	Polson resident	Oppose Polson Alignment 3 Safety/traffic operation and control/speed Economics and tourism Construction and maintenance cost
52	(No name given)	--	Oppose Polson Alignment 3 Safety/traffic operation and control/speed High traffic volume Construction and maintenance cost Highway design
53	Albert Poloson	Poloson Equipment Co.	Favor alternative alignment west of existing alignment Oppose Polson Alignment 3 Safety/traffic operation and control/speed
54	Everett Parsons	Ronan trucker	Favor preferred alternative, except Arlee existing alignment and Polson Alignment 3
55	Helen Brazil	Polson resident	Favor Polson preferred alternative Safety/traffic operation and control/speed Economics and tourism

COMMENT NUMBER	AUTHOR	AFFILIATION	TOPIC(S)
56	Ann M. Page	Polson resident	Favor Polson preferred alternative Economics and tourism
57	Peter Walther	Polson resident	Favor Polson preferred alternative
58	Karen Welch	Big Arm resident	Favor preferred alternative Safety/traffic operation and control/speed
59	Tom Mercer	Polson real estate broker	Favor Polson preferred alternative Safety/traffic operation and control/speed
60	James Boyle	Polson resident	Favor Polson preferred alternative High traffic volume
61	Irene Marchello	Polson business owner	Favor Polson Alignment 2 High traffic volume Land use Social Wildlife
62	(No name given)	--	Oppose Polson Alignment 3 Economics and tourism Wildlife

COMMENT NUMBER	AUTHOR	AFFILIATION	TOPIC(S)
63	Marc Gullickson	Polson property owner	Oppose Polson Alignment 3 Land use Social Economics and tourism
64	Maren Rae	Polson business owner	Oppose Polson Alignment 3 Construction and maintenance cost Highway design Economics and tourism Access and left turns
65	No Name Given	Polson resident	Favor Polson preferred alternative EIS process and public involvement Safety/traffic operation and control/speed Social Pedestrians and bicyclists Highway design Economics and tourism
66	R.T. Sterling	Polson resident	Favor four-lane highway Safety/traffic operation Construction schedule
67	Elizabeth C. Preston	Ronan resident	Favor preferred alternative Oppose Ronan Alignments 3 and 4 High traffic volume Safety/traffic operation
68	Jay W. Preston	Ronan resident	Favor preferred alternative Safety/traffic operation
69	Jerry Shepard	Arlee property owner	Favor Arlee alternative alignment Safety Air quality Noise
70	Marlys Shepard	Arlee property owner	Favor Arlee alternative alignment Safety/traffic operation Access and left turns
71	Curt Rosman	St. Ignatius resident	Safety/traffic operation and control/speed Speed limit enforcement Access and left turns
72	Barbara Steele	St. Ignatius resident	Oppose preferred alternative Safety/traffic operation and control/speed Social Cultural resources General environment Pedestrians and bicyclists Wildlife Access and left turns Construction and maintenance cost

COMMENT NUMBER	AUTHOR	AFFILIATION	TOPIC(S)
73	Greg Hertz	Ronan and Polson business	Favor preferred alternative, except oppose Polson Alignment 3 Right-of-way Farmlands High traffic volume Safety/traffic operation and control/speed Economics and tourism Construction and maintenance cost Wildlife Social Noise Stream crossing Access and left turns Pedestrians and bicyclists
74	Corwin Clairmont	Confederated Salish and Kootenai tribal member	Oppose preferred alternative EIS process and public involvement General environmental Social Wetlands Wildlife Noise Air quality Cultural resources Land use
75	William R. Magnuson	Polson resident	Highway design
76	Zane Kelly	Polson resident	Favor alternative alignment west of existing alignment Highway alignment and design Safety/traffic operation Economics and tourism Social Pedestrians and bicyclists Air quality Noise
77	Tom Nettleton Chair, Transportation Committee Michael Jaworsky Executive Vice President	Missoula Chamber of Commerce	Favor preferred alternative
78	Maryetta Bauer Manager	Folkshop	Favor Polson preferred alternative Safety/traffic operation and control/speed Economics and tourism
79	Ron Davis	Certified Public Accountant	Favor Polson preferred alternative High traffic volume Access and left turns
80	Robert Gauthier Director	Confederated Salish and Kootenai Tribes Housing Authority	Favor extension of center lane north of Pablo Safety
81	Mike Bray	Missoula resident	Favor Arlee alternative alignment Safety/traffic operation Pedestrians and bicyclists Economics and tourism
82	Paul Gierach	Huson resident	Favor Arlee alternative alignment
83	Joe Weydt	Arlee resident	Oppose preferred alternative

COMMENT NUMBER	AUTHOR	AFFILIATION	TOPIC(S)
84	Clarice Onsager	Ronan resident	Favor preferred alternative
85	Cheri Rowbury	Ronan resident	Favor preferred alternative Construction schedule
86	Ruth Bray	Missoula resident	Favor Arlee alternative alignment Safety/traffic operation and control/speed Access and left turns Economics and tourism
87	David Whitlock	Mission Valley Power	Provides a copy of environmental assessment for proposed utility complex at Pablo
88	DeeLaine and John Peterson	Polson business	Oppose Polson Alignment 3 Construction and maintenance cost General environment Economics and tourism
89	George Knapp	Fort Connah Restoration Society	Cultural resources Access and left turns
90	Viola and Harold Tanner	Arlee property owners	Favor preferred alternative Favor Arlee alternative alignment
91	Dale Mahlum	Missoula business	Favor preferred alternative Construction schedule Safety/traffic operation and control/speed Wildlife
92	Mable Reum	St. Ignatius property owner	Favor preferred alternative Safety/traffic operation and control/speed Economics and tourism
93	Barbara Ward	Polson business	Oppose Polson Alignment 3 Noise
94	Elaine M. and A.W. Corrigan	Polson residents	Overpass for Polson Alignment 3 Safety/traffic operation and control/speed High traffic volume Social Economics and tourism
95	Thomas C. Lindell	Polson resident	Favor preferred alternative EIS process and public involvement Construction schedule Land use Economics and tourism Social Right-of-way
96	Glen R. Wunderlich	Ronan business	Oppose Ronan alternative alignment Safety/traffic operation and control/speed Right-of-way
97	Odette Gasser	Ronan business	Oppose Ronan alternative alignment Economics and tourism
98	Norman Reum	St. Ignatius rancher	Favor preferred alternative Safety/traffic operation and control/speed General environment

COMMENT NUMBER	AUTHOR	AFFILIATION	TOPIC(S)
99	J.C. Heglie	Polson resident	Land on Polson Alignment 3 Right-of-way
100	Stanley Peterson	Polson resident	Favor Arlee, Ronan and Polson alternative alignments
101	June Normandeau	St. Ignatius resident	Access and left turns Safety/traffic operation Highway design
102	Duane Olsen	Polson business	Favor preferred alternative Economics and tourism Safety/traffic operation
103	Willard and Virginia Steinkraus	Polson residents	Favor preferred alternative Safety/traffic operation
104	Arlene and Kenneth Doepke	Polson residents	Favor Polson preferred alternative Economics and tourism
105	Bob Yetter	Evaro resident	Oppose preferred alternative EIS process Visual Noise Social Safety/traffic operation and control/speed Wildlife
106	Dorothy L. Preston	Polson resident	Favor Polson preferred alternative Safety/traffic operation and control/speed EIS process Recreation Economics and tourism
107	Dorothy and Dwight Preston	Polson residents	Favor Polson preferred alternative Access and left turns High traffic volume
108	Millie and Fred Mielke	Polson residents	Favor Polson preferred alternative Safety/traffic operation and control/speed Access and left turns
109	Daniel Howlett	Polson resident	Oppose Polson Alignment 3 EIS process Right-of-way Construction and maintenance cost Highway alignment Noise Visual Wildlife Economics and tourism High traffic volume
110	Lois and James Aznoe	Polson residents	Favor preferred alternative High traffic volume

COMMENT NUMBER	AUTHOR	AFFILIATION	TOPIC(S)
111	James A. Haynal	Polson resident	Oppose Polson Alignment 3 Safety/traffic operation and control/speed Stream crossings Economics and tourism Social Wildlife Wetlands Noise Construction and maintenance cost Right-of-way
112	Terri Haynal	Polson resident	Oppose Polson Alignment 3 EIS process Social Economics and tourism Wildlife Wetlands Noise Stream crossings
113	Victor and Geneva Samples	Arlee residents	Favor Arlee alternative alignment Safety/traffic operation and control/speed Access and left turns Economics and tourism Construction and maintenance cost
114	Maurice Malone	Arlee resident	Favor preferred alternative Safety/traffic operation and control/speed Access and left turns Pedestrians and bicyclists
115	Susan Jan Rooy	Evaro resident	Oppose preferred alternative EIS process Social Cultural resources Wildlife Wetlands
116	Michael Kennedy	Missoula County Commissioner	Oppose preferred alternative EIS process and public involvement Highway design TDM Safety/traffic operation and control/speed High traffic volume Access and left turns Social Economics and tourism Cultural resources Wildlife Wetlands Air quality Construction schedule Construction and maintenance cost
117	Gary Steele Owner	Rising Wolf Expeditions	Oppose preferred alternative

COMMENT NUMBER	AUTHOR	AFFILIATION	TOPIC(S)
118	Doug Baty Chairman	Flathead Resource Organization	Proposal for an improved two-lane highway and opposition to a four-lane highway Refer to Response 118 for detailed list of topics contained in the comment from the Flathead Resource Organization (FRO)

3.2 Written Public Comment

MAR 2 4 1995

Jul 3/27

To: Joel Marshik
Manager, Environmental Services
Montana Department of Transportation
P.O Box 201001
Helena, Montana 59620-1001

MASTER FILE COPY

cc: Morrison & Maierle
Consultant Design

From: Webb Taylor Harrington
P.O. Box 8421
Missoula, Montana 59807

P.O. Box 1068
Polson, Montana 59860

Re: Highway 93 EIS

Date: March 23, 1995

1 This letter is in response to an article written by Ron Selden and appearing in today's *Missoulian.*

The article was of great interest to me because I own property in Polson and in Missoula and I work in both communities. "Close calls" are frequent on the "ribbon of death" and I've seen and experienced many because I travel 93 on a regular basis - sometimes daily.

The proposal outlined in the *Missoulian* article makes sense to me. The plan is well thought out and researched. I support the Evaro-Polson highway expansion and improvements as well as the 5.8 loop around Polson from Caffrey Road to north of Polson.

Thank you for the opportunity to send in written comments as I am unable to attend the scheduled hearings.

Jul 3/27

STEPHEN S. ELLIS, II, M.D., F.A.C.S., P.C.
GENERAL SURGEON
1170 WESTWOOD DRIVE, SUITE A
HAMILTON, MONTANA 59840-2396

TELEPHONE 363-5104

MAR 2 4 1995

MASTER FILE COPY

cc: Morrison & Maierle
Consultant Design

March 22, 1995

Montana Department of Transportation
P.O. Box 201001
Helena, MT 59602-1001

Attn: Joel Marshik, Manager

Dear Mr. Marshik:

2 I appreciate the opportunity to comment on the Highway 93 development from Evaro to Polson. I am totally in favor of a four lane highway. I support your efforts strongly. It is my opinion that this is not only needed for obvious safety reasons, but also to increase the flow of traffic to one of our most beautiful national parks and lakes.

Respectfully,

Stephen S. Ellis, M.D.
SSE/lkl

regulation; purchase of easements or right-of-way; or other public/private cooperative methods.

A four-lane highway is recommended from Evaro to Polson. A continuous two-way left-turn center median will be included, mostly in areas with a large number of intersections and turning vehicles. Through Polson, the recommended roadway will include a two-lane roadway with a continuous two-way left-turn center median on the existing alignment and a four-lane highway on Alignment 3, south and west of the community.

SUMMARY OF IMPACTS

The capacity of the highway will be increased substantially, resulting in traffic operation at level-of-service (LOS) B in the design year, instead of LOS F with No Action. Operating efficiency will be improved substantially, and congestion will be eliminated.

Based on experience near the proposed action, accident rates and frequencies, particularly accidents involving injuries and fatalities, are expected to decline.

With partial access control and land use planning and regulation, strip development and other highway-related development can be better controlled.

Approximately 370 acres of land will be converted to new highway right-of-way.

Approximately 46 acres of farmland that is prime or unique farmland or farmland of statewide or local importance will be converted to highway right-of-way.

The physical prominence of the highway will increase with related barrier effects and visual effects.

The highway will be more desirable for commuters, which may encourage population growth.

Relocation of several buildings, including approximately eight residences, will be required.

About 40 acres of wetlands will be filled or otherwise destroyed. They will be replaced by wetlands that provide similar or better functions and values.

Special wildlife crossings will be constructed in the Evaro area and other areas. This is to benefit grizzly bear and other wildlife by improving migration routes and decreasing or avoiding highway mortality.

Direct use of land from several Section 4(f) properties will be required.

Continuation of major highway traffic through Arlee and Ronan will continue adverse traffic operation and safety conditions. Short-term impact to some businesses will occur during construction.

Carbon monoxide (CO) emissions will decrease. PM_{10} emissions will not differ substantially from No Action, except in Polson where traffic volumes in the city will be substantially reduced.

3-25-95

3 The parcel of land involved in the reconstruction of US93 was sold about a year ago to a Mr. Ron from Polson. Please check Clerk & Recorder or Tax & Land Use for information. Thanks.

Richard Pratt
1150 3rd St W
Kalispell, Mt. 59911
406-257-1133

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MAR 27 1995

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cc: Morrison-Maierle Consultant Copy

Dixie & Gary McLaughlin
203 Pattee Canyon Drive
Missoula MT 59803

April 23, 1995

Joel Marshik
Manager, Environmental Services
Montana Dept. of Transportation
P.O. Box 201001
Helena MT 59620-1001

Dear Mr. Marshik:

4 I am writing to express our total support for the Highway 93 construction project. We are more than willing to have our tax dollars go toward this long overdue proposal. It seems especially timely now that the Medicine Tree Clinic is getting ready to open, right off of 93 in St. Ignatius. This clinic will be attracting people from all over the state to use its facilities, with a concentration of people coming from Missoula and Polson. It will be even more necessary to have -at the minimum- a turning lane for this clinic to avoid many possible future collisions.

Human life is the most precious of all, and it is our duty as citizens to do what we can to safeguard it. Western Montana's population is increasing, that is a fact. We cannot put our heads in the sand and hope it goes away, but rather we must plan and prepare for growth. Our native Montanans are being killed on this treacherous stretch of highway at the same rate as "out-of-staters." We owe it to the children of our state to help protect them in the ways we can, and improving the driving conditions on 93 is one way.

I applaud your efforts to preserve wildlife with the special use of "underpass tunnels." I understand the concern for the environment along 93, but first and foremost must be the greatest amount of good for greatest number of people (to borrow from John Rawls) and that is to do whatever it takes to improve this stretch of highway.

If you need to contact us, we may be reached at (406) 721-1322.

Sincerely,

Dixie & Gary McLaughlin

MAR 27 1995

March 23, 1995
Ronan, Mt 59864

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cc: Morrison & Maierle
Consultant Design

Dear Mr Jac. Marshik,

Why? Why? another hearing
5 & study?

The proposed plan from Evaro, and Polson should be started immediately. It is critical to human life.

We've lived here 38 years & seen, child, injury & experienced abuse calls to Evaro still having hearings, year after year.

What a waste of taxpayers money, plus cost are going up & up. —

This is Grandma Kate Family, family, that hopes they live long enough to see a safer Hwy 93, & not more graves.

Sincerely —
Mrs Charles Scott Sr.
4300 N. Fairhill Dr. Families
Ronan, Mt 59864

406 444 7245

April 22, 1995

APR 24 1995

MASTER FILE COPY
cc: Jim Wesen
Reconstruction
Morrison & Maierle

To whom it may Concern:

6 I do Not agree with Tom Smith, the FRO, or Richard Oggert.

Please go ahead and build Highway 93 from Missoula to Ronan just like you had planned, 4 lanes & a 5th where it is needed.

We need a road so badly and through the reservation also.

Post-it® Fax Note 7671	Date 4-24-95	# of pages ▸ 1 of 1
To Brad Peterson	From Jack Marshik	
Co./Dept.	Co. MDT	
Phone #	Phone # 444-7632	
Fax # 442-7862	Fax # 444-7245	

Sincerely
Lila Normandeau
1033 Terrace Lake Rd.
P.O. Box 618
Ronan, Mt. 59864

MAR 2 1995
MAR 2 1995

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MAR 31 1995
MORRISON—MAIERLE/OSSA, INC

620 Big Flat Rd
Missoula, MT
59801
3-27-95

MASTER FILE COPY

cc: Consultant
Jim Weaver
Morrison &

Joel Marshik, Manager
Environmental Services
Montana Dept. of Transportation
P.O. Box 201001
Helena, MT 59620-1001

Dear Sir,

7 We travel Highway 93 between Evaro and Polson often as we have a lake home on Flathead Lake. It would be wonderful to have improvemen made on that road. It's a very dangerous stretch of road and is so heavily traveled. We will be waiting to hear what decisions are made to improve the situation.

Sincerely,
Sonia Jarrett
(Mrs. James E. Jarrett

MAR 28 1995

MAR 29 1995

MASTER FILE COPY

March 27, 1995

cc: Consultant Design
Morrison & Maierle
Jim Weaver

Joel Marshik
Montana Department of Transportation
P.O. Box 201001
Helena, MT 59620-1001

Dear Mr. Marshik:

8 My family has owned a condominium in Polson for the past four years. During that time, the traffic from May through September has increased to the point that it is almost impossible to make a left turn (across traffic) onto the main road going through Polson.

I applaud the decision to reroute the traffic around Polson!!

For those business owners who feel they will suffer from less exposure, I can assure them as a consumer that I would be more inclined to go into Polson and shop with this rerouting. As it is now, I hate to make a stop because of the very frustrating hassle involved in returning to traffic.

Best of luck in getting this project completed in the forseeable future!

Sincerely,

Barbara Hesler

Barbara Hesler
#17 Country Club Shores
Polson, MT 59860

MISSOULA POLICE DEPARTMENT
435 Ryman
Missoula, Montana 59802-4297
"Professionalism With Pride"

GREG JACOBSON
Detective

Phone: (406) 523-4693
FAX: (406) 728-6690

March 28, 1995 MAR 2 : 1995

Department of Transportation
P.O. Box 201001
Helena, MT 59620-1001
Atten: Joel Marshik

MASTER FILE COPY

cc: Consultant Design
Jim Weaver
Morrison & Maierle

Dear Mr. Marshik,

9 I recently read in the *Missoulian* that a recent study is calling for a four lane highway from Evaro to Polson. As a person who drives that particular stretch of highway quite often, I can tell you that a four lane highway is long overdue! My wife and I have relatives in both Columbia Falls and Kalispell, as well as having property in Lake County. I would estimate that we drive the so called " Ribbon Of Death " an average of twice a month, and I could recount several very close calls that endangered my life and the lives of my family that were the direct result of too much traffic on the road.

I have been a police officer in Missoula for eight years, and I feel that I am qualified to know dangerous traffic situations when I see them. As a trained observer in such matters, I can tell you that there simply is too much vehicle traffic between Evaro and Polson for a two lane highway to handle safely. Even a person obeying the speed limit is in peril. There is a tremendous amount of semi-trailer traffic on the road at all times of the year. Their inability to maintain a steady speed means that there soon is a long line of vehicles backed up behind them. There are few safe stretches to pass on the road, and the huge amount of oncoming traffic makes it almost impossible to pass when there is a straight stretch. Soon the level of frustration of drivers stuck behind the semi-trailers, starts to rise. Then drivers are making unsafe passes in an attempt to get ahead of the semi-trailers and maintain a steady safe speed. Add the incredible amount of recreational vehicle traffic that the road receives in the summer months, and the resulting slowing of traffic that occurs behind many of them, and you compound the problem many times! I can't tell you how many times we've been stuck behind recreational vehicles going as slow as 35 to 40 miles per hour. In no time, the line of traffic behind them is literally a mile long. Unfortunately, few of the drivers of the slow driving vehicles have the common sense to pull over and allow the traffic behind them to proceed. Again, driver frustration in the following vehicles reaches a high level and people start passing in an unsafe manner trying to get around the slow moving vehicles. I have seen many oncoming vehicles run off the road by vehicles passing unsafely as a result of such traffic back up, and I have had to take to the shoulder of the road several times to avoid colliding with vehicles passing in such a manner. Add to these conditions the drivers who insist on driving above the speed limit and seem to be even more impatient to maintain a high rate of speed no matter how unsafe the traffic conditions, and you have the recipe for disaster each and every day. Every year, the paper is filled with obituaries of unfortunate drivers who failed to beat the odds, and the problem only increases as vehicle traffic on the road increases.

I realize that there will be environmental concerns over widening the road along the existing corridor. As a native Montanan, I would like to see these matters addressed in a way where wildlife and the scenic beauty of the area are taken into account. According to the article in the paper, this is possible in a way where all of the above concerns can be met. I'd also like to stress that I feel that the human concerns in this case must take precedence over the others. Lives are being wasted and will continue to be until this stretch of highway is upgraded to meet the flow of vehicle traffic that now must travel in such hazardous conditions. Knowing that such a dangerous problem exists but failing to address and correct the problem would be criminal.

If there is anything I can do to further the efforts to widen the " Ribbon Of Death " to meet current and future demands for safe traffic flow, please feel free to contact me. I'd be more then happy to help.

Thank you for our concern,

Greg Jacobson
2409 56th Street
Missoula, MT 59803
(406) 251-4835

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RECEIVED
APR 4 1995
ENVIRONMENTAL BUREAU

Warren L. "Dite" Little
8127 Hillgate Station
Missoula, Montana 59807

3/29/95

MASTER FILE COPY
cc: Consultant Design
Jim Weaver
Marion Mpls

Dear Mr. Marshik,

10 I'm a 65 year old retired lawyer. I love to ride my bike & I want to lobby you re the new highway you're working on between Polson & Evaro. (Highway 93)

Please leave a healthy shoulder & also do not put in those little noise bumps on the side of the road. Its not good for bikes.

There is alot of bike traffic on that road & especially the TOSRV run up through the Blackfoot & back down 93.

Please insure the design of your highway takes the bike traffic into consideration.

Thank you,

Warren Little

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MAR 31 1995
ENVIRONMENTAL BUREAU

March 29, 1995

MASTER FILE COPY
cc: Consultant Design
Jim Weaver
Marion Mpls

Joel Marshik
Montana Dept of Transportation,
P.O. Box 201001,
Helena, MT 58620-1001

Dear Mr. Marshik,

11 I am writing you to plead for the people of Lake and Flathead Counties in regards to a purposed four-lane highway to be constructed (hopefully) between Evaro and Polson. This highway is long over due. In the past the traffic did thin out during the winters months, but as of late it is heavy all year 'round.

It seems that the public is getting too hung up on protecting wildlife. I am certainly not against doing that within reason, but what about us? Those who make such an issue of saving a bird's nest or a deer trail probably haven't lost a son or a daughter or a loved one on Highway 93. Those lives are precious too, and I feel that we should do everything in our power to protect people's lives. The heartbreak of the families of accident victims should certainly be considered.

A well constructed four-lane highway would enhance this beautiful valley, and make a safer, healthier environment.

Thank you for taking the time to read this.

Sincerely,

Allowee Briggs

Allowee Briggs
1032 North Finley Point Road
Polson, Montana 59860

406 444 7245

RECEIVED
MAR 3 1 1995
ENVIRONMENTAL BUR.

Dale H. & Elizabeth D.B. Smith
17898 U.S. Highway 93N
Arlee, Montana 59821
406/726-3214

MASTER FILE COPY

March 29, 1995

Joel Marshik, Manager, Environmental Services
Montana Department of Transportation
Box 201001
Helena, MT 59620-1001

RE: U.S. Highway 93, Evaro - Polson, Montana

Dear Mr. Joel Marshik:

12 We are most interested in obtaining as much information as possible about the proposed action to take place on US 93 between Evaro and Polson, most specifically on the action to take place in and around Arlee.

As we live on the highway, the construction that is proposed for the area will affect not only our property and its value, but our family's lifestyle as well. We are most anxious to learn what, in all likelihood, is planned for the area.

We realize that the Record of Decision is to be based after the final environmental impact statements are prepared, sometime after the April meetings, but we are in the middle of remodeling our basement and if there is any possibility of our house being relocated we do not want to put any further time or money into these efforts.

Can you assist us in providing information that would be relative to these issues?

1. In all probability, will the highway be reconstructed through Arlee?
2. If so, how much area will be required for the roadway, in relation to what is currently used? (Four lanes plus a turn lane? Sidewalks? Curbing?) How much footage is required? Where will it be required?
3. Would the improvements continue through town and north of the newly established bank? How far north? As far as the bowling alley?
4. Will highway access land be needed in additional to the roadway, in the form of barrel pits or other?
5. Is the residence at 178[illegible]ghway 93 proposed to be relocated?
6. Is the property at 17898 Highway 93 proposed to be reconstructed in any fashion?
7. When is construction scheduled? When is construction scheduled to be completed?

We would be most appreciative of any information you could offer. If your department can not assist us, please forward this inquiry to the correct department.

Thank you.

Sincerely,

Dale & Elizabeth Smith

Dale & Elizabeth Smith
Residents of U.S. Highway 93 Impact Area

406 444 7245

Jack Cheatham
Box 204
Arlee, MT 59821

APR 0 1995
ENVIRONMENTAL BUREAU

MASTER FILE COPY

Department of Transportation
PO Box 201001
Helena, MT 59620-1001
Attn: Joel Marshik

Dear Mr. Marshik:

13 I am very interested in the proposed 4-lane highway between Evaro and Polson (Hwy 93). Could you please let me know <u>what</u> is proposed?

Thank you,

Jack Cheatham

Jack Cheatham

John –
Would you please send this person your one page flyer + tell him of our Arlee meeting plans.
June 4/5/95

Sent on 05 Apr. 95 BGP

RECEIVED
MAR 30 1995
MT. DEPT. OF TRANSPORTATION
DIRECTORS OFFICE

cc: Consultant Design
Morrison & Maierle
sent to Missoula District

28 March 1995

Montana Department of Transportation
P. O. Box 201001
Helena, MT 59620-1001

SUBJECT: Highway 93 between Evaro and Polson, MT

14 I agree with the state and federal preference to expand the "ribbon of death" between Evaro and Polson into a four lane highway with continuous center turn lanes in the route's most congested areas.

As studies have repeatedly found, this corridor is among the most dangerous in the state. The roadway in many areas fails to meet current standards for safety and design. I personally feel that this stretch of existing highway NOW exceeds capacity for the current traffic. This is a very dangerous highway.

Horst H. Schwarz
1300 W. Broadway
Missoula, MT 59802

RECEIVED
APR 4 1995
APR - 3 1995
MORRISON-MAIERLE/CSSA.

RECEIVED
MAR 30 1995
MT. DEPT. OF TRANSPORTATION
DIRECTORS OFFICE

cc: Consultant Design
Morrison & Maierle
sent to Missoula District

28 March 1995

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P. O. Box 201001
Helena, MT 59620-1001

SUBJECT: Highway 93 between Evaro and Polson, MT

15 I agree with the state and federal preference to expand the "ribbon of death" between Evaro and Polson into a four lane highway with continuous center turn lanes in the route's most congested areas..

As studies have repeatedly found, this corridor is among the most dangerous in the state. The roadway in many areas fails to meet current standards for safety and design. I personally feel that this stretch of existing highway NOW exceeds capacity for the current traffic.

Get farm equipment moving at a slow rate of speed, tourists, and many camper-motor homes caravaning down the highway, and a very dangerous situation exists. Someobne in a hurry (or just desires to drive 55 miles an hour) will attempt to pass.

I hope you will listen to the working and tax paying people--not the usual group that is pounding nails into trees, pushing hunters around at Yellowstone Park, etc. There are plenty of ponds/wetlands to accomodate our thriving duck population. People and their safety need to be protected.

Dorothyann V. Schwarz ("Ginger")
P.O. Box 195
Polson, MT 59860-0195

gs

Ron Petet
P.O. Box 354
Arlee, MT 59821

Morrison & Maierle

APR 7 1995
ENVIRONMENTAL BUREAU

RECEIVED
APR 10 1995
MORRISON

April 7, 1995

MASTER FILE COPY

cc: Jim Deleuw Consultant Design Morrison & Maierle

16 Sirs:

Thank you for giving the public a chance to respond. After all it is the public that is effected, and catching the bill.

I can not figure out why you would even consider running the new hiway 93 through Arlee. Except for the pressure you may be getting from a half dozen, or less merchants. I assure you they will survive.

As you must know Arlee is a major bottel neck now. The traffic is only going to increases. Local residents have a hard time getting on and off 93. The local bussiness are a conjested mess. Most of all we have lost the lives, and others injured by all the traffic. Most cars and most all trucks do not stop at the cross-walks and many exceed the speed limit.

Why in the world would even consider coming through Arlee, when you have the funds to go over by the Rail Road tracks where the new road should be. We may not have the funds at a later date. to move it over there.

Thank you very much
Ron Petet

RECEIVED
APR 4 1995
ENVIRONMENTAL BUREAU

RECEIVED
MAR 29 1995
MT. DEPT. OF TRANSPORTATION
DIRECTORS OFFICE

cc: Consultant Design Morrison & Maierle Missoula District

28 March 1995

(25)

Montana Department of Transportation
P. O. Box 201001
Helena, MT 59620-1001

SUBJECT: Highway 93 between Evaro and Polson, MT

17 I agree with the state and federal preference to expand the "ribbon of death" between Evaro and Polson into a four lane highway with continuous center turn lanes in the route's most congested areas..

As studies have repeatedly found, this corridor is among the most dangerous in the state. The roadway in many areas fails to meet current standards for safety and design. I personally feel that this stretch of existing highway NOW exceeds capacity for the current traffic. This is a very dangerous highway.

John T. Felton

John T. Felton
Felso Industries
3660 Grant Creek Road
Missoula, MT 59802

RECEIVED
APR 12 1995
ENVIRONMENTAL BUREAU

MASTER FILE COPY

4-11-95

To: Joel Marshik, Manager
MT Dept. of Transportation

18 Please send a copy of the draft EIS for the proposed highway improvements between Evaro & Polson, MT to my address below:

17925 Beargrass Rd.
Evaro, MT 59802

I am especially interested in the proposal for a wildlife crossing in the Evaro area.

Thank you.

Meggen Ryan Hartse
MEGGEN RYAN HARTSE

RECEIVED
APR 12 1995
MORRISON-MAIERLE/CSSA, INC

MASTER FILE COPY

APR 11 1995
ENVIRONMENTAL BUREAU

April 8, 1995

19 This letter is in support of building Highway 93 a Four Lane from Evaro to Polson the existing two Lane is insufficient for todays traffic. One 50 MPH truck and you got a line of traffic a mile long

Robert Flansaas
P.O. Box 1369
Trout Creek, Mt.
59874

cc: Preconstruction
Morrison & Maierle
Jim Weaver

John W. Browne
1509 Solana Drive
Belmont, California 94002
(415) 591-4916
(415)

APR 17 1995

ENVIRONMENTAL BUREAU 4-15-95

MASTER FILE COPY

cc: Morrison-Maierle
Reconstruction
Jim Weaver

Dear Mr. Marshick;

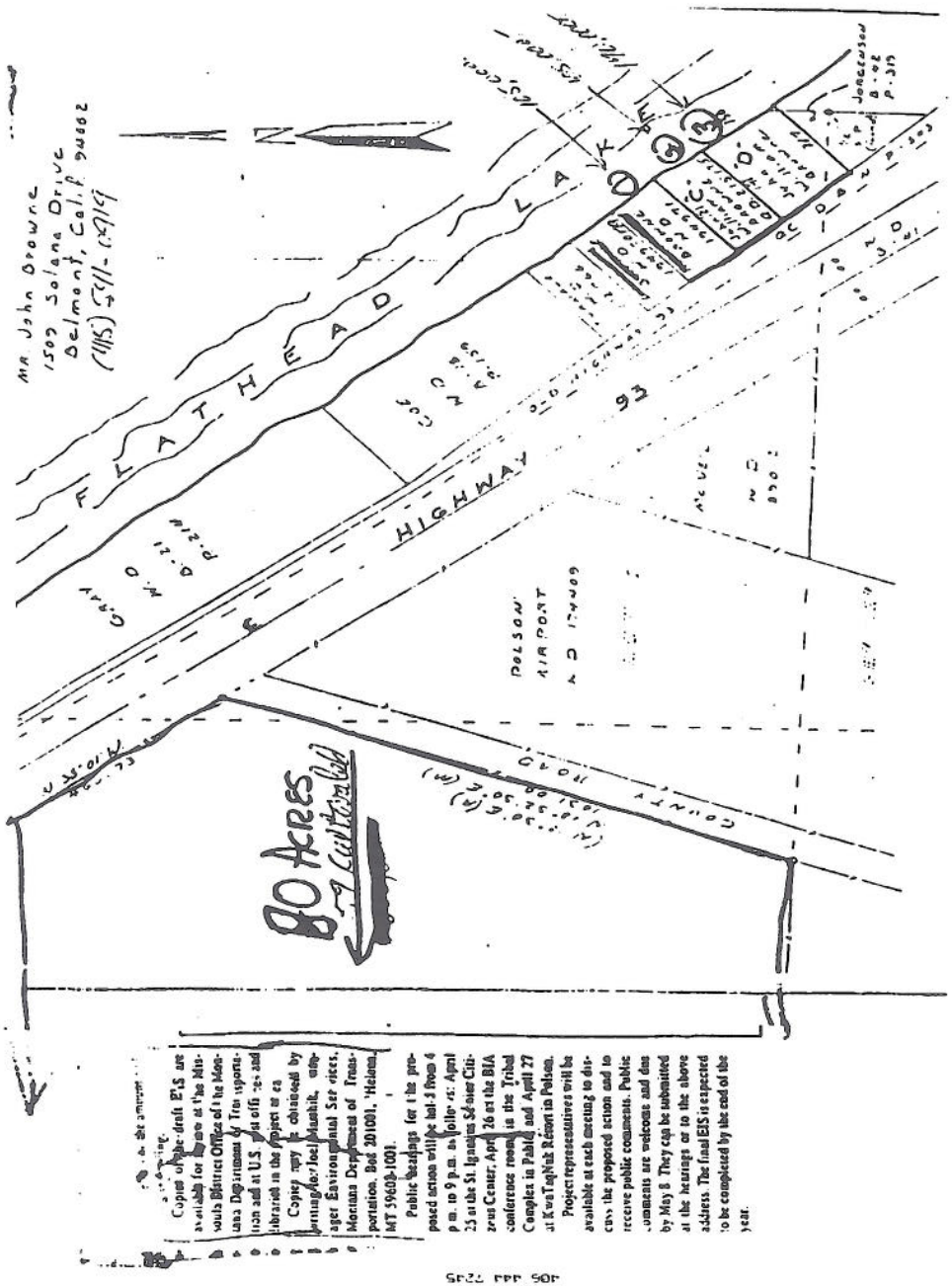
20 Can you tell me how the proposed new highway (93) at Polson, Mt. will be in relation to our 80A property as shown on the enclosed?

Located

Thank you.

Very truly yours,

John W. Browne



PUBLIC HEARING AT ARLEE, MONTANA: APRIL 24, 1995

WRITTEN COMMENTS for

PUBLIC HEARINGS for
DRAFT ENVIRONMENTAL IMPACT STATEMENT
MARCH 1995
F-5-1(9)(6) U.S. HIGHWAY 93
Evaro - Polson
Missoula and Lake Counties, Montana

This page is available for members of the public to make written comments. The U.S. Department of Transportation, Federal Highway Administration and the Montana Department of Transportation are seeking information from users of the highway, property owners and other members of the public. For more information please contact:

Joel Marshik
Manager Environmental Services
Montana Department of Transportation
2701 Prospect Avenue
P.O. Box 201001
Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Tony Hoyt
Affiliation: FRO
Address: Po Box 281
City/State/Zip: Arlee, MT 59821

21

TOPIC	COMMENTS
I Lane configurations in Arlee	- the Arlee Sub I D Team consisting of 2 tribal councilmen, 1 business Rep & 2 community members + the superintendent of school. overwhelmingly recommended 3 Lanes thru Arlee. this Recomendation was totally disregarded and Arlee will have 5 Lanes all for the sake of more speed 5 lanes thru Arlee totally against what the sub I D team recommended,
II	The FRO proposed has never been given a fair treatment in the EIS it is always compared to the no action Alternative when in reality it has many improvements to no action and would not only be safer but would Improve

(See reverse side to make additional comments)

93PUBLHR MOD

TOPIC	COMMENTS
level of	service ~~that~~ without making Arlee such a bedroom community to Missoula, development will happen regardless but a 5 Lane highway will make it worse

THANK YOU

93PUBLHR MOD

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Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Judy Vanderburg
Affiliation:
Address:
City/State/Zip:

22

TOPIC	COMMENTS
Highway 93	I feel the road should stay where it is. Put in turn outlanes. When the Tribes gets it to get the they will buy back the land and the growth will slow down. I don't feel its fair to the people who own the land now should have to give it up to make other people happy. Up grade the highway we now have and save the tax payers money. I do agree with the idea for Evaro.

(See reverse side to make additional comments)

93PUBLHR.MOD

PUBLIC HEARING AT ARLEE, MONTANA: APRIL 24, 1995

TOPIC	COMMENTS

THANK YOU

93PUBLHR.MOD

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Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Sylvia Willson
Affiliation: Interested in rural preservation
Address: Box 82
City/State/Zip: Arlee MT 59821

23

TOPIC	COMMENTS
Alt # 2	Would divide good farmland. ✓
	We do not need more pavement
	Would increase speeds. ✓
	Would divide railroad lands into ✓
	narrow waste land strips. ✓
0	Would go through proposed
	waste treatment. ✓
	Ruin some wet lands. ✓
Alt # 1	Best route
	needs one stop lite

(See reverse side to make additional comments)

93PUBLHR MOD

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WRITTEN COMMENTS for

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Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Jackie Johnston
Affiliation: land owner
Address: P O Box 143
City/State/Zip: Arlee, MT 59821

24

TOPIC	COMMENTS
Hwy 93	I am a property owner in the town of
	Arlee & my property is located on ✓
	the highway. I am interested in
	having a 3 lane hwy go through ✓
	Arlee with a stop light, as I
	am concerned about safety of
	children & others with the Elem.
	school so close by (one block).
	I am interested in having the
	hwy go around the town of Arlee ✓

(See reverse side to make additional comments)
& not through the town.

93PUBLHR MOD

Written Public Comment Received At Public Hearings
Arlee Public Hearing

PUBLIC HEARING AT ARLEE, MONTANA: APRIL 24, 1995

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P.O. Box 201001
Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Mort Lytle
Affiliation:
Address: 24325 Hwy 93 S
City/State/Zip: Arlee, MT 59821

25

TOPIC	COMMENTS
MP 12.4	Re. Vernabell Lytle owner
	Requesting underpass be
	constructed to serve their property
	Property on both sides of
	MP 12.4 - Drainage culvert
	could be installed large
	enough for cattle to be
	moved from one side to
	other. See attached
	letter from CSKT

(See reverse side to make additional comments)

93PUBLHR.MOD

THE CONFEDERATED SALISH AND KOOTENAI TRIBES
OF THE FLATHEAD NATION
P.O. Box 278
Pablo, Montana 59855
(406) 675-2700
FAX (406) 675-2806

Joseph E. Dupuis - Executive Secretary
Vern L. Clairmont - Executive Treasurer
Bernice Hewankorn - Sergeant-at-Arms

TRIBAL COUNCIL MEMBERS:
Michael T. "Mickey" Pablo - Chairman
Laurence Kenmille - Vice Chairman
Elmer "Sonny" Mongeau, Jr. - Secretary
Antonne "Tony" Incashola - Treasurer
Louis Adams
Lloyd Irvine
Patrick Lefthand
Henry "Hank" Baylor
John "Chris" Lozeau
D. Fred Matt

M E M O R A N D U M

Date: June 18, 1993

To: Janet Camel, Tribal Planner

From: Dennis Clairmont, Range Conservationist

Thru: Douglas Dupuis, Agricultural Manager
Virgil Dupuis, Division of Lands Manager

Subject: Livestock Underpasses, Proposed Highway 93 Expansion Project, Evaro to Polson

The only existing underpass serving Tribal lands is located on Ravalli hill West of St. Ignatius (NW¼NW¼ Sec. 28 T. 18 N., R. 20 W.) This underpass is in use and needs to remain when the highway is reconstructed. All other existing stockcrossing underpasses should also be retained.

Mort Lytle, husband of Tribal member Vernabelle Lytle has been in contact with this office several times since the planning process for Highway 93 reconstruction was started. He is requesting that an underpass be constructed to serve their property that lies on both sides of Highway 93 south of Arlee near Schley(S½NE¼, part of NE¼SE¼ Sec 31 T. 16N., R. 19W). He recommended that a drainage culvert that crosses beneath the highway south of his residence (SW¼NE¼ Sec 31 T. 16 N., R. 19 W.) could be installed large enough to accommodate the livestock. This drainage has a different land owner on the west side of the highway and negotiations might be needed for an easement if this site is used.

Mr. and Mrs. Lytle have lived at their present residence for over 40 years and have moved their livestock across the highway several times a year during that time. Increasing the width of the highway will make it more difficult to cross the highway. Anticipated increases in traffic will create a larger safety hazard than exists now. The alternative of trucking the livestock across the highway is an unrealistic burden. I recommend that the Highway Department work with Lytle's to install a livestock crossing.

dc.061893..mem

PUBLIC HEARING AT ARLEE, MONTANA: APRIL 24, 1995

WRITTEN COMMENTS for

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MARCH 1995
F-5-1(9)(6) U.S. HIGHWAY 93
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Manager Environmental Services
Montana Department of Transportation
2701 Prospect Avenue
P.O. Box 201001
Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: WAYNE McCREESH
Affiliation: YELLOWSTONE PIPE LINE COMPANY
Address: 6855 S. HAVANA Suite 180
City/State/Zip: ENGLEWOOD, CO 80112

26

TOPIC	COMMENTS
Highway 93 EIS	I would like a copy of the Draft/Final EIS as well as the Profile, Grade and Design of the Wildlife Crossing and Road Design between MP 10 + MP 11. YPL Pipeline crosses Highway 93 at this point. I would also like Details of the Alternatives at Arlee and Ronan

(See reverse side to make additional comments)

93PUBLHR MOD

PUBLIC HEARING AT ST. IGNATIUS, MONTANA: APRIL 25, 1995

WRITTEN COMMENTS for

PUBLIC HEARINGS for
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MARCH 1995
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P.O. Box 201001
Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Bill Bick
Affiliation:
Address: 37301 Hwy. 93
City/State/Zip: St. Ignatius, MT 59865

27

TOPIC	COMMENTS
Passing lane	at Post Creek hill ~~[illegible]~~ to allow traffic to spread out ✓
Development	a 2-lane highway never stopped development in the different ✓
St. Bar area	Needs traffic control to slow down accident rate ✓

(See reverse side to make additional comments)

03PUBLHR ST1

PUBLIC HEARING AT ST. IGNATIUS, MONTANA: APRIL 25, 1995

WRITTEN COMMENTS for

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Montana Department of Transportation
2701 Prospect Avenue
P.O. Box 201001
Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: P Murphy
Affiliation:
Address: 7605 E Post Ck Rd.
City/State/Zip: St Ignatius, MT 59865

28

TOPIC	COMMENTS
~~By Pass~~ — ~~Home~~s St Ignatius, and cutting off at Old Freight Road, (only turn off's at towns) Dream on I have problems as I visualize the area growing faster than is anticipated. I feel that this road would handle the fast traffic The Community growth would sustain the business Centers. ✓ P. Murphy.	

(See reverse side to make additional comments)

03PUBLHR ST1

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2701 Prospect Avenue
P.O. Box 201001
Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: John Yatchak
Affiliation: Landowner
Address: 104 E Post Creek Rd.
City/State/Zip: St Ignatius, Mt.

29

TOPIC	COMMENTS
Wildlife Crossing	We need to preserve the wildlife corridor at Post Creek.
Bridge @ Post Crk	Suggest you consider a divider between opposite lanes. Area is known for very icy roads.

(See reverse side to make additional comments)

PUBLIC HEARING AT ST. IGNATIUS, MONTANA: APRIL 25, 1995

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Manager Environmental Services
Montana Department of Transportation
2701 Prospect Avenue
P.O. Box 201001
Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Thelma Olsen
Affiliation: Chairman St. Luke Hospital
Address: 600 Griffiths Lane
City/State/Zip: St. Ign. Mt 59865

30

TOPIC	COMMENTS
4 Lane Highway from Missoula to Polson	I travel this road daily. The traffic is terrible. People take chances, it's hard to pull on the road. They ignore no passing zone it is dangerous. Please - build a 4 lane highway its long over due.

(See reverse side to make additional comments)

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WRITTEN COMMENTS for

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P.O. Box 201001
Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: W Pozzi
Affiliation:
Address: P.O. Box 536
City/State/Zip: St. Ignatius, MT 59865

31

TOPIC	COMMENTS
	I travel 30,000 miles per year, the majority is on Hwy 93. I am in favor of a 4 lane highway and ask only one question: WHEN? Hwy 93 has become unsafe, overcrowded, too many trucks, RVs, and crazy drivers in a hurry.

(See reverse side to make additional comments)

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P.O. Box 201001
Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Marie B King
Affiliation:
Address: Ravalli TH
City/State/Zip: Box 1034 59863
745-2785

32

TOPIC	COMMENTS
	about the 4 lane Hiway. I'm all for it as I have seen recently or rather lived near a girl 23 yrs old have a fatal accident on that 2 lane rd. She fell asleep as she was tired for working in Missoula. She might have lived if she hadn't run in front of a truck. It would be more convient for the people working in Missoula also. That have to drive that rd 5 days a wk.

(See reverse side to make additional comments)

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WRITTEN COMMENTS for

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Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Jeanine Allard
Affiliation: Allard's Trading Post
Address: P.O. Box 460
City/State/Zip: St. Ignatius MT 59865

33

TOPIC	COMMENTS
Access to Our Business	I have previously commented on the fact that we currently have two (2) accesses to our business from Highway 93. We feel that it is mandatory that we retain both accesseses - for revenue as well as safety reasons - Much of our traffic is comprised of tour busses and RV's, also - travel trailers - They are unable to turn around in our parking lot. Before we had the 2nd access - Busses, RVs + even semi-trucks would pull partially into our driveway or worse - park along the side of the highway - causing congestion and dangerous obstacles. Persons interested in stopping at our establishment are often approaching from the north - They see us, slow down, may be miss the 1st access BUT instead of slamming on the brakes - they simply turn into the 2nd access. The curve in the road to the north of us also poses a problem - visibility of long lines of southbound traffic is limited - very dangerous in incident mentioned above. There are several businesses on our premises - They should all recieve equal access - It is my hope that someone please contact us to discuss our concerns - We can then inform you on events which happened prior to the time we had 2 accesses, how the 2nd access has improved matters and also what problems we are still seeing.

(See reverse side to make additional comments)

THANK YOU

93PUBLHR STI

PUBLIC HEARING AT ST. IGNATIUS, MONTANA: APRIL 25, 1995

WRITTEN COMMENTS for

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DRAFT ENVIRONMENTAL IMPACT STATEMENT
MARCH 1995
F-5-1(9)(6) U.S. HIGHWAY 93
Evaro - Polson
Missoula and Lake Counties, Montana

This page is available for members of the public to make written comments. The U.S. Department of Transportation, Federal Highway Administration and the Montana Department of Transportation are seeking information from users of the highway, property owners and other members of the public. For more information please contact:

Joel Marshik
Manager Environmental Services
Montana Department of Transportation
2701 Prospect Avenue
P.O. Box 201001
Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Esther V.M. Hamel
Affiliation:
Address: 2037 Airport Rd
City/State/Zip: St Ignatius 59865
Ph- 406 745 4455

34

TOPIC	COMMENTS
	we can kill a lot of people in 10 yrs!
Post Creek Hill - St Ignatius/Airport Rd	It is unacceptable to wait 4-12 yrs before seeking this extremely dangerous stretch - Believe the present plans will solve this stupid bottleneck - IF the stop sign/lights is implied The current stop at the top means a slippery start in the winter
Roman Alt 3 & 4 versus Town	These two bypasses (either) is a much more viable solution then going thru town. The town route will take parking from businesses on the strip and do not believe business will be much affected by either of Alt. 3 & 4

(See reverse side to make additional comments)

over

93PUBLHR.STI

PUBLIC HEARING AT ST. IGNATIUS, MONTANA: APRIL 25, 1995

TOPIC	COMMENTS
Polson	Believe the proposed routes will be workable
Evaro -	Bear Underpass - I have been driving this stretch of road since 1939 - I have seen 1 bear & heard of maybe 5 others in all these years - Why are going to train the bears to use this ½ mile tunnel - Will this cost be justified? + - A million dollars could be used much more efficiently somewhere else - Like speeding up the Post Creek Hill work -

THANK YOU

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Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Goldie Knuppel
Affiliation: St. Ignatius
Address: St. Ignatius
City/State/Zip: Mt. 59865

35

TOPIC	COMMENTS
Highway thro towns (1)	why spend money gang thro towns when it is already planned to by-pass later. I'm concerned about children & adults walking across hi-way Even if there are stop lights, will care stop!
Population (2)	Increase of people moving into the valley and increase in school attendance which means higher taxes for the elderly on fixed incomes.

(See reverse side to make additional comments)

(over)

93PUBLHR.ST1

PUBLIC HEARING AT ST. IGNATIUS, MONTANA: APRIL 25, 1995

TOPIC	COMMENTS
Highway 200 (3)	Highway 200 and highway to Missoula will be very bad condition if tankers continue to use them for hauling gas to Thompson Falls due to the Flathead Tribe not accepting millions of dollars for the Yellowstone Pipe Line - Maybe Highway 200 should be fixed & straighten too. When will a bad accident occur or gas spilled into the river -??

THANK YOU

93PUBLHR.ST1

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Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Art Mangels
Affiliation: Farmer - Pablo area
Address: 7434 Farm Rd
City/State/Zip: Polson MT 59860

36

TOPIC	COMMENTS
Hwy 93 from Ronan To Polson	Hiway Studies 4 years old - have had enormous growth in last couple years ✓
	Need controlled access - especially at Pablo ✓
	Need wider exits for Trucks onto county roads ✓
	Need more room for large Trucks To Turn at
	Stop light in Ronan, ✓
	Reducing length & weight of Trucks puts local business ✓
	such as farmers at big disadvantage. Railroads
	can't provide quick enough service for business To survive

(See reverse side to make additional comments)

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PUBLIC HEARING AT PABLO, MONTANA: APRIL 26, 1995

TOPIC	COMMENTS
	Traffic Ronan To Polson Hwy 35 Junction ✓
	is very heavy
ESA & EIS	Peoples safety must also be considered ✓

THANK YOU

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Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Dan Bartel
Affiliation: Ace Hardware
Address: 705 Hwy 93 S
City/State/Zip: Ronan MT 59864

37

TOPIC	COMMENTS
Ronan Area	My wife and I own a business in Ronan. It is on Highway 93 and if you move the highway it would hurt our business. Please leave it where it's at. Thanks, Dan Bartel

(See reverse side to make additional comments)

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TOPIC	COMMENTS
Ronan Area	Please leave the highway where it's at

THANK YOU

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Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Ben Adams
Affiliation: USDA (FAIP)
Address: 2380 Courville Dr
City/State/Zip: Polson, MT 59860

38

TOPIC	COMMENTS
Wetlands	Mitigation of lost reservoir storage in Nine Pipe Reservoir. ~~For loss of~~ The wetlands along the highway there are part of the Nine Pipe Reservoir storage pool. How will you mitigate that?
Irrigation Canal Crossings	Must be of adequate size to convey irrigation water. Must have adequate access for maintenance and repair. There must be a strong commitment by the state to repair problems immediately.
Some commentors	I take exception to commentors saying "We all...". Since when does someone I don't even know speak for me?

(See reverse side to make additional comments)

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Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Shannon Burke
Affiliation:
Address: Box 1153
City/State/Zip: Pablo MT 59855

39

TOPIC	COMMENTS
	See Back

(See reverse side to make additional comments)

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PUBLIC HEARING AT PABLO, MONTANA: APRIL 26, 1995

TOPIC	COMMENTS
	My opinion for improving the roads on and through the Flathead Reservation is to remain with two lanes. To more specific improvements I favor the Flathead Resource Organization recommendations. I am a tribal member concerned for preserving the Indian way of life.

Shannon Burke
Box 453
Pablo, MT 59855

THANK YOU

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Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Mary Hrak
Affiliation:
Address: 6161 Mary Ellen Rd
City/State/Zip: Charlo MT 59824

40

	TOPIC	COMMENTS
(1)	EBO Plan	Please consider it seriously.
(2)	Turn bays	Provide left-turn bays outside of lanes; not a center lane is a 'suicide lane.'
(3)	EIS	Needs to be redone to consider pros + cons of all alternatives, incl EBO plan.
(4)	Eagle Pass Trail	Please provide left turn bay. It's a paved trail that gets a lot of use. Many use it instead of McDonald Lane Rd or Glenlock Rd for highway access, because it has better visibility.

(See reverse side to make additional comments)

It is very dangerous here. The state has built a scenic area to [illegible] Eagle Pass Trail →

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	TOPIC	COMMENTS
		If Eagle Pass Trail is going to be the access pt. to Alternative that will greatly increase use of that turnoff.
(5)	Wildlife	I'm very concerned about wildlife being able to cross the highway. The Ninepipe/Kicking Horse area has lots of ducks + turtles. What will happen to deer, bears, turkeys,
(6)	EIS again	We (my husband and I) went to the early hearings. Our impression was that the consulting firm who prepared the EIS was selling the 4-lane. Now, our impression is that they're still selling it. Comments by groups like Friends of Wild Buffalo Jones Range, Sierra Club ignored. Just like this is a

THANK YOU

pro-effort to get more input. Requirements/hurdles, etc. To fulfill intention from the beginning to

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Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: JOHN PLOUFFE
Affiliation: FLATHEAD IRRIGATION Proj.
Address: 7238 PEARSON RD.
City/State/Zip: RONAN MT 59864

41

TOPIC	COMMENTS
Polson	I FAVOR the plan to improve HW 93 THRU TOWN + CONSTRUCT A TRUCK BY-PASS W/ NEW BRIDGE S. of TOWN. ✓
RONAN	I WOULD FAVOR ALT. 3 OR 4 RATHER THAN having A NEW H.W. Reduced TO A BOTTLENECK IN TOWN, ADDING TO CONGESTION, DISRUPTING BUSINESSES, ETC. ✓ The Loss of some good AGRICULTURAL GROUND is the only DRAWBACK, BUT the BENEFITS would outweigh this

(See reverse side to make additional comments)

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PUBLIC HEARING AT PABLO, MONTANA: APRIL 26, 1995

TOPIC	COMMENTS
RONAN (cont)	LOSS, in my opinion. IN ANY EVENT, I FEEL there is ALSO A NEED FOR A NEW TRAFFIC light AT the S. END of RONAN, NEAR V MOODYS, MISSION MART, CYNNS DRIVE-IN, ETC.
ANIMAL CORRIDORS	A Ridiculous idea hatched by A TREE-HUGGING, GRANOLA ✓ CRUNCHING EARTH PERSON. A WASTE of Time + money.

THANK YOU

93PUBLHR.PAB

Pablo Meeting
4-26-95

STATEMENT TO HIGHWAY 93 ENGINEERS AT PABLO, MT., APRIL 26, 1995 BY JOE MCDONALD, PRESIDENT OF SALISH KOOTENAI COLLEGE AND RESIDENT OF RONAN.

42 Personnal comments. I would like to make the following statement as my own personnal statement and is not a statement on behalf of the College.

1. I am opposed to the entire idea of a four lane highway through the Flathead Indian Reservation. I feel that this a highway construction method that is used effectively in urban areas and for inter-state highways. We have our north-south interstate highway in Interstate 15.

a. I feel that a four lane highway would encourage high speed driving and thus endanger the safety of the local residents of the Reservation

b. A four lane highway interrupts the rural life style we have here and cherish. It is the very reason most of us choose to live here. It interrupts the rural life style in a number of ways which include: increased noise pollution, increased population growth, unsafe working conditions for agricultural workers using the highway, high speed travel, increased use of the highway, and on and on.

c. It is going to be very difficult for migrating wildlife such as deer, elk, bear, water-fowl with hatches, turtles, and others.

d. The scenic drive will be interrupted. Existing ponds will be filled and relocated as will sloughs. People will be driving so fast, they won't take time to enjoy.

2. I feel that an improved two lane highway with eight foot shoulders, passing lanes on hills, rumble strips to protect bicycle riders, and better traffic enforcement would serve this area well for a long period of time.

Statement on behalf of Salish Kootenai College. The following comments are made with the good of the College in mind, and I feel that the Board of Directors concur.

1. The College is very concerned with the traffic entering the highway from the east side. We hope that east side traffic will not be encouraged to or be designated to drive through the College campus to get to the Jiffy Stop and enter the highway there. We hope that the main entry point will be at Clairmont Lane. We also hope that there will be a stop light at Clairmont Lane so that traffic can safely enter the highway when turning left.

2. The College is very concerned how pedestrians are going to safely cross the highway south from Clairmont Lane to Division Street. There are several handicapped students and employees that attend or work at the College. A raised median for a rest area does not meet their needs. The College favors stop lights and overhead pedestrian crossings constructed for handicapped access.

3. The College is very concerned with the increased noise pollution that is estimated to be 2-3 times greater than it is with a two lane highway. There should be consideration given to decreasing the noise. In some areas this accomplished with heavy foliage or a specially constructed wall.

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Commenter Name: Karen Kiogstad
Affiliation:
Address: 531 1st Av SW
City/State/Zip: Ronan MT 59864

43

TOPIC	COMMENTS
stop Lights	It is very difficult to get across or to get on highway 93. We are in need of another stop light, which will also allow people walking, to get across the highway without danger.

(See reverse side to make additional comments)

91PUBLHR.PAB

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Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Audley F. Page
Affiliation:
Address: [illegible] Sa. Finley Pk. Rd.
City/State/Zip: Polson, MT 59860
(406) 887-2647

44

TOPIC	COMMENTS
General	The proposed highway in its entire length is excellent. Would prefer to see a divided highway the entire length except where turn lanes are needed for side roads and existing businesses. The rest of the highway should be limited access. Some areas frontage roads will need. Lake considered for existing homesteads. Any new businesses or homesteads will have to provide their own frontage road access according to highway department plans.

(See reverse side to make additional comments)

PUBLIC HEARING AT _____, MONTANA: APRIL __, 1995

TOPIC	COMMENTS
Arlee Bypass	- a must. Do not build immediately the land for it should be purchased now.
Ronan Bypass	- alignment #4 is the best alternative. Will allow Ronan room for orderly expansion. Zoning a must. With proper development of Ronan and advertising by local business it will have no detrimental effect on business.
Polson Bypass	- as absolute a must. Again with good zoning of Polson, clean up and facelift of downtown to adequate parking facility, downtown and attractive advertising Polson will blossom. Bypass will take away all traffic which today makes Polson a night time one of people rushing to shop or stay in town (motels-hotels). Bypass will also display Polson as one of the loveliest towns in the State.

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Commenter Name: Jens GRAN
Affiliation: Resident
Address: Box 210
City/State/Zip: Polson MT

45

TOPIC	COMMENTS
Bypass-	Polson need a by-pass (alternate route is a better word) ✓
	With the amount of growth in traffic Polson need an alternate route - land needs to be agreed now!
	case in pt - #3 has to be realigned due to

(See reverse side to make additional comments)

93PUBLHR.POL

PUBLIC HEARING AT POLSON, MONTANA: APRIL 27, 1995

TOPIC	COMMENTS
	New housing developm..
	With current annual growth in traffic 3 - 4½/yr - ✓
	Polson will not benefit from having 4 lane through town -
	It will be dangerous and unpleasant ✓
	Give the driving public a choice! ✓

THANK YOU

93PUBLHR.POL

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Commenter Name: Clarence Brazil
Affiliation:
Address: 748 S Finley Pt Road
City/State/Zip: Polson mt 59860

46

TOPIC	COMMENTS
Bypass	I bleive you should Bypass Polson And Relieve Congestion in Town by people + trucks traveling through and Not Planning to Stop any How. If they want to stop For Food gasoline or Merchandise they can use the Business Route. This would Sure make it Easier For the people that Live Here To better shop the Local Merchants I believe the Local Merchants Would Eventially Do much better.

(See reverse side to make additional comments)

PUBLIC HEARING AT _____, MONTANA: APRIL __, 1995

TOPIC	COMMENTS
Highway From	Polson to Evaro Hill should definintly be A 4 lane to prevent the accidents + Deaths caused by the crazy People that pass Illegaly it Four lanes would Eleminate this and save many Lives and Sufferiny I believe it is A must that it be 4 lanes it will have to be sometime in the Future so why Not Now?

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Commenter Name: Rocky Shriver
Affiliation: West Polson MALL
Address: 61531 thr 61549 Hwy 93
City/State/Zip: Polson, MT. 59860
mailing # 115 5th Ave W.

47

TOPIC	COMMENTS
Alt #3	Any Bridge Structure Crossing the River would create a Navigational Hazard prohibiting any future aquatic Event from Taking Place in a very Unique Section of Safe water Naturaly protected from Storms.
Alt. #3	would Hide the Tourist Destination Point of Polson from View of Motorists on Route To Glacier Park from points South And the Same holds TRU from Travelers heading South to Yellowstone Park.
Alt #1	Should be the Perfered Route with a Duplicate Bridge Constructed Lakeside of Existing Bridge and North Bound Lanes could easyly go on Undeveloped Greenbelt area East of Hwy 93 To Rocky Point Road.

(See reverse side to make additional comments)

(over)

93PUBLHR.POL

PUBLIC HEARING AT POLSON, MONTANA: APRIL 27, 1995

TOPIC	COMMENTS
Alt #3	If Constructed - Should Remain on The Lake Side of the Ridge and west of the Airport Runway - a bridge at the "Rock Island" north of the Pumping Station would be a beter Choice for Recreational Safty And Noise Concerns. At that Point alignment of the Road Could Junction at Rocky Point Rd And US 93 with City of Polson Visiability maintained for a good distan
	Visability Impacts All Travelers about Flathead Lake when the Top the hill at Readymix Concrete and I have Seen many Photos Taken from the ~~Toer~~ Turn out at that Point of Interest. Polson Can Not - Afford To Lose this Visibility IF ~~they~~ It Ever wants to Achieve that Full on Tourist Destination Point Status.

Rocky Shriver

THANK YOU

93PUBLHR.POL

Written Public Comment Received At Public Hearings
Polson Public Hearing

Polson

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Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Geraldine F Boyle
Affiliation:
Address: 501 Scenic Rd
City/State/Zip: Polson, MT 59860

48

TOPIC	COMMENTS
Hi way 93 & Bay Rose	I live between Superior & Moiese Stone & Ben Franklins. At times, especially summer, 1st of the month & the 15th and starting & quitting of work hours, I may never get onto the Hiway to go to town. I must make a right & go up over Hellcrest — if I can ever get out. We must do something To

(See reverse side to make additional comments)

93PUBLIH STI

TOPIC	COMMENTS
	alleviate the congestion. Most cars coming from Kalispell or Missoula continue right thru town & I cannot see where the Businesses will lose business. We need the By-pass

THANK YOU

93PUBLIH STI

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Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Shrives
Affiliation:
Address: 116 5th Ave West
City/State/Zip: Polson Mt.

49

TOPIC	COMMENTS
Highway 93 by-pass	We do have a problem with traffic. Mostly summer. I would like to see passing lanes through the valley to help traffic ✓ flow. In Polson I do not see the need for a 4 lanes highway. I think slower speed limits and at least 2 traffic lights

(See reverse side to make additional comments)

93PUBLHR.POL

PUBLIC HEARING AT POLSON, MONTANA: APRIL 27, 1995

TOPIC	COMMENTS
	would take care of our problems. I think a by-pass around town would hurt the economy. ✓ The town now depends on tourist traffic flow in the summer months in order to survive. There are other ways to take care of the problem — ✓ it would change our life style dramatically to put a by-pass around town. But I am all for highway improvements from Evaro to Polson.

THANK YOU

93PUBLHR.POL

PUBLIC HEARING AT POLSON, MONTANA: APRIL 27, 1995

WRITTEN COMMENTS for

PUBLIC HEARINGS for
DRAFT ENVIRONMENTAL IMPACT STATEMENT
MARCH 1995
F-5-1(9)(6) U.S. HIGHWAY 93
Evaro - Polson
Missoula and Lake Counties, Montana

This page is available for members of the public to make written comments. The U.S. Department of Transportation, Federal Highway Administration and the Montana Department of Transportation are seeking information from users of the highway, property owners and other members of the public. For more information please contact:

Joel Marshik
Manager Environmental Services
Montana Department of Transportation
2701 Prospect Avenue
P.O. Box 201001
Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Joan Bennett
Affiliation: private citizen
Address: 507 Lake W
City/State/Zip: Polson Mt 59860

50

TOPIC	COMMENTS
by-pass	Polson needs something to relieve the press of traffic not only trucks but some of the through traffic Some business will be impacted no matter which plan is implemented either they lose customers or they lose their business
traffic light	a light @ 4th Ave will not truly handle the Super I, problem but will aid the issue

(See reverse side to make additional comments)

99PUBLHR.POL

TOPIC	COMMENTS
	citizens in going the South side of Highway 93. Locating it at Super I would allow those customers wanting in or out, in or out and the Senior citizens at Lake View Village would still have access even though would have to walk 50 to 100 feet more.
	if Polson is going to grow it will grow — South - Around the proposed route - it will happen

THANK YOU

99PUBLHR.POL

PUBLIC HEARING AT POLSON, MONTANA: APRIL 27, 1995

WRITTEN COMMENTS for

PUBLIC HEARINGS for
DRAFT ENVIRONMENTAL IMPACT STATEMENT
MARCH 1995
F-5-1(9)(6) U.S. HIGHWAY 93
Evaro - Polson
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Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Hattie R Bennett
Affiliation: Private Citizen
Address: 707 1st Ave W
City/State/Zip: Polson MT 59860

51

TOPIC	COMMENTS
Stop Lights	Put one in at Super I
(For the near future)	because one at 4th will block the entry to the store by traffic backup.
	Or put another stop light in at 3rd.
	Which would break up the flow of traffic into smaller segments.

(See reverse side to make additional comments)

93PUBLHR.POL

TOPIC	COMMENTS
By Pass	I think that the cost of a by pass is a big factor to consider, as well as impacting a farm area. So it is my opinion to put in more traffic lights in the time. Polson

THANK YOU

93PUBLHR.POL

Polson

PUBLIC HEARING AT ~~ST. IGNATIUS~~, MONTANA: APRIL 25, 1995

WRITTEN COMMENTS for

PUBLIC HEARINGS for
DRAFT ENVIRONMENTAL IMPACT STATEMENT
MARCH 1995
F-5-1(9)(6) U.S. HIGHWAY 93
Evaro - Polson
Missoula and Lake Counties, Montana

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Commenter Name: _____
Affiliation: _____
Address: _____
City/State/Zip: _____

52 1/2 il

TOPIC	COMMENTS
By Pass	I feel strongly that TSM improvements through town will be inadequate for the level of traffic any less than four lanes through town will inadequately handle town traffic If they By-Pass is built ~~not~~ Before adequately addressing town traffic my fear is that 93 through town will never be dealt with. The State Department of Transportation has a long history of this.

(See reverse side to make additional comments)

:07

93PUBLHR STI

Joe

PUBLIC HEARING AT ST. IGNATIUS, MONTANA: APRIL 25, 1995

TOPIC	COMMENTS
	The By Pass will not be cause trucks to take 93 versus 35. Simple fuel costs ✓ it is around 9 gals / trip
	Trucks com - no through trucks anyway
10,000 ✓	3,000 vechiles 2007
	1000 Vechiles
	4-#9 Trucks 1,800
	excess 5
	6,000 3,000

THANK YOU

93PUBLHR STI

PUBLIC HEARING AT Polson, MONTANA: APRIL 27, 1995

WRITTEN COMMENTS for

PUBLIC HEARINGS for
DRAFT ENVIRONMENTAL IMPACT STATEMENT
MARCH 1995
F-5-1(9)(6) U.S. HIGHWAY 93
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Missoula and Lake Counties, Montana

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Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Albert Polson
Affiliation: Polson Equip Co.
Address: 25 E Bethel Ave
City/State/Zip: Polson Mt. 59860

53

TOPIC	COMMENTS
Bypass route	Highway 93 is the only practical route for trucks through Polson. If much safer & better grade, under with either new highway 35 or 93 we need an alternate route from Big Arm area south to Buffalo bridge & on to Ronan & Dixon to Kerrville Divis

(See reverse side to make additional comments)

PUBLIC HEARING AT Polson, MONTANA: APRIL 27, 1995

TOPIC	COMMENTS
	route will bypass Polson, Pablo & Ronan & also bypass Kerrville Hill. It will take truck traffic off the east shore, highway 35 & get truck traffic well out of Polson & Ronan. Distance V about the same but no traffic lights & cheaper right of way no new expensive bridge to build.

PUBLIC HEARING AT POLSON, MONTANA: APRIL 27, 1995

WRITTEN COMMENTS for

PUBLIC HEARINGS for
DRAFT ENVIRONMENTAL IMPACT STATEMENT
MARCH 1995
F-5-1(9)(6) U.S. HIGHWAY 93
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Missoula and Lake Counties, Montana

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P.O. Box 201001
Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Everett Parsons
Affiliation: Teacher
Address: 177 Red Sky Sundown Ln
City/State/Zip: Ronan, Mt. 59864

54

TOPIC	COMMENTS
By Pass	Like it would be good to By pass to south ✓
11	Ronan & Polson I think it ok like it is work with what there is. ✓

(See reverse side to make additional comments)

93PUBLHR.POL

PUBLIC HEARING AT Polson, MONTANA: APRIL 27, 1995

WRITTEN COMMENTS for

PUBLIC HEARINGS for
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MARCH 1995
F-5-1(9)(6) U.S. HIGHWAY 93
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Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Helen Braget
Affiliation:
Address: 742 S. Finley Pt. Rd
City/State/Zip: Polson MT 59860

55

TOPIC	COMMENTS
Finley Bypass — Through Traffic —	I am definitely in favor of the Bypass route. Those people who wish to stop in town will & those who are passing through will be able to do so without causing heavy traffic ✓ problems in the city

(See reverse side to make additional comments)

Written Public Comment Received At Public Hearings
Polson Public Hearing

US 93 (Evaro through Polson)
Final Environmental Impact Statement

PUBLIC HEARING AT Polson, **MONTANA: APRIL** 27, **1995**

WRITTEN COMMENTS for

PUBLIC HEARINGS for
DRAFT ENVIRONMENTAL IMPACT STATEMENT
MARCH 1995
F-5-1(9)(6) U.S. HIGHWAY 93
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Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Ann M Page
Affiliation:
Address: Glide Jo Finley Point Rd
City/State/Zip: Polson,

56

TOPIC	COMMENTS
Polson By Pass VS Improving & Widening 93	It is my opinion That following The present route of Hwy 93 would be a mistake for Polson. Alternate #3 would be in the very best interest of our town - It would provide Polson The opportunity to develope it's True RESORT potential. Thank You

(See reverse side to make additional comments)

PUBLIC HEARING AT ~~ARLEE~~ Polson, **MONTANA: APRIL** ~~24~~ 25, **1995**

WRITTEN COMMENTS for

PUBLIC HEARINGS for
DRAFT ENVIRONMENTAL IMPACT STATEMENT
MARCH 1995
F-5-1(9)(6) U.S. HIGHWAY 93
Evaro - Polson
Missoula and Lake Counties, Montana

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Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Peter Walther
Affiliation:
Address: 173 CLAFFEY DR
City/State/Zip: POLSON MT 59860

57

TOPIC	COMMENTS
Overall design It appears that reasonable assumptions have been made in the EIS study and preliminary designs. I approve of this approach.	

(See reverse side to make additional comments)

93PUBLHR.MOD

PUBLIC HEARING AT POLSON, MONTANA: APRIL 27, 1995

WRITTEN COMMENTS for

PUBLIC HEARINGS for
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MARCH 1995
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Evaro - Polson
Missoula and Lake Counties, Montana

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Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Karen Welch
Affiliation:
Address: 5th Last Chance Rd.
City/State/Zip: Big Arm MT 59910

58

TOPIC	COMMENTS
Widening Hwy.	Please do it ASAP. I drive from Big Arm to Kalispell or Missoula every day & even the improvement done between Elmo & Kalispell isn't enough. Too many people are choking the highway. Too many close calls especially trying to pass long trucks with no visibility.

(See reverse side to make additional comments)

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PUBLIC HEARING AT Polson, MONTANA: APRIL 27, 1995

WRITTEN COMMENTS for

PUBLIC HEARINGS for
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Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Tom Mercer
Affiliation: Real Estate Broker
Address: 302 Allen St
City/State/Zip: Polson Montana 59860

59

TOPIC	COMMENTS
By Pass	I am totally supportive of
Hwy 93	the proposed By Pass Route
Polson Area	Hwy 93.
	For Safety sake long Range
	Benefits
	No other reasonable alternatives

(See reverse side to make additional comments)

Polson

PUBLIC HEARING AT ~~ST. IGNATIUS~~, MONTANA: APRIL 25, 1995

WRITTEN COMMENTS for

PUBLIC HEARINGS for
DRAFT ENVIRONMENTAL IMPACT STATEMENT
MARCH 1995
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Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: James Boyle
Affiliation: Resident
Address: 501 Scenic Lane
City/State/Zip: Polson Montana

60

TOPIC	COMMENTS
Polson Highway	Go with bypass around Polson the traffic is bad enough now

(See reverse side to make additional comments)

93PUBLHR.STI

Commenter Name: Irene Marchello
Affiliation: Business Owner
Address: 214 Main Street
City/State/Zip: Polson, MT 59860

61

I believe that the traffic issue on 93 has to be addressed and that people will be offended no matter which route is selected. I understand the bypass and feel it is inevitable. However, I think that alternative #2 would offend fewer homeowners, as it bypasses the river and would not affect the wetlands and wildlife.

PUBLIC HEARING AT Polson, MONTANA: APRIL 27, 1995

WRITTEN COMMENTS for

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Commenter Name: _____
Affiliation: _____
Address: _____
City/State/Zip: _____

62

TOPIC	COMMENTS
WILD LIFE - Tom Funke, Jr. 1250 Highland Dr.	The Third Alternative route would put our family ranch out of business - For the past 15yrs the wild life has continued to grow again in this area. The river is green nesting area. The Tribes close the river to motor boats during their period. A bridge at ~~this~~ crossing the river at this point would disturb the water fowl, Coyotes, foxes, deer, bear, Blue Herron & eagles

(See reverse side to make additional comments)

PUBLIC HEARING AT POLSON, MONTANA: APRIL 27, 1995

WRITTEN COMMENTS for

PUBLIC HEARINGS for
DRAFT ENVIRONMENTAL IMPACT STATEMENT
MARCH 1995
F-5-1(9)(6) U.S. HIGHWAY 93
Evaro - Polson
Missoula and Lake Counties, Montana

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cc: Jim Weaver
Preconstruction
Morrison & Maierle

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ENVIRONMENTAL BUREAU

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2701 Prospect Avenue
P.O. Box 201001
Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Marc Gullickson
Affiliation: Property Owner
Address: Lot 1, Highland View Tracts
City/State/Zip: Highland View Dr
Polson, MT 59860

63

TOPIC	COMMENTS
US 93 Polson By-Pass	We are opposed to the by-pass alternative which crosses the river directly south of the Flathead County Airport. The proposed route will impact many more residences and resident lots than were indicated at the time the orginal study was conducte the area has now become a premi residential area and many residences will suffer a significant decline in value. Other alternatives should be considered which are not going to destroy the view and appearance of the Flathead river at the sand cliffs. In addition, a by-pass will result in a severe blow to the town's economy. As history has proven, when a small resort town like Polson deals with its traffic problems via a by-pass, the result is just that -- everyone who may have stopped at restaurants, gas stations etc." bypasses " the town. An improved highway through the town provides for continued viability of the town's businesses and good growth potential. Towns with good "through-city" traffic prosper while those with bypasses suffer with declining economics and stagnation. (Not to mention, a lower tax base.)

(See reverse side to make additional comments)

93PUBLHR.POL

PUBLIC HEARING AT POLSON, MONTANA: APRIL 27, 1995

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ENVIRONMENTAL BUREAU

WRITTEN COMMENTS for

PUBLIC HEARINGS for
DRAFT ENVIRONMENTAL IMPACT STATEMENT
MARCH 1995
F-5-1(9)(6) U.S. HIGHWAY 93
Evaro - Polson
Missoula and Lake Counties, Montana

MASTER FILE COPY

cc: Jim Weaver
Preconstruction
Morrison & Maierle

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Montana Department of Transportation
2701 Prospect Avenue
P.O. Box 201001
Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: MARK FAE
Affiliation: BUSINESS OWNER
Address: P.O. 1144
City/State/Zip: Polson MT 59860
883-4600

64

TOPIC	COMMENTS
Route 93 through Polson	I find it a mystery why the State is considering spending huge $$ to build a long bypass. It seems much less $ could be spent to ① widen the highway for the 1½-2 miles Pomida → bridge. ② Easy to eliminate parking on 93 between Kwa Tuk NUK and the bridge. ③ Add another lane to bridge on Lake side. ④ Form a one-way system on Main and 1st Streets so local traffic will not attempt left turns into uncontrolled streets. Easy! Cheap!

(See reverse side to make additional comments)

93PUBLHR POL

PUBLIC HEARING AT POLSON, MONTANA: APRIL 27, 1995

TOPIC	COMMENTS
	(3) (cont) side. (4) Form a one-way system on Main and 1st Streets so local traffic will not attempt left turns into uncontrolled streets. Easy! Cheap!

THANK YOU

93PUBLHR POL

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SON-MAIENA, MONT.
RECEIVED
MAY 18 1995

PUBLIC HEARING AT POLSON, MONTANA: APRIL 27, 1995

WRITTEN COMMENTS for

PUBLIC HEARINGS for
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cc: Jim Weaver
Reconstruction
Morrison & Maierle

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Commenter Name: ___
Affiliation: ___
Address: ___
City/State/Zip: ___

65

TOPIC	COMMENTS
Highway 93	is a very dangerous avenue of public transportation. I fear each time I drive to Missoula or Ronan because of the many deaths and accidents that occur on it. With increasing population and tourists who are not aware of its dangers one often must drive defensively to stay alive. I have been involved with a task force in Polson to study a Bike/Pedestrian Pathway. I have met with Jim Weaver, Jerry Sorensen, County Commissioners, etc. and over the years have come to the conclusion that a safe Bike/Pedestrian

(See reverse side to make additional comments)

93PUBLHR POL

PUBLIC HEARING AT POLSON, MONTANA: APRIL 27, 1995

TOPIC	COMMENTS
Pathway	is impossible with the present layout of Highway 93 in Polson. If the road ~~were~~ was widened through Polson I don't see how this would accomplish any safety and could only imagine more congestion & fatalities. I feel a By Pass as proposed is the only answer with development of transportation avenues for Bike/Pedestrian and minimal truck traffic near the lake. I feel this can be done so businesses are not hurt. Often I have asked children for comments to problems I would suggest you canvas some of our youth, they often see things we adults don't. I would suggest meeting with Sunday School groups Girl/Boy Scout, recreation teams, etc. thank you for this opportunity, I didn't feel I could make these comments to our community with out negative relations occuring to me or my business

Dr. Gayle Siemers

THANK YOU

1PUBLHR POL

PUBLIC HEARING AT POLSON, MONTANA: APRIL 27, 1995

MAY 17 1995

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WRITTEN COMMENTS for

PUBLIC HEARINGS for
DRAFT ENVIRONMENTAL IMPACT STATEMENT
MARCH 1995
F-5-1(9)(6) U.S. HIGHWAY 93
Evaro - Polson
Missoula and Lake Counties, Montana

cc: Jim Weaver
Reconstruction
Morrison & Maierle

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P.O. Box 201001
Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: R.T. STERLING
Affiliation: NONE
Address: 1323 BAYVIEW DR
City/State/Zip: POLSON, MT. 59860

66

TOPIC	COMMENTS
1. 4 LANE HIGHWAY	It would be silly to keep this a 2 lane highway. A four lane highway has been needed for several years and will be even more needed in the future. In the summer I have had to follow a slow moving recreational trailer for miles because of oncoming traffic.
2. Priority of Segments	We were told at the Polson meeting that the first segment to be built would be Ronan to Polson. We request

(See reverse side to make additional comments)

93PUBLHR.POL

PUBLIC HEARING AT POLSON, MONTANA: APRIL 27, 1995

TOPIC	COMMENTS
	reported the first segment would be from Evaro. I think traffic counts will show the most pressing need is Ronan to Polson.
2nd Segment	I think the traffic count and consideration of the terrain (hills and blind dips) would indicate the second segment should be Ronan south.

Yours truly,
R. T. Sterling

THANK YOU

93PUBLHR.POL

312 Main St SW
Ronan, Mt 59864
May 8, 1995

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MAY 9 1995
MT. DEPT. OF TRANSPORTATION
DIRECTORS OFFICE

MASTER FILE COPY

Montana Department of Transportation
2701 Prospect Ave
P.O. Box 201001
Helena, Mt.

cc: Jim Weaver
Reconstruction
Morrison & Maierle

Dear Sir,

67 I would like to register my comments on the proposed highway project from Evaro to Polson. I would support the preferred Alternative presented at the recent public meetings in the Mission Valley. I do not believe that doing nothing is an option, because the traffic continues to increase every year. Thus it becomes continually more risky to travel to Missoula and to Polson. I would also prefer to have the highway reconstructed on its existing alignment, to prevent tourists & through-traffic from bypassing Ronan.

Very truly yours
Elizabeth C. Preston

312 Main SW
Ronan, MT 59864
May 10, 1995

MASTER FILE COPY

cc: Jim Weaver
Reconstruction
Morrison & Maierle

Mont Dept of Transportation
2701 Prospect Ave.
P. O. Box 201001
Helena, MT 59620-1001

Dear Sir/Madam:

68 I attended your Highway 93 meeting in Pablo on April 26, 1995.

I believe your dept has taken all things into consideration and I agree your "PREFERRED ALTERNATIVE" is the best solution to the future traffic on Highway 93. Safety is my main consideration, and I believe your statistics on the 4 lane S. of Evaro prove a 4 lane highway from Missoula to Polson would save many lives and injuries. I definitely agree with using the existing corridor.

Very truly yours
Jay W Preston

PUBLIC HEARING AT ARLEE, MONTANA: APRIL 24, 1995

WRITTEN COMMENTS for

PUBLIC HEARINGS for
DRAFT ENVIRONMENTAL IMPACT STATEMENT
MARCH 1995
F-5-1(9)(6) U.S. HIGHWAY 93
Evaro - Polson
Missoula and Lake Counties, Montana

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cc: Jim Weaver
Reconstruction
Morrison G.
Maxwell

MAY 1 1995

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2701 Prospect Avenue
P.O. Box 201001
Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: JERRY SHEPARD
Affiliation: HOME OWNER ON US93
Address: BOX 176
City/State/Zip: ARLEE, MONT. 59821

69

TOPIC	COMMENTS
HIWAY 93 BEING WIDENED THRU THE TOWN OF ARLLE	MAKING THE HIWAY 4 LANES THAN THE TOWN OF ARLEE MAKES NO SENSE TO ME, BECAUSE!! 1. SAFTEY WOULD BE A MAJOR PROBLEM. 2. EMISSIONS IN ARLEE WOULD BE HIGHER. 3. WHY WIDEN US 93 IN ARLEE NOW, AND THEN BY PASS IT IN ~~FUTURE~~ THE FUTURE. DOESN'T IT MAKE MORE SENSE TO BY PASS IT NOW. (OVER)

(See reverse side to make additional comments)

AND DO IT ALL AT ONCE.
FROM A TAX PAYERS AND HOME OWNER'S
POINT OF VIEW, THIS MAKES A LOT MORE
SENSE.
ALSO THE NOISE LEVEL IS BAD NOW.
IT WILL BE WORSE IF THE HIWAY IS WIDENE

will it be like with five lanes!!

PUBLIC HEARING AT ARLEE, MONTANA: APRIL 24, 1995

MAY 1 1995

WRITTEN COMMENTS for

MASTER COPY

PUBLIC HEARINGS for
DRAFT ENVIRONMENTAL IMPACT STATEMENT
MARCH 1995
F-5-1(9)(6) U.S. HIGHWAY 93
Evaro - Polson
Missoula and Lake Counties, Montana

cc: Jim Weaver
Reconstruction
Morrison & Maierle

This page is available for members of the public to make written comments. The U.S. Department of Transportation, Federal Highway Administration and the Montana Department of Transportation are seeking information from users of the highway, property owners and other members of the public. For more information please contact:

Joel Marshik
Manager Environmental Services
Montana Department of Transportation
2701 Prospect Avenue
P.O. Box 201001
Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Marlys Shepard
Affiliation: Citizen 93 Advisory Committee
Address: P.O. Box 1716
City/State/Zip: Arlee, Mt. 59821

70

TOPIC	COMMENTS
Highway thru Arlee	I can't understand how the state can use tax payers money to put a five lane highway thru town & then in a few years have it go around, crazy !! I have been there Labo & you have to slow down to 25 mph., so why have the same thing here. I live here in Arlee on 93 & you can't get on or off, what

(See reverse side to make additional comment(s))

PUBLIC HEARING AT ST. IGNATIUS, MONTANA: APRIL 25, 1995

WRITTEN COMMENTS for

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MAY 1 ? 1995

PUBLIC HEARINGS for
DRAFT ENVIRONMENTAL IMPACT STATEMENT
MARCH 1995
F-5-1(9)(6) U.S. HIGHWAY 93
Evaro - Polson
Missoula and Lake Counties, Montana

cc: Jim Weaver
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P.O. Box 201001
Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Curt Rosman
Affiliation:
Address: 20 Hawkins Rd
City/State/Zip: St Ignatius 59865

71

TOPIC	COMMENTS
	I drive Hwy 93 5 days a week to Missoula. Some observations: Most traffic speed is in the low 60's, and traffic generally flows quite well. The primary hazard is those few who insist on going faster and pass at inappropriate times, or tailgate until they have an opportunity to pass. While driving about 62 MPH, I have been passed by vehicles from both Flathead Co & Lake Co. Sheriffs office,

(See reverse side to make additional comments)

93PUBLHR.ST1

PUBLIC HEARING AT ST. IGNATIUS, MONTANA: APRIL 25, 1995

TOPIC	COMMENTS
	and also by the state patrol. None had their lights or sirens on. The county vehicles appeared to be transporting prisoners. In each case they were going faster than the majority of traffic for no apparent reason. This example by law enforcement is not conducive to safety.
	I am concerned about the proposal to make left turns from the passing lane on a 4 lane highway. I often make a left turn onto Hawkins Rd North of St Ignatius. 5 times in the past year I have been passed in the left lane while signaling for a left turn. I have observed and on occasion made left turns on the 4 lane between the Y and Evaro. This is hazardous and should be corrected rather than creating more of the same.
	THANK YOU

93PUBLHR.ST1

PUBLIC HEARING AT ST. IGNATIUS, MONTANA: APRIL 25, 1995

MASTER FILE COPY

MAY 5 1995

WRITTEN COMMENTS for

PUBLIC HEARINGS for
DRAFT ENVIRONMENTAL IMPACT STATEMENT
MARCH 1995
F-5-1(9)(6) U.S. HIGHWAY 93
Evaro - Polson
Missoula and Lake Counties, Montana

cc: Jim Weaver
Preconstruction
Morrison & Maierle

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Manager Environmental Services
Montana Department of Transportation
2701 Prospect Avenue
P.O. Box 201001
Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Barbara Steele
Affiliation: Lake County resident - 1941
Address: 6454 St Mary's Lake Rd
City/State/Zip: St Ignatius MT 59865

72

TOPIC	COMMENTS
	Dam willing to give my comments on the future of Hwy 93, + the Future of the community that has been my home for almost 20 yrs. The preferred plan put up "for sale" to the residents of this area, Do not feel is appropriate for the rural area that the proposed construction runs thru. The preferred plan" accomplishes 1 thing - faster traffic. It does not create a safer hwy, just 1 bigger one that invites high speed, + loss of life, + absolutely no concern for the local area from pedestrian traffic, environmental, + all changes that will be brought about to this

(See reverse side to make additional comments)

PUBLIC HEARING AT ST. IGNATIUS, MONTANA: APRIL 25, 1995

TOPIC	COMMENTS
	local area in general, is response to a proposed 4-5 lane hwy. Do not support the preferred plan. Do support the plan put out by FHO. It is a much more conscious plan, in that it takes into consideration, the local communities + environment. We know that change is inevitable here. However we can choose what kind of change. Period. Hwy 93 needs changes. The rural character, local culture, + wild + scenic environment must be preserved all all costs, in these changes. This means, creating a safer hwy, with all precautions necessary to ensure protection of wild life, culture, + community. The "preferred plan" does not do these things. The FHO plan does. We are not here, to create a faster lane for others to "get there faster" as we are a community here, living our lives, + those who come here, will find, that a slower pace, + safer pace will also enhance their lives in more ways, than a 5 lane hwy.

THANK YOU

safe
There must be access
to pedestrians who cross 93 on
a daily basis. Many are
children. There must be over
the hwy walk ways. I'm
amazed that a presenter
The "preferred plan" said
These were found to costly!
We are talking about millions of dollars
of dollars to fix this Hwy. How
can the safety of children be
to costly. This is really
sick, + another indication of
how your "preferred plan" does
not take into consideration the
need of local people.

Again, again it is very
apparent, that the preferred
plan is no more than a high
speed death trap idea.

It spells out death to pedestrians,
drivers of the hwy, death to our
rural lifestyle, our local cultures
both native american + other, death
to our incredible wildlife +
natural beauty.

I support the FRO Plan. I
absolutely do not support
the "preferred plan" of 2001

Thank you,

Barbara Steele

April 28, 1995

Joe Marshik
Manager Environmental Services
Montana Department of Transportation
P.O. Box 201001
Helena, MT 59620-1001

RE: Highway 93 Improvements - Missoula to Polson

73 Dear Mr. Marshik,

Highway 93 from Missoula to Polson has long been neglected and is in need of immediate improvements. I believe all of those improvements should follow along the path of the existing Highway. Expanding along the existing path would provide the least amount of environmental impact and reduce property displacement.

I am opposed to the EIS suggested preferred alternative of a bypass around the city of Polson. After visiting with employees of the MDOT, consultants, and reviewing the traffic counts I do not understand how a bypass will help the traffic congestion in the City of Polson. The traffic counts suggest that only 20% of the traffic entering Polson is thru traffic. Thus a bypass would only reduce the traffic congestion by a minimal amount. Your own traffic studies show that Highway 93 north of Polson does not have a traffic problem. I have lived in the Mission Valley for nearly 37 years. Currently and during a majority of those years I have lived on the West Shore of Flathead Lake. I have driven the highway from Polson to Ronan for the last several years. Even during the peak traffic periods of July and August once you reach the bridge heading north on 93 out of Polson the traffic congestion all but disappears. Thus I do not understand how a bypass will help traffic congestion in the City of Polson. I believe the majority of those supporting the bypass are doing so because they believe that this will help relieve the traffic congestion in Polson. The numbers show that a bypass will not relieve traffic congestion in Polson.

I believe a better use of our tax dollars would be to improve the existing highway through Polson. A bypass would be very costly to obtain the property, it would displace irreplaceable farm land, it would disturb waterfowl flyways and hunting ground, it would displace numerous residential areas, it would increase noise levels, and it would disturb some of the most beautiful lands along the Flathead River.

A better alternative is to expand the existing Highway through Polson along with controlling access along the Highway. This would require negotiating with the tribe to extend the Highway into the Flathead Lake bed along the shores of Flathead Lake and at the same time creating a walking and bike path along the Lake. The highway thru Polson will have to be expanded to fours lanes at some time during the next ten to twenty years because according to the traffic projection the two lane road will not handle the traffic. We should deal with the problem now and not in ten to twenty years when more businesses will have expanded along HWY 93 which will result in more access and right of way problems.

Sincerely,

Gregory J. Hertz

PUBLIC HEARING AT PABLO, MONTANA: APRIL 26, 1995

MASTER COPY

MAY 2 1995

WRITTEN COMMENTS for

cc: Jim Weaver
Reconstruction
Monica Pierle

PUBLIC HEARINGS for
DRAFT ENVIRONMENTAL IMPACT STATEMENT
MARCH 1995
F-5-1(9)(6) U.S. HIGHWAY 93
Evaro - Polson
Missoula and Lake Counties, Montana

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Joel Marshik
Manager Environmental Services
Montana Department of Transportation
2701 Prospect Avenue
P.O. Box 201001
Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Corwin Clairmont
Affiliation: Tribal member (CSKT)
Address: 215 Evaro Rd
City/State/Zip: Ronan, Mt. 59864

TOPIC	COMMENTS

Public Hearing at Pablo, Montana
April 26, 1995
Personal comment

To whom this may concern,

74 Brad Peterson and his fellow presenters gave a very good report of their concerns and preferred highway plan. If FRO had not been active in seeking alternatives and researching on their own time the misleading projections and data presented by Brad, you would think that we had no choice but the preferred plan. It seemed unfair that Brad and his fellow presenters took better than an hour to present their side of things and then allowed only five minutes for each person to give public comment. There appeared to be several items in the preferred plan that was terribly misleading and could be and needed to be refuted if individuals had been given enough time to do so. I became very frustrated as it appeared to be another railroad job on the area residents. It was a clear example of area residents being the sacrificial lamb for the greater commercial cause, because it certainly didn't take into account very strong local opposition to the preferred plan. Nearly all those who spoke from the community were against the preferred highway construction plan.

(See reverse side to make additional comments)

93PUBLHR.PAB

PUBLIC HEARING AT PABLO, MONTANA: APRIL 26, 1995

TOPIC	COMMENTS

It was brought out by several area residents during the public comment period how devastating the preferred highway would be on the plants and animal as well as on the human residents. Many examples were given regarding the animal corridors, wet lands, noise and air pollution, cultural sites and safety considerations especially in the Pablo area as it would impact the Salish Kootenai College and Tribal Complex.

The very rapid and possible uncontrolled development that would occur because of the preferred highway, would only fuel the already tense relationship between the Indian community and the non Indian residents. The statement in the MDOT report regarding Indian Culture as no longer alive or of much consequence on our reservation demonstrates this lack of understanding that outside agencies and people have. This makes me very upset as I am a tribal member who strongly supports the Salish and Kootenai cultures, and have a great respect for our ancestors who have lived here for many many generations. I participate in the many cultural activities when I can, and I know that it is very much alive.

In attending the public comment meeting on April 26 th., I fear that by what was presented, public opinion was being tolerated or ignored, and that the meeting was only being conducted to met some federal regulation or requirement but didn't really have to be taken seriously. I do hope that this is not the case as I feel that the FRO document contains many very valid alternatives to the Preferred Highway plan which once build can never be changed back.

Sincerely,
Corwin Clairmont

Corwin Clairmont

THANK YOU

93PUBLHR.PAB

Polson

PUBLIC HEARING AT ~~St. Ignatius~~, MONTANA: APRIL ~~24~~ 25, 1995

WRITTEN COMMENTS for

MAY 08 1995

PUBLIC HEARINGS for
DRAFT ENVIRONMENTAL IMPACT STATEMENT
MARCH 1995
F-5-1(9)(6) U.S. HIGHWAY 93
Evaro - Polson
Missoula and Lake Counties, Montana

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cc: Jim Weaver
Reconstruction
Morrison & Maier

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Manager Environmental Services
Montana Department of Transportation
2701 Prospect Avenue
P.O. Box 201001
Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: William R. Magnuson
Affiliation: Self
Address: 346 Masumola Rd
City/State/Zip: Polson Mt. 59860

75

TOPIC	COMMENTS

(See reverse side to make additional comments)

PUBLIC HEARING AT Polson, MONTANA: APRIL 27, 1995

TOPIC	COMMENTS
Hwy 93 Reconstruction	For all the time + money expended by the DOT I am amazed at the lack of thoughtfulness + creativity. These are highway people + they planned a highway. What we need is a transportation system. We will have growth + we don't all want to need to run up or down the asphalt for our needs. We have in place, a practically unused railroad track from Polson to Missoula. How about some light rail passenger + cargo service. Or possibly a bus system that could cover more than a highway. We could buy + operate a fleet of buses for 20 yrs (the life of a bridge) for a small part of the cost of building the proposed bypass bridge over the river. I think we need to think in terms of a "total" transportation system - not just highway.

PUBLIC HEARING AT PABLO, MONTANA: APRIL 26, 1995

WRITTEN COMMENTS for

MAY 03 1995
ENVIRONMENTAL BUR...

PUBLIC HEARINGS for
DRAFT ENVIRONMENTAL IMPACT STATEMENT
MARCH 1995
F-5-1(9)(6) U.S. HIGHWAY 93
Evaro - Polson
Missoula and Lake Counties, Montana

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cc: Jim Weaver
Reconstruction
Morrison & Maier

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Manager Environmental Services
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P.O. Box 201001
Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Zane Kelly
Affiliation: Area Resident
Address: 6742 Haystack Mt. Ln
City/State/Zip: Polson, Mt. 59860

TOPIC	COMMENTS
Hw. 93 Construction	The highway statistics (safety, usage, LOS, etc.) indicate that a highway should be constructed to carry the traffic safety through this area. Speaking as a Native American and a Professional Engineer, I believe road should be put into the best location to cross the country in the most efficient manner. This is the intention of the NEPA process, and will ultimately yield the most benefit to the travelling public who pays for the work. A location coming north from Dixon would bypass Ravalli hill, Post Creek hill, and would come out about where the alternative bypass comes down Back Road to cross the Flathead River west of Polson. If local road designers cannot envision the problem then they should consult others. When the state law prohibits good service to the motoring public, it seems that such law should be challenged. Somehow it seems basically wrong that I should be required by law to slow a 1 or 50 ton load from highway speed to a stop at every tiny business along the route. From my prospective it is ridiculous to expose residents, local trade, pedestrians, pets, and livestock to the hazard of high speed traffic, engine emissions, noise, dust, and congestion from transcontinental traffic. (See reverse side to make additional comments)

93PUBLHR PAB

PUBLIC HEARING AT PABLO, MONTANA: APRIL 26, 1995

TOPIC	COMMENTS
Local Access	Local access is necessary for all communities, but a highway transportation network is also essential for communities as well. Most competent traffic designers separate slow speed local deliveries, or school bus routes from sustained high speed traffic. It does not seem proper to use highway funding to sponsor town street traffic, even when the state law says it must be done that way using federal funding, on an Indian Reservation. This seems to be an area of conflicting legislation requiring some good determinations to state the responsibilities for each component of government
Business	For me, the failure or success of a business is decided each time I enter their establishment. When I am given good service, value, and courtesy for for my money, then I will return.
"Strip Development"	State, County, City, and Tribal Zoning laws should be used to direct the subdivision of property, sizes of billboards, local weight and speed limits condition of local streams, and the hundreds of other issues from many rebellious people (imagining themselves as "free") who flee their far away cities. Cooperation is essential between all local governments, since one end of our social boat does not sink by itself.

THANK YOU

93PUBLHR PAB

The Missoula Chamber.

RECEIVED
JUN 07 1995
[illegible] BUREAU

MASTER FILE COPY

cc: Preconstruction
Morrison & Maierle

June 5, 1995

Mr. James Weaver
Missoula District Engineer
Montana Department of Highways
P.O. Box 7039
Missoula, MT 59807

RECEIVED
JUN 07 1995
[illegible]

Dear Jim:

77 After reviewing the EIS for expansion and widening of U.S. 93 from Evaro to Polson, please be advised that the Missoula Area Chamber of Commerce is in complete support of this program. Improvements to this major arterial will greatly enhance the efficiency and safety of our regions motorized traffic.

Sincerely,

Tom Nettleton
Chair, Transportation Committee

Michael Jaworsky
Executive Vice President

825 E. Front St P.O. Box 7577 Missoula, Montana 59807 (406) 543-6623 Fax (406) 543-6625

PUBLIC HEARING AT POLSON, MONTANA: APRIL 27, 1995

WRITTEN COMMENTS for

RECEIVED
JUN 07 1995
[illegible] BUREAU

PUBLIC HEARINGS for
DRAFT ENVIRONMENTAL IMPACT STATEMENT
MARCH 1995
F-5-1(9)(6) U.S. HIGHWAY 93
Evaro - Polson,
Missoula and Lake Counties, Montana

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cc: J. Weaver
Preconstruction
Morrison & Maierle

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Manager Environmental Services
Montana Department of Transportation
2701 Prospect Avenue
P.O. Box 201001
Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Marsyetta Bauer
Affiliation: (Folkshop) Manager
Address: home 304 2nd Ave W
City/State/Zip: Polson, Mt 59860

78

TOPIC	COMMENTS
Truck Route for Polson (By Pass)	I DO NOT want a multi-lane hiway through Polson. I have a difficult time as it is crossing in down town Polson. I think the bypass should be labled "TRUCK ROUTE" and the hiway through town labeled "Scenic Route". With a multi-lane, we would loose parking spaces and I won't shop down town because of the congestion & High speed Trucks. The mutli-lane would ruin our city

(See reverse side to make additional comments)

93PUBLHR.POL

not mailed per 6-26-95 ltr.

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JUN 05 1995
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PUBLIC HEARING AT POLSON, MONTANA: APRIL 27, 1995

WRITTEN COMMENTS for MORRISON–MAIERLE/JSSA, INC

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JUN 02 1995
ENVIRONMENTAL BUREAU

PUBLIC HEARINGS for
DRAFT ENVIRONMENTAL IMPACT STATEMENT
MARCH 1995
F-5-1(9)(6) U.S. HIGHWAY 93
Evaro - Polson
Missoula and Lake Counties, Montana

cc: Jim Weaver
Reconstruction
Morrison & Maierle

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Montana Department of Transportation
2701 Prospect Avenue
P.O. Box 201001
Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Ron Davis
Affiliation: Ronnie R. Davis, CPA, PC
Address: 708 3rd Ave E.
City/State/Zip: Polson, MT 59860

79

TOPIC	COMMENTS
Polson Bypass	A five lane highway through Polson is not a good alternative. Traffic now is tedious in the summer and in ten-plus years it is hard to imagine the traffic burden we will have in Polson. Turning left to get access a business along Hwy 93 would seem to be virtually impossible. We need a bypass to divert some traffic around Polson.

(See reverse side to make additional comments)

Thanks

93PUBLIC POL

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PUBLIC HEARING AT PABLO, MONTANA: APRIL 26, 1995

WRITTEN COMMENTS for MORRISON–MAIERLE/JSSA, INC

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MAY 16 1995
ENVIRONMENTAL BUREAU

PUBLIC HEARINGS for
DRAFT ENVIRONMENTAL IMPACT STATEMENT
MARCH 1995
F-5-1(9)(6) U.S. HIGHWAY 93
Evaro - Polson
Missoula and Lake Counties, Montana

Jim Weaver
Reconstruction
Morrison & Maierle

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Manager Environmental Services
Montana Department of Transportation
2701 Prospect Avenue
P.O. Box 201001
Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: ROBERT GAUTHIER
Affiliation: SALISH KOOTENAI HOUSING AUTHORITY
Address: PO BOX 38
City/State/Zip: PABLO, MT 59855

80

TOPIC	COMMENTS
Center Turn Lane Through Pablo:	Please consider extending center turn lane 1.25 miles North from present plans. This would increase safety for 100+ employees working at the Salish Kootenai Housing Authority and S&K Electronics. Thank you – Robert Gauthier 5/15/95

(See reverse side to make additional comments)

93PUBLIC PAB

PUBLIC HEARING AT ARLEE, MONTANA: APRIL 24, 1995

WRITTEN COMMENTS for

PUBLIC HEARINGS for
DRAFT ENVIRONMENTAL IMPACT STATEMENT
MARCH 1995
F-5-1(9)(6) U.S. HIGHWAY 93
Evaro - Polson
Missoula and Lake Counties, Montana

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cc: Jim Weaver
Reconstruction
Morrison & Maierle

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Montana Department of Transportation
2701 Prospect Avenue
P.O. Box 201001
Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Mike Bray
Affiliation: local traveler
Address: 3108 Eldora
City/State/Zip: Missoula MT 59803

81

TOPIC	COMMENTS
Hwy 93 N. at Arlee	It is my opinion that the new Hwy should not go through the town, it is better for traffic movement + safety to not go through Arlee. It is also safer for the local residents and pedestrians if there is no Hwy traffic through town. Any tourism OR tourist traffic will go through town if that is there desire, little OR no effect will be felt to the local businesses.

(See reverse side to make additional comments)

PUBLIC HEARING AT ARLEE, MONTANA: APRIL 24, 1995

WRITTEN COMMENTS for

PUBLIC HEARINGS for
DRAFT ENVIRONMENTAL IMPACT STATEMENT
MARCH 1995
F-5-1(9)(6) U.S. HIGHWAY 93
Evaro - Polson
Missoula and Lake Counties, Montana

MAY 1 1995

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cc: Jim Weaver
Reconstruction
Morrison & Maierle

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Manager Environmental Services
Montana Department of Transportation
2701 Prospect Avenue
P.O. Box 201001
Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Paul Gierach
Affiliation: Highway user
Address: 23495 Wapiti Rd.
City/State/Zip: Huson, MT 59846

82

TOPIC	COMMENTS
Highway 93 through Arlee	To route the highway through Arlee with the idea of rerouting in the future to bypass town makes no sense. You should bypass Arlee right now to avoid future added expense to the taxpayers. Let's do it right the 1st time.

(See reverse side to make additional comments)

May 9, 1995

MASTER FILE COPY

MDOT
2701 Prospect Ave
P.O. Box 20001
Helena, MT 59620-1001

cc: Jim Weaver
Preconstruction
Morrison & Maierle

MDOT:

83 I am a long time resident of the Jocko Valley near Arlee. I strongly oppose the MDOT plan for highway 93, as it exists.

I support the Flathead Resource Organization FRO plan. Please let those of us who live along 93 have the strongest voice in this decision.

Joe Weydt
JOE WEYDT
Arlee, MT

MRS. CLARICE ONSAGER
45308 US HIGHWAY 93
ROMAN, MT 59864-9678

MAY 5, 1995

DEPT OF TRANSPORTATION
2701 PROSPECT AVE
HELENA, MT

MASTER FILE COPY

cc: Jim Weaver
Preconstruction
Morrison-Maierle

GENTLEMEN,

84 I would like to inform you that I agree with your highway plan for Hwy. 93 from Evaro to Polson. I don't like the alternative plan (FRO plan) as it seems to be too little - too late. I like the fact that you are planning to use the same alignment we have now. I think we need 4 lanes.

Thank you.

Clarice Onsager
Roman

Ms. Cheri Rowbury
45308 Highway 93
Ronan, MT. 59864-9678

5/5/95

MASTER FILE COPY

85

Joel Marshik —

The plan for Hwy 93 (Evaro - Polson) sounds great! The dissenters are few, but verbal. Dozens of people like myself like the plan & wish it were done instead of just beginning! Hope you get it approved & begun as quickly as possible.

Thanks for all your hard work on the plan! GO FOR IT!

Sincerely,

Cheri Rowbury

cc: Jim Weaver
Preconstruction
Morrison & Maierle

Cheri Rowbury
45308 Hwy 93
Ronan, MT 59864

MAY

PUBLIC HEARING AT ARLEE, MONTANA: APRIL 24, 1995

WRITTEN COMMENTS for

MAY 1 1995

PUBLIC HEARINGS for
DRAFT ENVIRONMENTAL IMPACT STATEMENT
MARCH 1995
F-5-1(9)(6) U.S. HIGHWAY 93
Evaro - Polson
Missoula and Lake Counties, Montana

MASTER FILE COPY

cc: Jim Weaver
Preconstruction
Morrison & Maierle

This page is available for members of the public to make written comments. The U.S. Department of Transportation, Federal Highway Administration and the Montana Department of Transportation are seeking information from users of the highway, property owners and other members of the public. For more information please contact:

Joel Marshik
Manager Environmental Services
Montana Department of Transportation
2701 Prospect Avenue
P.O. Box 201001
Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Ruth Bray
Affiliation: Traveler thru Arlee
Address: 3108 Eldora Lane
City/State/Zip: Missoula, MT 59803

86

TOPIC: Hwy through Arlee.

COMMENTS: Please do not route a Hwy through Arlee. We use this road to visit friends, and to travel to the lake. It would be a great inconvenience to travelers to slow down to go through the town of Arlee w/ possibility of accidents due to people getting off and on the Highway. This would also create a safety problem for the local people having to cross several lanes to frequent businesses ect.

(See reverse side to make additional comments)

Please route the proposed Highway around

PUBLIC HEARING AT PABLO, MONTANA: APRIL 26, 1995

WRITTEN COMMENTS for

RECEIVED
JUN 08 1995
ENVIRONMENTAL BUREAU

PUBLIC HEARINGS for
DRAFT ENVIRONMENTAL IMPACT STATEMENT
MARCH 1995
F-5-1(9)(6) U.S. HIGHWAY 93
Evaro - Polson
Missoula and Lake Counties, Montana

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Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: DAVID WHITLOCK
Affiliation: MISSION VALLEY POWER
Address: P.O.BOX 890
City/State/Zip: POLSON, MT 59860
406-883-5361

87

TOPIC	COMMENTS
WARRENTS FOR LIGHT IN PABLO & ENCLOSED EA.	MISSION VALLEY POWER IS PROPOSING A NEW UTILITY COMPLEX IN A LOT AT THE SOUTHWEST CORNER OF PABLO WEST ROAD & U.S. HWY. 93. WE WOULD LIKE YOU TO REVIEW OUR EA. AND COMMENT IF NECESSARY ALSO WE REQUEST A RESPONSE AS TO IF MDOT. MAY FEEL THE WARRENTS ARE THERE FOR A TRAFFIC LIGHT SOME--TIME IN THE FUTURE.

(See reverse side to make additional comments)

93PUBLHR.PAB

MAY 3 1995

Joel Marshik
Environmental Service
Montana Department of Transportation
PO Box 201001
Helena, MT 59620-1001

MASTER FILE COPY

cc: Jim Weaver
Reconstruction
Morrison & Maierle

Dear Mr. Marshik,

88

We received notice of the highway study being conducted regarding the expansion of highway 93 between Evero and Polson. We applaud the project addressing the driving problems between the two towns, but as business people and as taxpayers we question the proposal of a "loop" around the town of Polson.

Due to time restraints we are unable to secure the Environmental Impact Statement regarding the "loop" proposal, but we do question the cost to the taxpayers and the financial impact to Polson. Based on available information building the second bridge and loop would be far more expensive than "fixing" the current bridge and allowing tourist/business trade to enter Polson.

Alignment #1 would meet the objectives of the City of Polson and be more cost effective. Since it would be an expansion of the current bridge and business section of the downtown there would be less impact to residential neighborhoods surrounding the town. This would also reduce potential environmental concerns to the outlying areas surrounding Polson.

We appreciated being able to express our thoughts and opinions to you and thank you for you time and consideration.

Sincerely,
DeeLaine Peterson
John and DeeLaine Peterson
Riverview Estates
Polson, Montana 59860

PUBLIC HEARING AT ST. IGNATIUS, MONTANA: APRIL 25, 1995

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WRITTEN COMMENTS for

PUBLIC HEARINGS for
DRAFT ENVIRONMENTAL IMPACT STATEMENT
MARCH 1995
F-5-1(9)(6) U.S. HIGHWAY 93
Evaro - Polson
Missoula and Lake Counties, Montana

MASTER FILE COPY

cc: Jim Weaver
Reconstruction
Morrison & Maierle

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Montana Department of Transportation
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P.O. Box 201001
Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: George Knapp
Affiliation: Fort Connah Restoration Societ
Address: 2446 Blue Mtn. Rd
City/State/Zip: Missoula, MT. 59801

89

TOPIC	COMMENTS
Approach to Hi-Way #93	April 25, 1995 Please be advised that we are seeking to purchase acreage for our restoration project and will desire an approach to Highway #93 in the SW/4 NW/4 Sec. 13, T 19 R20W, just north of the irrigation ditch. George Knapp - Chairman Fort Connah Restoration Societi

(See reverse side to make additional comments)

09PUBLHR ST1

PUBLIC HEARING AT ARLEE, MONTANA: APRIL 24, 1995

RECEIVED
MAY 3 1995
ENVIRONMENTAL BUR...

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Evaro - Polson
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cc: Jim Weaver
Reconstruction
Morrison & Maierle

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Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Harold & Viola Tanner
Affiliation: property owners.
Address: Rt. 206
City/State/Zip: Arlee Mont 59821

90

TOPIC	COMMENTS
Hiway 93 at Arlee	As residents of Arlee we believe you are on the right track with your 4 lanes with a turning lane but believe it should be on the alternate route around the town of Arlee.

(See reverse side to make additional comments)

09PUBLHR MOD

MAY 3 1995

Mahlum
THOROUGHBRED FARM

3/25/95

MASTER FILE COPY

cc: Jim Weaver
Reconstruction
Morrison & Maierle

Dear Sir:

I am writing my comments to you as per the Missoulian 3/23/95.

91

I would like to see the Hwy 93 project done as soon as possible because of the terrible condition the highway is now in. I certainly hope the EIS does not hold up the proposed project as the lives a new 4 lane highway would save is much more important than the minimal effect it would have on wildlife. This project is a must in so many peoples priorities.

Respectfully

Dale Mahlum

10955 Hwy. 93 North • Missoula, MT 59802
(406) 549-3115

PUBLIC HEARING AT ST. IGNATIUS, MONTANA: APRIL 25, 1995

WRITTEN COMMENTS for

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DRAFT ENVIRONMENTAL IMPACT STATEMENT
MARCH 1995
F-5-1(9)(6) U.S. HIGHWAY 93
Evaro - Polson
Missoula and Lake Counties, Montana

MAY 2 1995

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cc: Jim Weaver
Reconstruction
Morrison & Maierle

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P.O. Box 201001
Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Mabel Rowan
Affiliation: Homemaker
Address: 2616 Mission Hwy
City/State/Zip: St. Ignatius, MT. 59865

92

TOPIC	COMMENTS
Hi Way 93	We are very pleased with the Hi 93 plan as it was presented to us this week. It is desperately needed all one has to do is travel it a few times. It is impossible to pass anyone. On our trip to Polson last summer we encountered 2 accidents & came home with us during our stopping we had intended to be.

(See reverse side to make additional comments)

PUBLIC HEARING AT POLSON, MONTANA: APRIL 27, 1995

MAY 2 1995

MASTER COPY

cc: Jim Weaver
Reconstruction
Morrison & Maierle

WRITTEN COMMENTS for

PUBLIC HEARINGS for
DRAFT ENVIRONMENTAL IMPACT STATEMENT
MARCH 1995
F-5-1(9)(6) U.S. HIGHWAY 93
Evaro - Polson
Missoula and Lake Counties, Montana

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P.O. Box 201001
Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Barbara Ward
Affiliation: Toy Box a toy store
Address: 214 B Main
City/State/Zip: Polson, MT 59860

93

TOPIC: Highway 93 By Pass around Polson

COMMENTS: I am concerned about the location of the proposed by-pass. The proposed route would be above the acceptable noise level for a highway, as a citizen of Polson I do not want to listen to noise pollution caused by traffic. There is a need for work on highway 93 but it should not adversely effect the environment.

(See reverse side to make additional comments)

03PUBLHR POL

MAY 2 1995

MASTER FILE COPY

Polson, Montana
May 1, 1995

cc: Jim Weaver
Reconstruction
-Morrison & Maierle

Joel Marshik
MT Dept Transportation
P.O. Box 201001
Helena, Mont. 59620-1001

Sir;

When and if the decision is made to put a highway 93 bypass south of Polson, we went to request that an overpass/underpass be constructed where the bypass would cross Kerr Dam Road.

94 There are almost 200 households in the Valley View and Kerr Dam communities with several properties already approved for subdivision. The traffic from these areas are headed to Polson to go to work, school, shopping, church, recreation, etc. Kerr Dam Road is our only access to Polson, so consequently all the traffic will be crossing the bypass, not accessing it. Also, in the summer (tourist time) the traffic out our way doubles. There are busloads of rafters and others going to the river. This all originates in Polson and returns there also. In addition the Lake County landfill is on Kerr Dam Road, with all the trucks and people from town going back and forth.

Please, do not create a dangerous intersection at Kerr Dam Road, put in an overpass/underpass.

Thank you,

Elaine M Corrigan
A.W. Corrigan

ELAINE + A. W. Corrigan
7405 Valley View Rd.
Polson, MT 59860

PUBLIC HEARING AT Polson, MONTANA: APRIL 27, 1995

WRITTEN COMMENTS for

PUBLIC HEARINGS for
DRAFT ENVIRONMENTAL IMPACT STATEMENT
MARCH 1995
F-5-1(9)(6) U.S. HIGHWAY 93
Evaro - Polson
Missoula and Lake Counties, Montana

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MAY 2 1995
ENVIRONMENTAL BUREAU

cc: Jim Weaver
Reconstruction
Missoula

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P.O. Box 201001
Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: THOMAS C. Lindell
Affiliation:
Address: 23 Marigold Lane
City/State/Zip: Polson, Mt. 883-5063

COMMENTARTY AS IT RELATES TO HIGHWAY 93 AND THE CITY OF POLSON--FUTURE LOCATING AND CONSTRUCTION

Commentator: T. C. Lindell
23 Marigold Lane (Rocky Point road)
Polson.

95 (Note: I currently serve the Polson Community as Chairman of the Polson City-County Planning Board, and as Chairman of the Polson City-County Board of Adjustments.
My comments should not be construed as representing either Board).

Position on Polson area reconstruction of Highway 93:

Highway 93 through Polson was recently re-surfaced and paint stripped. It looks great, a big improvement. I am opposed to any further change (other than infrastructure improvements such as walkways, improved intersections, etc.) than it is today--a three lane street.

I further recommend the construction of a bypass south of Polson as described in your literature as Preferred Highway 93 alternate #3. I further recommend that this bypass be built at the beginning of the construction of the Polson-Ronan segment rather than 10-15 years from now.

Rationale:

On October 10, 1992 Polson began a long process that ended in the adoption of a new Polson Master Plan and Development Code by the Polson City Council and the Lake County Commissioners. I and many other citizens of the community were involved in this process--from the very first October 10 focus meeting to the final Planning Board meeting.

No where throughout the Master Plan development process was it envisioned that a five lane highway would be constructed through Polson. On the contrary, the constant theme was to have a Central Business District (CBD) that was easily accessible by foot traffic from parking areas and closely tied to a Salish Point development concept of existing and future water front parks and a large variety of tourist orientated specialty shops--as found in BigFork.

In other words, a CBD/Salish Point area where all areas of shopping and interest were with 4-5 blocks of each area--from the Courthouse to the water front.
Of course, a 5 lane Missoula Reserve Street type highway constructed through Polson would be a barrier that would destroy the CBD/Salish Point concept and Polson as we now know it.

Opposition to Highway 93 bypass alturnate #3 around Polson:

I really do not recall any opposition to the development of and the approval of the new Polson Development Plan and the Development Code. This is evidenced by the non-controversial nature in which everything came to fruition, except:
at the very end of the process, as I recall, two or three CBD/93 strip business men began voicing their concerns about a bypass construction and the possible effect it could have on their businesses.

Effect of Bypass on Polson Business Community:

In the first place, I think that transitory through traffic contributes very little if any to the traditional local business community. I submit that retaining the current three lane street through Polson and the construction of a bypass for through traffic will, in the long run, enhance the business community.

Access to businesses will remain relatively easy. The fear that some business owners have (or the CBD/93 strip as a whole) of losing business will in itself contribute to the success of the business community.
In this concept, the fear of losing business will push the business community and city fathers into paying some attention to the City's infrastructure problems and appearance. Polson, like many small towns across America, is a sleepy 1950's town that is suddenly being confronted by rapid growth yet still having sidewalks that were poured in 1910.

Fortunately, unlike most small American towns, Polson has an ace in the hole--its extensive water front and ever growing retirement community/lake shore community. This is where Polson's business opportunities and future is, not in 5 lanes of traffic roaring through mid-town Polson, not in having every through traffic truck passing through mid-town Polson.

Concluding summary:

1. The greatest favor that the state of Montana could grant the City of Polson is to leave Highway 93 through Polson as it is and construct a bypass around Polson for through traffic (of course making the necessary intersection improvements, limiting access, traffic lights and the like in town).
   a. in lieu of constructing a 5 lane highway through Polson, promise the City of Polson that the State will maintain 93 through town in perpetuity (say 30 years). The State can afford to do so because it will not have the cost of constructing a 5 lane highway through town.

2. Construction of a 5 lane highway through Polson will destroy all of the work and community approval of the CBD/Salish Point community development concept. A Reserve Street type project will forever destroy the small town feeling Polson currently enjoys and what the community expects to continue.
   a. it would eliminate badly needed parking spaces along 93, and the possibility of predestrian/bicycle ways, trees, grass and all the other things that make a community people compatible.

3. The Polson Business Community's future does not rest upon what it can glean from transitory though traffic.
   a. Its future lays with taking care of business in a growing community and providing the infrastructure and upgrading the appearance of the business areas and streets of the community, developing attractions for summer people.

Sincerely submitted by,

T. C. Lindell
Polson, MT.

My vision of a part of Hyw 93 in Polson, Mt.:

THAT PORTION OF HIGHWAY 93 THAT BORDERS FLATHEAD LAKE BETWEEN KWA TAQ NUK RESORT, EAST TO THE LAKEVIEW VILLAGE COMLEX, POLSON, MT.:

I assume that the State of Montana owns the right of way to the high waterline.

I would like to see an acommodation between the State and the Tribe wherein the breakwater retaining wall is extended east from its present ending on the east side of KwaTaqNut resort, east to Lake View Village. That the retaining wall be placed between 50' and 100' north of the present day high water mark and that the area be back-filled to the height (elevation) of Highway 93.

Then, (1) Highway 93, between present day Radio Shack and the junction of 4th Avenue East and Highway 93 be reduced to two-lane Traffic.

(2) The present day north lane be converted to a parking lane, and that the area from the north side of the present day north lane (west-bound lane) to the new waterline be converted to a prominade featuring a wide widewalk, lawn, trees and covered bench sites.

I can not think of another feature that could be more impressionable to a visitor driving through polson, for the guests of nearby motels and of course the people of Polson and Lake county.

PUBLIC HEARING AT PABLO, MONTANA: APRIL 26, 1995

MAY - 1995

MASTER FILE COPY

cc: Jim Weaver Reconstruction - Missoula + Mainle

WRITTEN COMMENTS for

PUBLIC HEARINGS for
DRAFT ENVIRONMENTAL IMPACT STATEMENT
MARCH 1995
F-5-1(9)(6) U.S. HIGHWAY 93
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P.O. Box 201001
Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Glen R. Wunderlich
Affiliation: Ronan Auto Body
Address: Box T
City/State/Zip: Ronan MT 59864

96

TOPIC	COMMENTS
HW 93 thru Ronan Montana	Leave the HW where it is now put in 3 (total) traffic lights or turning lanes. there will be less impact than tearing up a whole new Right Away & moving the HW out of town

(See reverse side to make additional comments)

93PUBLHR.PAB

PUBLIC HEARING AT PABLO, MONTANA: APRIL 26, 1995

MASTER FILE COPY

cc: Jim Weaver
Reconstruction
Morrison & Maierle

WRITTEN COMMENTS for

PUBLIC HEARINGS for
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MARCH 1995
F-5-1(9)(6) U.S. HIGHWAY 93
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Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Odette Gasser
Affiliation: Ronan Auto Body
Address: Box T
City/State/Zip: Ronan, MT 59864

97

TOPIC	COMMENTS
Hwy 93 Thru Ronan, Montana	Please keep highway 93 through Ronan, May business is depend on out of town customers.

(See reverse side to make additional comments)

93PUBLHR.PAB

PUBLIC HEARING AT ST. IGNATIUS, MONTANA: APRIL 25, 1995

MASTER FILE COPY

cc: Jim Weaver
Reconstruction
Morrison & Maierle

WRITTEN COMMENTS for

PUBLIC HEARINGS for
DRAFT ENVIRONMENTAL IMPACT STATEMENT
MARCH 1995
F-5-1(9)(6) U.S. HIGHWAY 93
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Manager Environmental Services
Montana Department of Transportation
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P.O. Box 201001
Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: JOAN RAUM
Affiliation: RANCHER
Address: 2116 McDONALD LK. RD.
City/State/Zip: ST. IGNATIUS, MT. 59865

98

TOPIC	COMMENTS
Highway 93	FRO REPRESENTS only A small NUMBER OF PEOPLE IN THE MISSION VALLEY + WHILE THEIR GOALS ARE NOBLE THEY ARE WRONG. THE PLAN FOR US 93 PUT FORTH by THE MDOT IS AN EXCELLENT ONE THAT WILL SAVE LIVES AND AMPLY ADDRESS ENVIRONMENTAL CONCERNS.

(See reverse side to make additional comments)

93PUBLHR.STI

PUBLIC HEARING AT POLSON, MONTANA: APRIL 27, 1995

WRITTEN COMMENTS for

PUBLIC HEARINGS for
DRAFT ENVIRONMENTAL IMPACT STATEMENT
MARCH 1995
F-5-1(9)(6) U.S. HIGHWAY 93
Evaro - Polson
Missoula and Lake Counties, Montana

MAY 1 1995

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cc: Jim Weaver
Reconstruction
Morrison-Maierle

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P.O. Box 201001
Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comme

Mr. & Mrs. J. C. Heglie
P.O. Box 444
Polson, MT 59860

Commentet
Affiliation: RETIRED
Address: 436 Shoreline Rd.
City/State/Zip: Polson, MT. 59860

99

TOPIC	COMMENTS
PLAN 1, PLAN 2, PLAN 3	All three of these plans will cross property we own; no matter which is finally adopted we will be involved. We presently lease the property for agricultural purposes. Any fair appraisal should consider the long range negative effect on the lease. I suggest you employ your appraiser, we employ ours & the two appoint a third; then the 3 should be averaged to arrive at a fair figure.

(See reverse side to make additional comments)

by Jo Heglie

93PUBLHR.POL

MAY 08 1995

130 Clearview Drive
Polson, Montana
May 5, 1995

Joel Marshik, Manager Environmental Services
Montana Department of Transportation
2701 Prospect Avenue
Helena, MT 59620

MASTER FILE COPY

cc: Jim Weaver
Reconstruct
Morrison-Maierle

100

The enclosures with the signatures are the result of about two hours of effort. I had copies of the maps of the various alignments of by-passes. Most wanted to see them.

For the recommendation about by-passes there were three people who would not sign. One, a business man on Main Street, said he was against the by-pass at Polson because it would hurt business. One wouldn't sign because he said he didn't know enough about it, although he thought that having by-passes was a good idea. One said he would pass on signing although he was not against by-passes. Among people that signed were a few business people, two on Main Street. A number of people were very vehement about support for the Polson by-pass; they pointed out that the traffic through town is already terrible. They just couldn't understand people who are against the by-pass. On this sample, as you can see, there are 27 for and one against for a 96 percent approval, or you can look at it as 27 out of 30.

For the recommendation about bicycle paths I started out first with the idea of asking people I know who are cyclists. Then somebody, after signing the other, asked to see it and said, "Oh, I will sign that." I could have had more signatures than the other. Nobody refused to sign this document. Those who were not cyclists thought it much better to have separate pathways.

The reason that I decided to make this effort is that I went to the presentation at Kwataqnuk by your people. I asked somebody what had been the response to the by-pass idea at Arlee, I had not been able to make it to the meeting there. He said that most of the input was for no by-pass. I pointed out to him that the input was from the business interests along the route in town. He did not disagree. Those business interests do not represent the viewpoint of the people. I set out to prove this. You well know the apathy of people to do anything civic. Of all the people I asked for signatures, only one had been to the Kwataqnuk presentation or some other meeting by your department.

I understand that the city council of Ronan has voted against a by-pass. This, I hope can be changed; it does not represent the wishes of the people, only those in the mistaken idea that business would suffer. At the next legislative session, I intend to request my representative to submit a bill to cancel the authority that a city council has over highway placement.

Stanley Petersen

Stanley Petersen

copy: Jim Weaver

To the Montana Department of Transportation:

This is a recommendation that in the proposed expansion of Highway 93 that towns be by-passed entirely wherever possible. In order we prefer Alignment 3 at Polson, Alignment 3 or 4 at Ronan, Alignment 2 or 4 or 5 at Arlee. Alignment 5 at Arlee is the best because it by-passes both Arlee and Ravalli.

Stanley Petersen, STANLEY PETERSEN, 130 Clearview Dr., Polson
Shirley Jacobson 1114 4th Street, Polson
Marilyn Coffee Box 966 Polson MT. 59860
Albert E. Alexander 143 Fair meadow Lane 59860
Tom Brower Polson 35 Fir Meadows Lane
Robert E Smith 10-5 Clearview E Polson Mont 59860
Phillip Stanley 1220 Rocky Pt. Rd. " " "
Jacob J. Redekop 1117 3rd St East Polson Montana 59860
Bob Fulton 217 MAIN ST. POLSON
Sharon Felton 217 Main St. Polson
Leslie Woldstad 456 S. Hills Dr. Polson
Catherine Kyat 73 Gilman Lane Polson
Carol McClure POBox 969 Polson MT 59860
Jackie Petersen 507 4th Ave E. Polson
Richard W. Clayton 507 4TH AVE E. Polson
Keith Hodges 814 4th Ave W. Polson
Marion Seidenberg 35 Seidenberg Lane Polson
Joshua Morrison 207 22nd Ave W. Polson
Lori Felton Box 1409 807 13th Ave Polson
Joyce Decker Wagner 501 6th Ave E. Polson
Mrs. McCauley 1101 8th Street EAST Polson

To the Montana Department of Transportation:

This is a recommendation that in the proposed expansion of Highway 93 that towns be by-passed entirely wherever possible. In order we prefer Alignment 3 at Polson, Alignment 3 or 4 at Ronan, Alignment 2 or 4 or 5 at Arlee. Alignment 5 at Arlee is the best because it by-passes both Arlee and Ravalli.

Sharon Kenitzer 914 5th St E Polson, Mt.
Virginia Olson #1 2nd St E Polson
Dorothy L. Petersen 130 Clearview Drive Polson
Don Pollock 134 ClearviewDrive Polson
Dick Cusenda 300 Clearview Dr. Polson

To the Montana Department of Transportation:

This is a recommendation that in the proposed expansion of Highway 93 that there be bicycle lanes constructed completely separate from the roadway. Four feet of separate pathway is better than eight feet of shoulder. If a separate lanes ~~are~~ is not feasible then a wide shoulder is recommended.

Stanley Petersen	130 Clearview Drive	Polson
Sharon Fulton	217 Main	Polson
Leslie Woldstad	456 S. Hills Dr.	Polson
Jackie Larsen	507 4th Ave E.	Polson
Richard W. Cowman	507 4th Ave E.	Polson
Ruth E. Hodges	814 4th Ave W	Polson
Jeanne Dorpke	Box 1181	Polson
Marian Scientology	85 Scientology Lane	Polson
Joshua Morrison	207 2nd Ave W	Polson
Lori Felton	807 13th Ave	Polson
Joyce Darke Wagner	501 6th Ave. E.	Polson
Mary McCarley	1101 8th Street E	Polson
Kathryn E. Ike	310 12th Ave. E.	Polson
Sharon Kenyon	914 5th St E.	Polson
Patti Kugler	1475 Rocky Point Rd	Polson
DICK BRATTON	306 Main	Polson
Virginia Olson	#1 2nd St E	Polson
Dorothy J. Peterson	130 Clearview Drive	Polson
Don Pollock	134 Clearview Drive	Polson
Rick Lundeen	300 Clearview Drive	Polson

PUBLIC HEARING AT ST. IGNATIUS, MONTANA: APRIL 25, 1995

WRITTEN COMMENTS for

MAY 0 C 1995

PUBLIC HEARINGS for
DRAFT ENVIRONMENTAL IMPACT STATEMENT
MARCH 1995
F-5-1(9)(6) U.S. HIGHWAY 93
Evaro - Polson
Missoula and Lake Counties, Montana

MASTER COPY

cc: Jim Weaver
Preconstructio
Missoula Missou

This page is available for members of the public to make written comments. The U.S. Department of Transportation, Federal Highway Administration and the Montana Department of Transportation are seeking information from users of the highway, property owners and other members of the public. For more information please contact:

Joel Marshik
Manager Environmental Services
Montana Department of Transportation
2701 Prospect Avenue
P.O. Box 201001
Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: JUNE NOR MANDEAU
Affiliation:
Address: 621 Red Horn Rd.
City/State/Zip: St. Ignatius Mt. 59865

101

TOPIC	COMMENTS
Highway Evaro to Polson	Wouldn't a frontage road be advisable at least from St. Ignatius to Town? There are so many approaches already and it's a long wait to get on the highway especially in summer. 4th Bar Crane and Post Creek Hill are dangerous both getting on and off the highway.

(See reverse side to make additional comments)

93PUBLIR ST1

PUBLIC HEARING AT POLSON, MONTANA: APRIL 27, 1995

WRITTEN COMMENTS for

PUBLIC HEARINGS for
DRAFT ENVIRONMENTAL IMPACT STATEMENT
MARCH 1995
F-5-1(9)(6) U.S. HIGHWAY 93
Evaro - Polson
Missoula and Lake Counties, Montana

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MAY 03 1995

cc: Jim Weaver
Reconstruction
Morrison & Maierle

This page is available for members of the public to make written comments. The U.S. Department of Transportation, Federal Highway Administration and the Montana Department of Transportation are seeking information from users of the highway, property owners and other members of the public. For more information please contact:

Joel Marshik
Manager Environmental Services
Montana Department of Transportation
2701 Prospect Avenue
P.O. Box 201001
Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Duane Olsen
Affiliation: Polson Auto Salvage
Address: 54826 Hwy 93
City/State/Zip: Polson MT 59860

102

TOPIC	COMMENTS

IN REGARD TO THE PROPOSED BY-PASS OF HIWAY 93 WEST OF POLSON, I AM DEFINITELY IN FAVOR OF IT. THE ROUTE THAT WAS SHOWN AT THE PUBLIC HEARING AT KWA-TUK-NUK ON APRIL 27 WAS PROBABLY AS GOOD A ROUTE AS THERE IS.

AS FOR THE FEAR OF LOST REVENUE TO DOWNTOWN BUSINESS, I DON'T BELIEVE IT WOULD BE NOTICEABLE. I DON'T THINK PEOPLE WHO SHOP DOWNTOWN WOULD DRIVE THE BY-PASS WHEN THEY NEEDED SOMETHING AND THOSE WHO DON'T WOULD LESSEN THE CONGESTION FOR THOSE WHO DO.

THE SAFETY FACTOR OF LESSENING THE TRAFFIC IN DOWNTOWN POLSON IS TO ME THE OVERRIDING CONCERN.

DUANE OLSEN, OWNER-POLSON AUTO SALVAGE
54826 HWY 93

Duane Olsen

(See reverse side to make additional comments)

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JUN 26 1995
6-19-95 MORRISON—MAIERLE/CSSA, INC.

MASTER FILE COPY

cc: Jim Weaver
Reconstruction
M+M

Joel Marshik
Manager: Environmental Services
Dept of Transportation

Dear Sir:

103 I am writing this note to urge the continuation of the plan for an alternate road to be built around the town of Polson, Montana.

A 4-lane highway is also desperately needed between Arlee and Polson. As you know, the town is growing at an unmanageable rate and has become a very dangerous place because of the lack of roads in and out of town. Many, many accidents have occurred on "Polson hill" this spring and the summer tourist season is just beginning.

Thank you for giving this your attention.

Most sincerely,
Willard Steinkraus
Virginia Steinkraus

Willard and Virginia Steinkraus
610 1st. St. E. Apt. #3
Polson, MT 59860

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MORRISON—MAIERLE/CSSA, INC.

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cc: Jim Weaver
Reconstruction
Morrison & Maierle

Joe Marshike
2701 Prospect Place
P.O. Box 201001
Helena, Mt. 59620-1001

104 We would like the reconstruction of U.S. Highway 93 to by-pass Polson.

There is just too much congestion and it causes too many problems. The businesses can be moved to the new routing and Polson has much to offer for tourists to drive into the city, anyway.

KENNETH/ARLENE DOEPKE
300 BAYSHORE DRIVE
POLSON, MT 59860

Sincerely,
Arlene Doepke
Kenneth L. Doepke

6/23/95

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Bob Yetter
1012 Grizzly
Evaro, MT 59826

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JUN 26 1995
MORRISON-MAIERLE/CSSA, INC.

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cc: Jim Weaver
Reconstruction
M & M.

MDOT:

105 For the record, I oppose your plan for Highway 93 from Evaro to Polson as outlined in your DEIS. I attended one of your public meetings in St. Ignatius and am aware of the level of public opposition as well as the MDOT personnel's obvious determination to see this project through. Like the Forest Service & other Govt agencies MDOT seems to have decided what they wanted, wrote an EIS to support it, & then jumped through the hoops of public comment & notification which are required. You make a sham of democracy. The public's will, & in my opinion, the public good.

Your project certainly threatens to destroy the characteristics of the landscape, & many of the aspects of living in the area that are important to residents. I believe safety issues can be addressed with less impact, & encourage you to reconsider your approach.

However, I don't think you will. Given the likelyhood of your continuation of this plan, I will only suggest / request that you consider planting natural trees & other vegetation in a natural manner along the roadway to reduce noise.

Finally, I think your wildlife overpass north of Evaro is an absurd attempt at "mitigating" the damage you are determined to inflict.

Must Highway 93 Become a Superhighway?

Must the Mission and Jocko Valleys Become Suburbs of Missoula?

Just Say No! There IS a Better Way!

Join the Flathead Resource Organization in advocating our sane alternative to the Montana Department of Transportation's plan to overrun this beautiful area.

Many people are not aware that the Montana Department of Transportation (MDOT) is pushing for a highway plan that will forever change our rural way of life. They plan to turn Highway 93 into a 4 and 5-lane Superhighway all the way from Evaro hill to Polson. This monstrous plan will split our valleys & our communities with a great barrier of concrete, lead to an uncontrolled rush of development beyond anything we've seen, worsen our air pollution, and more than double the noise pollution from highway traffic. And though they rationalize their plan with claims of improving safety, their superhighway would in some ways be *more* dangerous than the existing road, due to faster speeds and more dangerous crossings.

THE DRAFT EIS HAS NOW BEEN RELEASED.
THE TIME TO ACT IS NOW AND *YOUR* VOICE IS NEEDED!

The deadline for public comments is JUNE 23.

The FLATHEAD RESOURCE ORGANIZATION (FRO), a long-standing and diverse group of local citizens concerned about the health of our communities and our environment, has offered a sane alternative. It has two wings: short term, effective safety improvements, and long-term plans both to stem the growth of traffic, and to protect our environment and our communities.

THE FRO PLAN FOR HIGHWAY 93: A SANE CHOICE

1. Safety.

We support the recommendations of the Montana Traffic Safety Task Force for improving safety on Highway 93:

1. Good 8-foot shoulders for the length of the highway;
2. Left-hand turn lanes at key intersections;
3. Lengthening and improving the existing passing lanes;
4. Adding a passing lane on Post Creek hill;
5. Better lighting and signage;
6. Better enforcement of existing traffic laws;
7. Slow-moving vehicle turnouts;
8. Restricting truck traffic to certain times of the day, especially multiple-trailer trucks or "pups";
9. Facilities for safer pedestrian crossings in towns; Separate bicycle paths near to towns.

2. Stemming the growth of traffic and protecting our beautiful area:

1. Working with Glacier National Park and other officials to improve mass transportation facilities serving the park and to reduce, over the long run, the tourist traffic going to the park.
2. Vigorous research and development of all mass transportation options in the Highway 93 corridor, including light passenger rail service between Polson and Missoula.
3. Better mass transit in Missoula, to make the city more liveable & remove incentives for commuters to move to the Reservation.
4. Reconstruction of Highway 93 to permit safe animal crossings under or over the road at critical places. Avoiding any further destruction of the priceless wetlands of the Ninepipe area. Exploring the possibility of designating Highway 93 a National Scenic Highway.

The FRO plan will not worsen our underlying problems, as the MDOT plan would. And it will help ensure that our children inherit stable communities and a beautiful, healthy environment.

THE FRO PLAN IS AVAILABLE IN PABLO AT THE SALISH KOOTENAI COLLEGE LIBRARY, AND AT PUBLIC LIBRARIES IN RONAN, ST. IGNATIUS, ARLEE, AND POLSON -- OR OBTAIN YOUR OWN COPY BY CALLING 644-2547 OR 246-3222.

Don't let this gigantic government nightmare be imposed on the Jocko and Mission Vallies! Write the MDOT today in support of the FRO plan (2701 Prospect Ave., P.O. Box 201001, Helena, MT 59620-1001).

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June 20, 1995
442 Litler Lane
Polson, Mt. 59860

cc: Jim Weaver
Reconstruction
Marion & Maines

Joel Marshik
Manager, Environmental Services
Montana Dept. of Transportation
2701 Prospect Ave
P.O. Box 201001
Helena, Mt. 59620-1001

Topic: US 93: Polson Preferred Alternate Route

106 As a citizen of the city of Polson, I very much agree with the idea of the preferred alternative route around the city of Polson favored by the majority of the public and previously approved by the city council, the Polson Community planning team, and the Lake County Commissioners.

We live north of Hiway 93 on Litler Lane just off Bay Shore Drive. We find it very difficult, at present, many times to get onto hiway 93, especially during May to October. Any future increase in traffic will only make this present situation more dangerous and more susceptible to accidents.

Increased traffic will make it more unsafe for children and pedestrians to cross the hiway for school and library trips as the library is on the north side of the hiway and many children cross the hiway to go to school and for trips to stores and parks.

We feel that the visual beauty of the golf course, parks, and lake are very important to us as citizens and to tourists who come to this area. Widening of the present hiway and providing no alternative route would certainly affect these concerns in a negative way.

Many people, excluding the Downtown Merchants association, are in favor of the proposed alternative route, but are not as vocal or organized as that group in expressing their views.

We all felt great relief when the former city council supported the alternative route and paid attention to the concerns of safety, comfort, and convenience expressed by the citizens of the community.

We do not feel that the businesses would be negatively affected by the alternative route and would actually find their business revenues increase as customers would find parking and safety increase by less traffic on the present road. They seem to have forgotten that the majority of their customers live, work and shop in this city.

Please consider the wishes of the majority of the citizens of this community and provide the preferred alternative route as previously agreed to by

the former city council, and supported by the planning committee and the Commissioners.

Sincerely,
Dorothy L. Preston
42 Liter Lane
Polson, Mt. 59860
(406) 883-4843

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JUN 21 1995

Joel Marshall
Mgr. Environmental Sec.
MT. Dept. of Trans.
2701 Prospect Ave.
P.O. Box 201001
Helena, MT. 59620-1001

42 Liter Lane
Polson, Montana
June 19, 1995

MASTER FILE COPY

cc: Jim Weaver
Preconstruction
Morrison-Maierle

Dear Sir:

107 Please accept this Note As our Comment on Highway 93 Project in Polson.

We Favor The Alternate Route Around Polson, My wife & I Are both retired and Live on The North side of Hiway 93 by The golf course. The summer traffic is so heavy That only right Turns Are safe To get on 93, and I feel That As Time goes on it will be almost impossible To safely drive on 93 To stores in Polson.

We feel To make A 5 Lane Thru Polson on The Existing Hiway 93 would be A very bad mistake. And in years To come An Alternate Route would by necessary Anyway.

Sincerely
Dorothy & Dwight Preston
Phone # 883-4843

Dwight Preston
42 Liter Ln.
Polson, MT 59860-9654

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JUN 16 1995
ENVIRONMENTAL BUREAU

PUBLIC HEARING AT POLSON, MONTANA: APRIL 27, 1995

MR. F. H. MIELKE
1211 5th ST. E.
POLSON, MT.
59860-4226

WRITTEN COMMENTS for

PUBLIC HEARINGS for
DRAFT ENVIRONMENTAL IMPACT STATEMENT
MARCH 1995
F-5-1(9)(6) U.S. HIGHWAY 93
Evaro - Polson
Missoula and Lake Counties, Montana

MASTER FILE COPY

cc: Jim Weaver
Reconstruction
Morrison & Maierle

This page is available for members of the public to make written comments. The U.S. Department of Transportation, Federal Highway Administration and the Montana Department of Transportation are seeking information from users of the highway, property owners and other members of the public. For more information please contact:

Joel Marshik
Manager Environmental Services
Montana Department of Transportation
2701 Prospect Avenue
P.O. Box 201001
Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Willis Mielke
Affiliation: Retired Lumber Company Executive
Address: 1211 5th St East
City/State/Zip: Polson, Montana 59860

108

TOPIC	COMMENTS
Alternate #3	We strongly support Alternate #3 for the following reasons:
	We presently have serious traffic
	in Polson area streets. It is difficult
	to get on and off U.S. 93 now and
	would be worse if through traffic
	were to be routed through existing
	route. Serious problems are now
	arising at intersections of Bay Drive
	and Bay Shore Drive and U.S. 93.

(See reverse side to make additional comments)

(over)

93PUBLHR.POL

PUBLIC HEARING AT POLSON, MONTANA: APRIL 27, 1995

TOPIC	COMMENTS
	Traffic does not add use to existing
	speed limits - more traffic control
	needed. Only sensible alternate
	is with Alt. route #3 - Bypassing
	Polson with 4 lane Highway.

THANK YOU

93PUBLHR.POL

PUBLIC HEARING AT POLSON, MONTANA: APRIL 27, 1995

WRITTEN COMMENTS for

PUBLIC HEARINGS for
DRAFT ENVIRONMENTAL IMPACT STATEMENT
MARCH 1995
4-5-1(9)(6) U.S. HIGHWAY 93
Evaro - Polson
Missoula and Lake Counties, Montana

MASTER FILE COPY

RECEIVED
JUN 23 1995
ENVIRONMENTAL BUREAU

cc: Jim Weaver
Preconstruction
Morrison & Maierle

Joel Marshik
Manager Environmental Services
Montana Department Of Transportation
2701 Prospect Avenue
P.O. Box 201001
Helena, MT 59620-1001

Dear Mr. Marshik,

109 I'm submitting the following comments in regards to the public hearings, various site meetings, and an intensive review and investigation, into the draft EIS prepared by Carter & Burgess.

I am oppose to the "Preferred Alternative" bypass route as presented in the draft EIS and by officials of the MDOT at the Public Hearings.

The Polson ""Preferred Alternative" bypass section of the Highway 93 project, is the only area addressed in the following comments. It appears that over the last couple of months, various letters and faxes seem to have been misplaced in regards to this section of the project, so I have taken the liberty of distributing my comments to the people listed below. Thank you in advance for reviewing and verifying my findings, and also for including these comments in the report you will send to the Federal Highway Administration for preparation of the Final EIS.

Please list my address below to receive a copy of the Final EIS, as well as any pertinent correspondence. I hope that I can receive the FINAL EIS in more timely a fashion than I received the DRAFT EIS, as the PUBLIC COMMENT PERIOD is much shorter in time.

Sincerely,

Daniel Howlett
P.O. Box 945
Polson, MT 59860

email: dhowlett@cyberport.net

DATA QUALITY in the EIS

In 1992, when the Polson City Council voted to approve that an EIS be preformed on all of the alternative routes, they were told that the draft EIS was going to be available in 6 months. It took over 2 years. Much of the data being reviewed by the public and Polson City Council is invalid. Much of the data is incorrect. This is not only due to population growth and economic trends, but what I believe to be a poorly researched project. How can the elected officials and the residents of the community, make an educated decision, that will have consequences for generations to come, with invalid, out of date information? It is irresponsible to reach a decision without revisiting the "key issues" listed below.

CARTER & BURGESS has been very helpful with getting draft EIS copies to people in our community and answering questions. However, whether it was due to the Corporation changing hands after the EIS was started, or perhaps having a new EIS coordinator take over in the middle, there are too many questions that have not been answered. The specific ones are "Right of Way", "Cost Estimates", and the "Preferred Alternative" Alignment.

HIGHWAY RIGHT OF WAY

On pages 7.2-5 thru 7.2-8, new right of way required for "Preferred Alternative" #3 is incorrect. Stated on these pages are lands required for lane configurations A thru D. It states, "NO PURCHASE OF RESIDENTIAL ACRES IS REQUIRED." This is not correct, as the route goes through a developed subdivision, Riverside Terraces. During the field visit by officials, they were not even aware of this development. It has had buried power, phone, and private streets, installed for more than 10 years. The "Preferred Alternative" goes through it. During the 2½ years that have passed since the Draft EIS data was collected, land values have increased considerable. This needs to be reviewed to see if the ROW acquisition is realistic to taxpayers. The Polson City Council agreed to studying the bypass on the condition that it would be a "Controlled Access Highway". Jim Weaver stated not only at the field site visit, but also at the City Council meeting on May 2, 1995; "ROW acquisition along the "Preferred Alternative" #3 would be cost prohibitive if the MDOT did not allow access to residents and agricultural users." This is not what the City Council agreed upon when they passed the Resolution to study the bypass route. It will create another HWY 93 with slow turning traffic and cross traffic, merging into high speed traffic. Why create another public safety hazard?

ESTIMATED COSTS

The DRAFT EIS states that the HIGHWAY 93 PROJECT will cost all of us around $83 million. It further states; "This estimate does not include construction of the bypass around Polson." How can we justify approving the project in the FINAL EIS, start buying ROW, if we don't even know the cost of ROW, or how much we need to buy? These issues are suppose to be addressed in THE DRAFT EIS. How much will it cost? As taxpayers we need answers.

ALIGNMENT

At a field site visit on April 26, 1995 Jim Weaver , Jeannette Lastracco, and other officials told a group of concerned residents that; "These are just lines on paper, aerial photographs. The bridge could be anywhere between here and there". (pointing to over a ½ a mile of shoreline) "We'll fine tune the exact location as we get further into the project". Considering there are homes, a developed subdivision with private roads, Special Aquatic Sites, Tribal Cultural Sites, Tribal property, and Bald Eagle foraging and perch sites throughout the river corridor, it seems like there should be a more specific idea on where the alignment will be.

The group of people gathered were speechless. At this point in the meeting, we've been told, "We don't know how much it will cost, we didn't know there was a subdivision, we don't know how much ROW will cost, and we don't know where the highway is going." ALL of these topics are what our tax dollars are supposed to buy when officials decide to contract a firm to do an EIS.

The most disturbing event was the following morning (4/27/95) when two officials from the Army Corps of Engineers, (one State, one Federal) who deal with Wetlands Management, came to visit. In standing along the river front they asked, "Do you know where this bridge is suppose to go?" I pointed to the route on the photos from the EIS and also explained it could be anywhere in the ½ mile area that was pointed out the day before. They were alarmed by the aerial photo in the EIS and stated, "There is a *Special Aquatic Site* located where the route is depicted on the photo." They were quite friendly and went on to get the Federal Regulations book out. It specifically states that, "All alternative routes need to be exhausted, prior to disruption of the Site." At the Public Hearing that evening, a whole new different alignment is on the aerial photo in red tape. I asked a Carter & Burgess employee what that was all about and he said, "Oh, that is another alignment that will work better." Then on Monday May 2, 1995 when Jim Weaver and Jeannette Lastracco presented the EIS findings to the Polson City Council, the route in red tape was off the map. I was told by Jeannette Lastracco that they found out it was a Tribal Cultural Site.

The following page is a letter from The Confederated Salish and Kootenai Tribal Council. By unanimous vote, they are in opposition of the ""Preferred Alternative" " #3 alignment going through the river corridor. Jim Weaver stated at the Polson City Council meeting on May 2, 1995 that; "The Tribes have ultimate say on where Highway ROW can be located on lands owned by the Tribes. The land cannot be condemned." He further stated; "I'm not here to sell you the bypass, its easier for us to improve the existing route and it will cost less money." Yet at a meeting with the Rotary Club in Polson on May 23, 1995, Gregg Hertz said he had talked with you and you told him that you had received the letter from the Tribes. Jim Weaver said; "I know nothing about a letter and the MDOT will go as far as they can with the project until they are stopped." Mr. Hertz's questions went without an answer, "If MDOT knows the "Preferred Alternative" alignment is opposed by the Tribes, why are we still putting tax dollars into the route and not revisiting route selection? Why don't we improve the existing route, where all the problems exist and the MDOT owns the right of way?" ALL tax payers, including yourself, should receive an answer to this.

Some other key issues that are inconclusive in the draft EIS

NOISE IMPACTS

The Draft EIS states that the noise level will exceed the FHWA noise abetment criteria by 22dbA. No one at the site visit could tell us a baseline number to which we should add the 22dbA. I found out at the Public Hearing the baseline number is 66dbA. 88dbA is equivalent to the noise you experience listening to a siren while inside a police car, slightly higher it compares to operating a chainsaw. We were also informed that the geography surrounding the proposed site of a new bridge was not analyzed. The proposed bridge crosses the river in a narrow canyon over water. This will amplify traffic noise that will affect the entire West side of the City of Polson. The noise will have serious and permanent impacts to wildlife, such as the bald eagles and many species of waterfowl. The draft EIS did not do any noise studies in the canyon where the proposed bridge would go. How do you, we, they, even know what the levels will be? Further study is required to establish what the impacts to "Sensitive Receptors" would actually be.

WILDLIFE IMPACTS

(pg. 7.12-10) **"Bridge placement could displace waterfowl and shorebirds" , "A minor area of wetlands", and "Mitigation measures are those proposed for the bald eagle", I feel these statements are *"softly worded"* to get a project that is already behind, going full speed ahead. The wording in the draft EIS *(pg. 7.13-5)* about eagles in the new bridge area states, "Because the bridge will be in a previously undeveloped and undisturbed section of the river, the extent of impacts to eagles is not known." That doesn't appear to be a very thorough study of the impacts the new road will have. The dozens of bald eagles and ospreys that use the area for foraging will be displaced, due to the noise and habitat loss in the narrow canyon. This is a major flyway, all year long, for many species. The "Preferred Alternative" will displace hundreds of Canadian Geese that nest with their goslings each spring, in and around this large wetlands area. I am under the impression that the wildlife data used to reach these conclusions is from studies done in the past and do not represent the current conditions and population.**

VISUAL IMPACTS

(pg.7.17-15) **Motorists using the bypass will "Have decreased views of Flathead Lake, the River, and no view of the City of Polson". Also, "Due to the hilly terrain...,large cut and fill slopes will occur". The hill that everyone in town, on the Lake, and south bound traffic on the current Hwy 93, gets to see as the scenic backdrop for the City of Polson, will be changed forever. How large are, "large cut and fill slopes"? In this day and age of technology, it is mind boggling that all of us can't review a 3-d model produced by GIS today. We could see where the bridge crosses, how all the side cuts and fill slopes will look on the scenic Polson moraine, and have more constructive input on how we want the community to look. When I asked a Carter & Burgess employee at the Public Hearing if they had GIS capabilities, he said; "Yes, we just got it in 1993 and we are too far along with this project to supply any drawings."**

ECONOMIC IMPACTS

(page7.5-12) Economic impact from drive through travellers. These figures show that the "Preferred Alternative" #3 will have the greatest impact on the community, only surpassed by the alternative of NO action. Based on the numbers, a loss of $25 million will occur by the year 2015. This figure represents a loss of over $1 million per year. The EIS states that new businesses are expected to develop along the bypass and will recapture all lost trade within 15 years. This is incorrect. The city council and county commissioners have repeatedly stated to Carter & Burgess AND the citizens of Polson, that NO commercial development will be allowed along the "Preferred Alternative". Even if commercial development was allowed, by 2015, the "Preferred Alternative" will only capture 84% of the revenues expected to be produced by improving the existing route. The economic impacts are grossly under estimated by the EIS making new commercial strip developments part of the equation. This topic needs to be revaluated in order for all of us to know what the impacts realistically will be. Many businesses "make or break" their fiscal year with the three month summer tourist trade. This loss of drive through travelers will be devastating on the community.

TRAFFIC COUNT

Spending millions of taxpayer dollars on the bypass does not correct the problem. Even if the bypass gets constructed, according to the draft EIS numbers, the car and truck count is the same on the existing route in 10 years. And still, we have the problem within the City of Polson. We need the existing HWY 93 improved now. The tax dollars saved by not buying ROW and constructing the bypass as presented in the draft EIS, can be used to investigate another alignment that WILL handle the traffic in the future.

MORE UNANSWERED QUESTIONS

Why did the Citizen Survey only have 50% of the responses received, totalled in the results?
Why at the public hearings did the Business Surveys not get passed out, even after requesting it?
Where did the first letter go that the MDOT received from the Tribes?
Why did the draft EIS take two years instead of six months to complete?
How can the alignment of the "Preferred Alternative" be changed by a piece of red tape for a Public Hearing, then be removed again, prior to a Polson City Council meeting?
Who is responsible within the MDOT structure to check the quality of the draft EIS and the accountability of Carter and Burgess's end product?
If the Polson City Council votes against the bypass and requests to improve the existing route, how soon will that happen?
If the Polson City Council votes in favor of the bypass, how do you proceed into the Final EIS stage with the FHA when the draft EIS is incomplete and out of date?

cc:

John Glueckert	Mayor of Polson
Polson City Council	
Marvin Dye	MDOT
Dale Paulson	Federal Highway Administration
Jim Weaver	MDOT
Kevin Shelly	U.S. Fish & Wildlife
Janet Camel	CSKT
Fred Matt	CSKT
Roy Duff	Highway Commissioner

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JUN 20 1995
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June 19, 1995

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cc: Jim Weaver
Reconstruction
Morrison & Maierle

110

Dear Mr. Marchik and Those Concerned:

May we urge you to continue with the plans for the alternate road around Polson. It is desperately needed now for safety and with the expected growth in the future, think of what it will be like in ten years. We have talked to many and all feel it is the only way.

Also as you know, we need the four lane (with passing lane) hiway from Evaro to Polson as soon as possible.

Thank you for your help!!!

Sincerely,

Lois Ann Aznoe
Lois Ann Aznoe

James W. Aznoe
James W. Aznoe

Mr James W. Aznoe
284 Bayshore Dr
Polson, MT. 59860-9658

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JUN 23 1995

MASTER FILE COPY

James A. Haynal ~ BUILDER

(406) 883-2065 • 106 Terrace Court • Polson, Montana 59860

6-21-95

Mr. Joel Marshik Manager
Environmental Services
Montana Dept. of Transportation
2701 Prospect Ave.
PO Box 201001
Helena, MT 59620-1001

cc: Jim Weaver
Reconstruction
Morrison & Maierle

Dear Mr Marshik,

111 I am opposed to the proposed highway bypass of Polson, MT. I am in favor of improving the existing corridor through Polson. A bypass route, Highway 35 on the east shore of Flathead Lake, is already in place. Proper signing on either end of the lake could direct truck traffic to the east shore bypass route.

I object to the alternate route selected by the consulting firm of Carter + Burgess.

Log Home Construction

James A. Haynal ~ BUILDER

(406) 883-2065 • 106 Terrace Court • Polson, Montana 59860

I especially object to the site chosen for a new bridge crossing the Flathead River. As a resident and an investor in properties in the Riverside Terrace subdivision I will be negatively impacted by the proposed route.

The crossing point will destroy a sensitive wetland area that serves as a breeding and stopover destination for migratory birds and water fowl. The cliffs to be crossed are a unique scenic landmark of significance. The cliffs are unstable and subject to erosion. A bridge will contribute to the instability of this area.

The impact of highway noise and the amplification of that noise by the cliff

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face has not received enough attention. The crossing point will be audible throughout Polson and the surrounding residential areas.

Another reason I oppose the bypass is the cost to the taxpayer of acquiring highway right of way properties through the area. This cost will be minimized by improving the existing routes I mentioned earlier.

Finally, I feel it is a waste of taxpayers money to continue to pursue the proposed bypass route when the Salish and Kootenai Tribal Council has gone on record opposing the alternate selected. Jerry Weaver told us that without their approval a bypass would not be considered.

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I think that if a bypass is needed much more time and consideration will be required to select a desirable route. I will continue to be involved in the selection process.

Sincerely,

James A Haynal

P.S. I am enclosing a copy of the letter from Tribal Council opposing the bypass route.

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ENVIRUMENTAL BUREAU

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James A. Haynal ~ BUILDER

(406) 883-2065 • 106 Terrace Court • Polson, Montana 59860

6-21-95

cc: Jim Weaver
Reconstruction
Morrison & Maierle

MR. JOEL MARSHIK, MANAGER
ENVIRONMENTAL SERVICES
MT. DEPT OF TRANSPORTATION
2701 Prospect Ave
P.O. Box 201001
HELENA, MT. 59620-1001

DEAR MR. MARSHIK,

112 I AM OPPOSED TO THE HIGHWAY BYPASS AROUND POLSON. I SUPPORT IMPROVEMENTS TO THE EXISTING HWY 93 THROUGH POLSON WITH COMMUNITY INVOLVEMENT IN DESIGNING A SAFE & EFFECTIVE ROAD.

CONTRARY TO THE DOCUMENTATION AND SURVEYS INCLUDED IN THE DEIS AND TECHNICAL MEMORANDUM US-93 POLSON, THE COMMUNITY OF POLSON AND THE SALISH & KOOTENAI TRIBES (LETTER ENCLOSED) DO NOT SUPPORT A BYPASS.

I BELIEVE THAT THE INFORMATION INCLUDED IN THE DEIS IS OUTDATED, MISLEADING, & MANIPULATED.

ON APRIL 26TH, NOON JEANETTE KOSTRACH, JIM WEAVER & FEDERAL REPRESENTATIVES ATTENDED OUR NEIGHBORHOOD ON SITE MEETING OF THE PROPOSED ROUTE #3

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WHERE THE BRIDGE WOULD CROSS FLATHEAD RIVER. I WAS ALARMED TO FIND OUT HOW UNFAMILIAR THEY WERE WITH THE SITE, ALL VIEWING IT FOR THE FIRST TIME! I WAS ALSO SURPRISED THAT THEY WERE UNAWARE OF RESIDENTIAL PROPERTY VALUES; A MAJOR SUBDIVISION WITH UNDERGROUND UTILITIES; NOISE OFF THE CLIFFS THAT WOULD EXCEED FHWA ABATEMENT CRITERION; LOSS OF HABITAT & DISPLACEMENT OF WATERFOWL; IMPACT TO WETLANDS; IMPACT TO EAGLE & OSPREY FORAGING; RECREATIONAL IMPACT ON THE RIVER WITH NEW BRIDGE; HILLY TERRAIN, CUT SLOPES FROM 6-40'!; & VISUAL IMPACT TO RESIDENTIAL AREA.

AT THE END OF OUR MEETING THEY ADMITTED THIS WAS NOT THE BEST SITE LOCATION FOR THE PROPOSED BYPASS. BY THE TIME OF OUR PUBLIC MEETING THAT EVENING IN POLSON, THE SITE WAS VISITED SEVERAL TIMES BY JEANETTE KOSTRACH, JIM WEAVER & WETLAND ENGINEERS, LOOKING FOR OTHER ALTERNATIVE ROUTES. IT WAS ONLY BRIEFLY DISCUSSED AT THE PUBLIC MEETING

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AS WELL AS NOT ONLY PICKING A BAD LOCATION FOR THE PROPOSED BYPASS THE DEIS DOES NOT REPRESENT THE VIEWS & COMMENTS OF THE MERCHANTS, BUSINESS PEOPLE & CITIZENS OF POLSON CORRECTLY.

THE ELECTION DAY VOTERS SURVEY STATES NEARLY 1450 POLSON AREA VOTERS RESPONDED TO THE SURVEY. WHY WAS ONLY 650 INCLUDED IN THE PRINTED RESULTS? (JEANETTE LOSTRACCO CAN FILL YOU IN ON THAT) IT ALSO STATES 3 OUT OF 4 VOTERS IDENTIFY TRAFFIC PROBLEMS ALONG 93 AS SERIOUS. THIS DOES NOT AUTOMATICALLY SUPPORT A BYPASS! THERE WAS A STRONG SUPPORT IN WIDENING & IMPROVEING THE EXISTING 93.

THE BUSINESS SURVEY STATED 64% OF Hwy 93 BUSINESSES & 44% OF DOWNTOWN MERCHANTS FEEL THAT THE SUMMERTIME TRAFFIC CONGESTION FREQUENTLY OR OCCASIONALLY RESTRICTS CUSTOMER ACCESS TO THEIR BUSINESS. PLEASE DOUBLE CHECK THE SURVEY - THIS INFORMATION IS MISLEADING!

James A. Haynal ~ BUILDER

(406) 883-2065 • 106 Terrace Court • Polson, Montana 59860

ACTUAL SURVEY

93 BUS	FREQUENTLY	OCCASIONALLY	NOT A PROBLEM
SUMMER	20%	44%	36%
WINTER	12%	16%	68%
DOWNTOWN			
SUMMER	11%	33%	47%
WINTER	0%	14%	81%

OUR TOWN DEPENDS ON DRIVE THROUGH LOCAL, NON TOURIST & TOURIST TRAFFIC. ACCORDING TO THE TECHNICAL MEMORANDUM US 93 POLSON, THE BYPASS WILL RESULT IN LESS OVERALL GROWTH IN INCOME & EMPLOYMENT FOR THE POLSON AREA ECONOMY. POLSON COULD EXPECT TO RECAPTURE THIS ECONOMICAL GROWTH IN 15 YEARS WHEN NEW BUSINESSES FORM ALONG THE BYPASS ROUTE. WITH PROMISES OF NEW COMMERCIAL ZONING HOW DOES OUR TOWN RECOVER?

ACCORDING TO JIM WEAVER OUR CITY COUNCIL WILL BE ASKED TO MAKE A RESOLUTION OFF THE DRAFT EIS INFORMATION, WHICH I BELIEVE IS

James A. Haynal ~ BUILDER

(406) 883-2065 • 106 Terrace Court • Polson, Montana 59860

OUTDATED & INCORRECT. I HAVE ENCOURAGED OUR COUNCIL TO WAIT FOR THE FINAL EIS DUE OUT EARLY NEXT YEAR BEFORE MAKING THIS IMPORTANT DECISION. I BELIEVE THERE WILL BE ANOTHER PUBLIC COMMENT PERIOD AT THAT TIME.

SINCERELY,
TERRI HAYNAL

Log Home Construction

PUBLIC HEARING AT ARLEE, MONTANA: APRIL 24, 1995

WRITTEN COMMENTS for

RECEIVED
JUN 20 1995
MORRISON–MAIERLE/CSSA, INC.

PUBLIC HEARINGS for
DRAFT ENVIRONMENTAL IMPACT STATEMENT
MARCH 1995
F-5-1(9)(6) U.S. HIGHWAY 93
Evaro - Polson
Missoula and Lake Counties, Montana

This page is available for members of the public to make written comments. The U.S. Department of Transportation, Federal Highway Administration and the Montana Department of Transportation are seeking information from users of the highway, property owners and other members of the public. For more information please contact:

Joel Marshik
Manager Environmental Services
Montana Department of Transportation
2701 Prospect Avenue
P.O. Box 201001
Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Victor & Geneva Sample
Affiliation:
Address: 449 Strawberry Lane
City/State/Zip: Arlee, MT 59821

113

TOPIC	COMMENTS
Changing Highway Thru Arlee.	We are both definitely interested in the Alternate Plan that would take the Highway (Alt B) away from the MAIN Road Thru Arlee AS IT NOWS is very congested and the businesses that would be put in difficult positions to maintain Their businesses as is

(See reverse side to make additional comments) "over"

93PUBLHR.MOD

PUBLIC HEARING AT ARLEE, MONTANA: APRIL 24, 1995

TOPIC	COMMENTS
	by the time the Road is completed thru Arlee, There will be much more traffic AND even more congested. Also To spend the AMT of money it will cost To go thru Town NOW AND then have to bypass eventually Seems poor planning, AND I believe the locals will still continue to patronize our businesses in Town.. Personally we are concerned about a off Ramp for Dumontier Road Area but have been told, it will be. In the long Run will TRUST the experts to make the Right decisions To save most Money, but hate To think we have to WAIT Apx 10 years due to increased TRAFFIC

THANK YOU

Victor X. Sample
Geneva L. Sample

93PUBLHR.MOD

PUBLIC HEARING AT ARLEE, MONTANA: APRIL 24, 1995

WRITTEN COMMENTS for

RECEIVED
JUN 19 1995
ENVIRONMENTAL BUREAU

PUBLIC HEARINGS for
DRAFT ENVIRONMENTAL IMPACT STATEMENT
MARCH 1995
F-5-1(9)(6) U.S. HIGHWAY 93
Evaro - Polson
Missoula and Lake Counties, Montana

MASTER FILE COPY

cc: Jim Weaver
Reconstruction
Morrison-Maierle

This page is available for members of the public to make written comments. The U.S. Department of Transportation, Federal Highway Administration and the Montana Department of Transportation are seeking information from users of the highway, property owners and other members of the public. For more information please contact:

Joel Marshik
Manager Environmental Services
Montana Department of Transportation
2701 Prospect Avenue
P.O. Box 201001
Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: MAURICE MALONE
Affiliation:
Address: 3200 MTN HOME LN
City/State/Zip: ARLEE, MT 59821

114

TOPIC	COMMENTS
F-5-1-(9)(1) U.S. highway 93 Evaro - polson	I sincerely believe you have an excellent plan for the Evaro, Arlee and Ravalli section that I am concerned about. By all means disregard the F.R.C. polson passing lanes will only cause more accidents. I am still much in favor of alt. 2B on the west side of Arlee. There is just to much traffic to put them the center of town over

(See reverse side to make additional comments)

93PUBLHR.MOD

PUBLIC HEARING AT ARLEE, MONTANA: APRIL 24, 1995

TOPIC	COMMENTS
	Enclosed is a copy of my repair bill for my Van because I stopped at a crosswalk in arlee for a Pedestrian to cross the street on 6-6-95. I hope the plans can get finalized and construction can begin before long as traffic is heavy each year. Sincerely Maurice E Malone 3200 MTN Home LN ARLee, MT. 59821

THANK YOU

93PUBLHR.MOD

JAX AUTO BODY & PAINT, INC.

12690

2110 W. Broadway - Missoula, MT 59802 - (406) 721-5183 - FAX (406) 543-3682

JOB NO. _____

Name: MAURICE E. MALONE	Date: 6-12-95	Bus. Phone:	
Address: 3200 MTN. HOME LN	City: ARLEE	State: MT	Zip: 59821	Res. Phone: 726-3312
Year: 91	Make: DODGE	Model: CARAVAN LE	Vin Number: 2B4GK55R9MR194954
Paint Code:	Prod. Date: 1-91	Trim Code:	Mileage:	Lic. Number:	Entered By:
Written By: KEITH	Insured: C	Date of Loss:	Policy No.:	Claim No.:
Adjuster:	Adjuster Phone:	Insurance Co.: INS. CO. OF THE WEST	Insurance Co. Phone - Fax:	Deductible:

LINE NO.	RE-PAIR	RE-PLACE	DESCRIPTION OF DAMAGE	PARTS	LABOR	PAINT	ALL OTHER
1		/	LT TAILAMP LENS	49 75	.2		
2		/	REAR BUMPER COVER 112 WB	275 00	1.5	2.3	
3		/	" " STRIP LT CHRM	25 00	—		
4		/	" " REIN	87 00	—		
5		/	" " BRCKT LT	6 85	.1		
6	V		REAR BODY PANEL		2.0	.5	
7	✓		REAR HATCH		3.0	2.5	
8		/	" " WOODGRAIN	127 75	2.0		
9			CLEAR COAT			1.0	
10			TINT & BLEND			1.0	
11			REMOVE WOODGRAIN		1.0		
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
			TOTALS	571 35	9.8	7.3	

The above is a visual damage report based on our inspection and does not cover additional parts or labor which may be required after the work has been opened up. Occasionally, after work has started, damaged parts are discovered which are not evident on this inspection. There may be a change in part prices which we cannot control. Because of this, the above prices are not guaranteed. All work based on our visual damage report has a lifetime guarantee. Any alterations to this visual damage report by insurance company may void all or part of guarantee. All repair orders must be paid before vehicle is released unless other arrangements have been previously made. ALL DEDUCTIBLES MUST BE PAID IN FULL AT THE TIME OF RELEASE OF VEHICLE. Terms strictly CASH unless other arrangements are made. A 20% service charge on all parts ordered will be imposed if appointment is cancelled.

(NOT RESPONSIBLE FOR ANY PERSONAL ITEMS LEFT IN CAR)

I hereby authorize the above repair work to be done along with the necessary materials. You and your employees may operate the above vehicle for purposes of testing, inspection or delivery at my risk. An express mechanic's lien is acknowledged on above vehicle to secure the amount of repairs thereto. You will not be held responsible for loss or damage to vehicle or articles left in vehicle in case of fire, theft, accident or any other cause beyond your control. IN THE EVENT LEGAL ACTION IS NECESSARY TO ENFORCE THIS CONTRACT, I WILL PAY REASONABLE ATTORNEY'S FEES AND COURT COSTS.

Authorization for repairs

GUARANTEED SHOP

PARTS *Prices subject to invoice*	$ 571.35
LABOR 9.8 hrs. @ $ 34.00	$ 333.20
Shop Supplies	$
PAINT 7.3 hrs. @ $ 34.00	$ 248.20
Paint Supplies	$ 138.70
Frame Labor ____ hrs. @ $ ____	$
Towing/Storage	$
Sublet/Miscellaneous	$
EPA Waste Disposal Charge	$ $5.00
TOTAL ESTIMATE	$ 1296.45

PUBLIC HEARING AT ARLEE, MONTANA: APRIL 24, 1995

WRITTEN COMMENTS for

PUBLIC HEARINGS for
DRAFT ENVIRONMENTAL IMPACT STATEMENT
MARCH 1995
F-5-1(9)(6) U.S. HIGHWAY 93
Evaro - Polson
Missoula and Lake Counties, Montana

MASTER FILE COPY

JUN 23 1995

cc: Jim Weaver
Reconstruction
Morrison &
Maierle

This page is available for members of the public to make written comments. The U.S. Department of Transportation, Federal Highway Administration and the Montana Department of Transportation are seeking information from users of the highway, property owners and other members of the public. For more information please contact:

Joel Marshik
Manager Environmental Services
Montana Department of Transportation
2701 Prospect Avenue
P.O. Box 201001
Helena, MT 59620-1001
Telephone: (406) 444-7632

Additional information can be obtained from or written comments can be sent to this address. Please provide your name, address and comments as indicated below:

Commenter Name: Susan VanRooy
Affiliation: home/land owner
Address: 1012 Grizzly Mtn. Rd.
City/State/Zip: Evaro MT 59802

115

TOPIC	COMMENTS
Highway 93	I support the Flathead Resource Organization's plan for Highway 93 between Evaro and Polson, MT. For concerned citizens of this area this plan makes good sense. The MDOT expansion plan is not what this area needs. Please read the FRO plan carefully and give it full consideration as a sane alternative !

(See reverse side to make additional comments)

PUBLIC HEARING AT ARLEE, MONTANA: APRIL 24, 1995

TOPIC	COMMENTS
	I also believe that your (MDOT's planning process has been extremely unfair. Recent public hearings have made it clear that the people who live in this valley have little or no input on this highway plan. A thick DEIS was already prepared that doesn't represent all of the alternatives. The usual dog and pony show we're used to from the USFS. Your plan will create the very problems you supposedly hope to avoid. I live in this area because of the wildlife, flora and fauna that I often have the opportunity to see and I try to find a sense of community here. This highway plan (MDOT's) will fragment both of these values and many more. Please don't use the MDOT plan.

THANK YOU

MISSOULA COUNTY

BOARD OF COUNTY COMMISSIONERS
200 W BROADWAY ST
MISSOULA MT 59802-4292
(406) 721-5700

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MORRISON—MAIERLE/CSSA, INC.

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JUN 2 6 1995
ENVIRONMENTAL BUREAU

MASTER FILE COPY
cc: Jim Weaver
Preconstruction
Morrison & Maierle

BCC 95-347
June 23, 1995

Joel Marshik
Manager, Environmental Services
Montana Department of Transportation
2701 Prospect Avenue
P.O. Box 201001
Helena, MT 59620-1001

Dear Mr. Marshik,

116 Upon my review of the draft Environmental Impact Statement (EIS) for the proposed Evaro-Polson Highway 93 project, I was, in general, distressed at the limited focus of the study of the problem and proposed solution.

While the deficiencies of the EIS are numerous, only some will be outlined in this letter. Primarily, my opinion is that the proposed project would have significant impacts on the western Montana way of life that are not adequately addressed.

Western Montana is a mecca for many travelers who don't have what we have and it is contradictory to construct a highway system that would diminish our environment in the name of moving more traffic. This EIS, in a traditional sense, may meet the requirements of the law, although that is doubtful. It does not, however, respond to the demand that we want to travel safely and efficiently along the Highway 93 corridor without the losses to our environment which will result from selection of the proposed alternative.

Components in the overall solution puzzle for this project may include: 1) limitation of motor freight volumes with transfer to rail; 2) restrictions on recreational vehicle size, speed and frequency; 3) consideration of mass transit for certain traffic loads; 4) reduction of travel speed as a means of accommodating design constraints and safety issues among others; and 5) consideration of probably technology changes resulting in major adjustments in transportation patterns. All of these components (and more) need to be addressed in a globally focused way so that the result will be a solution that not only meets safety and traffic standards, but satisfies the western Montana community needs as well.

The tradition of highway engineering analysis has created a bias on the part of the EIS team which is evident from the reading. An example is the dismissal of Transportation Demand Management as a tool to address the projected capacity needs. Transportation Demand Management (TDM) goes beyond traditional systems that deliver structural solution to what are thought to be technical problems, i.e., if a highway is over capacity, build a bigger highway.

TDM, if properly employed, may recognize our finite ability to construct traditional highway systems as an answer to safety and volume problems. It may also discover new solutions to old problems and, if allowed to play out, reduce the high level of negative impacts resulting from the proposed alternative. I urge consideration of non-traditional approaches of transportation issues which will provide the levels of safety we all want with a minimum of negative consequences.

The technical defects within the EIS document are numerous and induce, but are not limited to the following:

1. The Highway 93 projects from Missoula to Polson and from Missoula to Hamilton do not adequately address nor support mitigation for the enormous cultural and social effects on Missoula and the project area.

2. The component of convenience miles driven resulting from an improved highway system has not been addressed.

3. The inconsistent treatment of safe speed vs. design speed will result in safety concerns that the alternative is meant to solve. That is to say that the alternative will "build in" safety problems that haven't been identified or evaluated.

4. Wildlife issues in the Evaro corridor are addressed in terms of technical solutions which are only estimated to have a level of success. Increased traffic at higher speeds will increase wildlife encounters with unacceptable results. This issue is far from being resolved in the EIS.

5. Increased traffic and pollution from the traffic related to reducing the commute time along the corridor has not been quantified or evaluated. And certainly, no mitigation suggestions were made.

6. The increase in traffic volumes will create safety issues due to the free access design proposal. With up to twelve access points per mile, safety issues are being built into the project.

7. Alignment considerations did not include the use of speed control to accommodate topographical (and wildlife) constraints. Even on the interstate (I-90 MP-0 to MP 30 from Lookout Pass) the design and safe speeds are significantly lower and out of standard. Slower zonal speeds through the Evaro area would reduce impacts and costs.

8. No consideration was given to protection or replacement of wildlife loss to the relocation of wetland areas.

9. The length of the project (55 miles) will require a long term construction commitment which will have an effect on wildlife and could be permanent. The discussion on this issue is incomplete and inadequate.

10. Future operation and maintenance costs along with inspection and patrol costs were not adequately addressed.

11. Assessment of the "No Action" alternative is biased in favor of a structural solution which will not solve traffic or safety problems. An objective comparison of the build and no-build alternatives which includes costs and consequences is needed.

12. Roadway deficiencies are discussed in terms of structural problems and solutions. The solutions do not include adequate treatment of reducing highway loads by reducing heavy highway traffic.

13. Transportation Demand Management (TDM) was dismissed without justification.

14. Tourism is a major component of Montana's economy and was recognized, albeit inadequately, in the EIS. Our transition to a service-based economy needs to be addressed as having significant effects. Both issues carry implications which need thorough additional exploration.

15. Since this EIS process was begun, major changes have occurred in the transport of petroleum products through the area due to closure of the Yellowstone Pipeline through the reservation. This action deserves serious analysis concerning the long-term effects on the transportation corridor.

In closing, the EIS falls far short of adequately addressing the costs and consequences of the preferred structural solution to this important traffic problem. The far-reaching implications of the proposed action are inadequately addressed and demand thorough quantification and analysis before sound conclusions can be drawn.

Sincerely,

Michael Kennedy/ss
Michael Kennedy, Commissioner

MK:ss

May 12 95

Rising Wolf
Expeditions
6454 St. Marys Lake Rd.
St. Ignatius, MT 59865
406-745-3212
Kayak Touring & Backpacking

Hi

117 This is to let you know I have been a resident of the Mission Valley since -79.

I don't like your plans to enlarge Highway 93.

It is largely inconsiderate for the people living here.

I support the FRO plan. It make alot more sence.

Thank You

Gary Steele

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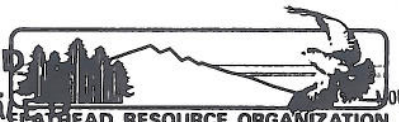
JUN 27 1995
MORRISON—MAIERLE/CSSA, INC.



FLATHEAD RESOURCE ORGANIZATION
BOX 541
ST. IGNATIUS, MONTANA 59865

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JUN 27 1995
MORRISON—MAIERLE/CSSA, INC.
...AL BUREAU

June 23, 1995

MASTER FILE COPY

cc: Jim Weaver
Reconstruction
Morrison & Maierle

Joel Marshik, Manager Environmental Services
Montana Department of Transportation
2701 Prospect Avenue
P.O. Box 201001
Helena, MT 59620-1001

Dear Mr. Marshik:

118 Enclosed are the Flathead Resource Organization's comments on the Draft Environmental Impact Statement for Project F 5-1(9)6 U.S. Highway 93, Evaro-Polson. We hope they will be of assistance in improving the document. In this cover letter, we will outline our principal overall concerns with the DEIS and some actions we are asking of the MDOT.

The principal flaw in the DEIS is its consistent pattern of bias in favor of the MDOT's preferred alternative, a four and five-lane configuration for the full length of the project. We noted this problem of bias in our comments on the PDEIS. Most of what we cited as evidence of bias persists in the DEIS. In fact, in numerous cases, the bias seems even more marked, for there are many instances where statements in the PDEIS that seemed to raise questions about the multi-lane design were deleted or substantially watered down in the DEIS. In short, the MDOT seems to have simply used our comments to strengthen their argument on behalf of a multi-lane highway, rather than develop a more even-handed, scientifically valid document. This is in blatant violation of the EIS process. We have cited examples of this kind of problem in the body of our comments. As you are no doubt aware, the very purpose of an Environmental Impact Statement is to provide the public and official decision-makers with an objective assessment of the probable impacts of all the various alternatives. The DEIS, as it stands now, utterly fails to do this.

The public hearings were illustrative of the MDOT's, and Morrison/Maierle's, conception of this whole process as little more than giving official imprimatur to their preconceived design preference. Each hearing was preceded by an argumentative, extraordinarily biased presentation by Brad Peterson on why there is really no rational choice for U.S. 93 but a multi-lane highway. This went on for well over 30 minutes at the start of each hearing. The public was then limited to five minutes of comments. At the first hearing in Arlee, the first speaker, Richard Eggert of the Flathead Resource Organization, made comments challenging the wisdom of the multi-lane approach. Mr. Peterson then got up and issued a rebuttal of Mr. Eggert that lasted easily twice that long. This is an outrageous breach of NEPA regulations, and was hardly a fair public discourse on a very complicated issue.

Mr. Peterson revealed this pattern of bias on another occasion to Mr. Eggert, at the Arlee Community ID Team meeting at which the group, which includes FRO member

Tony Hoyt, opted for a three-lane road through town on the existing alignment. Mr. Peterson declared during the meeting that the "highway is for travelers, not communities." The DEIS subsequently ignored the ID Team's recommendation and selected a five-lane road through the center of Arlee, thereby throwing to the wind countless hours of volunteer time.

The pervasive bias of the MDOT, Morrison/Maierle, and of the DEIS in particular is further revealed by another problem of major importance in this document. In our letter of January 13, 1993 to Edrie Vinson of the MDOT, we explicitly asked that the FRO Alternative be included in the DEIS as a design alternative. The FRO Alternative is a full-fledged plan for Highway 93, developed by private citizens expending a tremendous amount of volunteer time, that advocates both a broad array of safety improvements to the highway within an improved two-lane design, *and* a multi-faceted set of TDM strategies and other approaches to deal directly with the underlying problem of traffic growth. Despite our request, the FRO Alternative was not given consideration in the DEIS. Lane Configuration A (an improved two-lane) *was* given consideration, but that only amounted to half of the FRO Alternative. It is as if the FRO plan were a bird, and that the MDOT took it in, cut off one wing, and then pronounced it unable to fly.

In fact, Appendix B in the DEIS, for all its pessimism, acknowledges that with a full slate of TDM's in place on a two-lane highway, the LOS in the year 2015 would be essentially the same as it is today. Although that LOS -- D -- is not what the MDOT has in mind for our area, we feel confident that most citizens of the Flathead Reservation would favor this plan and would find that LOS acceptable, given that the FRO plan would enable us to avoid many of the destructive effects of a multi-lane highway.

Another indication of the bias of this whole process has been the MDOT's consistent effort to sell this highway on the basis of safety questions, in spite of the fact that safety is not the primary reason for the project (something very few members of the public know). The MDOT has even resorted to employing highly irregular statistical methods, such as citing "accidents per highway mile" instead of the normal accident rates, to buttress these scare tactics. The MDOT has also not made public any of the safety *drawbacks* of a multi-lane design as noted in the AASHTO Green Book. We refer the readers to our enclosed piece on "Safety and Highway 93," which we distributed to the CS&KT Tribal Council on June 20, 1995.

A key part of the MDOT's argument for a multi-lane highway has been the consistent avoidance of the issue of growth and development. This continues to be a glaring problem, particularly in the "Social" impacts chapter of the DEIS, where the issue is directly addressed. Although the DEIS blithely makes predictions of traffic growth in order to justify the project, it is claimed that the issue of growth and development is too complex to issue any predictions. As such, there is no clear comparison of how the different lane configurations, alignments, or overall transportation systems would affect these critical issues. These so-called "secondary" or "indirect" or "cumulative" impacts would without question be the most far-reaching and long-term of this project. Yet the DEIS leaves readers completely unable to assess the impact of the project in these areas. Furthermore, other chapters of the DEIS, such as Threatened and Endangered Species, are as a result unable to assess and compare secondary and indirect impacts in those areas. This is a crucial flaw in the DEIS and it must be corrected before this can be considered an

acceptable document. Projections can be made on this issue of growth and development. We suspect that the MDOT is resistant to making them because it would not reflect well on their preferred alternative.

Given the above mentioned points, FRO is calling for another Draft of the EIS to be assembled and released for comment, and another full round of public hearings to be scheduled, at which the NEPA rules must be strictly adhered to. This DEIS is not ready to be upgraded to a Final EIS, and because of its failings, the public has been unable to get a clear picture both of what the true impacts of this project would be, and of what workable alternatives are available. We hope that by correcting the pervasive problems in the DEIS, we can all avert any need for legal challenge or remedies.

We would note that all these delays could have been averted if the proposal from the start was an appropriate one for this area. Highway 93 would be a far safer highway *today* had the MDOT opted for the FRO Alternative from the start.

We remained convinced that this would be a disastrous project for our area. Perhaps the greatest tragedy would be that it is also unnecessary. We still hope that we can take advantage of the opportunity to develop a real, working solution to this problem, rather than simply build our way into a more intractable problem of far greater dimension in fifty years' time. This is the lesson already learned by so many other places in the nation, where it and has produced nothing but sprawl, unhappiness, blight, and the destruction of community and environmental health. This widespread problem has prompted a thoroughgoing reexamination of US transportation and settlement policy since World War II by visionary planners like Andres Duany. We have the chance to learn from those mistakes rather than blindly repeat them.

FRO still hopes that this can be a chance to do something positive for our area.

Sincerely,

Doug Baty

Doug Baty
Chairman, Flathead Resource Organization

FRO LETTER - 3

Flathead Resource Organization
Comments on Highway 93 Draft Environmental Impact Statement (DEIS)
June 23, 1995

Chapter 4 (Purpose and Need for Action).

FRO concurs with the DEIS' statement of purpose: "to improve the transportation system on U.S. Highway 93." However, we strongly disagree with the argument that our only feasible option is to accommodate -- and encourage -- an ever-increasing traffic volume by constructing additional lanes. Indeed, throughout the country this has been shown to solve nothing in the long run -- but only to produce the same problem on a far greater magnitude.

We also disagree with the assessment that the current Level of Service on Highway 93 is unacceptable. While we feel safety improvements are needed, the current LOS is acceptable, given the trade-offs that this DEIS, however inadequately and incompletely, makes all to clear: a multi-lane highway would split our communities, generate a rush of development that would trample our environment, and in general worsen our quality of life. We don't need it, and we don't want it.

Indeed, although the FRO Alternative is not considered in this DEIS, as we requested in our comments submitted in response to the PDEIS in January 1993, we might glimpse the workability of our plan by combining Lane Configuration A with the TDM's described in Appendix B. Although we certainly don't endorse many of the statements and conclusions in Appendix B, we would note that Table 5 makes the prediction that traffic levels in 2015, with all these TDM's in place, would be only slightly higher than the 1991 ADT. The LOS would in most areas be "D" -- the same as today. Thus, it's clear that the FRO plan, if implemented, would result in a dramatically safer highway than the current road, with a LOS comparable to current conditions -- which we think most area residents would find acceptable, especially given that this alternative would *not* have many of the substantial negative impacts of the MDOT's preferred alternative.

We would point out here that what constitutes an acceptable Level of Service is a highly subjective matter that varies widely between communities and regions. The DEIS does not acknowledge this, but rather asserts that "the desired LOS" is B or A, as if this were an objective fact. In reality, many areas decide that other factors -- quality of life, safety, noise containment, prevention of subdivision and strip development -- is more important than LOS, and such these areas are happy to live with a lower LOS. Our area -- the Flathead Indian Reservation -- is precisely such an area. There are so many precious, irreplaceable, and unique attributes of this area that would be severely harmed by construction of a multi-lane highway, and improvement of LOS is an exceptionally poor reason to destroy them.

Construction of an improved two-lane, supplemented by a comprehensive, well-funded, and ambitious amalgam of TDM strategies, offers the best and most appropriate solution to the Highway 93 dilemma.

FRO - 1

Chapter 5 (Alternatives)

A review of the alternatives section in the DEIS gives the impression that the authors intended not to study and compare options but to justify their predisposed bias. Virtually all alternatives are either ignored (as in the case of the FRO plan), categorically excluded, or rejected without adequate justification (such as TDMs, speed enforcement, and traffic management options, such as slow vehicle turnouts). Unfortunately, this bias cascades through the entire document, making it more a sales pitch for a conventional four-lane highway than an objective review of alternatives.

FRO believes this flaw is so overwhelming that it skewed the public review process and rendered the DEIS valueless as a foundation for the final EIS.

We refer again to the last two paragraphs of our comments on Chapter 4 above.

Chapters 6.1 and 7.1 (Traffic Operation and Safety)

6.1.1, 6.1.5, 6.1.6 (Level Of Service)

We refer the reader to the FRO document attached to these comments on "Highway 93 and Safety," which was distributed to the Tribal Council of the Confederated Salish and Kootenai Tribes on June 20, 1995.

The LOS is an attempt to quantify factors relating to road capacity. By entering factors such as terrain, no-passing zones, lane width, shoulder width, vehicle mix and directional distribution, it is desired to arrive at system capacity and functionality. This is understandably a difficult undertaking and unfortunately, the art doesn't seem to be perfected. Indeed, a jaundiced view could lead one the conclusion that the real purpose is to create a pseudo evaluation method which basically says that two lane roads are bad and four lane roads are good.

The LOS analysis considers only road capacity and traffic flow. Traffic flow is in terms of "convenience" to the driver, which means there should be no delays. It has no bearing on considerations of safety, alternate modes; impact on community, environment, etc.

Within this limited purpose there are still difficulties. One difficulty is in the description of a particular "level of service" not having any similarity to how a road which meets this definition actually functions. This results from the formula including only road characteristics, not performance characteristics.

Speed, queuing and delays are not included in the calculation. This leads to the formal or written definition of the LOS becoming the conclusion, rather than observation of that road segment leading to conclusions.

To illustrate this point we prepared an LOS evaluation for segment I, selected at random. The EIS lists this segment as level D. Our analysis was based in small ways on unknown information such as the split between north and south bound lanes. In this case we used a 70/30 split which is probably greater than actual. In any case these guesses don't influence the results.

We arrived at a number which would place this segment solidly in level D as did the consultant. Comparison of how this segment actually functions with the statement in

the LOS definition and the description in the EIS illustrates the disparity. First, the definition in the DEIS:

> "The two opposing traffic streams essentially begin to operate separately at higher volumes, as passing becomes difficult.....Turning vehicles and/or roadside distractions cause major shock-waves in the traffic stream. The percentage of time motorists are delayed approaches 75%." (page 6.1-21)

In reality, for drivers on the actual road, traffic speed is typically over 60 mph, and any "platooning" is due to a substantial proportion of the drivers wishing to travel faster than that. For drivers willing to drive at speeds approximating the posted limit there are few or no delays.

That our observation of traffic flow is not in error is confirmed by table 7.1-1, which indicates a three minute travel time difference between "no action" and the proposed four lane road between Ronan and Missoula, a distance of about 55 miles. Obviously, there are no serious delays now. Average speed, in fact, would correlate with LOS A or B.

The DEIS notes that this road's accident rate per mile being greater than other roads in the state; however, as the FRO piece on "Highway 93 and Safety" makes clear, this is a highly irregular statistical device and would have the effect of causing any busy highway, regardless of its actual accident rate, as being dangerous. The use of this statistical method we feel is further evidence of the pervasive bias and argumentative style of the DEIS. In other places, the DEIS briefly mentions that accident rates "did not vary greatly from the statewide average."

- 6.1.3.1 Four-Lane/Two-Lane Highway Comparison

  We again refer the MDOT to the FRO piece on "Highway 93 and Safety."

- 7.1.1. Impacts Common To All Alternatives

TRAFFIC PROJECTIONS: We must assume that there has not been a serious attempt to estimate future traffic demand, as the DEIS does not reflect such an effort and repeated attempts to obtain a copy of the origin-and-destination study have been ignored. Traffic is not simply a function of population. Only a serious effort based on interviews disclosing the origin, destination and purpose of trips; and an evaluation of existing and anticipated land use would provide useful projections.

Placing traffic projections in the section "Impacts Common To All Alternatives" implies that the design of the road would have no impact on traffic volume. Nothing could be further from the truth. An over-designed road would encourage exurban style development; increasing traffic, but slowing and distorting the economic development of Mission Valley. Goods and services which could be provided locally would continue to be in Missoula and people working in Missoula will be living in Mission Valley.

Chapter 7.2 (Land Use):

General comments for chapter: generally does not consider secondary impacts that would follow construction of various lane configurations, which would constitute the great bulk of the land use impacts from this project.

Specific comments:

- Page 7.2-3, Section 7.2.1.3 -- Partial Access Control

  This passage simply states that access control -- a crucial issue for safety on this issue -- "will be determined" in the future. This gives an inadequate sense of the future design and hence impacts of the project. The effort should be made to present a more specific and accurate picture

  This section states that "none of the lane configurations will restrict the type of development or the amount of land to be developed." This is a perfect example of how the FRO Plan is ignored in this DEIS and is mischaracterized as simply a "lane configuration." In fact, the FRO plan is much more than that, and includes extensive measures to try to contain the growth of traffic and development.
- Page 7.2-4, Section 7.2.2.1.

  This section measures amount of land converted for right-of-way with various lane configurations; you appear to have incorporated our comment on the PDEIS that "the amount stated for Lane Configuration A could perhaps be further reduced by constricting the width of shoulders through the Ninepipe area" by simply stating, on page 7.2-4, that in sensitive areas, "the width of total ROW may be reduced in some areas." This is inadequate. Decision-makers and the interested public need numbers, not vague promises, in order to clearly compare the various lane configurations. The DEIS should provide specific estimates of how much ROW could be reduced and in what specific places.

Chapter 7.3 (Farmlands):

Specific comments:

- Page 7.3-1, Section 7.3

  We note that your opening paragraph appears to have been adjusted to incorporate FRO's comment on the PDEIS that Lane Configuration C, with Alignment 4 at Arlee and Alignment 3 at Ronan, scored 165 in farmland conversion impact ratings.

  We repeat another comment we made regarding the PDEIS that has more serious implications and reflects more pervasive problems in the DEIS: *The DEIS should add a Table comparing estimates of secondary impacts on farmlands, which would constitute a far larger impact than these direct impacts.*

Chapter 7.4 (Social):

General comments:

In general, the problems we identified in the PDEIS in regard to these sections are even more marked in the DEIS. Although some improvements have been made in

examining issues relating to growth and development, the sections are more biased, less objective, and less clear. As with much of the DEIS. this section seems less an objective, even-handed presentation of the impacts -- positive and negative -- of the various alternatives than an extended polemic in defense of a multiple-lane highway, which has apparently been the MDOT's preferred alternative from the start of this project. The MDOT apparently responded to FRO's detailed comments on the PDEIS by deleting those sections or phrases that seemed to challenge the Department's foregone conclusion, and by linguistically tightening the argument on behalf of a multiple-lane configuration. Needless to say, this is fundamentally at variance with the letter and spirit of the National Environmental Policy Act. We would recommend a thorough redrafting of these sections in order to provide clear, objective, disinterested comparisons of the impacts of the various alternatives. We would emphasize in saying this that the comparisons should be between alternatives, not just lane configurations; the FRO plan is much more than "an improved two-lane highway", which is how it has been treated in both the PDEIS and the DEIS.

These comments apply in general to the DEIS, but they are perhaps even more crucial in regard to the sections on Social impacts, since it is these sections that are supposed to address so-called "secondary and cumulative" impacts. FRO has long asserted that environmentally, culturally, and socially, these impacts which will be the most serious and far-reaching of this project. In this section, the DEIS makes the startling admission of not even making a serious attempt to arrive at estimates of what those impacts will be for the various alternatives. It is merely stated that these things have "not been quantified." This radically impairs the ability of the DEIS as a whole to offer any clear assessment of the future impact of these various highway plans. Other sections -- particularly those addressing impacts on wildlife and wildlife habitat, including wetlands -- must, as a result of this failure to offer prognostications of development impacts, confine their analysis of impacts to the direct impact of the roadway. In short, this is a crucial problem in the DEIS, and it puts this project very much at odds with ISTEA, among other relevant pieces of legislation.

Specific comments:

- Page 7.4-1, Section 7.4.1.1. Impacts Common to All Alternatives -- Overview of Barrier Effect.....

  This section blurs the differences in barrier effects of different lane configurations. The EIS should make clear comparisons of the barrier effects of different lane configurations. Moreover, the argumentative and biased style that is a problem throughout the DEIS is glaringly apparent here: the section points out that greater congestion on a two-lane would cause greater barrier effects and negatively affect "community cohesion," while omitting any mention of the effect on these attributes of more than doubling the width of the highway through the center of towns. This problem should also be addressed for a point further in the future -- say, 50 years -- when congestion on a four-lane design would be heavy, given the MDOT's estimates of indefinite 3% rates of growth. Such estimations of impacts would more clearly illustrate the futility, in the long run, of trying to "solve" the problem of traffic growth by merely accommodating it.

- Pages 7.4.1-2, Section 7.4.1.2 Discrimination: Isolation of Neighborhoods and Facilities/Services

  There are substantial flaws in this sub-section of the DEIS.

  The first paragraph does not offer any analysis of the effect of splitting towns in half with multi-lane roads. There must be studies of the effect this has had on other towns. The DEIS does not state clearly whether getting from the east to the west side of town -- especially in Arlee, Ronan, and Pablo -- will be significantly more difficult if a multi-lane road is built. Common sense would suggest that it will be more difficult. There should also be far more detailed study of existing conditions in Reservation communities. For example, are there existing differences in populations (racial/ethnic/income level/age) or services between the east and west sides of Ronan that would be exacerbated by the barrier effect of a widened road?

  We would also note that the issue of "discrimination" would seem to range far beyond that of "isolation of neighborhoods and facilities/services." As the Flathead Culture Committee has noted, a multi-lane highway would likely have a devastating impact on the very survival of Tribal cultures and languages. Does Federal law allow a federally-funded project such as this to proceed if it is apparent that such impacts will be the probable result? Is this not in violation of the American Indian Religious Freedom Act and the Indian Reorganization Act (1934), both of which commit the U.S. Government to strengthening, rather than weakening, tribal cultural and political sovereignty?
- Page 7.4-2, Section 7.4.1.3 Impacts Common to All Alternatives -- Population Growth.

  The first paragraph is another example of how this document fails to provide clear comparisons of the impacts of different alternatives. It says, vaguely, that "highway improvement will have an indirect effect with [sic] additional population growth", but fails utterly to make any clear comparisons of what the impacts will be of the different alternatives. It also confines its analysis of the impact of highway on population growth to commuters, whereas a multi-lane highway would also be likely to generate substantial economic growth locally, causing great increases in locally generated traffic.

  Changes made from the PDEIS to us indicate only more deeply the bias of this document. In the PDEIS, it was stated that "Improvement of U.S. Highway 93, with reduced travel time and improved convenience, will combine with factors such as the rural lifestyle, natural environment, and small town atmosphere to further increase the desirability as a place to live for the project area and the Flathead Lake region." This at least acknowledges the obvious fact that Highway 93 will be a major factor in patterns of growth. In the DEIS, this sentence has been rearranged and split up so as to become even more vague. Now it is merely stated that Highway 93 will "support [rather than partially cause] any increase in the rate of population growth." What was the reason for this change? Have new facts come to light to merit stripping the highway of any causative role in population growth and development? Or is the MDOT merely trying to preempt criticism of its preferred alternative? If

the latter is the reason rather than the former, this raises further troubling issues about this DEIS as a polemic for a four-lane rather than a scientific analysis of impacts of road-building, which is what it is supposed to be.

The argumentative and biased style is further revealed in the next few paragraphs, which repeatedly state that "with or without highway improvement," growth will occur. This avoids the critical question of at what rate will growth occur, and in relation to which alternatives. If a multi-lane highway makes growth faster and much harder to control, generating a boom environment, it will constitute a significant growth impact on the area. We would note that there is no evidence offered to support any of the sweeping conclusions forwarded in this section.

Indeed, in numerous instances, the DEIS conveys an even *more* biased tone when compared with the PDEIS. In the PDEIS, for example, it was simply stated that "continued population growth will have a cumulative affect [sic] that makes it more difficult for the Confederated Salish and Kootenai Tribes (CSKT) to maintain their homeland on the Flathead Indian Reservation." In the DEIS, this sentence is prefaced with the "with or without highway improvement" phrase, apparently a catch-all designed to deflect attention from the comparative effects of the various alternatives. Is there any new evidentiary reason for this rephrasing, or is this merely another move to tighten the argument in favor of a four-lane highway? Similarly, the PDEIS stated (Section 7.4.3.2.1.) that "an improved highway will increase the rate of population growth by improving accessibility to the project area through reduced travel time and improved convenience," and also that the result would be "earlier development and more development." Why have these statements been deleted from the DEIS?

The MDOT and Morrison/Maeirle appear to have similarly deleted other potentially troubling sentences from the PDEIS, with no explanation or proffering of new evidence to support such changes. For example, the following sentence, which was present in the PDEIS, is omitted from the DEIS: "No Action will result in less long-term population growth than the other alignment alternatives." We request to know why this statement has been retracted.

It is said that "other factors, which are beyond the control of highway development, have more influence on growth and development than the highway." There is no evidence to support this stunning generalization. Beyond this, it is also a largely irrelevant point; what is important here, purely and simply, is that this project is *one of* the major factors shaping growth and development in the region. It is also the only major factor that is directly controllable by the people, at least in theory. This is the whole gist of ISTEA: transportation systems are supposed to be designed now with a consciousness of their profound effect on our communities and our environment. This DEIS, by contrast, appears dedicated to denying the very existence of these effects.

This section also states that "provision of public services" has "more influence" on growth and development than highway development. Does the

MDOT have any evidence to support the validity of this claim in regard to the Highway 93 area? It would seem to flatly ignore the common phenomenon of booming local economies outstripping local services, which then have to scramble to provide for the multiplying population. It could be added that what then follows in many cases are sudden rises in tax rates, thereby squeezing the poorer property-owning people in the community most severely. This would be a very likely scenario in the Arlee area, where there are many low-income land owners. This impact would fall disproportionately on the Indian people in the area, particularly those in fee ownership of their lands. This phenomenon should be addressed under "Discrimination."

- Page 7.4-2 to 7.4-4, Section 7.4.1.4. -- Pop. Growth and Workers Who Commute Outside the Area

This section in general seems incomplete and inadequate. The single biggest concern regarding this highway -- environmentally, socially, culturally, in all ways -- is in regard to growth, the so-called "indirect and cumulative impacts. This section is in this sense the linchpin of the DEIS. Yet here the DEIS abandons any attempt to arrive at solid estimates, saying merely that these figures have "not been quantified" or "measured." The reader, the decision-maker, the public official, the public citizen, is left to guess as to the comparative impacts of the various alternatives. And other sections, such as those regarding wildlife or noise or farmlands or cultural resources, are left without a basis on which to estimate these "secondary" impacts -- by far the most serious and far-reaching impacts of this project. The opening paragraph of this section, therefore, has an unfortunate and far-reaching effect on the DEIS as a whole.

In a real sense, this is indicative of the pervasive bias of the DEIS. If this were an objective, even-handed document, there would certainly have made a more concerted effort to arrive at these estimates. By way of contrast, the DEIS makes confident predictions of an indefinite 3% rate of growth of traffic in order to justify the LOS need for a multi-lane highway. The future rate of traffic growth clearly depends on a variety of factors as complex as those involved in making predictions of comparative rates of population growth and development. Yet the DEIS blithely makes the prediction of the 3% annual growth rate, in spite of the fact that it is a matter of plain common sense that such a growth rate cannot, from a sheer physical standpoint, continue indefinitely; since this would predict a quadrupling of traffic volume in something like a century. (The DEIS eludes this problem by confining its consideration of future impacts to the year 2015.)

The essential point, which we also made in our comments on the PDEIS, is this: the DEIS must come up with comparative, quantified predictions of the impacts of various alternatives on economic and population growth if the document is to have any use to readers attempting to judge the best course for Highway 93. Clearly, since the DEIS holds to a foregone conclusion -- four or five lanes, period -- such a sophisticated level of analysis was deemed unwarranted. More sophisticated solutions, such as the FRO plan, demand

more sophisticated analyses of the problems and conditions at hand. We would note, as we did in our PDEIS comments, that no comparison is made between the project area and the Bitterroot Valley in terms of accessibility, commuting time, development, and so on. This should be done.

The DEIS states that "Improvement of US 93 as a regional transportation facility is not planned specifically to promote growth and development." This is utterly irrelevant. The question is simply whether this project will *contribute* to such problems in ways that are significant and that can be foreseen. We made a similar point regarding this section in our comments on the PDEIS; the response appears to have been little more than a slight rearranging of words in an attempt to avoid the issue. We will quote from our comments on the PDEIS, which remain relevant: "Certainly, Highway 93 is the single biggest publicly funded -- and, in theory, publicly controlled -- contributor to settlement patterns and population growth rates in this area. One of the guiding ideas in ISTEA and other relevant legislation is that these projects should not contribute to the worsening of negative trends, but seek to use federal funds in creative ways to solve problems. The approach and attitude reflected in this section is contrary to the spirit if not the letter of the law." We would add here that the MDOT's continued evasion of responsibility on this issue appears to us to be in violation of the letter of a wide range of environmental and Indian affairs laws that commit the Federal Government to not damaging environmental resources or Indian cultures and sovereignty if such negative consequences can be reasonably avoided. Such consequences can obviously be avoided in this case.

On page 7.4-3, it is incorrectly implied that time is the only consideration for commuters. One should also consider winter driving conditions and the perceived commuting advantages of a multi-lane highway.

The final paragraph on page 7.4-3 is deeply troubling. It implies that the construction of a multi-lane highway north of Evaro will help alleviate development pressures on the Bitterroot Valley by making the Flathead Reservation area appear more desirable for commuters. In effect, you are suggesting the sacrifice of the Flathead Reservation on behalf of the Bitterroot Valley. Even though the reasoning is probably flawed (development simply generates more development), this is unacceptable and probably illegal under a wide range of federal Indian laws.

This section again fails to make clear, quantitative comparisons of the numbers of commuters who would move to the Evaro area if a four-lane, improved two-lane, or the multifaceted FRO plan were implemented.

As in the PDEIS, the subsection on "Terrain" is vague and muddled, and makes no quantitative estimates on the comparative effect of different lane configurations or highway plans on reducing the barrier to commuters posed by Evaro or Ravalli hills.

The section on "availability of land" is also vague, making no clear comparisons of impacts. It also seems to make little sense to assert that agricultural land-use patterns pose a significant obstacle to development. The

authors should look more closely at subdivision patterns in the state and the suburbanization of much agricultural land. The Bitterroot Valley is a good example. In regard to this subsection on land, we would also repeat what we said in regard to the PDEIS: "it is stated that 'there is limited land available for development in the project area.' This statement is obviously true anywhere and everywhere, and so is not particularly helpful. This section should be revised to provide a clearer, quantitative estimate of how much and how fast we can expect subdivision and development to occur with various lane configurations. For one thing, these rates will have a direct bearing on how successful the CSKT will be in their efforts, which you mention here, to 'purchase land' in order to prevent undue development."

This section should also consider the impact of a four-lane on further eroding the sense of the Flathead Reservation as a separate and different place, which is part of what has deterred undue development here over the past few decades. It is demonstrably clear that the building of the railroad in the 1880's had such an effect.

- Page 7.4-4, Section 7.4.1.5. Shifts in Population: Workers Who Commute Inside the Area.

  This section should give more precise, concrete estimates on where the anticipated surges in population growth would occur, and in what numbers. As it is now, it is impossible to estimate the probable cultural, environmental, and/or social impacts.

  As in the PDEIS, it is stated here that "reduced travel time and improved convenience will encourage workers to commute longer distances in the project area," with the clear implication that such impacts will be worse with Lane Configurations B, C, and D. If this is a conclusion, it should be clearly stated rather than vaguely implied. This is another example of unclear comparisons between alternatives.
- Page 7.4-4, Section 7.4.1.6. Students Who Commute to Colleges in Missoula and Kalispell.

  It seems odd that Salish Kootenai College, which is the only accredited college within the project area, would be omitted from consideration in this section. SKC officials, as the MDOT well knows, have expressed grave concerns about the impact of the multi-lane plans on the SKC campus, safety of student pedestrians, noise levels, etc. An objective inclusion of SKC's concerns could mitigate some of the bias in this section.
- Page 7.4-5, Section 7.4.1.7. Population Impacts of Highway Alignments at Arlee, Ronan and Polson.

  Why was the word "alternate" removed from this section as it was stated in the PDEIS?

  The focus on the impact of alignments on total population misses the point. Alignments have more impact on the kind of development that takes place -- the natural development of existing neighborhoods as opposed to the imposition of huge planned "subdivisions" or "housing developments." These create very different kinds of impacts -- positive or negative -- on communities.

Indeed, it is plainly stated in the chapter on Land Use (7.2) that impacts on change of land use in the area would be much greater with alternative alignments. This kind of impact should be addressed.

Various lane configurations, by contrast, do have clearly differing impacts on total population growth. This chapter of the DEIS, however, has already abandoned any attempt to estimate those crucial impacts. This is a key reason why this DEIS is inadequate and must go through at least one more publicly released draft before it may be considered complete.

As we state in our comments on the Land Use chapter (7.2), it is not acceptable to list planning by local agencies as "mitigation" for this project. That is not a measure over which this project can have any control. In fact, if the four or five-lane plan goes through, it will create a boom climate in which it is even more difficult to institute those kinds of planning controls. This is nothing more than an utter abandonment by the MDOT for their responsibility for the damages caused by this project.

We would add that there are clearly available measures under ISTEA for the MDOT to suggest and pursue real mitigations for this project -- that is, the kind that are built in to the plan for the highway. This is what FRO has long been advocating.

- Pages 7.4-5 to 7.4-6, Section 7.4.3.1. Existing Alignment -- Barrier Effects.

  There is again no clear comparison of the alternatives. Which poses greater barrier effects? Certainly this can be estimated. As it stands, the DEIS presents only a blurry picture. This is also a problem in Section 7.4.4.1 (Arlee), on page 7.4-6 and Section 7.4.5.1 (Ronan), on pages 7.4-7 and 7.4-8, where identical language has been employed to obfuscate the issue at hand.

  We would question whether this blurred comparison is intentional -- and as such constitutes further evidence of bias -- since in early public scoping hearings, Morrison/Maierle and MDOT officials admitted than on the whole, a four or five-lane design would bring greater barrier effects than an improved two-lane. Why has this conclusion been retracted or omitted from the DEIS?

  We would further question the assertion that Lane Configuration A would have reduced spacing between vehicles, thereby heightening the barrier effect. In other sections, it is stated that a two-lane would have worse traffic flow and greater platooning of vehicles. Would this not create *more* spacings in the traffic?

  Problems from the PDEIS persist, and we repeat them here: the discussion of Lane Configurations B, C, and D fails to discuss the difficulty of turning left onto a multiple-lane highway. In addition, the discussion of school buses is unclear, since the issue considered is "efficiency"; we thought the main concern with school buses was safety, not efficiency.

  This section, and the sections that follow for Arlee, Ronan, and Polson, give an utterly inadequate sense of the barrier effect that the MDOT's preferred alternative -- a five-lane design -- would bring both to rural areas and to towns like Arlee and Ronan. The MDOT is proposing something akin to what is now in place on Reserve Street in Missoula. This would split these

valleys and especially the towns in half. Not only would it be dangerous for people -- especially children -- who still will have to cross the highway for certain services such as school, but it would destroy the cohesion of these communities, turning them into little more than two separate clusters of buildings on either side of an immense superhighway. There is no consideration anywhere in this section of the impact of a multi-lane design on farmers using tractors and other slow-moving farm vehicles who must cross the highway. This section, and the ones that follow on the barrier effect, is just another example of the DEIS's pervasive bias, and its unwillingness to frankly acknowledge even the most obvious and undeniable problems that would result from the preferred alternative.

This section, and the other sections addressing barrier effects, also do not consider that a multi-lane design would both accommodate *and encourage* growth in traffic volume beyond what would occur with a two-lane. This would further worsen the barrier effect of such a design and should be factored into these considerations.

- Page 7.4-6, Section 7.4.4.1 -- Barrier Effects on Arlee, Existing Alignment

  See the first and fifth paragraphs of our comments on Section 7.4.3.1. above.

  We strongly question the conclusion, expressed in the third paragraph, that pedestrian and vehicular patterns will not be altered by any of the various possible lane configurations, even though "convenience will be reduced." It flies in the face of both precedent and reason to think that building a five-lane highway through the middle of a small town will create no such effects. We refer the MDOT to any of the studies conducted by people like Andres Duany, Peter Katz, or Harold Kulash, all of whom are eminent in the field and whose work has shown quite clearly the devastating effects on communities of road projects of this nature. This section, to the contrary, is implying that such a road would, in sum, produce no barrier effect. On what evidence or study is this based?

  This section makes no comparison between lane configurations of the effect on school buses, mail carriers, and so on. That comparison should be made, or it is of no use either to decision-makers or the public. Which would be best? A Ronan school bus driver, Jamie Bick, testified at the Pablo hearing that she felt strongly that an improved two-lane would be safest.

  It should be stated in this section that the Arlee Community ID team chose a three-lane configuration through town.

- Pages 7.4-6 to 7.4-7, Section 7.4.4.2. -- Arlee Alignments 2,3 and 4

  It should be stated here that the Arlee Community ID team not only opposed any alignments around town, but also opposed the buying of right-of-ways for future use of that option.

  As in the PDEIS, this section still does not address, in any level of specificity, the obvious issue of commuter settlement increases that would occur in the areas of the alternate alignments.

- Page 7.4-7, "Mitigation" for Arlee barrier effects

The main measure favored by the Arlee Community ID team, which should be mentioned here, is to restrict the highway design to three lanes with good shoulders through town.

- Pages 7.4-7 to 7.4-8, Section 7.4.5.1. -- Barrier Effects for Ronan, Existing Alignment

  See the first and fifth paragraphs of our comments on Section 7.4.3.1. above.

  We strongly question the conclusion, expressed in the third paragraph, that pedestrian and vehicular patterns will not be altered by any of the various possible lane configurations, even though "convenience will be reduced." It flies in the face of both precedent and reason to think that building a five-lane highway through the middle of a small town will create no such effects. We refer the MDOT to any of the studies conducted by people like Andres Duany, Peter Katz, or Harold Kulash, all of whom are eminent in the field and whose work has shown quite clearly the devastating effects on communities of road projects of this nature. This section, to the contrary, is implying that such a road would, in sum, produce no barrier effect. On what evidence or study is this based?

  This section makes no comparison between lane configurations of the effect on school buses, mail carriers, and so on. That comparison should be made, or it is of no use either to decision-makers or the public. Which would be best? A Ronan school bus driver, Jamie Bick, testified at the Pablo hearing that she felt strongly that an improved two-lane would be safest.

  It should be stated in this section that the Ronan Community ID team chose to stick with minor improvements to the existing three-lane configuration through town, unless multi-lane highways on either side of town forced construction of a multi-lane through the town.

- Page 7.4-9, "Mitigation" for all Ronan Alignments

  This section is far too vague. We need concrete proposals, preferably with accompanying visual depictions, of what is being proposed. There is no way to evaluate the impact with the current level of information.

- Page 7.4-10, Section 7.4.6.1. -- Polson, Existing Alignment

  There should be analysis in the final paragraph as to whether any improvements in pedestrian safety due to such devices as traffic lights and crosswalks would be offset a multi-lane design is chosen, due to increased speeds, traffic volumes, less attentive drivers, and other increased hazards.

- Page 7.4-10 to 7.4-11, Section 7.4.6.2. -- Polson Alignments 2 and 3

  We would question Jerry Sorenson's conclusion that the characteristics of future settlement would not be significantly influenced by a by-pass around Polson. Has the MDOT conducted any research to evaluate the validity of this conclusion? Do not most such highways contribute to subdivision pressures?

  The DEIS should specify the location, type, and number of traffic signals mentioned at the top of page 7.4-11.

The "Mitigation" measures mentioned are far too vague. In order to evaluate their efficacy, we need concrete descriptions and preferably visual depictions.

Chapter 7.5 (Economics):

Overall comments for chapter:

As in the PDEIS, this chapter reflects a lack of consideration of the way different transportation systems will generate different *kinds* of economic growth. We would refer the MDOT to the work of eminent planners and others involved in these issues: Andres Duany, Peter Katz, and Walter Kulash. These people have made it quite clear that these kinds of roads encourage subdivision-type development and are generally destructive of community cohesion and the long-term development of a mature economy. They point out that these kinds of designs are actually limiting of growth in the long run. While transportation systems are not the sole determinants of whether a town will develop as a town, or rather as a strip along a highway, they are powerful factors in the equation. It is exceedingly difficult to direct an economy in a direction not encouraged by the prevailing transportation system.

We would ask again whether it can be anticipated that a multi-lane highway would help transform Flathead Lake into another overdeveloped Lake Tahoe.

There appears to be nothing in this chapter addressing the impact of building such enormous highways into a region so dependent on a tourism economy whose principal strength is the relatively unspoiled, natural character of the area. This is a major shortcoming in this chapter. Will tourists still regard this as "the Last Best Place" when the region is paved over with enormous highways and by the development such roads will help generate? How will declining animal populations, the long-term result of such development, impact the tourism economy?

As with so many other chapters in the DEIS, this chapter, when confronted with an issue that does not bode well for the multi-lane design, avoids offering clear comparisons between the different lane configurations. Page 7.5-5 is a good example of this tendency. It is impossible to judge which lane configuration would have a more positive or negative impact on the economy of the affected area. We would again refer to the point made in our first paragraph on this chapter: it is more important and more relevant to discuss the different kinds of development that would be encouraged by different transportation systems.

As in the PDEIS, we would strongly question the claim (slightly rephrased in this draft) that " No Action will encourage more commercial strip development on U.S. 93 outside the existing commercial areas" (page 7.5-5). Since no such statement is made regarding a multi-lane design, it seems to be making the claim that there would actually be less strip development with a multi-lane design. This would appear to fly in the face of both precedent and common sense. On what is this claim based?

It is of concern to us that the section on "Cumulative impacts" from the PDEIS has been removed altogether from the chapter in the DEIS. Since cumulative impacts are already woefully ignored, this seems to be a movement in precisely the wrong direction. Indeed, in the section on "Agricultural Production Value," there is no consideration (as there should be) of the secondary and indirect impacts on agricultural land (in the form of subdivision and land use changes) that would be accelerated if a multi-lane highway is built through the area.

Chapter 7.6 (Pedestrians and Bicyclists):

General comments for chapter:

The FRO Alternative recommends full 8-foot shoulders along the length of the highway, with separate paths in the vicinity of all towns (1-2 miles north and south).

On page 7.6-6, it should be mentioned that the Arlee Community Team did not limit its comments to matters of traffic lights; it recommended three lanes through town, partly because this would be better for bicyclists and pedestrians, allowing full shoulders, unlike the MDOT's enormous five-lane plan. This was the Arlee Team's most important recommendation, as the MDOT well knows, since they pointedly disregarded it in developing their preferred alternative. Omission of it here indicates bias.

Similarly, the Ronan Team recommended three lanes unless multi-lane highways on either side of town forced the community to build a five-lane.

On page 7.6-7, we would ask whether the Pablo Team did not also have lane recommendations at variance with the MDOT plan.

Chapter 7.7 (Air Quality)

The air quality regulations, as put forth by the EPA in the December 1993 regulations, were not addressed for the Ronan and Polson non-attainment areas. These conformance evaluations and determinations were not available for evaluation and discussion by the public in this DEIS, and are not proposed to be until the final EIS is completed. This limits the time frame and leaves these sites at a disadvantage for public comment.

An dramatically widened highway would require additional sand being placed on the roadway. The allegation that PM10 emissions would not be effected because of vehicle travel passing any given point only once does not take into consideration more sand being available to be crushed on the roadway. In addition, the wider roadway allows the sand to be blown into the other driving lanes, rather than to the side of the road, which allows the sand to be crushed more than once. It is stated that a four-lane highway will allow for increased speeds (although this is contradicted in Table 7.7-1), and these increased speeds will allow for a higher "flushing efficiency" of accumulated sand. This increased

flushing efficiency means that more PM10 particles will be flushed into the air, creating a decrease in air quality. This section also does not consider the increased total traffic volume that would be generated by a multi-lane highway.

The idea of moving the highway to another alignment is novel, but all it does is move the air pollution to another area of the reservation, which in turn will effect the residents, plant, animal and human, in the proposed area. Is any area less important than another when it concerns breathable air? According to this DEIS, it seems acceptable to degrade one area to lessen the impact upon another area.

By promoting the increased commuter traffic brought by a wider highway, higher levels of emission and PM10 particles will be created. An increase in commuter traffic will increase travel on secondary roadways, which will also increase air pollution. Neither of these latter points are addressed in the DEIS.

We repeat a number of points we made regarding the PDEIS, which refer to problems that are still present in the DEIS:

- It is claimed that local population increases, and increases in air pollution associated with home heating, will increase with all alternatives, apparently to the same degree. This directly contradicts other statements in the DEIS that state that increases in the number of commuters moving into the area will result from a multiple-lane configuration for Highway 93. This statement also contradicts common sense: if a much bigger road is built, it will make possible a much larger increase in traffic, and make wintertime commuting more feasible.
- It is claimed that lower emissions from agricultural operations will result from conversion of agricultural lands to residential uses. We would question whether this takes into account increased emissions from vehicular traffic on unpaved section roads, already a major contributor to PM_{10} concentrations in the area.
- The repeated assertions that a two-lane design will result in "gridlock" or otherwise poor LOS in the near future rest on assumptions that we have questioned in our comments on the "Traffic Operation and Safety" chapters and on the lack of implementation of TDMs as described in Appendix B.
- In the "Mitigation" portion of this section of the chapter, the consideration of using chemical de-icers does not appear to weigh potential impacts on ground or surface water. This should be done, as the project runs through areas with wetlands of national significance, streams harboring a potentially endangered species (Bull Trout), and several areas, including Pablo, with notably shallow aquifers.

Chapter 7.8 (Noise)

General Comments for Chapter:

- Pages 7.8-1 to 3, Section 7.8.1.: Impacts Common to All Alternatives.

  Our comments from the PDEIS for this chapter appear to have been ignored in the DEIS, so we repeat them here:

As in the PDEIS, it is stated that "Speeds were assumed to be 55 mph for Lane Configurations B, C, and D" for purposes of estimating increases in noise levels. We repeat our comment: this seems highly questionable to us. Table 7.1-1 effectively admits that average driving speeds on the current two-lane highway (which the DEIS claims has a LOS of "D") range between at least 55 and 60 mph. The DEIS claims also that the LOS will improve with any of the multiple-lane configurations. Furthermore, the MDOT has stated at public scoping meetings that motorists tend to drive at the "perceived" design speed of the highway. It seems that for a four or five-lane highway with eight-foot shoulders, it is absurd to think that the average driving speed would be 55 mph. The information and projections of noise levels in this chapter should be revised upward accordingly, as noise levels would increase with the speed of traffic (page 7.8-7 states that "traffic noise decreases with lower speeds").

It also appears that this chapter assumes traffic volumes to be the same with all lane configurations, which is also a highly questionable assumption. According to the MDOT, a four or five-lane design could handle several times the capacity of a two-lane, and we think it is a matter of common sense that such a highway would generate heavier traffic volumes. This would also call for significant upward revisions in the estimates of noise levels that would come with a multiple-lane configuration.

Lastly, the estimates of noise impacts in this chapter only appear to address those that would come directly from the highway itself. There is no consideration of cumulative impacts. We think this should be revised to take into account the traffic and other noise generated by the development and growth that would be spurred by a multiple-lane configuration, including significant increases in traffic on section roads and other highway approaches.

It is unclear how the DEIS reaches the conclusion that if alternate routes are built around Ronan and Arlee, only 1% of remaining traffic in town will consist of trucks. If there is a research basis for this, it should be clearly stated.

Table 7.8-1 has a number of problems. First, it incorporates the above-stated assumptions of traffic speed, traffic volume, and exclusion of secondary impacts, all of which probably lead to under-estimation of noise levels with a multiple-lane configuration. Secondly, it lumps together "No Action" and "Lane Configuration A," when these would present very different highway designs and conditions. Thirdly, Lane Configurations B and C are altogether absent, for no clear reason. Fourthly, the table is incomplete, only extending as far as Segment N of the project. Fifthly, it should project noise levels farther into the future: say, the year 2050.

Even with all these built-in under-estimations of noise increases, we note that Table 7.8-1 projects a doubling of noise levels (3 or more dBA) within 300 feet of all rural sections of the highway with Lane Configuration D. This includes noise increases of 4 or 5 decibels over all rural sections of the highway within 100 feet of the road. In each rural section of the road, noise would rise above the federally-established noise abatement standard of 67 dBA at both the 100 and 150 foot distances.

This would constitute a severe impact on the environment of this area. The cherished qualities of rural quiet, important to both local residents and visitors, would be permanently impaired throughout much of the Mission and Jocko Valleys.

- Pages 7.8-4 to 8, Sections 7.8.3. (Existing Alignment, rural sections), 7.8.4. (Arlee), and 7.8.5. (Ronan).

The proposed "Mitigations" under each of these sections seem wholly inadequate. They serve to make it clear that avoidance -- Lane Configuration A -- is far preferable to mitigation. The dismissal of noise barriers, such as the planting of fast-growing trees, does not seem well-justified. The DEIS rejects this idea because the "low number of residences" make the expense of such an effort not "reasonable"; this ignores the impact of noise on outdoor recreation in the project area for both local residents and the tourists on whom our economy depends. Noise from Highway 93 is already audible in the Mission Mountains; if it is more than doubled and nothing is done in the form of barriers to muffle the noise, the value of these areas for solitude, a "wilderness experience," and Tribal cultural activities may be seriously harmed or destroyed.

Similarly, the dismissal of lowered speed limits as a mitigation measure seems poorly justified, on the basis of it being "difficult to enforce." Speed limits are always difficult to enforce, yet we impose them in the area of schools and congested areas for safety reasons. Building a multiple-lane highway, of course, will make it difficult to keep traffic even at 65 mph, let alone 55 or 45. We would note that if Lane Configuration A is selected and the speed limit is lowered to 50 mph, noise would be much lower and the LOS, given the established speed limit, would be at least B in the year 2015. We would repeat our suggestion for increasing law enforcement of traffic regulations, including dual jurisdiction over such matters for tribal police and higher fines within the Flathead Reservation for infractions. None of these options have been reviewed in the DEIS.

7.10 (Wetlands)

The examination of wetlands, while improved in ACOE permit application, remains vague in the Draft EIS. In both documents, actual impacts of the preferred alternative seem underestimated or understated. For example, it is still unclear how much wetland is involved because the arithmetic error in the width of the preferred alternative (64 ft instead of the actual 68 ft), which persists in most of the documents. Also, both documents admit that there will be impacts on waterfowl breeding, endangered species use, other wildlife and plant ecology, but blandly maintain that the impacts will be "minimal" or "negligible" without providing documentation or even explanation for this position.

Mitigation plans are also vague in the DEIS, and only slightly more detailed in the ACOE permit application. Both documents state that "studies" will be conducted and

sitings and designs will be completed "later", which gives the reader no basis for decision-making. Neither suggests timing of work to minimize impacts on nesting or migration. While the ACOE document does outline a monitoring plan, not present in the DEIS, neither states what parties will be responsible, what resources are committed, or what will be done in the event of failure of mitigation projects. Without specific commitment of persons and funding, mitigation and monitoring is merely a paper procedure.

7.11 (Floodplains/Stream Crossings)

Streams are the lifeblood of the Flathead Reservation, agriculturally, recreationally, socially. and culturally. The DEIS treats stream and ground water impacts in three pages, ignoring or minimizing potentially catastrophic indirect and cumulative impacts.

Ground water trapped by expanded roadbed could become organically and chemically contaminated threatening agriculture, wildlife and human health.

The recommended alternative would require three times the width and far more extensive stabilization as compared to an enhanced two lane, thus requiring significantly more stream realignment to avoid erosion. This would set off hydrological chain reactions up and downstream. This would contribute to the degradation of valuable fisheries such as the Jocko, Arlee Spring Creek (which would have to be moved some 400 feet during construction) Mission, Post, Crow, and Mud creeks.

Chapter 7.12 (Fish and Wildlife):

The DEIS asserts that differences in impact to fish and wildlife among Lane Configurations A, B, and C are minimal because "displacement...is dependent primarily on traffic volume." This assertion reflects the continued and illogical assumption throughout the DEIS that multi-lane highways do not attract additional traffic. This assumption taints the entire review of the impact to wildlife and demonstrates the bias in the DEIS towards the MDOT's original intent to build a multi-lane Highway 93.

Generally, this chapter does not consider so-called "secondary and cumulative" impacts adequately. For example, it is stated on page 7.12-1 that "Lane Configuration A may provide slightly less impact risk to wildlife than will the wider lane configurations, but the difference in impact potential will not be substantial." For some reason, the phrasing in this sentence was changed from the PDEIS, where the impact was characterized as "insignificant." In either case, the focus is not on what would undoubtedly be the most far-reaching impact of the MDOT's preferred alternative: the additional growth and development that would be encouraged and generated by construction of a multi-lane highway.

We would also challenge at the bottom of page 7.12-1 that with Lane Configuration A, there would be "fewer gaps in the traffic stream." This seems

contradicted by assertions elsewhere in the DEIS that in fact, there would be more platooning of vehicles with a two-lane, resulting in *more* gaps in the traffic -- particularly as traffic volumes increase and begin to fill up the multi-lane design. To fully see this point, it is again necessary to consider the tendency of multi-lane highways to generate increases in traffic volume beyond what would occur with an improved two-lane design.

Other points:

- 7.12.2.1 Fish -- As in the PDEIS, there appears to be no consideration of hazardous waste contamination, including the risk of more frequent and higher-speed transport of such materials should a multiple-lane configuration be constructed.
- 7.12.2.2 Reptiles and Amphibians--According to the DEIS, increased mortality of turtles, frogs and salamanders can be expected with wider highways when these animals cross the highway. No mitigation plan is described; plans are being "evaluated." Evaluation of plans is not an acceptable way of addressing mitigation in the Environmental Impact Statement process, according to CEQ regulations. Worse, the only commitment is that plans would be implemented only "If it is determined these designs will be effective and practical." This does not provide the reader with enough concrete information to assess the impact of the proposed project. Not addressed at all are the impacts of road run-off and loss of wetlands to the already precarious populations of amphibians in the Ninepipe area. The CS&K Tribes, Fish and Wildlife Service, Salish Kootenai College and Department of Energy National Laboratories (Los Alamos and Oakridge) have already made considerable investment in censusing amphibians on the Flathead Reservation, but none of these resources were utilized in the evaluation of impacts to amphibians. FRO repeats its call here for the MDOT to consider putting the highway through the Ninepipe area on short pylons to permit free migration of amphibians and ducklings under the roadway.
- 7.12.2.3 Birds. The DEIS recognizes the impacts to nesting and populations of many bird species. However, the mitigation section is devoted primarily to discussing why perches and culverts are not considered for mitigation. After listing 15 types of birds which would be affected by the preferred alternative, only mitigation identified is protection of cliff swallows by scheduling slope cutting before April 15. Slope cutting will have little effect on the other 14 types of birds, but there is no mitigation, either in design or timing, described. We would also note, of course, that implementation of the FRO Alternative would necessitate very little if any of this displacement, and that avoidance is the preferred strategy according to CEQ regulations. FRO repeats its call here for the MDOT to consider putting the highway through the Ninepipe area on short pylons to permit free migration of amphibians and ducklings under the roadway.
- 7.12.2.4 Mammals. The construction of Wildlife Passage Structures is recommended as mitigation for the barrier effect. These passages are 8-foot-high underpasses (the most "cost-effective design", designed after similar

structures for panthers and raccoons in Florida). Had the writers of the DEIS examined the literature more carefully, they would have discovered that antlered animals have repeatedly avoided structures as high as 12 feet, such as the Alaska Pipeline. The recommended structures are simply inadequate. This section should also contain far more detailed and specific projections of the comparative impacts of the various lane configurations on animal migration at key areas, including Evaro, Valley Creek, Post Creek, and other areas. It is noted that "extending bridges so there was at least 40 feet of land on either side of the stream was also recommended" in construction of wildlife underpasses in other areas. Considering this, we would restate from the our comments on the PDEIS our strong support for construction of bridges that would permit below-highway animal passage, not only at Post Creek, but also at the Jocko River and at Mission Creek. The latter is still actively used by wildlife; anecdotal evidence suggests bears and mountain lions continue to cross the highway along the creek. We would also ask why there is no apparent plan to provide for wildlife migration at Pistol Creek, Crow Creek, or Mud Creek.

- 7.12.2.5 Vegetation. Although the DEIS recognizes that Ravalli Canyon, Ravalli Hill and other areas may have sensitive plant populations, the mitigation plan only suggests that a survey be done, and if such plant populations happen to be discovered before they are bulldozed, those plants should be moved elsewhere. This survey should have already been completed. There are several native plant specialists available in Western Montana, but it appears that there was no effort on the part of MDOT to consult them and acquire existing information. Weeds appear to be the only serious concern of the MDOT. Extensive plans are described to control weeds through chemical applications along with other methods. Chemical herbicides are not identified, however, leaving insufficient information to evaluate the effects on fish, wildlife, and most especially threatened and endangered species.
- Page 7.12-10, Section 7.12.5. (Polson Alignments) As we stated in regard to the PDEIS: the statement made here, that "wildlife...are accustomed to Highway 93" and so would not be impacted by it being widened, does not appear to meet the requirements of an EIS to measure impacts, avoid them when possible, and suggest mitigation where necessary. It does not appear to be based on any scientific study. It also bears no sense of the EIS requirement to assess the impact of the project as part of the cumulative impacts as a whole. We note the explicit acknowledgment here that "long-term adverse impacts on wildlife," as well as a more impassable "barrier" due to "extensive development over the long term," would be caused by "improvement" of the highway. This contradicts Jerry Sorenson's statement in Chapter 7.5.
- 7.12.6 Cumulative Impacts. The MDOT clearly does not understand the CEQ regulation definition of cumulative impacts, as demonstrated in this section. The only "cumulative impacts" recognized are those of highways. Not addressed are the secondary impacts of increased populations, increased development, etc. which are to be expected with the expansion of the highway,

and actual cumulative impacts which may be generated by other activities in the area. We have been told that the author of this chapter was unable to make such estimations, because in the chapter on Social impacts, the DEIS abandoned any attempt to project the comparative impacts on growth and development of the various lane configurations and transportation alternatives. This section, as such, is of little use in evaluating the cumulative impacts of this project.

Chapter 7.13 (Threatened and Endangered Species)

Enormous federal and local (particularly CS&K Tribal) resources have been spent in maintaining grizzly bear and bald eagle populations in Western Montana, and considerable effort and expense recently has been devoted to the re-establishment of wolves and peregrine falcons in the area. Any action which would increase traffic volumes on Highway 93 and encourage land use changes in the Evaro, Jocko and Mission areas would jeopardize not only the recovery of these species, but the public investment in managing them. The recommended alternative described in the DEIS would result in a situation where the efforts of several public agencies in protecting these animals would be negated by the actions of another public agency (MDOT) in developing a barrier to the recovery of these species.

- 7.13. 2.1 Peregrine Falcon. Not considered in the discussion of the impacts of the recommended alternative is the increased use of pesticides to maintain roadside landscaping. Peregrines were sent to the brink of extinction during the 1960's by the biological amplification of the chlorinated hydrocarbons. This is the same class of chemicals which would be used to maintain the ROW.
- 7.13.2.2 Bald Eagle. If bald eagles are successful in re-establishing nesting in the Evaro, Jocko, Ninepipe, Kicking Horse and Pablo areas, nesting adults would be subject to risk in feeding on road kills which can be expected to become more plentiful with the preferred alternative. This is another impact which is not identified in the DEIS.

We repeat other comments we made on the PDEIS: This section asserts that widening the highway will not negatively affect Bald Eagles nesting within one or two miles of the road because they "probably have become accustomed to traffic and noise levels which will change little following construction."

First, on a technical level, it is directly contradicted by the information in Chapter 7.8 (Noise), which estimates that noise will more than double within 150 feet of the highway if a multiple-lane configuration is built; for every rural section of the road, the noise levels would be crossing the federally established threshold for noise impacts (67 dBA). As we have pointed out in our comments in this Appendix (Appendix B) for that chapter, even those estimates of increases in noise are probably too low.

Second, as we mention in Appendix A under "Failure to Assess Secondary and Cumulative Impacts," this statement appears to violate the requirement of an EIS to assess the impacts of a project as part of the cumulative impacts already

occurring in an area; instead, the DEIS appears to be taking the position that if an impact is already occurring, then there is no problem in this project worsening the situation. Such an approach would seem in conflict with the basic philosophy of both NEPA and the Threatened and Endangered Species Act. The statement also considers only the direct impacts of the highway on Bald Eagles, rather than including a consideration of secondary impacts, as directed by NEPA.

Third, though Bald Eagles are an Endangered Species, there is no evidence presented in the DEIS that this section is based on field research of actual conditions in the project area.

- 7.13.2.3 Grizzly Bear. The well-cited studies in the DEIS indicate that grizzlies avoid well-traveled roads. Since migration is necessary to maintain the Mission-Swan population, the only measure which would not endanger this population would be the reduction of traffic as proposed in the FRO integrated plan.

FRO also believes that there is sufficient evidence to assume there are important migratory crossings at Valley Creek and Ninepipe which warrant special consideration. The Ninepipe area was dismissed without reference to research as being "sufficiently distant" from the highway (despite the well-publicized presence there in the summer of 1994 of a sow and three cubs), and the Valley Creek area was not addressed at all despite reported sightings.

In our comments on the PDEIS, we noted our concern about the statement that "High levels of human activity and settlement in the Mission Valley west of the highway may not be compatible with long-term grizzly bear survival," and that therefore "displacement of grizzlies from habitat west of U.S. Highway 93 may benefit the bear by preventing human-bear lethal encounters." The first half of this quote appears to have been deleted from the DEIS. However, the second statement remains, as do our concerns about it:

1. First, this sounds as if the DEIS authors are either deciding to sacrifice Grizzly Bear access to a portion of their habitat in the area, or they are making a case for not having to address these impacts in a serious manner. We would ask whether the Endangered Species Act would permit the Montana Department of Transportation unilaterally to make plans for the bear or to conduct an EIS on the basis of its own conclusions about what parts of Grizzly habitat can be sacrificed.
2. Second, the DEIS does not offer any biological evidence to support the claim that preventing Grizzly access to the west side of the valley would "benefit" their populations. The claim that the creation of a nearly impassable barrier to Grizzly migration would help their chances for survival should be eliminated unless supported by solid research and evidence.
3. Third, this appears to be a continuation of the pattern in the DEIS to fail to envision ways in which the project could actually be used to improve the environmental health of the area. A possible example would be to use mitigation monies to purchase and protect Grizzly habitat in the west (and east) half of the valley -- rather than consign it to development and the local extinction of Grizzlies.

- 7.13.2.3 Gray Wolf. Wolves show much the same migratory requirements as grizzly bears and a similar aversion to heavily-traveled roads. The only way to protect current populations and to allow for the desirable expansion of wolf populations would be to encourage decreases in traffic volume as proposed in the FRO plan.
- Section 7.13.4. Arlee and Ronan Alignments.

  We repeat our comments on the PDEIS, where we noted the statement that impacts on these alignments "to threatened and endangered species will be the same as on the Existing Alignment; " this is still contradicted on page 7.12-9, where it is stated that Alignment 4 around Arlee would displace Bald Eagles from seasonal habitat near the Jocko River.
- Page 7.13-4, Section 7.13.5. Polson Alignments.

  We note here that there is an unusually clear comparison between lane configurations, and that it is shown that Lane Configuration A would cause far fewer impacts on Bald Eagles.

Chapters 6.14 and 7.14 (Cultural Resources)

FRO strongly supports the concerns of the Confederated Salish and Kootenai Tribes regarding the impact of this highway on the general cultural environment of the Reservation. We would add that Chapters 6.14 and 7.14 both seem to purposively avoid mentioning the direct bearing on these concerns of the different lane configurations. At numerous public meetings, Culture Committee staff members and Tribal Elders have made it clear that they see the improved two-lane as far less damaging to their interests in the long run, due to both direct and indirect (development) impacts. Chapter 7.14 notes that the Culture Committees favor avoidance. This is feasible with the FRO Alternative.

Chapter 7.16 (Hazardous Wastes)

We feel the question of hazardous material contamination posed by any configuration of highway 93 was not adequately addressed in the two and a half pages dedicated to the subject in the DEIS. We would note that the chapter was altogether missing from the PDEIS. Especially given the recent dramatic increases in shipment of volatile hydrocarbons between Missoula and Thompson Falls on Highways 93 and 200, this matter should be given serious and comprehensive attention.

There was no attempt to calculate the current risk by quantifying truck-tanker use. There was also no discussion of toxic spill preparedness by communities on the ROW nor were there origin-destination studies which could strengthen the case for the use of existing rail facilities.

Also not addressed in the DEIS are secondary impacts such as the use of pesticides to maintain noise reduction landscaping (recommended elsewhere in the document) and borrow pits.

Chapter 7.17 (Visual)

This chapter has been changed very little from the PDEIS, and in our view remains one of the most obviously biased in the entire document. Indeed, one of the few changes we found from the PDEIS was the bold deletion of a common-sense statement, which we had called attention to, that "the narrowest highway...will have the least impact on the visual environment." This is the frequent response of the MDOT to our comments: to see them not as opportunities to strengthen the scientific validity of the EIS, but to strengthen the argument for a multi-lane highway. This pattern is in blatant and egregious violation of NEPA and CEQ regulations.

As such, we repeat most of our comments from the PDEIS:

General comments:

There seems little awareness in this chapter of the real power that the visual landscape of the area holds for residents, both Indian and non-Indian, and the impact that a much wider highway would have upon this landscape. For that matter, there is little recognition of the value for tourists and travelers of the rural, spectacular visual environment of the area.

There appears to be no discussion in this chapter of possible Scenic Highway designation for U.S. Highway 93, which would provide possibly the strongest means of protecting the visual environment in the project area.

Specific comments:

- Section 7.17.1 Visual Impacts Common to All Alternatives.

  Under the "Landforms" sub-section, in the third paragraph, landscaping mitigation methods are suggested where "disturbance of landforms in unavoidable." However, with Lane Configuration A and No Action, there would be no significant disturbance of landforms, so there are no "unavoidable" cases with this project.

  Under the "Highway Structures and Appurtenance" sub-section, noise barriers should be mentioned.

  Under the "Access Management" sub-section, it is stated that "where space permits, frontage roads should be developed." It seems strange to advocate construction of such eyesores in a chapter assessing visual impacts of this project.

  Under "Community Interface," there should be comparison of the various lane configurations, particularly in regard to the proximity of the highway to storefronts and other community buildings and public spaces. There should also be discussion of the impact in this sense of wider visual barriers through the center of communities in the form of a much wider highway with higher speed traffic and increased volume of traffic.
- Section 7.17.2. No Action.

There is no mention in this section of any of the advantages of the No Action alternative in terms of avoiding significant visual impacts in the area.

- Section 7.17.3. Existing Alignment (rural areas).

  Note in this section that it is explicitly stated that Lane Configuration A will "result in only minor changes to the visual environment" while with Lane Configurations B, C, and D, will require significant alteration of "existing [visual] conditions."

  Indeed, in general, it would appear that there is an attempt to understate the visual impact of the wider lane configurations in this section.

  The statement that a wider road will result in drivers spending more time viewing the scenery, if true, should be mentioned in Chapter 7.1 as a safety hazard of the wider configurations. With the high number of highway entrances, the periodic speed zones in the area of towns, the high number of elderly drivers, the frequent presence of farm vehicles, and the many bicyclists, pedestrians, and horseback riders, it would be dangerous to create a highway here whose design lulls travelers into an "interstate" mentality with a more relaxed, less alert driving posture.

  Note, in the Mitigation section in the PDEIS, it was stated that "the narrowest highway...will have the least impact on the visual environment." This has apparently been deleted from the DEIS. Is there a reason for this change, other than the interest of the MDOT in omitting any information that might challenge its preferred alternative?

- Section 7.17.3.1. Evaro Canyon Landscape Unit.

  There appears to be no coordination between this section and the wildlife migration measures, including overpasses, discussed in Chapters 7.12 and 7.13.

- Section 7.17.3.3. Ravalli Canyon Landscape Unit.

  There appears to be no consideration given to lower speed limits, or even a lower LOS, through this limited stretch of the highway in order to avoid the tremendous visual, cultural, and other impacts that would result from significant widening of the highway. FRO would support such measures.

- Figures 7.17-1, 7.17-2, and 7.17-3 (Computer altered photographs of highway).

  The idea of computer generated images of how various lane configuration may look in the future is a good one for purposes of this chapter. However, the images in the current DEIS appear to have been carefully crafted to minimize the sense of visual change created by a multiple-lane configuration and put the best possible gloss on those changes. In each image, a normal point of view for a motorist, and the angle from which the viewer could get the best sense of visual change between lane configurations, would be from somewhere near the center line. The DEIS does something quite different, apparently choosing vantage points for their ability to mask, rather than reveal, the significant visual changes being contemplated. The angle reduces the sense of the width of the road and the barrier effect in terms of splitting the town in half.

For the Ravalli canyon shot, the picture is taken from the railroad tracks on the other side of the Jocko River -- a place from which almost no one would actually view the changed highway. Indeed, the highway is nearly invisible from that vantage point, and there is no way to judge changes in pavement width. The only aspect that is discernible is the significant portion of the mountainside that is removed in the second picture; however, though this is still unsettling to see, the distance of the vantage point serves to mute the impact of this change, compared to being on the highway.

For the pictures of Arlee and Ronan, an oblique angle is similarly used to mute the sense of the wideness of the multi-lane road. It seems at odds with textual description of the visual impact of a multiple-lane configuration through Ronan (see under Section 7.17.5. below).

All the computer generated pictures would be far more helpful if they were taken instead from near the center-line, with Lane Configuration A and then with one of the multiple-lane configurations. We have taken a photograph of Hungry Horse, which has a four-lane highway, from near the center-line. We think it convincingly demonstrates the distorted quality of the current images supposedly depicting a five-lane highway in Arlee and Ronan.

In addition, we would suggest adding a set of images from one of the highly valued scenic vantage points, such as the top of Ravalli hill looking north, the Ninepipe area, and or the Post Creek area. We recommend that pictures be generated from near the center line, and with comparisons of No Action, Lane Configuration A, and Lane Configuration B or C.

- Section 7.17.3.4. Mission Valley Landscape Unit.

  Note, under the "Mitigation" sub-section, that narrower highways "will be particularly desirable to preserve visual quality."

  There is no way to evaluate the suggestion here for "roadside parks" without more specific information.

- Pages 7.17-15 to 17, Section 7.17.5. Ronan Alignments.

  Note that "widening of the existing alignment to four lanes through Ronan will fragment an already discontinuous streetscape, removing 'edge' buildings and vegetation, diminishing views from adjacent properties and encroaching on adjacent businesses and pedestrians. The scale of the road will visually and functionally divide the community being incompatible with the scale of the community and roadside development, for view from the road."

- Pages 7.17-19 to 20, Section 7.17.7 Visual Impacts of Highway Design Options.

  The discussion as a whole in this section seems too vague and unspecified to serve as the basis of any conclusions.

  Under "Wildlife and Livestock Crossings," there is no mention of the wildlife overpasses proposed for the Evaro section of the highway.

Chapter 12 -- Section 4(f) Evaluation

The 4(f) requirement generally means that all areas or sites with significant public value and use must be preserved unless all feasible options are exhausted. The DEIS identifies 16.5 acres of 4(f) properties which would be disturbed by the preferred alternative. However, a valid argument could be made that the Highway 93 corridor through the Flathead Reservation is almost all 4(f) because of its cultural and historical significance to the Confederated Tribes. Indeed, at the forum on Highway 93 organized by Salish Kootenai College in 1993 in Ronan, Tribal Elders, including Harriet Whitworth, asserted that the entire Reservation was a place of spiritual significance and that it should be protected to the maximum extent possible.

We would also point out that the enhanced two-lane configuration, combined with the FRO recommended TDM plan, would cut the 4(f) property loss identified by more than half (eight acres). We contend this alternative was not proved inadequate and therefore the additional degradation of 4(f) properties should not be allowed. Neither the FRO Alternative nor Lane Configuration A were considered in section 12.5, Avoidance Alternatives.

Another enormous gap in the 4(f) evaluation is the absence of any consideration of the impact on Glacier National Park of expanding Highway 93. It has been shown clearly that a major portion of the summertime peak in traffic on 93 consists of tourists going to Glacier. Glacier Park has been struggling to deal with the increasing crush of visitors, who are threatening to destroy the park by their sheer numbers. The park's long-range plan calls for increasing proportions of visitors being shifted onto mass transportation -- precisely what FRO has called for all along. This section should consider these factors and the extent to which a multi-lane design on 93 would worsen these problems.

Appendix B (Transportation Demand Management)

Although FRO acknowledges that successful implementation of TDMs, particularly in a rural area, is never easy, we disagree with the pessimistic outlook that pervades this appendix. It should be born in mind that these are some of the only possible solutions to the underlying problems at hand on Highway 93. Only one thing is a clear certainty: the MDOT's preferred alternative would not solve the problem, but in fact only result in the same problem -- congestion and safety problems -- on a far bigger and more intractable scale. We have no choice but to do everything in our power and in our creative abilities to solve the underlying problem of traffic growth. The first step in that process is to prevent the implementation of a multi-lane design that would make the problem far worse.

In the "Transit" section, it should be noted that the high number of low-income people in the area, and the unusually large number of people with no reliable transport of their own, would probably significantly increase the percentage of people seeking to use a well-designed, cheap, and convenient transit system.

Under "Trucks," what "research" has indicated the difficulty of removing trucks from Highway 93?

Under "Capping Tourist Traffic," this section needs to be update to take into account Glacier Park's recently issued long-range goals or plans in the area of transportation.

The fact that tourist traffic comes from all over North America does not make it more difficult to manage; in fact, it probably means that it is easier to shape the transportation mode used by many travelers. If people see a huge road system being built to all sides of the park, they naturally will be encouraged to travel by their own individual vehicles. What kind of infrastructure we build has a direct bearing on how people choose to get to the park. There are countless world-class parks around the world to which people primarily travel by various kinds of mass transportation, because that is the only system available. We need to begin reorienting the transportation infrastructure in the GNP area in the direction of mass transit and away from huge roads.

Flathead Resource Organization
Safety and Highway 93

A. The Montana Department of Transportation is misleading people on the safety question.

1. Contrary to the impression they have been consciously creating, the MDOT is *NOT* pursuing the Highway 93 project primarily to improve safety on the road. The MDOT is pursuing the project primarily to improve the "Level of Service" or "LOS" of Highway 93 -- in short, the amount of traffic the road can handle at high speeds of travel. They have all along tried to make people think that "LOS" and safety are the same thing, when they are not. For example, the MDOT continues to oppose lowering the speed limit in the Pablo area because that would impede the "LOS" on Highway 93. However, anyone who works or lives in the Pablo area could tell you that a speed limit of 25 or 35 MPH would improve safety for pedestrians and bicyclists, as well as motorists. "Traffic Operation" and "Safety" are not the same thing, and are sometimes in direct conflict with each other.

2. The MDOT is employing highly irregular statistical methods to try to support their scare tactics, while ignoring the normal statistics used in the industry. The accident rate for Highway 93 is about the state average. Seeing this, the MDOT has resorted to the measurement of accidents per highway mile -- which will always look bad for a busy highway, regardless of how safe it is. Even the safest highway in the world, if it is also the busiest, will have many accidents per mile. And indeed, if the MDOT really wanted to lower the number of accidents per mile, they would design their plan to reduce the overall traffic on the road -- not dramatically increase it, which is what they are doing.

3. The MDOT has falsely given the impression that a four or five lane highway will be much safer than an improved two-lane, when the Montana Multi-Disciplinary Traffic Safety Task Force said to the contrary that an improved two-lane would do all of the desired, feasible safety improvements for Highway 93. that is needed. In fact, on page 4-5 of the PDEIS, it is plainly stated that "Recommendations for improvements were made by the Task Force particularly to target and reduce accidents for elderly drivers which should, at the same time, benefit all drivers....If any of the proposed lane configurations are constructed on any of the proposed alignment alternatives, most, if not all, of these recommended improvements will be incorporated."

4. The MDOT has downplayed or hidden the well-known safety drawbacks and dangers of undivided, high-speed, mulitple-lane rural highways. These are known to be statistically more dangerous than two-lane roads, especially near intersections with the highway.

Already, 35% of accidents occurring on Highway 93 are related to intersections and driveways (page 4-3). Within the project area, there are an average of 12.14 approaches per mile (computed from Table 6.2-4).

In addition, it is clear that on Highway 93, unsafe speeds are a major factor in traffic accidents. In Arlee, where speeds through twon often exceed the 35 MPH speed limit, the accident rate is 2.38, the highest on Highway 93. But in Ronan, where there is a strictly enforced speed limit of 25 MPH, the accident rate is the lowest on Highway 93, 0.62. The MDOT design would dramatically raise speeds -- and so also raise both accident rates and the severity of accidents.

5. The MDOT has generated extremely misleading propaganda relating to safety improvments resulting from the construction of a four-lane to Evaro.

a. First, the MDOT points out the accident rate at Evaro declined from 2.28 to 1.38 accidents per million vehicle miles. This summary, however, fails to mention that the entire stretch of highway from the top of Ravalli Hill north to Polson Hill has accident rates that are lower than at Evaro even with a four-lane highway in place. For five out of the six highway sections from Ravalli hill to Pablo, the accident rate is at or below 0.90 (compared to Evaro's 1.38). This information was pointed out in the PDEIS (page 6.1-9), but was omitted in the heavily biased material given to the Tribal Council in July 1993.

b. Secondly, MDOT does not make clear that the Evaro section, as the above statistics suggest, is not typical of conditions on much of the rest of the highway. Not only does it have higher accident rates, but it is less developed, probably has fewer highway approaches, and has steeper terrain with more demand for passing, than does the majority of the highway in the Jocko and Mission Valleys. Therefore, it is a bit of a case of apples and oranges. What might help at Evaro could actually be a safety detriment in other areas, and vice versa. It is not necessarily a good basis for comparison.

c. According to statistics provided by MDOT/Morrison Maierle on June 16, 1993, since construction of the four-lane at Evaro, statistics suggest that the incidence of "angle accidents" -- accidents occurring around entrances and intersections with the highway -- has actually increased, despite the small number of intersections in the Evaro area compared to much of the rest of Highway 93. But in the charts compiled for the Council dated July 30, 1993, the information was manipulated to support the claim that angle accidents decreased after the four-lane was built at Evaro. This serious discrepancy should be investigated. Let us repeat the direct quote from the 6/16/93 document: for the Evaro area, "after the highway was improved to four lanes.....the number of angle accidents per year increased."

6. The MDOT has characterized passing lanes as inherently dangerous, but has not made clear that our existing passing lanes happen to be very badly designed. Could not design improvements solve most of the safety problems of these existing passing lanes, rather than the construction of an entire multi-lane highway?

Comparison of the FRO Plan and the MDOT plan on the safety issue:

ISSUE:	MDOT:	FRO:
Speeding:	Four or five lanes would encourage faster speeds.	Improved two lane road would not encourage faster speeds, a major factor in accidents.
Shoulders:	8-foot shoulders along the length of the highway except in towns where 5 lanes would make this impossible.	8-foot shoulders along the length of the highway.
Passing:	Nearly unlimited passing in the short run, until congestion & development catches up with the highway.	Improved passing (improv-ing existing passing lanes, plus a new passing lane on Post Creek hill).
Turning left off of the highway:	In developed areas, a center "suicide" lane; in most rural areas, left-turning cars must come to a dead halt in the fast lane.	Left-hand turn bays at all major intersections.
Turning left onto the highway:	Cars must cross three or four lanes of traffic; few gaps in the traffic due to more even flow.	Cars must cross one lane of traffic, with more frequent gaps due to less even traffic flow.
Crossing the highway:	Cars, pedestrians, bicyclists, and horse-rides must cross four or five lanes of pavement, plus shoulders (84 to 94 feet).	Cross two lanes of pavement, plus shoulders (44 feet).
Slow-moving vehicle turnouts:	None called for.	Recommended every 5 miles or so, with strict enforcement.
Law enforce-ment:	Not addressed.	Calls for full dual jurisdiction on all traffic infractions and higher local penalties, prominently announced on road signs.
Truck traffic:	Not addressed.	Explore ways to remove or restrict multi-trailer semis, and to shift more of truck traffic in general onto rails.
Bicyclists & pedestrians:	Only calls for 8-foot shoulders, with considerably less in towns (e.g., Arlee).	8 foot shoulders with rumble strip in rural areas, and separate bike paths within 1-2 miles of towns.

Comment Number	Response
1	Comment noted favoring the preferred alternative from Evaro through Polson.
2	Comment noted favoring a four-lane highway.
3	Comment noted.
4	Comment noted favoring the preferred alternative from Evaro through Polson.
5	Comment noted citing need to improve safety and traffic operation. The schedule for construction will depend on timing of completion of the final EIS, the record of decision (ROD), highway design and availability of appropriated funds.
6	Comment noted favoring the preferred alternative from Evaro through Polson.
7	Comment noted citing need to improve safety and traffic operation.
8	Comment noted favoring bypass of Polson.
9	Comment noted favoring a four-lane highway.
10	Design options for facilities serving pedestrians and bicyclists were developed in response to support at public meetings and in consultation with community teams and the ID Team.
11	Comment noted favoring a four-lane highway.
12	These questions, specific to this particular property, have been discussed with the landowners. The appropriate information has been provided to them.
13	Information requested and provided.
14	Comment noted favoring the preferred alternative from Evaro through Polson.
15	Comment noted favoring the preferred alternative from Evaro through Polson.
16	Comment noted opposing existing alignment as the preferred alternative at Arlee.
17	Comment noted favoring the preferred alternative from Evaro through Polson.
18	Information requested and provided.
19	Comment noted favoring a four-lane highway.
20	Information requested and provided.

Comment Number	Response
21	It is correct that the Arlee Community Team (a sub-committee to the ID Team) recommended a two-lane highway with a continuous two-way left-turn center median. However, because this lane configuration will not adequately accommodate projected traffic volumes, the ID Team recommended Lane Configuration C (a four-lane highway with a continuous two-way left turn center median) for the preferred alternative. The FRO proposal is included in the draft EIS and final EIS as Lane Configuration A. It is given the same treatment in both documents as the other lane configurations.
22	Comment noted.
23	Comment noted concerning Alignment 2 and favoring existing alignment (Alignment 1) as the preferred alternative at Arlee.
24	Comment noted opposing existing alignment as the preferred alternative at Arlee.
25	Comment noted requesting construction of a livestock underpass at Milepost 12.4. The highway design process will review appropriate locations for design options, including livestock underpasses.
26	A copy of the draft EIS has been provided. Other requested items are not yet available.

Comment Number	Response
27	Comment noted.
28	Alternative routes such as the "Old Freight Route" were considered, but are not part of the preferred alternative because they received substantial opposition at public meetings and would cause greater environmental impacts.
29	As indicated in Section 7.12 of the draft EIS and final EIS, with the preferred alternative, a bridge with span and rise suitable for wildlife crossing under the highway will be constructed at Post Creek. Comment noted concerning divider between opposite lanes at Post Creek.
30	Comment noted favoring four-lane highway.
31	Comment noted favoring four-lane highway.
32	Comment noted favoring four-lane highway.
33	As indicated in Section 7.1.3.2, the Montana Department of Transportation (MDT) and the Federal Highway Administration (FHWA) plan to coordinate access management with land use planning and regulation policy established by the Confederated Salish and Kootenai Tribes, Lake and Missoula counties and the incorporated communities in Lake County. As design of each highway segment progresses, each landowner adjacent to the highway will be contacted to determine specific access requirements.
34	Comments noted in favor of highway improvement and questioning the value of wildlife crossings.
35	Comments noted.

Comment Number	Response
36	Traffic and other studies have been updated for the final EIS. Section 7.1.3.2 of the final EIS describes access control proposals. Comments concerning highway design noted and will be addressed during final design.
37	Comment noted favoring the existing alignment at Ronan.
38	As indicated in Section 7.10, all wetlands impacted by the proposed action will be replaced with wetlands having similar functions and values. Comments noted concerning design of irrigation crossings.
39	Comment noted favoring the FRO proposal, an improved two-lane highway.
40	Comment noted favoring serious consideration of FRO proposal, for specific left-turn bays and for Ninepipe wildlife crossing. Section 7.12 of the final EIS discusses mitigation measures for ducks, turtles and other wildlife.
41	Comment noted favoring Alignment 3 at Ronan and favoring preferred alternative at Polson. Comment noted concerning animal corridors.
42	Comment noted opposing a four-lane highway and in favor of an improved two-lane highway. As described in Section 5.3.4 of the final EIS, various design options have been developed and are proposed in Pablo near the schools. These options address pedestrian, access and safety concerns, and were developed by the Pablo Community Team. A representative of Salish Kootenai College was a member of the team and concurred with the recommendations. Many of the recommendations were made at the suggestion of Salish Kootenai College through their representative on the community team. As indicated in Section 7.8.3 of the draft EIS and final EIS, noise levels will increase by approximately three dBA in the Pablo area if Lane Configuration C is constructed, as compared with existing conditions. Noise levels with Lane Configuration C will increase by approximately two dBA in the Pablo area, as compared with an improved two-lane highway in the year 2020.
43	As indicated in Section 5.3.4, additional traffic signals are under consideration.

For comments regarding Polson, response to public comment has been organized by general topics instead of by specific comments. The following responses to comments apply to written comments received before, at and after the Polson public hearing, as well as oral testimony received at the Polson public hearing. Comment numbers 44 through 62 for Polson, which are described in the index for the Polson public hearing on Pages 3.1-5 through 3.1-6, are discussed by the following responses 1 through 42.

Polson - Response to Public Comment

1. **Concern about impacts to Bald eagle with a new bridge.**

As described in the draft EIS and final EIS, the new bridge included with the preferred alternative is expected to have no adverse effect on eagles. Eagles which currently use the area for perching, hunting, feeding and loafing will probably be displaced by placement of a bridge in this area due to a small loss of habitat and increased noise and human activity. It is expected that these eagles will move to other habitat along the river. The US Fish and Wildlife Service has not expressed concern over these impacts. The draft EIS and final EIS describe measures to mitigate these impacts.

2. **Concern about impacts to wildlife with a new bridge.**

The placement of the new bridge would potentially have some impact on foraging ospreys and other waterfowl. Currently, ospreys and other waterfowl forage along the Flathead River. The construction of a new bridge may cause raptors to avoid foraging in this area. These impacts would result in limiting foraging areas near the new bridge. In addition, the new bridge may cause displacement of waterfowl and shorebirds due to a small loss of habitat and increased noise and human activity. As with the bald eagle, these individual birds will move to another area along the river. However, no substantial impacts to wildlife are anticipated as a result of this alternative. The draft EIS and final EIS describe measures to mitigate these impacts.

3. **Concern about reflected noise impacts from the cliffs with a new bridge.**

As stated in the draft EIS and final EIS, existing noise levels in the area of the preferred alternative bridge crossing was measured at 47 dBA and would increase to 73 dBA at 100 feet from the centerline of the new roadway. As stated in the draft EIS and final EIS, this increase is considered substantial.

An analysis of reflected noise was conducted. Assuming the cliffs are perfectly reflective (although it is very unlikely the cliffs are perfectly reflective), the results show that receptors would experience one to three dBA increase with reflected noise above projected direct road noise alone . An increase of one dB is not perceptible by the human ear; an increase of three decibels would be barely perceptible. This would result in a total dBA of 74 to 76 dBA noise level at 100 feet from the centerline of the new roadway. Similar to the increase in noise projected without accounting for reflected noise, the noise increase including reflected noise over existing levels would be considered substantial.

Noise levels decrease with distance, resulting in lower noise levels further away from the centerline of the new roadway. The following page describes typical noise levels.

Typical Noise Levels

Indoor Sound	dBA Scale	Outdoor Sound	Reference Loudness
	140	Aircraft carrier	
		Military operations Jet aircraft	32 times as loud
	130	Large siren at 100' Jet takeoff at 200'	
Rock band	120	Oxygen torch Thunderstorm Elevated train	16 times as loud
Industrial plant	110	Riveting machine Auto horn at 3'	8 times as loud
Circular/chain saw			
Shouting in ear	100	Back compacting trash truck	
Printing room		Heavy truck at 25'	4 times as loud
Power mower Food blender Auto car wash	90	10 hp outboard at 50' Motorcycle at 25' Diesel train at 100'	2 times as loud
Garbage disposal Alarm clock	80	Small trucks at 25'	
Symphonic music		Heavy traffic at 50'	**Reference loudness to dBA**
Vacuum cleaner	70		
Dishwasher			
Electric typewriter		Average traffic at 100'	1/2 as loud
Air conditioner at 20'	60		
Typical office			1/4 as loud
Living room	50	Light traffic at 100'	
Bedroom			1/8 as loud
Library	40	Birdsong	
Broadcasting studio	30		
		Rural area	Just audible
	20		
		Rustling of leaves	
	10		
			Threshold of hearing
	0		

4. **Suggestion to include new residences near preferred alternative**

As of May, 1995 six new residences have been constructed within approximately 1,000 feet of the preferred alternative. This is subsequent to information printed in the draft EIS and final EIS.

5. **Concern about impacts to special aquatic site.**

It should be noted that according to the US Army Corps of Engineers, all wetlands are special aquatic sites. The wetland (special aquatic site) in the area of the preferred alternative bridge crossing would be avoided, to the extent possible. If avoidance is not possible, impacts will be minimized and all unavoidable impacts will be mitigated. The same is true for impacts to all wetlands related to this proposed action.

6. **Question about how large are the cut and fill slopes on the preferred alternative?**

The range of cut and fill slopes along the new roadway would be between six feet and 40 feet.

7. **Request to show the cut and fill slopes on a 3D GIS model.**

Adequate design information has not been developed to accurately portray this visual impact. It has been described in the draft EIS and final EIS in section 7.17.

8. **Question about why at the public hearing were the results of the business survey not passed out, even after it was requested?**

We are not aware of a request to have the results of the business survey passed out at the public hearing. Results of the business surveys were posted on the walls of the meeting room at the Polson Public Hearing held on April 27, 1995. Individual requests for receipt of the survey results were fulfilled. The survey will be included at the end of Appendix E in the final EIS, and will be available at the Public Information Meeting in Polson on August 7, 1995.

9. **Question about why did the Polson Election Day Survey have only a 50% of the responses received, totaled in the results?**

This requires a lengthy explanation . The purpose of the election day survey was to provide a large number of Polson area residents with an opportunity to have input into the identification of US 93 issues and the analysis of US 93 alternatives. Of the approximately 2,750 persons who voted at the Polson area polling places in the fall of 1992, 1,288 took the time to complete the US 93 survey. This 48% participation rate in the survey is indicative of a very high level of local interest in US 93 issues.

A statistical technique called sampling is used in survey research for the sake of economy and accuracy. Rather than surveying an entire population, a representative "sample" is selected from the larger population being studied. It is not uncommon for national surveys to use sample sizes of about 400 to develop information about nationwide public opinions. Analysis of the Polson Election Day Survey employed a sample of 644; which was half of the completed questionnaires.

Results of samples should be viewed as approximations of the opinions/characteristics of the population as a whole. Even with a very large and carefully compiled sample, it is almost inevitable that there will be small differences in the results which would occur if everyone in the population was surveyed. This is called the "SAMPLING ERROR". It is the differences in the values for the sample versus values for the entire population.

For the Polson Election Day Survey, the sample results are likely to very closely approximate the distributions of opinions of all people who completed the survey. There is a 95% probability that the frequency distributions for the sample of the survey respondents are within plus or minus two percent of the distributions for all the persons completing the survey.

10. **Question about where the first letter went that MDT received from the Tribes?**

Only one letter dated May 24, 1995 was received by MDT from the Confederated Salish and Kootenai Tribal Council regarding the preferred alternative in Polson.

11. **Why did the draft EIS take two years instead of six months to complete?**

Several factors created this delay including the need to address tribal concerns and a longer than expected Federal review process.

12. **Question about how the alignment of the preferred alternative be changed be a piece of red tape for a Public Hearing, then be removed again, prior to a Polson City Council Meeting?**

The red tape indicated a possible refinement of a portion of the preferred alternative as it crossed over the Flathead River. The tape was removed, and the potential of a river crossing dropped from further consideration after it was discovered that the area is considered to be culturally significant.

13. **Question about who is responsible within the MDT structure to check the quality of the draft EIS and the accountability of Carter & Burgess' end product?**

The agency responsible for the draft EIS and the final EIS is the FHWA.

14. **Question about if the Polson City Council votes against the bypass and requests to improve the existing route, how soon will that happen?**

Reconstruction of the existing route would have the same period for construction as a bypass on MDT's priority list (10 to 15 years from now). Minor systems improvements would continue to be made until that time.

15. **Question, if the Polson City Council votes in favor of the bypass, how will the final EIS proceed even though the draft EIS is incomplete and out of date?**

Where necessary, additional information in the draft EIS will be updated and included in the final EIS. FHWA will make a decision about a preferred alternative based on information contained in the final EIS.

16. **Suggestion to add residential right-of-way required for the preferred alternative on Pages 7.2-5 through 7.2-8 .**

For the preferred alternative the residential right-of-way required for Lane Configuration B is 18.4 acres and for Lane Configuration D is 21.5 acres.

17. **Comment, MDT has stated that the preferred alternative would be cost prohibitive if right-of-way acquisition were necessary to prohibit access to all existing residents and agricultural users. However, the Polson City Council agreed to a "Controlled Access Highway".**

The preferred alternative would be a controlled access highway for the vast majority of the route. This does not mean that access will be prohibited. The small number of access that will be allowed, will not compromise the controlled access aspect of the new highway. Business and commercial access will not be allowed unless the access exists prior to acquisition of access rights by MDT.

18. **Question about how much right-of-way is needed and what will the right-of-way costs be for the preferred alternative?**

Total right-of-way needed for the preferred alternative is approximately 139.6 acres, for Alternative 2 approximately 107.5 acres and for Alternative 1 approximately 23.3 acres. Right-of-way costs for the preferred alternative are approximately $2,081,000, for Alternative 2 they are $2,435,000 and for Alternative 1 they are $2,659,000.

19. **Question about the specific location of the preferred alternative as it crosses the Flathead River.**

The precise alignment of the preferred alternative will be determined during final design. The preferred alternative as described in the draft EIS and final EIS is a corridor wide enough to make adjustments at the time of final design for changed conditions or unforeseen circumstances.

The preferred alternative corridor as it crosses the Flathead River has been adjusted to respond to concerns regarding access expressed by residents in the area. The corridor as shown in the draft EIS and final EIS followed Highland Drive, a private north-south road in the Riverside Terrace subdivision. The adjusted corridor approaches Highland Drive from the south , then proceeds west of and

generally parallel to it, then crosses Highland Drive with an overpass just south of the sewage lagoon road. It crosses the river slightly north of the original route. This corridor would maintain access for existing residences in the area. An aerial photo of this corridor was available at the Public Information Meeting and City Council meeting on August 7.

20. **Question about if the preferred alternative is opposed by the Tribes, why isn't this alternative dropped, and route selection revisited or widening of the existing alignment become the preferred alternative since MDT already owns all of the right-of-way along US 93.**

MDT does not own all of the right-of-way along US 93 and would still need to acquire approximately 23.3 acres of additional right-of-way. Acquisition of this right-of-way would displace at least three businesses which need to be purchased or moved. It is not know whether the Tribes oppose or support widening through Polson or widening of the existing bridge across the Flathead River. The FHWA will review all of the alternatives and the positions stated by each governing entity . The fact that Tribal land cannot be condemned will be taken into account. The FHWA will make the final decision on the selection of the preferred alternative based upon all of this information.

21. **Suggestion to reevaluate the economic impacts of the preferred alternative based on no commercial development allowed along the new roadway.**

Economic impacts of the preferred alternative assuming no commercial development along the new roadway and for comparative purposes, economic impacts of Alternative 1 and Alternative 3 with commercial development are summarized below:

Estimated Business Sales to Drive-Through Travelers
For Retail and Selected Service Businesses

	Alternative 1	Alternative 3 (Pref. Alt.) (with commercial development)	Alternative 3 (Pref. Alt.) (no commercial development)	
**Year	Sales (in millions of $)	Sales (in millions of $)	Sales (in millions of $)	* Mitigation Options
1995	$5.8	$5.8	$5.8	(base year)
2000	$6.7	$4.1	$3.4	(no mitigation
			$4.4	(low mitigation)
			$5.0	(medium mitigation)
			$5.7	(high mitigation)
2005	$7.8	$6.7	$3.9	(no mitigation
			$5.1	(low mitigation)
			$5.8	(medium mitigation)
			$6.6	(high mitigation)
2010	$9.0	$9.0	$4.5	(no mitigation)
			$5.9	(low mitigation)
			$6.8	(medium mitigation)
			$7.7	(high mitigation)
2015	$10.5	$10.5	$5.2	(no mitigation)
			$6.8	(low mitigation)
			$7.8	(medium mitigation)
			$8.9	(high mitigation)

No mitigation: Bypass encouraged intersection design & no promotion.
Low mitigation: Minor intersection improvements & low promotion.
Medium mitigation: Equal weight intersection design & medium promotion.
High mitigation: Existing route encouraged intersection design & high promotion.

**All mitigation options include restrictive zoning (city and county) and access controls by MDT to restrict commercial development along new route.*

*** Note: It is assumed that the bypass will not be constructed prior to the year 2005.*

Two types of mitigation are available, promotional and interchange design. It is assumed that mitigation will include a combination of these two types.

Promotional mitigation is based on the level of local promotional effort. The level of promotion would be higher based on the number of promotional tools used. These tools could consist of advertisement in publications, special events, scenic overlooks, community attractions, beach/recreation improvements and promotions and signage. In coordination with MDT, signage could be located at or near the two bypass intersections with US 93.

Potential signage for US 93 could include: "Full Services available in Polson" "Flathead Scenic Highway ". For the bypass, potential signage could include: "No Services Available on the Bypass Route", "Truck Route".

The second type of mitigation is the design of the two bypass intersections with US 93.

- No mitigation is defined as a design encouraging tourism traffic onto the bypass.
- A low level of mitigation is defined as design of minor intersection modifications to make it easier for travelers to stay on the existing highway.
- Medium level mitigation is defined as design giving travelers equal opportunity to travel on the bypass or existing highway.
- High level of mitigation is defined as a design encouraging tourism traffic onto the existing highway

Costs of locally initiated promotional mitigation are anticipated to be low relative to the estimated sales increases. A portion of the overall mitigation includes signage as well as intersection design and construction costs that will be part of MDT's project costs. Possible methods of financing the various local promotional measures include Chamber of Commerce dues and the formation of an Economic Development District.

Baseline projections of sales losses attributable to a bypass route are founded on results of the survey of Polson businesses conducted in the spring of 1993. Survey responses indicated that if a bypass /truck route was built around Polson, local businesses would lose about half of their sales to drive-through travelers. The "No Mitigation" assumption is based on the business survey results.

The low to high mitigation levels assume that as mitigation increases, Polson will capture an increasing share of the drive-through traveler market.

22. **Suggest placing signage on MT 35 as a truck bypass of Polson route. MT 35 is already used as a bypass should be the Polson bypass.**

Opposition exists along MT 35 against using this route as a truck route. If MT 35 were signed as a bypass route, the other cities north of Polson would by default be bypassed also including Somers, Lakeside, etc. These cities would need to be involved in any decision to bypass them. MT 35 would not relieve congestion within Polson that originates in Polson - for those users who may use a bypass to get from the east to west end of town for example. The MT 35 route is not a bypass of Polson, it is too long and is an alternate route. There would be no opportunity to return to Polson once the MT 35 route is taken. A bypass within Polson would provide a means for the traveler to have some access to Polson. Many people already know about MT 35 are using this route for other reasons, scenery, access to Big Fork among others.

23. **Statement that the cliffs at the Flathead River crossing are unstable and subject to erosion. A bridge will contribute to the instability of this area.**

The bridge would be designed and built so that it would not contribute to further instability of the cliffs.

24. **Concern with impacts to wetlands at the preferred alternative crossing of the Flathead River.**

As stated in the draft EIS and final EIS, estimated impacts to wetlands for the entire length of the preferred alternative is one-half of one acre. This is not considered a substantial impact to wetlands.

25. **Recommend checking the business survey results as stated on Page 6.5-5 of the draft EIS that state 64% of US 93 businesses and 44% of downtown merchants feel that summertime traffic congestion frequently or occasionally restricts customer access to their business.**

The referenced statement is accurate, however, additional text will be added to the final EIS as follows: In the summer months, for businesses on US 93, 20% experience frequent restrictions of customer access, 44% experience occasional restrictions and 36% do not experience a problem. In the winter months, for businesses on US 93, 12% experience frequent restrictions of

customer access, 16% experience occasional restrictions and 68% do not experience a problem. In the summer months for downtown businesses, 11% experience frequent restrictions, 33% experience occasional restrictions and 47% do not experience a problem. In the winter months for downtown businesses 0% experience frequent restrictions, 14% experience occasional restrictions and 81% do not experience a problem.

26. Suggest research on effect alternative routes have had on other similar cities.

Appendix D of the draft EIS entitled Influence on Retail Trade provides a summary of studies which have been conducted on the impacts caused by highway alignment alternatives.

27. Concern with destruction of the view and appearance of the Flathead River and the sand cliffs.

The new bridge will create a permanent visual impact for residents in the area of the bridge crossing. The new bridge will also provide users a new scenic view of the Flathead River and Flathead Lake.

28. Concern with decline in property values in the area of the preferred alternative crossing of the Flathead River.

Studies on the effect of new, limited-access highways on residential (essentially single-family) property values, although not in total agreement, generally conclude that properties abutting the new highway or within 1,000 feet of it would be affected most, properties between 1,000 feet and 4,000 feet would have some "secondary impact," and properties beyond the eight blocks would not be affected. For residences in the abutting zone, appreciation of properties lagged slightly behind those in other areas. However, several studies have determined that such potential loss in property values is frequently offset or surpassed by appreciation resulting from increased accessibility to the area. Within the secondary impact zone (1,000 to 4,000 feet away), most studies reported no loss in property values from adverse environmental effects and a gain from improved accessibility for the area (Caltrans 1994). Researchers agree that these studies are not conclusive and that various project design factors influence the property values. This is the best information on which to evaluate impacts of the preferred alternative on residential property values in the area.

29. Suggestion of two alternatives one provide overpasses or expand the highway into the lake and improve US 93 in the present alignment.

The majority of the impacts associated with widening of US 93 would still exist with these alternatives including adverse operating conditions as traffic volume increases, impacts to parks. In addition the alternative would create additional visual impacts, environmental impacts involving construction in the lake, and a greater potential for spillage of hazardous materials into the lake.

30. Concern that the preferred alternative bridge structure would create a navigational hazard for future aquatic events on the Flathead River.

Proper placement of bridge pier structures can minimize navigational hazards for boat traffic.

31. Concern that preferred alternative departs US 93 before the view of Flathead Lake at the top of the hill at Ready Mix Concrete.

This is an accurate statement, northbound users of the preferred alternative will not have a view of the Lake before turning west. A view of the Flathead River and the Lake will be available at the new bridge crossing.

32. Suggest a route that would bypass every city on the route.

This suggestion was raised early in the EIS process and was discarded because it received public opposition and only minor public support, it would cause substantial environmental impacts relating to noise, farmland impacts visual and cultural resources. In addition, Ronan has indicated opposition to any highway relocation that will divert highway traffic. In accordance with Montana law, these alignments cannot be constructed by MDT without approval of the municipality.

33. Suggest that the numbers show that a bypass will not help traffic congestion in the city of Polson.

When combined with historic growth on US 93, traffic demand on US 93 through Polson is projected to be nearly double the existing average annual traffic volume of 10,000 vehicles per day (VPD) However, the capacity of the existing road is only estimated to be about 15,000 VPD. The proposed bypass would help accommodate the over capacity demand by providing; a route for trucks bypassing Polson; an alternative for through traffic ; an optional southern access into town via Kerr Dam Road and Skyline Drive. The bypass is estimated to carry more than 5,000 to 7,000 VPD by the year 2020. While it is recognized that traffic volume on the existing US 93 will decrease initially following completion of the two-lane bypass, average daily traffic will continue to grow due to continued development in town to an estimated 13,000 to 15,000 VPD by the year 2020. The bypass will serve as a relief valve for the increasing traffic congestion on US 93 through Polson.

34. Suggest looking at other alternatives for a bypass alignment.

A revisit of the logic used to develop the present two alternative routes proposed for Polson would be useful in responding to this question. A description of the potential routes and the reason they were not considered acceptable follows:

- A one way couplet was investigated using Third and Fourth Streets. This alternative contained impacts to schools, churches and the Lake County Courthouse, potential for increased pedestrian conflicts including accidents, noise impacts to a large number of residences. It would not improve the safety of the transportation system, minimize negative impacts to existing residential neighborhoods, nor was it responsive to future land use plans and transportation needs.

- An alignment on the top of Polson Hill was investigated. This alternative required almost a mile of six-percent grade, which would result in icing problems. It would not maintain and enhance traffic flow, improve the safety of the transportation system and was not responsive to long-term maintenance requirements.

- An alignment at the north base of Polson Hill was investigated. This alternative would result in circuitous, forced alignment and six-percent grades, potential icing problems, socioeconomic impacts to residential areas, and conflict with the airport. It would not maintain and enhance traffic flow, improve the safety of the transportation system, minimize negative impacts to existing residential neighborhoods, and was not responsive to long-term maintenance requirements or future land use plans and transportation needs.

- An alignment from the old mill to Eighth Avenue was investigated. This alternative would result in a circuitous, forced alignment , socioeconomic impacts to residential areas on the hillside, effects on the elementary and junior high schools and noise impacts to a large number of residences. It would not maintain and enhance traffic flow, minimize negative impacts to existing residential neighborhoods, or be responsive to future land use plans and transportation needs.

- Locations to cross the Flathead River were investigated. The banks of the river become steeper and taller as one travels south on the river from Flathead Lake. Steepness of the banks has a direct correlation to the cost of a bridge, therefore steep banks are avoided. The area considered too steep begins about 9,000 feet south of the mouth of Flathead Lake. The Polson Airport, Lake County Fairgrounds and the Polson sewer lagoons were avoided for potential routes. Existing residences were avoided. With this process of elimination, the remaining crossing locations became an extension of Kerr Dam Road (Alternative 2) and the crossing of preferred alternative 3.

Upon revisiting the alternative for a bypass around Polson, topographical, existing residential and community development constraints eliminated most alternatives, resulting in the three that were analyzed in the draft EIS and final EIS.

35. Concerned with safety at intersection of preferred alternative with Kerr Dam Road and wants an interchange considered

The preferred alternative alignment at Kerr Dam Road is proposed with an intersection to provide for access onto Kerr Dam Road into Polson. As traffic increases along the new alignment, an interchange is an option for the future.

36. Suggest a one-way system on Main and First Streets as an alternative solution, would result in fewer right-hand turns.

This suggestion may provide some relief at the two intersections, but would not relieve enough congestion on US 93 to satisfy overall purpose and need for the proposed action.

37. **Suggest that input from children be sought to identify their concerns.**

Anyone is welcome to share their views. Perhaps some of these children could attend the Polson City Council meeting on August 7 to let the Council know their feelings regarding the preferred alternative.

38. **Suggest a route further south of preferred alternative's river crossing at "rock in river" site.**

This crossing location has been investigated. It was discarded upon learning that the area is a culturally significant area.

39. **Suggest a pedestrian overpass over a five-lane US 93 to mitigate concerns about pedestrians crossing safely.**

A pedestrian overpass is typically used in combination with fencing and limited access, thus creating a mandatory crossing location. Experience gained from research into similar existing facilities and situations shows that pedestrian crosswalks are seldom used, unless the use is mandatory. Pedestrian overpasses also present visual impact, safety and American with Disabilities Act (ADA) concerns.

40. **Suggest expanding US 93 northwest to 4th Avenue then existing three lanes west through Polson.**

Without expansion of the existing three lanes from 4th Avenue west, there would not be enough capacity for the forecast traffic growth to meet the purpose and need of the proposed action.

41. **Concern that if US 93 is not widened by MDT, that the city will be responsible for cleaning up the hazardous materials that occur within the existing right-of-way.**

MDT's responsibility for cleanup will not change whether the existing alignment is widened or not.

42. **Concern with impact to farming access.**

Access to existing farm operations will be maintained.

Comment Number	Response
63	Comment noted opposing Alignment 3 as the preferred alternative at Polson.
64	Comment noted opposing Polson Alignment 3 as the preferred alternative at Polson.
65	Comment noted favoring the preferred alternative at Polson. Based on the traffic analysis, without an alternative alignment for through traffic at Polson, a two-lane highway through Polson will not provide adequate capacity for the high traffic volume. A two-lane highway will not improve access or reduce conflicts between turning vehicles and through traffic. Refer to Polson Response 21 for information about effects on business. Design options for facilities serving pedestrians and bicyclists were developed in response to support at public meetings and in consultation with community teams and the ID Team. The highway design process will review appropriate locations for facilities for pedestrians and bicyclists. Public meetings and public hearings were open to young people, both as individuals and members of civic groups. Comment noted any future public involvement consider special meetings with young people in the community.
66	Comment noted favoring a four-lane highway. The schedule for construction will depend on availability of appropriated funds.
67	Comment noted favoring the preferred alternative from Evaro through Polson.
68	Comment noted favoring the preferred alternative from Evaro through Polson.
69	Comment noted opposing existing alignment as the preferred alternative at Arlee.
70	Comment noted opposing existing alignment as the preferred alternative at Arlee.
71	As indicated in Section 7.1 of the final EIS, the preferred alternative will provide adequate highway capacity and improved safety and traffic operation through the design year 2020. Highway speed will be controlled with signs and enforcement practices that are used for all rural primary highways in Montana.
72	Comment noted opposing four-lane highway and favoring the FRO proposal. The analysis of cultural resources was coordinated with the Flathead and Kootenai culture committees and with the legal department of the Confederated Salish and Kootenai Tribes. The wildlife analysis has identified areas in which wildlife crossing the highway is a special concern. Wildlife passage structures will be included in the design for such locations. The wildlife analysis has been coordinated with biological specialists of the Confederated Salish and Kootenai Tribes, the U.S. Fish and Wildlife Service, the Montana Department of Fish, Wildlife and Parks and other governmental agencies and citizen groups with interests in wildlife. The preferred alternative will include the costs of construction and maintenance for Lane Configurations B, C and D (four-lane highways) for various highway segments. The expenditure will be for a highway that provides adequate highway capacity through the design year 2020. Based on the traffic analysis, a two-lane highway with auxiliary passing lanes, and using reasonable and feasible measures of TDM, will not provide adequate highway capacity through the design year 2020. Expenditure for a highway with inadequate capacity will not be a reasonable or prudent use of public monies.
73	Comment noted favoring the preferred alternative from Evaro to Polson and opposing Polson Alignment 3 as the preferred alternative at Polson.
74	Comments noted favoring the FRO proposal and expressing concern about the public hearing process. The draft EIS does not state the culture of the Confederated Salish and Kootenai Tribes is "no longer alive or of much consequence." The analysis of cultural resources was coordinated with the Flathead and Kootenai culture committees and with the legal department of the Confederated Salish and Kootenai Tribes.
75	Comment noted favoring TDM instead of large highway improvements.
76	Alternative routes such as the "Old Freight Route" were considered, but are not part of the preferred alternative because they received substantial opposition at public meetings and would cause greater environmental impacts. The lane configurations of the preferred alternative were developed in response to support at public meetings and through consultation with the Arlee, Ronan, Pablo and Polson community teams and the ID Team.

Comment Number	Response
77	Comment noted favoring the preferred alternative from Evaro through Polson.
78	Comment noted favoring the preferred alternative at Polson.
79	Comment noted favoring the preferred alternative at Polson. Left-turn bays at major intersections and continuous two-way left-turn center medians on the highway in and near communities will reduce conflicts between vehicles turning and through traffic. The highway design process will review appropriate locations for auxiliary lanes and left-turn bays.
80	The distance in the Pablo area for Lane Configuration C (four-lane highway with a continuous two-way, left-turn center median) was developed in consultation with the Pablo Community Team and the ID Team. The highway design process will review appropriate distances for lane configurations of the preferred alternative.
81	Comment noted opposing existing alignment as the preferred alternative at Arlee.
82	Comment noted opposing existing alignment as the preferred alternative at Arlee.
83	Comment noted opposing preferred alternative and favoring the FRO proposal.
84	Comment noted favoring the preferred alternative from Evaro through Polson.
85	Comment noted favoring the preferred alternative from Evaro through Polson.
86	Comment noted opposing existing alignment as the preferred alternative at Arlee.
87	Comment noted on proposal for a new utility complex in Pablo. The highway design process will review appropriate locations for design options and traffic control, including traffic signals.
88	Comment noted favoring the preferred alternative from Evaro to Polson and opposing Polson Alignment 3 as the preferred alternative at Polson.
89	Comment noted the Fort Connah Restoration Society will request an approach to the highway. MDT currently manages access by application of road approach standards and permit requirements. MDT plans to implement partial or full access control with the preferred alternative to eliminate and consolidate approaches.
90	Comment noted opposing existing alignment as the preferred alternative at Arlee.
91	Comment noted favoring a four-lane highway.
92	Comment noted favoring the preferred alternative from Evaro through Polson.
93	Comment noted indicating concern about effects of Polson Alignment 3.
94	Comment noted requesting an overpass or underpass be constructed at Kerr Dam Road with Polson Alignment 3.
95	Comment noted favoring the preferred alternative from Evaro through Polson.
96	Comment noted favoring the preferred alternative at Ronan.
97	Comment noted favoring the preferred alternative at Ronan.
98	Comment noted favoring the preferred alternative from Evaro through Polson.
99	Comment noted regarding the right-of-way appraisal process.
100	Comment noted favoring bypasses at Arlee, Ronan and Polson.
101	Frontage roads have been considered but are not proposed in this area because of the substantial cost, right-of-way requirements and environmental impacts. With highway construction, approaches will be improved and left-turn bays added to help access the highway.
102	Comment noted favoring the preferred alternative at Polson.
103	Comment noted favoring the preferred alternative from Evaro through Polson.

Comment Number	Response
104	Comment noted favoring the preferred alternative at Polson.
105	Comment noted opposing four-lane highway and favoring existing alignment as the preferred alternative from Evaro through Polson. Chapter 10 in the final EIS discusses the coordination of public involvement and development and comparison of alternatives. Alternatives for lane configurations from Evaro through Polson and highway alignments at Arlee, Ronan and Polson were developed in response to support at public meetings and through consultation with the Arlee, Ronan, Pablo and Polson community teams and the ID Team.
106	Comment noted favoring preferred alternative at Polson.
107	Comment noted favoring preferred alternative at Polson.
108	Comment noted favoring preferred alternative at Polson.
109	Comment noted opposing Polson Alignment 3 as the preferred alternative at Polson.
110	Comment noted favoring preferred alternative at Polson.
111	Comment noted opposing Polson Alignment 3 as the preferred alternative at Polson.
112	Comment noted opposing Polson Alignment 3 as the preferred alternative at Polson.
113	Comment noted favoring Arlee alternative alignment. The highway design process will review appropriate locations for design options and traffic control, including highway approaches, access and turning movement.
114	Comment noted favoring preferred alternative.
115	Comment noted opposing four-lane highway and favoring the FRO proposal. The preferred alternative uses the four-lane configurations to provide adequate highway capacity, while converting to new highway right-of-way the least amount of necessary land, including farmland and wetlands. MDT is coordinating development of a wetlands mitigation plan with the Confederated Salish and Kootenai Tribes and the U.S. Army Corps of Engineers to replace wetlands converted to highway right-of-way with other wetlands having similar function and value.
116	Comment noted opposing four-lane highway and favoring existing alignment as the preferred alternative from Evaro through Polson. Lane Configurations B, C and D (four-lane highways) were selected for various highway segments as the preferred alternative. Based on the traffic analysis, a two-lane highway with auxiliary passing lanes will not provide adequate highway capacity through the design year 2020, even if extensive TDM measures are employed. The preferred alternative uses the four-lane configurations to best provide for safety and to provide adequate highway capacity, while converting to new highway right-of-way the least amount of necessary land, including wetlands.
117	Comment noted opposing the preferred alternative from Evaro through Polson.
118	Response to the comment from the Flathead Resource Organization (FRO) is presented on the following pages.

Details of Topics in FRO Comment and Response:

FRO-Comment Number:

FRO-1 Bias in the draft environmental impact statement (EIS).

FRO-Comment Topic:

FRO-1.1 The draft environmental impact statement (EIS) shows bias in favor of the preferred alternative.

FRO-1.2 The presentations of the preferred alternative at the public hearings were conducted in a biased, argumentative manner.

FRO-1.3 Bias against the recommendations of the Arlee and Ronan community teams.

FRO-Comment Page/Paragraph Number(s):

Topic/Page		Paragraph(s)
FRO-1.1	Letter	
	2	1-2
	25	1
FRO-1.2	Letter - 1	3
FRO-1.3	Letter - 1	4
	13	1
	13	5

Response:

FRO-1.1 The purpose of the proposed action is to improve the highway transportation system in response to transportation demand.

Section 6.1 in the final EIS presents information that was not available for the draft EIS. It indicates traffic volume continued to increase for US 93 from Evaro through Polson during 1992-94. Continuing growth of local and regional travel contribute to transportation demand that requires the preferred alternative to provide adequate highway capacity and improve safety and traffic operation.

The results of the analysis of traffic operation shows that with the expected growth of traffic volume a four-lane highway is necessary for adequate capacity and desired LOS.

The analysis of a two-lane highway considers the design options and the TDM measures that are presented in the FRO alternative.

Alternative transportation is considered in the analysis of the alternatives. The analysis applies TDM with levels of ridership higher than is typical for rural areas similar to the Flathead Indian Reservation and Lake County. The enhanced TDM does not allow a two-lane highway to obtain adequate capacity and desirable LOS for the high volume of traffic.

Alternatives were developed through a series of public meetings. The public provided comments about the purpose and need for the transportation system, which is predominantly automobile and truck traffic on US 93. The alternatives represent the response of the public at the public meetings.

FRO-1.2 The presentation at the beginning of each public hearing summarized the preferred alternative. It discussed reasons for selecting a four-lane highway, as well as reasons a two-lane highway will not provide adequate capacity and desirable LOS.

FRO-1.3 Community teams at Arlee, Ronan, Pablo and Polson were organized to provide recommendations for lane configurations and alignments to be considered by the ID Team for the proposed action. Recommendations of the community teams are reported in Section 5.3.4 of the final EIS, along with reasons some recommendations are not included in the preferred alternative.

FRO-Comment Number:

FRO-2 The analysis in the draft EIS does not present comparisons of all alternatives.

FRO-Comment Topic:

FRO-2.1 The analysis of a two-lane highway does not include all of the elements of the FRO proposal.

FRO-2.2 Acceptable LOS is a subjective measure that varies widely among communities and regions.

FRO-2.3 The LOS analysis considers only road characteristics, not performance characteristics. FRO LOS analysis for Highway Segment I.

FRO-Comment Page/Paragraph Number(s):

Topic/Page		Paragraph(s)
FRO-2.1	Letter - 2	2
	1	3
FRO-2.2	1	4
FRO-2.3	2	5-10
	3	1-3

Response:

FRO-2.1 Lane Configuration A in the draft and final EIS includes all of the elements of the FRO proposal except for slow-moving vehicle turnouts.

According to AASHTO[18], where slow-moving vehicle turnouts exist,

"The driver of the slow-moving vehicle, if there are following vehicles, is expected to pull out of the through lane and remain in the turnout only long enough for the following vehicles to pass before returning to the through lane. When there are only one or two following vehicles this maneuver can be accomplished without it being necessary for the driver of the vehicle in the turnout to stop. However, when this number is exceeded it will require the driver to stop in order for all the following vehicles to pass. Turnouts are most frequently used on lower volume roads where long platoons are rare and in difficult terrain with steep grades where construction of an additional lane may not be cost effective."

With the high traffic volumes on this road, platoons of more than two vehicles are frequent. When slower moving vehicles pull into the turnout, they will frequently be required to come to a complete stop. Most of these slower-moving vehicles will be RVs and trucks that accelerate slowly -- with the high traffic volume on the through lane, it will be difficult for them to re-enter the traffic stream. Because of these difficulties, few drivers will use them and, when they do, additional safety problems will be created as slower-moving vehicles try to re-enter the main traffic stream.

FRO-2.2

MDT's policy for rural primary highways is to implement highway improvement that will provide LOS B through the design year. A survey of other state transportation agencies in the region indicates similar policies are in effect for LOS.

The preferred alternative will include the cost of construction, operation and maintenance for Lane Configurations B, C and D (four-lane highways) for various highway segments. The expenditure will be for a highway that provides adequate highway capacity through the design year 2020. Based on the traffic analysis, a two-lane highway with auxiliary passing lanes, and using reasonable and feasible measures of TDM, will not provide adequate highway capacity through the design year 2020. Expenditure for a highway with inadequate capacity will not be a reasonable or prudent use of public monies.

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[18]American Association of State Highway and Transportation Officials, A Policy on Geometric Design of Highways and Streets, 1990, page 270.

Section 7.20 provides information about costs of construction for lane configuration alternatives and the preferred alternative.

FRO-2.3

The LOS computations in the draft EIS were completed using the 1985 Highway Capacity Manual. Those in the final EIS were completed using the 1994 Highway Capacity Manual. The Highway Capacity Manual is a standard used by state and local highway agencies throughout Montana and the United States. Using this method, it is possible to compare operation on this highway with highways throughout the state and region. It is correct that this method is not a measure of safety or environmental impacts. Safety and environmental impacts are evaluated in other sections of the document using various methods.

FRO-Comment Number:

FRO-3 Safety versus traffic operation

FRO-Comment Topic:

FRO-3.1 Safety is not the primary reason for the proposed highway improvement, but safety is presented as a reason for improving the highway. Accident frequency is an irregular statistic.

FRO-3.2 FRO comparison of safety between FRO Plan and draft EIS.

FRO-Comment Page/Paragraph Number(s):

Topic/Page		Paragraph(s)
FRO-3.1	Letter - 2	3
	3	2
FRO-3.2	3	3

Response:

FRO-3.1 The accident frequency (the number of accidents per mile of highway) is presented in the document to illustrate the high number of accidents that occur on each mile of this highway as a result of the high traffic volumes. This statistic is explained well in the draft EIS and final EIS. The accident rate (the number of accidents per million miles driven) also is presented in the draft EIS and final EIS. It is acknowledged in the draft EIS and the final EIS that the accident rate on this highway is better than statewide averages.

FRO-3.2 Comment noted.

FRO-Comment Number:

FRO-4 Comparison of impacts of growth and development for alternatives.

FRO-Comment Topic:

FRO-4.1 The analysis in the draft EIS avoids the issue of growth and development.

FRO-4.2 The projections of traffic growth are made to justify the project.

FRO-4.3 Detailed plan for implementing access management.

FRO-4.4 Highway right-of-way in environmentally sensitive areas.

FRO-4.5 Comparison of barrier effects for alternatives.

FRO-4.6 Left turns onto the highway and safety for school buses.

FRO-4.7 Settlement patterns for the Polson preferred alternative.

FRO-Comment Page/Paragraph Number(s):

Topic/Page		Paragraph(s)
FRO-4.1	Letter - 2	4
	3	6
	4	2
	4	5
	5	1
	6	3
	7	1-5
	8	1
	8	3
	9	1-6
	10	2-3
	10	5
	11	1-6
	12	6
	13	2
	13	5-6
	13	8
	14	1
FRO-4.2	Letter - 2	4
	3	4
	8	2
FRO-4.3	4	1
FRO-4.4	4	3
FRO-4.5	5	2
	6	1-2
	9	1
	10	1
	11	4-6
	11	8
	12	1-2
	19	6

FRO-4.6	11	7-8
	12	3
	13	3
FRO-4.7	13	7

Response:

FRO-4.1 The Flathead Indian Reservation and Lake and Missoula counties have experienced high rates of population growth. An improved highway will be one of many factors that make the area attractive to new residents. Traffic operation will improve with reduced travel time and improved convenience and driver comfort. Continuing local and regional population growth contribute to transportation demand that requires the preferred alternative to provide adequate highway capacity and improve safety and traffic operation. Land use planning and regulation will provide appropriate management of population growth.

Important information about land use planning and regulation is not available for the Flathead Indian Reservation and Lake and Missoula counties.

A separate analysis of farmlands converted to developed areas is beyond the scope of the analysis in the final EIS.

Additional information was added to Sections 6.4 and 7.4, Social, and 6.14 and 7.14, Cultural Resources, to address the issue of impacts associated with commuter-related population growth. The new information supports the analysis in the draft EIS that the highway is one of many factors that contribute to growth.

Using the legal authority of tribal and local governments to implement land use planning and regulation for overall growth will also provide management for growth related to the highway. Also, restricting the highway to a facility with inadequate capacity will neither prohibit nor manage overall levels and patterns of growth and development.

Overall development, including the improvement of the highway, causes pressure for development of farmlands.

The preferred alternative does not exclude use of any highway design option, TDM measure or tribal and local land use policy for management of growth and development.

FRO-4.2 Table 6.1-14 in the draft EIS and final EIS identifies the geographic origin of traffic during the summer season. Additional origin and destination studies would have required stopping traffic and would have caused a safety hazard. There have not been major construction projects that periodically stop traffic.

Table 6.1-14 provides information obtained from a count of license plates of moving vehicles to determine the origin of traffic. In the summer months, when traffic is at its peak, approximately 50% of traffic is from outside Lake County.

The volume of traffic has increased at an annual average rate of three percent since 1970. During 1970-1991, the populations of Lake County and the Flathead Indian Reservation have increased at a higher rate than the overall rate for Montana. There have been fluctuations in the rate of population growth, ranging from one percent to more than three percent per year. Use of a three percent annual rate of growth for traffic provides a reasonable basis with which to analyze future transportation demand and need for highway capacity.

FRO-4.3 Section 7.2.1.3 discusses the intention of MDT to coordinate access management with land use planning and regulation. Information has been added to the final EIS in Section 7.1 to describe plans for access management.

FRO-4.4 The designs and new right-of-way for sensitive areas will be coordinated with project representatives of cooperating agencies having legal jurisdiction for land along the highway.

FRO-4.5 Section 7.4.1.1 compares the barrier effects of two-lane and four-lane highways. A two-lane highway will have traffic congestion because of inadequate capacity for the high volume of traffic. The traffic congestion restricts access to the highway and developed areas. A four-lane highway will have a greater physical presence, but traffic operation will have reduced congestion.

The analysis of lane configurations on the existing alignment explains the highway will be a facility that maintains the current routes of travel for vehicles and pedestrians. The preferred alternative provides adequate capacity for increasing traffic volume, and it will provide the best opportunity to not alter vehicular and pedestrian patterns by moving traffic off the highway onto residential streets.

Page 6.4-7, Paragraph 2 identifies the populations that live east and west of the highway in Arlee and Ronan. Minorities will benefit from improved access with the preferred alternative.

Section 7.4.1.4 discusses conditions that result in the highway being one of many factors that will contribute to population growth and development of land. Section 7.2.1.3 discusses the differences among lane configurations for turning movement from the highway to land with highway frontage.

FRO-4.6 Sections 6.1 and 7.1, Traffic Operation and Safety, address turning movement. Safety for school buses, school children, farm vehicles and other service vehicles such as mail carriers will be included in the design of the highway.

FRO-4.7 Refer to response to FRO-4.3.

FRO-Comment Number:

FRO-5 Purpose and need.

FRO-Comment Topic:

Purpose and need and interpretation of traffic operation and LOS.

FRO-Comment Page/Paragraph Number(s):

Topic/Page	Paragraph(s)
1	1-2

Response:

Refer to response to FRO-1.1 for information about the preferred alternative and analysis of traffic operation for LOS.

Refer to response to FRO-4.5 for information about comparison of barrier effects between two-lane and four-lane highways.

Refer to response to FRO-4.3 for information on access management.

FRO-Comment Number:

FRO-6 Preliminary draft EIS.

FRO-Comment Topic

Comparison of information in the preliminary draft EIS and the draft EIS.

FRO-Comment Page/Paragraph Number(s):

Topic/Page	Paragraph(s)
Letter-1	3

Various pages of cover letter and comments.

Response:

The preliminary draft EIS was a working document that was distributed to members of the ID Team for review. The draft EIS contains numerous changes from the preliminary draft EIS. Comments about changes between the working document and the draft EIS are noted and addressed in the responses to FRO comments about the draft EIS.

FRO-Comment Number:

FRO-7 Economics.

FRO-Comment Topic:

FRO-7.1 Influence of highway transportation system on economic and community development.

FRO-7.2 Effects of multi-lane highways on the area with an economy dependent on tourism (and tourist perceptions) and a relatively unspoiled natural character.

FRO-7.3 The analysis should determine how declining animal populations affect the tourism economy.

FRO-7.4 The analysis on Page 7.5-5 does not provide clear comparisons among alternatives on the economy. The analysis does not provide information about which lane configuration would have a more positive or negative effect on the economy.

FRO-7.5 Comparison of alternatives encouraging commercial strip development.

FRO-7.6 Indirect effects on farmlands and agricultural production value.

FRO-Comment Page/Paragraph Number(s):

Topic/Page		Paragraph(s)
FRO-7.1	14	2-3
FRO-7.2	14	4
FRO-7.3	14	4
FRO-7.4	14	5
FRO-7.5	14	6
FRO-7.6	15	1

Response:

FRO-7.1 The preferred alternative will provide a highway with adequate capacity to support transportation and economic activity. The tourist economy depends on a highway transportation system that provides for traffic operation and safety of travelers. Section 7.5 discusses the relationship among the highway transportation system and other factors that determine performance of the economy.

FRO-7.2 Refer to response to FRO-7.1.

FRO-7.3 A separate analysis of the economic effects of changes in animal populations is beyond the scope of the analysis in the final EIS.

FRO-7.4 Refer to responses to FRO-7.1 and 7.2.

FRO-7.5 Section 7.2.1.3 of the draft EIS and final EIS discusses commercial strip development for all alternatives.

FRO-7.6 Refer to response to FRO-4.1.

FRO-Comment Number:

FRO-8 Pedestrians and bicyclists.

FRO-Comment Topic:

Comments and recommendations of the community teams regarding pedestrians and bicyclists were disregarded.

FRO-Comment Page/Paragraph Number(s):

Topic/Page	Paragraph(s)
15	2-5

Response:

A description of the recommendations of the community teams for Arlee, Ronan, Pablo and Polson is included in Section 5.3.4 of the final EIS.

FRO-Comment Number:

FRO-9 Air quality

FRO-Comment Topic:

FRO-9.1 Air quality regulations, EPA, December 1993. (Air quality conformity analysis)

FRO-9.2 Sand and PM-10 emissions.

FRO-9.3 Alternative alignments and air quality.

FRO-9.4 Commuter traffic and traffic on secondary roads.

FRO-9.5 Home heating air pollution.

FRO-9.6 Emissions from agricultural operations.

FRO-9.7 Two-lane highway and conditions of gridlock.

FRO-9.8 Chemical deicers and effects on water quality.

FRO-Comment Page/Paragraph Number(s):

Topic/Page		Paragraph(s)
FRO-9.1	15	6
FRO-9.2	15	7
FRO-9.3	16	1
FRO-9.4	16	2
FRO-9.5	16	4
FRO-9.6	16	5
FRO-9.7	16	6
FRO-9.8	16	7

Response:

FRO-9.1 Refer to Response A-165.

FRO-9.2 Refer to Response A-164.

FRO-9.3 Section 7.7 in the draft EIS and final EIS and Appendix F in the final EIS discuss impacts to air quality that will occur on the existing alignment and on alternative alignments.

FRO-9.4 Section 7.7 in the draft EIS and final EIS and Appendix F in the final EIS discuss the effects of increasing traffic volume and traffic on unpaved secondary roadways in the analysis of impacts to air quality.

FRO-9.5 Section 7.7 in the draft EIS and final EIS and Appendix F in the final EIS acknowledge an increase in commuter-related population will result in cumulative impacts of ambient concentrations of PM_{10} associated with combustion of home heating fuels. Refer to Response A-6 for information about estimates of increase in commuter-related population.

FRO-9.6 Refer to response to FRO-9.4.

FRO-9.7 Refer to responses to FRO-2.1 through 2.4.

FRO-9.8 Section 7.9 in the final EIS discusses the effects of sand and chemical deicer on water quality.

FRO-Comment Number:

FRO-10 Noise.

FRO-Comment Topic:

FRO-10.1 Use of 55 mph speed for noise analysis

FRO-10.2 Use of identical traffic volumes for all lane configurations.

FRO-10.3 Noise from indirect traffic and development.

FRO-10.4 Alternative alignments at Arlee and Ronan will leave one percent of truck traffic on the existing alignment.

FRO-10.5 Table 7.8-1.

FRO-10.6 Noise levels will be above federal standards.

FRO-10.7 Dismissal of lower speed limits as a mitigation measure.

FRO-Comment Page/Paragraph Number(s):

Topic/Page		Paragraph(s)
FRO-10.1	17	1
FRO-10.2	17	2
FRO-10.3	17	3
FRO-10.4	17	4
FRO-10.5	17	5
FRO-10.6	17	6
	18	1
FRO-10.7	18	2

Response:

FRO-10.1 The noise analysis in the final EIS has been updated to use 1994 and 2020 traffic volumes and a speed of 60 mph.

FRO-10.2 Refer to response to FRO-4.2. Sections 6.1 and 7.1 of the draft EIS and final EIS discuss evaluation of traffic volumes for lane configurations.

FRO-10.3 Refer to response to FRO-4.1.

FRO-10.4 It is assumed that most trucks will not leave the bypass route to drive through a community. For that reason, a very low percentage of trucks is assumed to travel through communities. Those trucks would be either local trucks or trucks making local deliveries.

FRO-10.5 No Action and Lane Configuration A are two-lane highways and will have nearly identical noise impacts. As explained in Section 7.8.1, noise levels for Lane Configurations B and C will be slightly less than for Lane Configuration D. They are not shown separately for that reason. It is not reasonable to predict noise levels over 50 years into the future.

FRO-10.6 The increase in noise levels is acknowledged in the draft EIS and final EIS.

FRO-10.7 It is not practical or effective to impose a speed limit lower than the majority of drivers are comfortable driving.

FRO-Comment Number:

FRO-11 Wetlands.

FRO-Comment Topic:

FRO-11.1 Wetlands impacts are underestimated or understated.

FRO-11.2 Documentation of wetlands impacts.

FRO-11.3 Mitigation plans are vague.

FRO-Comment Page/Paragraph Number(s):

Topic/Page	Paragraph(s)
FRO-11.1 18	4
FRO-11.2 18	4
FRO-11.3 18	5

Response:

FRO-11.1 Comment noted.

FRO-11.2 A detailed, site specific mitigation plan is discussed in Section 7.10 of the final EIS.

FRO-11.3 MDT and the Confederated Salish and Kootenai Tribes are developing a mitigation plan that satisfies the requirements of the Section 404(b)(1) Evaluation.

FRO-Comment Number:

FRO-12 Floodplains and stream crossings.

FRO-Comment Topic:

FRO-12.1 The analysis ignores or minimizes potentially catastrophic indirect and cumulative impacts for floodplains and stream crossings.

FRO-Comment Page/Paragraph Number(s):

Topic/Page	Paragraph(s)
FRO-12.1 19	1-3

Response: FRO-12.1 As explained in the draft EIS and final EIS, any new highway construction will include adequate drainage systems that likely will be better than existing drainage systems. There is no reason to believe ground water will be trapped.

Lane Configuration B, which is recommended for about three-fourths of the highway, will have a pavement width of 64 feet. An improved two-lane highway will have a pavement width of 40 feet, and segments of a two-lane highway with a passing lane will have a pavement width of 52 feet. As shown on Figure 5.1-4, the general right-of-way width for Lane Configuration A (an improved two-lane highway) is 160 feet, compared with 180 feet for Lane Configuration B (a four-lane highway).

Section 6.11.4 has been revised to clarify that fish passage is important for various streams along the proposed action. Specific streams and proposed crossings are described in Sections 6.12.1 and 7.12.2.1.

FRO-Comment Number:

FRO-13 Fish and wildlife.

FRO-Comment Topic:

FRO-13.1 Fish and wildlife impacts are understated for four-lane highways.

FRO-13.2 The analysis does not address indirect and cumulative noise effects.

FRO-13.3 FRO questions whether Lane Configuration A would result in reduced spacing between vehicles.

FRO-13.4 Lack of consideration of hazardous waste contamination.

FRO-13.5 Analysis for reptiles and amphibians.

FRO-13.6 Mitigation is inadequate for birds.

FRO-13.7 Mitigation is inadequate for wildlife passage structures.

FRO-13.8 Analysis and survey of vegetation in sensitive areas.

FRO-13.9 Polson alternative alignments and wildlife impacts.

FRO-13.10 Analysis is inadequate for indirect effects of increased population and development.

FRO-Comment Page/Paragraph Number(s):

Topic/Page	Paragraph(s)
FRO-13.1 19	4
FRO-13.2 19	5
FRO-13.3 19	6
FRO-13.4 20	1
FRO-13.5 20	2
FRO-13.6 20	3
FRO-13.7 20	4
FRO-13.8 21	1
FRO-13.9 21	2
FRO-13.10 21	3

Response:

FRO-13.1 Comment noted.

FRO-13.2 Refer to response to FRO-4.1.

FRO-13.3 Comment noted.

FRO-13.4 Transport of hazardous materials on the highway will not be dependent on there being a multi-lane highway. It is beyond the scope of the analysis to project differences of transport of hazardous materials among lane configuration alternatives.

Safety will be improved with the preferred alternative for all traffic, including transport of hazardous materials.

FRO-13.5 The MDT is coordinating the development of a wetlands mitigation plan with the Confederated Salish and Kootenai Tribes, based on the terms and conditions contained in the wetlands memorandum of agreement (MOA).

As indicated in Section 7.10.2 of the draft EIS and final EIS, wetland replacement will be diverse and will replace filled wetlands with wetlands of equal or better functions and values.

Many of the replacement wetlands will be away from the highway where it is more efficient to restore and enhance wetlands in large, off-site tracts and where wildlife will be farther away from the highway. Biologists for tribal, federal and state governments that have been involved with the preparation and review of the draft EIS and final EIS are in agreement that this concept will provide wetlands that are equal to and, in some cases, better than existing conditions.

Placing the highway on pylons through the Ninepipe area will be cost-prohibitive and is not practical or feasible.

FRO-13.6 Refer to response to FRO-13.5.

FRO-13.7 As indicated in the final EIS, a wildlife overpass is proposed in the Evaro area. The wildlife passage proposed at Post Creek is considered adequate by wildlife biologists who have reviewed work for the proposed action. The wildlife biologists indicate that developed wildlife crossings are not needed at the Jocko River, Mission Creek, Ninepipe and other areas.

FRO-13.8 The appropriate research and field review have been conducted for sensitive plants.

FRO-13.9 The sentences about the referenced topic have been deleted from Section 7.12 of the final EIS.

FRO-13.10 Refer to response to FRO-4.1.

FRO-Comment Number:

FRO-14 Threatened and endangered species.

FRO-Comment Topic:

Impacts on threatened and endangered species are not adequately evaluated.

FRO-Comment Page/Paragraph Number(s):

Topic/Page	Paragraph(s)
22	1-4
24	1-3

Response:

Impacts on threatened and endangered species have been extensively evaluated and reviewed by wildlife biologists from various agencies, including the Confederated Salish and Kootenai Tribes and the U.S. Fish and Wildlife Service. It has been determined that the proposed action will have no adverse effect on grizzly bears or bald eagles.

FRO-Comment Number:

FRO-15 Cultural resources.

FRO-Comment Topic:

Cultural Resources analysis does not analyze direct or indirect impacts for lane configurations.

FRO-Comment Page/Paragraph Number(s):

Topic/Page	Paragraph(s)
24	4

Response:

Additional information was added to Sections 6.4 and 7.4, Social, and 6.14 and 7.14, Cultural Resources, to address the issue of impacts associated with growth and development.

Analysis of impacts for cultural resources in Sections 6.14 and 7.14 has been coordinated with the Flathead and Kootenai culture committees.

FRO-Comment Number:

FRO-16 Hazardous materials.

FRO-Comment Topic:

Hazardous materials analysis is not adequate.

FRO-Comment Page/Paragraph Number(s):

Topic/Page	Paragraph(s)
24	5-7

Response:

As indicated in Section 7.16 of the draft EIS and final EIS, the proposed action will improve safety for all vehicles, including tanker trucks. This will result in a reduction of the likelihood that accidents will occur that result in hazardous materials spills and contamination.

FRO-Comment Number:

FRO-17 Visual.

FRO-Comment Topic:

FRO-17.1 The visual analysis has little awareness of the real power the of the visual landscape.

FRO-17.2 There is no discussion of designating the highway as a scenic highway.

FRO-17.3 Unavoidable disturbance of landforms.

FRO-17.4 Noise should be mentioned in discussion of highway structures and appurtenances.

FRO-17.5 The discussion of access management recommends frontage roads, which will be eyesores.

FRO-17.6 Community interface should compare various lane configurations.

FRO-17.7 A wider road will result in drivers spending more time viewing scenery should be mentioned in Section 7.1 as a safety hazard.

FRO-17.8 The analysis of the Evaro Landscape Unit does not coordinate with the wildlife mitigation measures.

FRO-17.9 Section 7.17.3.3 does not consider lower speed limits or a lower LOS for the Ravalli Canyon Landscape Unit.

FRO-17.10 The computer generated images distort a normal point of view of a motorist.

FRO-17.11 More information is needed to evaluate the suggested mitigation measure for roadside parks.

FRO-17.12 A wider highway on Ronan's existing alignment will fragment an already discontinuous streetscape.

FRO-17.13 Discussion of visual impacts of highway design options is vague.

FRO-Comment Page/Paragraph Number(s):

Topic/Page	Paragraph(s)
FRO-17.1 25	2
FRO-17.2 25	3
FRO-17.3 25	4
26	1-3
26	5
27	5
FRO-17.4 25	5
FRO-17.5 25	6
FRO-17.6 25	7
FRO-17.7 26	4
FRO-17.8 26	6
FRO-17.9 26	7
FRO-17.10 26	8
27	1-4
FRO-17.11 27	6

FRO-17.12 27 7

FRO-17.13 27 8-9

Response:

FRO-17.1 through FRO-17.13

These comments, expressing FRO's opinion that an improved two-lane highway will have less visual impact on the visual environment, are noted. The draft EIS and final EIS also acknowledge this.

FRO-Comment Number:

FRO-18 Section 4(f).

FRO-Comment Topic:

FRO-18.1 The US 93 corridor through the Flathead Indian Reservation should be considered Section 4(f) property.

FRO-18.2 The Section 4(f) evaluation does not prove Lane Configuration A is inadequate.

FRO-18.3 The Section 4(f) evaluation does not consider Glacier National Park.

FRO-Comment Page/Paragraph Number(s):

Topic/Page	Paragraph(s)
28	1-3

Response:

FRO-18.1 US 93 does not meet the definition of a Section 4(f) property because its primary use is not for recreation or as a wildlife refuge. Also, it is not considered eligible for the National Register of Historic Places.

FRO-18.2 Lane Configuration A, a two-lane improved highway similar to the Flathead Resource Organization's (FRO) concept, has been evaluated in the Section 4(f) Evaluation and elsewhere in the draft EIS and final EIS.

As indicated in Section 5.3.2 of the draft EIS and final EIS, an improved two-lane highway will not meet the purpose and need of the proposed action and is therefore not considered a reasonable and prudent alternative.

FRO-18.3 Comment noted.

FRO-Comment Number:

FRO-19 Appendix B, Transportation Demand Management.

FRO-Comment Topic:

FRO-19.1 Implementation of TDM versus a multi-lane highway design and the underlying traffic problem in a rural area.

FRO-19.2 The Transit section of Appendix B, Transportation Demand Management, notes a high number of low-income and the large number of people with no reliable transport.

FRO-19.3 There needs to be documentation of research on the difficulty of removing trucks from US 93.

FRO-Comment Page/Paragraph Number(s):

Topic/Page	Paragraph(s)
FRO-19.1 28	4
FRO-19.2 28	5
FRO-19.3 28	6
29	1-2

Response:

FRO-19.1 In Section 5.3 of the draft EIS and final EIS, it is noted that TDM is a desirable long-term goal. Any highway improvement should be designed to incorporate TDM as much as is practical.

FRO-19.2 Comment noted.

FRO-19.3 Comment noted.

FRO-Comment Number:

FRO-20 Flathead Resource Organization: Safety and US 93.

FRO-Comment Topic:

FRO-20.1 MDT creates a misleading impression that safety is the primary reason to improve the road.

FRO-20.2 MDT employs highly irregular statistical methods on safety, while ignoring normal statistics.

FRO-20.3 MDT has falsely given the impression that a four- or five-lane highway will be much safer than an improved two-lane highway.

FRO-20.4 MDT has downplayed or hidden well-known safety drawbacks and dangers of undivided, high-speed multiple-lane rural highways.

FRO-20.5 MDT has generated misleading propaganda relating to safety improvements resulting from the construction of a four-lane from I-90 to Evaro.

FRO-20.6 MDT characterizes passing lanes as dangerous, but has not made clear existing passing lanes are very badly designed.

FRO-Comment Page/Paragraph Number(s):

Topic/Page	Paragraph(s)
FRO-20.1 30	1
FRO-20.2 30	2
FRO-20.3 30	3
FRO-20.4 30	4
FRO-20.5 31	1-2
FRO-20.6 31	4

Response:

FRO-20.1 The draft EIS and final EIS present an analysis that shows safety has been improved where two-lane highways with high volumes of traffic have been widened to four lanes. Other rural primary highways with volumes of traffic similar to US 93 already are four-lane highways; two-lane highways were not adequate for their volumes of traffic.

FRO-20.2 Refer to response to FRO-3.1.

FRO-20.3 Using a computer data base consisting of all reported accidents investigated by the Montana Highway Patrol, MDT identifies accident cluster areas on all state and federal highways in Montana. When a cluster area is identified, an evaluation is conducted of accidents at the site to identify trends in what may be causing the accidents.

An evaluation also is conducted to identify highway and other site conditions that may contribute to the accidents. Any highway revisions or improvements that will help reduce accidents are then identified and a cost/benefit analysis is performed. The proposed improvements are compared to and prioritized with other accident cluster sites, based on the cost/benefit ratio, and decisions are made concerning which sites can be improved with available funding.

This type of audit was conducted for US 93 from I-90 to Polson and is presented in the report "Highway Traffic Collision Countermeasures on U.S. Highway 93 Corridor, P-5 Milepost 0 to Milepost 59.3", completed in January 1992 by the Montana Multi-disciplinary Traffic Safety Task Force. This report identifies several different cluster sites and other concerns, particularly related to elderly drivers, and proposes countermeasures. Recommendations of the report are summarized in Section 6.1.3 of the draft EIS and the final EIS.

As indicated in the draft EIS and the final EIS, implementation of some of these recommendations occurred in 1994. Others are more extensive and expensive and will be implemented as sections of the highway are reconstructed. As final design for each section of US 93 is completed, these countermeasures and others identified by future traffic and accident data will be incorporated in the plans.

FRO-20.4 The following information is from a literature search provided to the ID Team for the proposed action by the Federal Highway Administration[19]:

"Considerable evidence shows that a continuous two-way left-turn lane (C2WLTL) is a cost-effective method of increasing the operational efficiency and safety of a highway where there is a demand for left-turns off of and onto the major roadway."

"Speed limits from 25 to 55 mph will accommodate C2WLTLs.[20]"

"Accident reductions averaging about 35% have been attributed to C2WLTLs."

"C2WLTLs also increase capacity and are well accepted by the driving public."

FRO-20.5 It is acknowledged that not all characteristics of US 93 from I-90 to Evaro are exactly the same as from Evaro to Polson. However, US 93 from I-90 to Evaro generally has conditions that are typical of conditions found on segments of US 93 between Evaro and Polson.

Evaluation of this section of highway was completed, at the request of the ID Team, because of concern expressed that four-lane highways may be less safe than two-lane highways. The ID Team consensus, at the inception of the study, was that US 93 from I-90 to Evaro would be a very good highway section to evaluate because of its proximity to the proposed action and because driver characteristics, traffic volumes and characteristics, weather conditions, terrain and junction densities are similar (not necessarily identical) to US 93 from Evaro to Polson.

There are approximately 10 intersections per mile on this section of highway compared with approximately 10 intersections per mile on the section from Evaro to Polson. There also is an intersection with a major county road, and two campgrounds that are commercial developments that generate traffic turning on and off the highway. There also is a long level segment of highway that is typical of segments north of Evaro. Evaro Hill has a steep grade typical of the grades on Ravalli, Post Creek and Polson hills.

The ID Team, and in particular visiting members from the Tribes, asked for the comparison of I-90 to Evaro.

Refer to response to FRO-3.1 and 20.1.

FRO-20.6 It is correct and was acknowledged in the draft EIS that shoulder widths are not adequate on existing passing lanes. It is acknowledged that transition lengths and other factors may not be in accordance with current design standards on existing passing lanes.

It is likely that accident rates would be reduced if these areas were improved to meet current standards, but actual numbers are not known and cannot be calculated with reasonable accuracy.

Refer to response to FRO-19.2.

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[19]Federal Highway Administration, Montana Division, Studies on Safety Concerns of 5-lane C2WLTL vs. 4-Lane Divided Highway, letter, with attachments, dated 22 July 1991.

[20]After Congress repealed the national speed limit of 65 mph on interstates and 55 mph on other highways in 1995, Montana automatically reverted to its former law that has the "basic rule:" A driver may not drive at speeds exceeding what is "reasonable and prudent" for traffic, road and weather conditions.

FRO-Comment Number:

FRO-21 Flathead Resource Organization: Comparison of the FRO Plan and the MDT plan on the safety issue.

FRO-Comment Topic

Refer below to FRO Table .

FRO-Comment Page/Paragraph Number(s):

Topic/Page	Paragraph(s)
32	Table

FRO Table:

Issue	MDT	FRO
Speeding	Four or five lanes encourage faster speeds	Improved two-lane road would not encourage faster speeds, a major factor in accidents
Shoulders	Eight-foot shoulders along length of highway, except in towns where five lanes would make (wide) shoulders impossible	Eight-foot shoulders along the length of the highway
Passing	Nearly unlimited passing in the short run, until congestion and development catches up with the highway	Improved passing (improving existing passing lanes, plus a new passing lane on Post Creek Hill
Turning left from the highway	In developed areas, a center "suicide" lane; in most rural areas, left-turning cars must come to a dead halt in the fast lane	Left-turn bays at all major intersections
Turning left onto the highway	Cars must cross three or four lanes of traffic, with few gaps in the traffic due to more even flow	Vehicles must cross one lane of traffic, with more frequent gaps due to less even traffic flow
Crossing the highway	Cars, pedestrians, bicyclists and horseback riders must cross four or five lanes of pavement, plus shoulders (84 to 94 feet)	Cross two lanes of pavement, plus shoulders (44 feet)
Slow-moving vehicle turnouts	None called for	Recommended every five miles or so, with strict enforcement
Law enforcement	Not addressed	Calls for full dual jurisdiction on all traffic infractions and higher local penalties, prominently announced on road signs
Truck traffic	Not addressed	Explore ways to remove or restrict multi-trailer semis and shift more truck traffic in general onto rails
Pedestrians and bicyclists	Only calls for eight-foot shoulders, with considerably less in towns (e.g., Arlee)	Eight-foot shoulders with rumble strip in rural areas and separate bike paths within one to two miles of towns

Response:

These comments, expressing FRO's opinion about comparing an improved two-lane highway with a four-lane highway, are noted.

4. Oral Testimony Received at Public hearing

Public hearing transcripts of oral testimony received at the public hearing are available from the Montana Department of Transportation. Please contact:

Joel Marshik, Manager Environmental Services
Montana Department of Transportation
2701 Prospect Avenue
P.O. Box 201001
Helena, MT 59620-1001

4.1 Index For Summary Of Oral Testimony Received At Arlee Public Hearing

COMMENT NUMBER	SPEAKER	AFFILIATION	TOPIC(S)
119	Richard Eggart	Flathead Resource Organization	Oppose preferred alternative[4,5] EIS process and public involvement Wetlands
120	Pat Hurley	Flathead Resource Organization	Oppose preferred alternative EIS process and public involvement Wetlands Wildlife Land use Social Economics and tourism
121	Thompson Smith	Flathead Resource Organization	Oppose preferred alternative EIS process and public involvement Land use Social Economics and tourism Cultural resources Safety/traffic operation Highway design
122	Larry Klinkenbeard	Arlee business	Favor Arlee existing alignment Right-of-way Land use Social Economics and tourism
123	Tony Hoyt	Flathead Resource Organization	Oppose preferred alternative EIS process and public involvement
124	Jerry McGahan	Arlee resident	Oppose preferred alternative Favor Arlee existing alignment Wetlands Wildlife
125	Laverne Cole	Arlee resident	Safety/traffic operation Construction and maintenance cost

COMMENT NUMBER	SPEAKER	AFFILIATION	TOPIC(S)
126	Wayne Brown	St. Ignatius resident	Economics and tourism Pedestrians and bicyclists
127	Christine Roesch	St. Ignatius resident	Favor preferred alternative Wildlife Highway design Construction schedule
128	Rob Sand	Charlo resident	Oppose preferred alternative Safety/traffic operation Wildlife
129	Mary Herak	Charlo resident	Oppose preferred alternative Land use Social Economics and tourism
130	Thompson Smith	Flathead Resource Organization	Oppose preferred alternative EIS process and public involvement Land use Social Economics and tourism
131	Emily Baty	Dixon resident	Safety/traffic operation Right-of-way
132	Thelma Olsen	St. Ignatius resident	Favor preferred alternative Land use Social Economics and tourism Construction schedule Visual
133	Archie Olsen	St. Ignatius resident	Favor preferred alternative Social Economics and tourism Highway design High traffic volume Construction schedule
134	Gordon Malley	St. Ignatius resident	Favor preferred alternative Safety/traffic operation Land use Social Economics and tourism
135	Yvonne Olmsted	St. Ignatius resident	Favor preferred alternative Safety/traffic operation
136	Richard Eggart	Flathead Resource Organization	Oppose preferred alternative EIS process and public involvement Highway design Land use Social Economics and tourism
137	Sam Rouiller Mayor	Town of St. Ignatius	Favor preferred alternative Safety/traffic operation Land use Social Economics and tourism

4.1 Index For Summary Of Oral Testimony Received At St. Ignatius Public Hearing

COMMENT NUMBER	SPEAKER	AFFILIATION	TOPIC(S)
138	Janet Camel	St. Ignatius resident	Safety/traffic operation Highway design Land use Social Economics and tourism
139	John Yatchak	St. Ignatius resident	Favor preferred alternative Safety/traffic operation Access and left turns
140	Pat Hurley	Flathead Resource Organization	Oppose preferred alternative Land use Social Economics and tourism
141	Bob Cook	St. Ignatius resident	Safety/traffic operation

COMMENT NUMBER	SPEAKER	AFFILIATION	TOPIC(S)
142	Richard Eggart	Flathead Resource Organization	Oppose preferred alternative EIS process and public involvement Highway design
143	Jaymee Bick	Roan resident	Oppose preferred alternative Safety/traffic operation Wetlands Wildlife Air quality Pedestrians and bicyclists Social High traffic volume
144	Joe McDonald President	Salish Kootenai College	Safety/traffic operation EIS process and public involvement Highway design Access and left turns Noise
145	Sherri McDonald	Ronan resident	Favor Ronan existing alignment Safety/traffic operation Cultural resources
146	Thompson Smith	Flathead Resource Organization	Oppose preferred alternative EIS process and public involvement Safety/traffic operation Highway design Land use Social Economics and tourism
147	Pat Hurley	Flathead Resource Organization	Oppose preferred alternative EIS process and public involvement Safety/traffic operation Highway design Land use Social Economics and tourism
148	Tom R. McDonald	Ronan resident	Construction and maintenance cost
149	Bearhead Swaney	St. Ignatius resident	Oppose preferred alternative Land use Social Cultural resources
150	Rob Sand	Charlo resident	Favor alternative alignment improvement in Swan Valley Safety/traffic operation Land use Social Economics and tourism Cultural resources
151	Jay Preston Sr.	Ronan resident	Oppose preferred alternative EIS process and public involvement Land use Social Economics and tourism

4.1 Index For Summary Of Oral Testimony Received At Pablo Public Hearing

COMMENT NUMBER	SPEAKER	AFFILIATION	TOPIC(S)
152	Kim Skyelande	Missoula resident	Oppose preferred alternative Safety/traffic operation Land use Social Economics and tourism Wetlands Wildlife Air quality Noise
153	Art Mangels	Pablo resident	EIS process and public involvement Highway design Safety/traffic operation Access and left turns Land use Social Economics and tourism
154	Troy R. Wunderlich	Ronan Auto Body	Favor Ronan existing alignment Safety/traffic operation Wetlands Wildlife Social Economics and tourism

COMMENT NUMBER	SPEAKER	AFFILIATION	TOPIC(S)
155	Allen Hibbert	Polson resident	Oppose preferred alternative EIS process and public involvement Land use Social
156	James French	Polson resident	Oppose preferred alternative Favor alternative alignment outside Flathead Indian Reservation Cultural resources Wildlife Land use Social
157	Thompson Smith	Flathead Resource Organization	Oppose preferred alternative Safety/traffic operation Highway design Cultural resources Land use Social
158	Dave Lake	Polson business	Favor preferred alternative, except favor Ronan alternative alignment General environmental Access and left turns Right-of-way Farmlands Land use Social Economics and tourism
159	Ralph Zahn	Polson resident	Favor preferred alternative Safety/traffic operation Construction schedule
160	Gary Wicks	Polson resident	Favor preferred alternative EIS process and public involvement Safety/traffic operation
161	Ron Grogan	Polson business	Oppose No Action Highway design Farmlands
162	Dave Stipe	Lake County Board of Commissioners	Favor preferred alternative EIS process and public involvement Land use Social Economics and tourism
163	Karen Welch	Polson resident	Favor preferred alternative Safety/traffic operation
164	Bill Gallagher	Polson business	Oppose Polson Alignment 3 Safety/traffic operation Right-of-way Social
165	George Mahoney	Polson business	Oppose Polson alignment 3 EIS process and public involvement Safety/traffic operation Construction schedule Land use

COMMENT NUMBER	SPEAKER	AFFILIATION	TOPIC(S)
166	Patty Brock	Polson resident	Favor Polson preferred alternative EIS process and public involvement Economics and tourism
167	Pat Lake	Polson business	Realign Polson Alignment 3 Farmlands Land use
168	Wes Delaney	Polson business	Oppose Polson Alignment 3 Safety/traffic operation Highway design Economics and tourism Construction and maintenance cost
169	Jim Mercer	Polson business	Favor Polson preferred alternative EIS process and public involvement Social
170	James Haynal	Polson property owner	Oppose Polson Alignment 3 EIS process and public involvement Wildlife Stream crossings Noise
171	Terry Haynal	Polson property owner	Oppose Polson Alignment 3 EIS process and public involvement Social Economics and tourism
172	Charles Budge	Polson resident	Oppose Polson Alignment 3 EIS process and public involvement Safety/traffic operation General environmental Construction and maintenance cost Economics and tourism Wildlife Noise Stream crossings
173	Dan Howlett	Polson business	Oppose Polson Alignment 3 EIS process and public involvement Social Wildlife Noise Stream crossings Right-of-way Land use Economics and tourism
174	Lon Jacobs	Polson resident	Safety/traffic operation Highway design
175	Joan Bennett	Polson resident	Favor Polson alternative alignment Realign Polson Alignment 3 Social Economics and tourism
176	Tom Sands	Polson resident	EIS process and public involvement Land use Social Economics and tourism

COMMENT NUMBER	SPEAKER	AFFILIATION	TOPIC(S)
177	(Name not known)	Polson resident	Favor Polson preferred alternative Safety/traffic operation Pedestrians and bicyclists Social Economics and tourism
178	Pat Fromm	Polson resident	Safety/traffic operation

The draft EIS and Section 4(f) evaluation was approved by the Federal Highway Administration (FHWA) for release to the public on 21 February 1995.

The public hearing was held on the dates and at the locations listed below:

24 April 1995, Arlee Elementary School Cafeteria, Arlee, MT

25 April 1995, St. Ignatius Senior Citizens Center, St. Ignatius, MT

26 April 1995, BIA Conference Rooms at the Tribal Complex of the Confederated Salish and Kootenai Tribes, Pablo, MT

27 April 1995, KwaTaqNuk Resort, Polson, MT

To provide notice of the hearing, initially scheduled to be held in St. Ignatius, Pablo and Polson, a notice was sent to the project mailing list consisting of members of the public and public agencies that are thought to have or have expressed an interest in the proposed action. This notice indicated public comment would be received through 08 May 1995. The notice was placed in the following newspapers:

The Missoulian, Missoula, MT on 24 March and 11 April 1995.

Char-Koosta News, Pablo, MT on 24 March and 07 April 1995.

Lake County Leader, Polson, MT on 30 March and 13 April 1995.

During a meeting of the ID Team, it was decided that a portion of the public hearing should also be held in Arlee. Also, as requested by the Tribal Council of the Confederated Salish and Kootenai Tribes, it was decided that the public comment period should be extended to 23 June 1995. A second notice was therefore sent to the project mailing list and advertised in the following newspapers:

The Missoulian, Missoula, MT on 14 April and 21 April 1995.

Char-Koosta News, Pablo, MT on 14 April and 21 April 1995.

Lake County Leader, Polson, MT on 13 April and 20 April 1995.

Each of the four meetings was held from 4:00 p.m. to approximately 9:00 p.m. From 4:00 p.m. to 7:00 p.m., an opportunity was provided for interested individuals to meet with project representatives, view project displays and information, ask questions and provide written or oral comment. The following stations were available at each meeting to provide information on specific aspects of the proposed action:

- Greeting Station, to welcome public hearing participants, ask them to sign the attendance list, ask them to indicate if they planned to provide public comment, provide copies of project summaries, provide copies of information provided by the Flathead Resource Organization. This station was staffed by Ginger Thomas, Tribal Consultant Liaison and by John Hodnik, Morrison-Maierle, Inc.

- EIS Process Station, to provide information on the process followed to prepare the draft and final EIS in accordance with the National Environmental Policy Act. This station was staffed by Gordon Stockstad of MDT and Dale Paulson of FHWA.

- Highway Design and Construction Station, to provide information on the design and construction of alternatives considered for the highway improvements. This station was staffed by Jim Weaver and John Marron of the Missoula Division of the Montana Department of Transportation.

- Traffic and Safety Station, to provide information on existing and projected traffic volumes and the operation of the highway now and in the future. This station was staffed by Brad Peterson of Morrison-Maierle, Inc.

- Social, Economic, Cultural Station, to provide information on social, economic and cultural resource impacts of the proposed action including impacts on businesses, population and archaeological, historical and cultural sites in the area. This station was staffed by John Hodnik of Morrison-Maierle, Inc. and Jon Axline of the Montana Department of Transportation.

- Environmental Station, to provide information on potential impacts to natural resources including wetlands, wildlife, air quality, streams and rivers, threatened and endangered species and others. This station was staffed by Joel Marshik of the Montana Department of Transportation and Joe Elliott of Morrison-Maierle, Inc. Also at this station, Bob Nebel and Bob McInerney of the U.S. Army Corps of Engineers were available to discuss potential impacts to streams, rivers and wetlands. Copies of the preliminary application for a Section 404 permit were available at this location.

- Polson Alternatives Station, to provide information on the alternative alignments in the Polson Area. This station was staffed by various individuals during the Arlee and St. Ignatius meetings. In Pablo, the station was staffed by Jeanette Lostrocco of Carter Burgess, Inc. At Polson where the bulk of the interest in the Polson alignment alternatives occurred, the station was staffed by Jeanette Lostrocco, Joe Hart, Jim Boyer and Nick Kaufman of Carter Burgess, Inc.

- Right-of-Way Station, to discuss right-of-way and relocation requirements for each of the alternatives under consideration and procedures that will be followed.

This station was staffed by Dick Chrest of the Montana Department of Transportation.

- Comment Station, to allow individuals to provide written comment at the meeting, provide oral, tape-recorded comment or to take a comment form and send it later. This station was staffed by Jeri Sherrill of Morrison-Maierle, Inc.

- Computer Graphics Presentation was available from 4:00 to 7:00 p.m. at each meeting. This presentation lasted approximately 10 minutes, was set to continually repeat itself and provided a brief summary of the draft EIS and the public hearing process.

At 7:00 p.m. at each meeting, a formal presentation was made consisting of:

- Dave Dreher of the Montana Department of Transportation moderated the presentation.

- A presentation by Brad Peterson of Morrison-Maierle, Inc. at all four meetings, consisting of a 25 to 30 minute summary of the draft EIS including the purpose and need for the proposed action, the alternatives considered, the preferred alternative and potential impacts.

- A presentation by Dick Chrest of the Montana Department of Transportation, at all of the meetings except in Polson, concerning right-of-way acquisition procedures and relocation assistance programs.

- At the Polson meeting only, a presentation was made by Jeanette Lostrocco, Jim Boyer, Nick Kaufman and Joe Hart of Carter and Burgess, Inc. concerning the alternative highway routes through the Polson area.

Following these presentations at each meeting, an opportunity was provided for all who desired to provide formal oral comments. Comments were limited to five minutes per person. An opportunity to formally ask questions of project representatives was provided at each meeting except in Polson.

The formal presentations, public comments and questions/answers were electronically recorded and a transcript has been prepared. The transcript of the oral testimony is available to the public at offices of the Montana Department of Transportation in Missoula and Helena, Montana.

After the formal portion of the meeting, members of the public were again invited to visit the various stations, ask questions and provide comments.

Refer to Section 1 for information about public notices.

The following two tables summarize the numbers of public comments received before, at and after the public hearing.

Summary of Registered Attendance

Summary of Registered Attendance (those who signed the attendance list)					
Affiliation	Arlee	St. Ignatius	Pablo	Polson	Total
Resident or not indicated	39	42	27	63	171
Property owner	3	--	--	11	14
Business owner or operator	3	2	11	24	40
Flathead Resource Organization (FRO)	4	3	2	2	11
Other	1	4	9	7	21
Total	50	51	49	107	257
Information from sign-up sheets at sessions of the public hearing in Arlee, St. Ignatius, Pablo and Polson, 24-27 April 1995.					

Summary of Public Comments

Source	Arlee	St. Ignatius	Pablo	Polson	Total
Written Comments Before Hearing					20
Written Comments At Hearing	6	9	8	19	42
Written Comments After Hearing					56
Oral Comments At Hearing	7	16	13	24	60
Total	13	25	21	43	178
Information from written comments and notes on oral comments at sessions of the public hearing in Arlee, St. Ignatius, Pablo and Polson, 24-27 April 1995.					

Refer to Section 4.1, the index for oral testimony, and Section 4.3, the response to comment received from oral testimony at the public hearing.

The public presented oral testimony about the following issues at the four sessions of the public hearing:

Lane Configurations

Favor or oppose preferred alternative or a four-lane configuration outside Arlee, Ronan and Polson

Favor or oppose improved two-lane configuration (including proposal of the Flathead Resource Organization) outside Arlee, Ronan and Polson

Favor or oppose continuous two-way left-turn center median either in vicinity of or outside communities

Highway Alignments

Favor or oppose the existing alignment or an alternative alignment away from existing alignment

Safety, traffic conditions and traffic control

Need to improve safety and traffic operation and use transportation demand management and design options

Highway improvement schedule and cost

Need to consider schedule and cost as factors for decision about highway improvement

Physical Environment (beneficial and adverse effects)

Need to consider environmental values (e.g., fish and wildlife, wetlands, stream crossings, air and water quality, noise, visual, recreation/4(f) and other values) as important factors for decision about highway improvement

Concern about excessive consideration of environmental values as important factors for decision about highway improvement

Human Environment

Need to consider effect of highway improvement on Native American cultural values

Need to consider effect of highway improvement on population growth, economic development and land use (e.g., conversion of farmlands, access management, land use planning and regulation for sprawl and strip development, relocation, pedestrians, right-of-way and other values) as important factors for decision about highway improvement

Need to consider effect of highway improvement on rural lifestyle and barrier effect for access to neighborhoods and facilities/services

Comment Number	Response
119	Comment noted opposing four-lane highway and favoring existing alignment as the preferred alternative from Evaro through Polson. Chapter 10 in the final environmental impact statement (EIS) discusses the coordination of public involvement and development and comparison of alternatives. Alternatives for lane configurations from Evaro through Polson and highway alignments at Arlee, Ronan and Polson were developed in response to support at public meetings and through consultation with the Arlee, Ronan, Pablo and Polson community teams and the ID Team. Chapters 5, 7 and 12 in the final EIS identify impacts specifically for the preferred alternative. This information in the final EIS will provide more detailed comparison among alternatives than the draft EIS. The preferred alternative is a combination of lane configurations and highway alignments. The draft EIS discussed impacts for the preferred alternative in Section 5.3, and it presented information about impacts for the lane configurations and highway alignments that form the preferred alternative. The final EIS presents information about impacts for individual lane configurations and highway alignments and the preferred alternative. Lane Configurations B, C and D (four-lane highways) were selected for various highway segments as the preferred alternative. Based on the traffic analysis, a two-lane highway with auxiliary passing lanes will not provide adequate highway capacity through the design year 2020. The preferred alternative uses the four-lane configurations to provide adequate highway capacity, while converting to new highway right-of-way the least amount of necessary land, including wetlands. The Montana Department of Transportation (MDT) is coordinating development of a wetlands mitigation plan with the Confederated Salish and Kootenai Tribes and the U.S. Army Corps of Engineers to replace wetlands converted to highway right-of-way with other wetlands having as good or better function and value.
120	Comment noted opposing four-lane highway and favoring existing alignment as the preferred alternative from Evaro through Polson. Refer to Response 119 for information about coordination of public involvement and development and comparison of alternatives. Sections 5.3.4 and 7.12.4 discuss the design characteristics of wildlife passage structures. The height of the structures will be designed to provide adequate passage and lighting for wildlife. The wildlife analysis has identified areas in which wildlife crossing the highway is a special concern. The design of the wildlife passage structures will be coordinated with biological specialists of the Confederated Salish and Kootenai Tribes, the U.S. Fish and Wildlife Service, the Montana Department of Fish, Wildlife and Parks and other governmental agencies and citizen groups with interests in wildlife. The Flathead Indian Reservation and Lake and Missoula counties have experienced high rates of population growth. Section 6.4 in the final EIS presents information that was not available for the draft EIS. It indicates the high rate of population growth continued for Lake County, the Flathead Indian Reservation and the western Montana region during 1990-1994. Continuing local and regional population growth contribute to transportation demand that requires the preferred alternative to provide adequate highway capacity and improve safety and traffic operation. An improved highway will be one of many factors that make the area attractive to new residents. Traffic operation will improve with reduced travel time and improved convenience and driver comfort. Land use planning and regulation will provide appropriate management of population growth. The Montana Department of Transportation (MDT) and the Federal Highway Administration (FHWA) plan to coordinate access management with land use planning and regulation policy established by the Confederated Salish and Kootenai Tribes, Lake and Missoula counties and the incorporated communities in Lake County. MDT and FHWA do not have authority to implement land use planning and regulation with the proposed action.

Comment Number	Response
121	Comment noted opposing four-lane highway and favoring existing alignment as the preferred alternative from Evaro through Polson. Refer to Response 120 for information about growth and development issues associated with land use, social and economics. Refer to Response 119 for information about coordination of public involvement and development and comparison of alternatives. The analysis of cultural resources and social conditions was coordinated with the Flathead and Kootenai culture committees and with the legal department of the Confederated Salish and Kootenai Tribes. Lane Configurations B, C and D (four-lane highways) were selected for various highway segments as the preferred alternative. Based on the traffic analysis, a two-lane highway with auxiliary passing lanes, and using reasonable and feasible measures of TDM, will not provide adequate highway capacity through the design year 2020. Section 6.1 in the final EIS presents information that was not available for the draft EIS. It indicates traffic volume continued to increase for US 93 from Evaro through Polson during 1992-1994. Continuing growth of local and regional travel contribute to transportation demand that requires the preferred alternative to provide adequate highway capacity and improve safety and traffic operation. The safety analysis used both accident rate (accidents per million vehicle miles) and accident frequency (accidents per mile) to describe conditions that will be improved with the preferred alternative. These two measures establish the unsafe driving conditions that currently exist and will continue with any two-lane highway because of high traffic volume. Section 6.1 in the final EIS also presents information about safety that was not available for the draft EIS. It indicates the number of accidents increased and fatal accidents and fatalities increased substantially for US 93 from Evaro through Polson during 1992-1994. Continuing increases in accidents and fatalities are another indication of the need for the preferred alternative to provide adequate highway capacity.
122	Comment noted favoring a four-lane highway without a continuous two-way left-turn center median on the existing alignment as the preferred alternative. Refer to Response 120 for information about growth and development issues associated with land use, social and economics. Refer to Response 119 for information about highway right-of-way.
123	Comment noted opposing four-lane highway and favoring existing alignment as the preferred alternative from Evaro through Polson. Refer to Response 119 for information about coordination of public involvement and development and comparison of alternatives.
124	Comment noted opposing four-lane highway and favoring existing alignment as the preferred alternative from Evaro through Polson. Refer to Response 119 for information about wetlands, which will apply to areas such as Avocet Pond north of Arlee. Design options that will be considered for improvement of US 93 were developed in response to support at public meetings and in consultation with community teams and the ID Team. The highway design process will review appropriate locations for design options. *Speed bumps* are not reasonable or feasible options for traffic control because they are obstacles and safety hazards in the roadway.
125	The preferred alternative will provide improved safety for school crossings. The highway design process will review appropriate locations and traffic controls for school crossings and school bus stopping areas.

Testimony Number	Response
126	Design options for facilities serving pedestrians and bicyclists were developed in response to support at public meetings and in consultation with community teams and the ID Team. The highway design process will review appropriate locations, including the Post Creek area, for facilities for pedestrians and bicyclists. Comment noted about tourism being an important sector of the local economy. While visitors to scenic attractions such as Glacier National Park will benefit from an improved highway, it is not the purpose of the proposed action to increase tourism.
127	Comment noted favoring the preferred alternative from Evaro through Polson. Refer to Response 120 for information about the wildlife analysis and wildlife passage structures. The schedule for construction will depend on timing of completion of the final EIS, the record of decision (ROD), highway design and availability of appropriated funds.
128	Comment noted opposing four-lane highway and favoring existing alignment as the preferred alternative from Evaro through Polson. Refer to Response 120 for information about the wildlife analysis and wildlife passage structures. Based on the traffic analysis, Lane Configurations B, C and D will provide adequate highway capacity and improved safety and traffic operation through the design year 2020. Highway speed will be controlled with signs and enforcement practices that are used for all rural primary highways in Montana.
129	Comment noted opposing four-lane highway and favoring existing alignment as the preferred alternative from Evaro through Polson. Refer to Response 120 for information about growth and development issues associated with land use, social and economics.
130	Comment noted opposing four-lane highway and favoring existing alignment as the preferred alternative from Evaro through Polson. Refer to Response 119 for information about coordination of public involvement and development and comparison of alternatives. Refer to Response 120 for information about growth and development issues associated with land use, social and economics. Refer to Responses 121 and 128 for information about analysis of safety and traffic operation.
131	Refer to Responses 121 and 128 for information about analysis of safety and traffic operation. Refer to Response 119 for information about highway right-of-way. Refer to Response 121 for information about accident rate and accident frequency in the safety analysis.
132	Comment noted favoring the preferred alternative from Evaro through Polson. Refer to Response 120 for information about growth and development issues associated with land use, social and economics. Refer to Response 127 for information about the schedule of construction. Sections 6.17 and 7.17 discuss visual characteristics of the proposed action. The highway design process will review appropriate measures for enhancement of visual features.
133	Comment noted favoring the preferred alternative from Evaro through Polson. Refer to Responses 121 and 128 for information about analysis of safety and traffic operation. Refer to Response 120 for information about growth and development issues associated with land use, social and economics. Refer to Response 127 for information about the schedule of construction.
134	Comment noted favoring the preferred alternative from Evaro through Polson. Refer to Responses 121 and 128 for information about analysis of safety and traffic operation. Refer to Response 120 for information about growth and development issues associated with land use, social and economics.
135	Comment noted favoring the preferred alternative from Evaro through Polson. Refer to Responses 121 and 128 for information about analysis of safety and traffic operation.

Testimony Number	Response
136	Comment noted opposing four-lane highway and favoring existing alignment as the preferred alternative from Evaro through Polson. Refer to Response 119 for information about coordination of public involvement and development and comparison of alternatives. Refer to Responses 121 and 128 for information about analysis of safety and traffic operation. Refer to Response 120 for information about growth and development issues associated with land use, social and economics.
137	Comment noted favoring the preferred alternative from Evaro through Polson. Refer to Responses 121 and 128 for information about analysis of safety and traffic operation. Refer to Response 120 for information about growth and development issues associated with land use, social and economics.
138	Refer to Responses 121 and 128 for information about analysis of safety and traffic operation. Refer to Response 120 for information about growth and development issues associated with land use, social and economics. Refer to Response 121 for information about the analysis of cultural resources.
139	Comment noted favoring the preferred alternative from Evaro through Polson. Refer to Responses 121 and 128 for information about analysis of safety and traffic operation. Left-turn bays at major intersections and continuous two-way left-turn center medians on the highway in and near communities will reduce conflicts between vehicles turning and through traffic. The highway design process will review appropriate locations for auxiliary lanes and left-turn bays.
140	Comment noted opposing four-lane highway and favoring existing alignment as the preferred alternative from Evaro through Polson. Refer to Response 120 for information about growth and development issues associated with land use, social and economics.
141	Refer to Responses 121 and 128 for information about analysis of safety and traffic operation.

Testimony Number	Response
142	Comment noted opposing four-lane highway and favoring existing alignment as the preferred alternative from Evaro through Polson. Refer to Responses 121 and 128 for information about analysis of safety and traffic operation. Refer to Response 119 for information about coordination of public involvement and development and comparison of alternatives.
143	Comment noted opposing four-lane highway and favoring existing alignment as the preferred alternative from Evaro through Polson. Refer to Responses 121 and 128 for information about analysis of safety and traffic operation. Refer to Response 120 for information about growth and development issues associated with land use, social and economics. Refer to Response 119 for information about wetlands. Refer to Response 120 for information about the wildlife analysis. Refer to Response 126 for information about design options for pedestrians and bicyclists. MDT will utilize the most effective measures available to preserve air quality and comply with the National Ambient Air Quality Standards (NAAQS). Various deicer compounds will be expected to be used to maintain road conditions during inclement weather.
144	Refer to Response 119 for information about coordination of public involvement and development and comparison of alternatives. Refer to Responses 121 and 128 for information about traffic control, including traffic signals and enforcement of speed limits. Refer to Responses 125 and 139 for information about the preferred alternative providing improvement for access and turning movement. MDT will conduct warrant studies in communities to determine need for additional traffic signals in Arlee, Ronan, Pablo and Polson. Where warranted, traffic signals will be considered with highway improvement. The distance in the Pablo area for Lane Configuration C (four-lane highway with a continuous two-way, left-turn center median) was developed in consultation with the Pablo Community Team and the ID Team. The highway design process will review appropriate distances for lane configurations of the preferred alternative. Refer to Response 126 for information about design options for pedestrians and bicyclists. Sections 6.8 and 7.8 discuss noise characteristics of the proposed action. The highway design process will review appropriate measures for mitigation of noise associated with construction, operation and maintenance of the preferred alternative.
145	Comment noted favoring the preferred alternative at Ronan. Refer to Responses 121 and 128 for information about traffic control, including traffic signals and enforcement of speed limits. Refer to Response 121 for information about the analysis of cultural resources.
146	Comment noted opposing four-lane highway and favoring existing alignment as the preferred alternative from Evaro through Polson. Refer to Response 119 for information about coordination of public involvement and development and comparison of alternatives. Refer to Responses 121 and 128 for information about analysis of safety and traffic operation. Refer to Responses 121 and 128 for information about traffic control, including traffic signals and enforcement of speed limits. Refer to Responses 125 and 139 for information about growth and development issues associated with land use, social and economics.
147	Comment noted opposing four-lane highway and favoring existing alignment as the preferred alternative from Evaro through Polson. Refer to Response 119 for information about coordination of public involvement and development and comparison of alternatives. Refer to Responses 121 and 128 for information about analysis of safety and traffic operation. Refer to Responses 121 and 128 for information about traffic control, including traffic signals and enforcement of speed limits. Refer to Response 120 for information about growth and development issues associated with land use, social and economics.

Testimony Number	Response
148	Refer to Responses 121 and 128 for information about analysis of safety and traffic operation. The preferred alternative will include the costs of construction and maintenance for Lane Configurations B, C and D (four-lane highways) for various highway segments. The expenditure will be for a highway that provides adequate highway capacity through the design year 2020. Based on the traffic analysis, a two-lane highway with auxiliary passing lanes, and using reasonable and feasible measures of TDM, will not provide adequate highway capacity through the design year 2020. Expenditure for a highway with inadequate capacity will not be a reasonable or prudent use of public monies. Section 7.20 provides information about costs of construction for lane configuration alternatives and the preferred alternative.
149	Alternative routes such as the "Old Freight Route" and Montana Highway 83 through the Swan Valley were not considered as alternatives because they received substantial opposition at public meetings. Refer to Responses 121 and 128 for information about analysis of safety and traffic operation. Refer to Response 120 for information about growth and development issues associated with land use, social and economics. Refer to Response 121 for information about the analysis of cultural resources.
150	Comment noted opposing four-lane highway and favoring existing alignment as the preferred alternative from Evaro through Polson. Refer to Response 119 for information about coordination of public involvement and development and comparison of alternatives. Refer to Responses 121 and 128 for information about analysis of safety and traffic operation. Chapter 12 discusses Section 4(f) properties in the vicinity of the proposed action. The final EIS makes a determination that there is not any reasonable and prudent alternative to the preferred alternative in the areas for which there are either direct or constructive uses of the properties. The highway design process will review appropriate measures for mitigation of effects on Section 4(f) properties.
151	Comment noted favoring the preferred alternative from Evaro through Polson. Refer to Responses 121 and 128 for information about analysis of safety and traffic operation.
152	Comment noted opposing four-lane highway and favoring existing alignment as the preferred alternative from Evaro through Polson. Refer to Responses 121 and 128 for information about analysis of safety and traffic operation. Refer to Response 120 for information about growth and development issues associated with land use, social and economics. Refer to Response 144 for information about noise characteristics of the preferred alternative. Refer to Response 119 for information about wetlands. Refer to Response 120 for information about the wildlife analysis.
153	Refer to Response 120 for information about growth and development issues associated with land use, social and economics. Refer to Response 120 for information about the preferred alternative providing improvement for access and turning movement. Refer to Response 148 for information about using reasonable and feasible measures of TDM to support the preferred alternative in providing adequate highway capacity through the design year 2020.
154	Comment noted favoring preferred alternative at Ronan. Refer to Responses 121 and 128 for information about traffic control, including traffic signals and enforcement of speed limits. Refer to Response 120 for information about growth and development issues associated with land use, social and economics. Refer to Response 119 for information about wetlands. Refer to Response 120 for information about the wildlife analysis.

For comments regarding Polson, response to public comment has been organized by general topics instead of by specific comments. Refer to response to comment for Polson in Section 3.3, Pages 3.3-5 through 3.3-13.