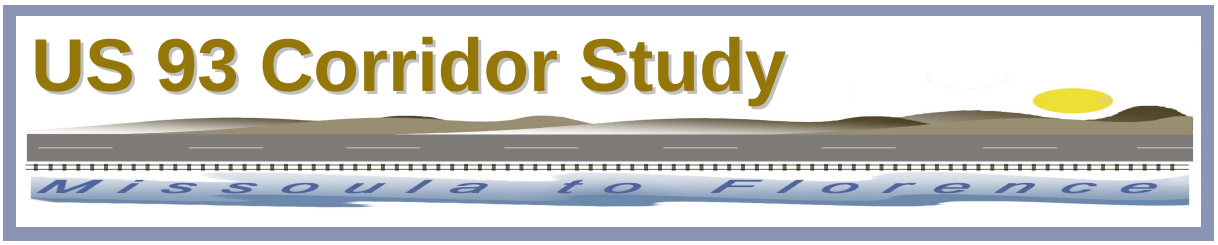

EXECUTIVE SUMMARY

Background

In the fall of 2005, the Montana Department of Transportation (MDT) initiated a corridor planning process along US Highway 93 (US 93) from Florence to Missoula. The study was initiated to identify future transportation needs, prioritize transportation projects, and foster cooperative state and local transportation planning efforts. The US 93 Corridor Study is part of MDT's corridor planning process, which is a relatively new tool within MDT emphasizing public involvement and early consideration of environmental constraints. This planning process is intended to save the state time and money by giving a context to later planning and environmental documents and helping to analyze and get input on the feasibility of various improvement options within existing and future funding constraints.

The US 93 Corridor study area encompasses the general travel corridor between Florence and Missoula, including the existing US 93 transportation facility and the Montana Rail Link (MRL) railroad facility, which generally parallels US 93 to the east. US 93 runs in a north-south direction through the Bitterroot valley in western Montana. The specific portion of the highway chosen for this study extends from Mile Post (MP) 74± in Florence to MP 91± located at the south side of the intersection of US 93 and Reserve Street in Missoula.

Goals and Objectives

The following corridor goals and objectives were developed in cooperation with MDT, FHWA, local agencies, stakeholder groups, and the public:

- Improve Corridor Operation and Design
- Improve Corridor Safety
- Minimize Impacts to the Environment
- Ensure Cost Effectiveness and Fundability
- Enhance Multi-Modal Transportation

These goals and objectives were formulated to help identify and screen potential improvement options and help in developing a Purpose and Need for future projects.

Public Involvement

The US 93 Corridor Study utilized a public involvement process to engage area residents in a dialogue about the existing conditions and use of the corridor. The process also sought to inform residents about potential improvement options for the corridor and to seek citizen input on those options. Resource agency coordination was initiated early in the process to identify potential resource constraints and future permitting requirements.

Five sets of public meetings were held to identify issues and concerns, solicit input regarding goals and objectives, discuss preliminary improvement options and the improvement option screening process, and to present the final set of recommended improvement options. Newsletters were prepared in advance of each of the public meetings and a website was developed.

Stakeholder interviews were conducted over the period from November 2005 to January 2006 with representatives from Missoula and Ravalli Counties, the City of Missoula, law enforcement agencies, and local transit providers. In addition to these interviews, six advisory council meetings were held during the course of the study. Representatives from both groups were asked to provide local input, assist in issues and alternatives identification, and offer comments on potential improvement options and final recommendations.

Resource agencies were invited to attend an agency workshop on April 5, 2006. Seventeen representatives from ten different agencies attended the meeting, including MDT, FHWA, the United States Fish and Wildlife Service (USFWS), the Montana Department of Environmental Quality (DEQ), the Montana Department of Natural Resources and Conservation (DNRC), the United States Environmental Protection Agency (EPA), the United States Army Corps of Engineers (USACE), and Montana Fish, Wildlife & Parks (MFWP).

Existing Conditions

Based on a planning-level overview of natural resources in the corridor, it was determined that there would be no impacts to the following resources as a result of any future improvement project.

- Land Ownership
- Public Lands
- Land Use
- Visual Resources

The following resource areas may potentially be impacted by future projects. Future study requirements are listed with respect to each resource area.

Resource	Future Requirements
Prime Farmland	Farmland Conversion Impact Rating Form
Surface Water	Biological Resource Report (BRR); review stream crossings for specific project
Ground Water	Consultation with the EPA and the Missoula County Local Water Quality District should be conducted prior to specific project development in the study area.
Floodplains	Further evaluation of the Bitterroot River floodplain would be needed to determine the level of impact resulting from a specific project.
Wetlands	BRR; field review for specific project
Hazardous Waste Sites	Further evaluation of hazardous waste sites would be needed to determine the level of impact resulting from a specific project.
Air Quality	Cursory review of short-term effects for specific project
Noise	Noise analysis for specific project
Fish and Wildlife Resources	BRR; review potential impacts resulting from activities within or adjacent to US 93.
Wildlife Habitat / Reserves	BRR; cursory review of short-term effects for specific project
Threatened and Endangered Species and Species of Concern	BRR; coordination with USFWS and MFWP for specific project
Species of Concern	BRR; coordination with USFWS and MFWP for specific project
Noxious Weeds	County Weed Control Supervisors and MDT Missoula Division vegetation management personnel should be contacted prior to any construction activities regarding specific locations.
Historic, Cultural, and Archaeological Resources	Cultural Resource Inventory (CRI); review for specific project

The investigation of existing conditions of the US 93 transportation system identified a number of issues to be considered in development of the corridor study. These issues are described in the following list.

1. A single sharp horizontal curve exists near MP 86.1±.

2. There are a number of scattered locations between MP 76± through MP 89± with nonstandard superelevation.

3. Grades over four percent, which is the maximum recommended grade for rolling terrain, are present near MP 86±.

4. Stopping sight distance is adequate over the entire corridor.

5. According to the MDT bridge sufficiency ratings database, the two existing bridges within the corridor are not deficient.

6. Based on AM and PM peak hour volumes and HCM example service volumes for multilane highways, the northern portion of the corridor may be operating at LOS B or C. Accordingly, volumes are approaching roadway capacity during the peak hours of travel.

7. Mainline delay at intersections during the AM and PM peak hours is minimal, as evidenced by LOS ratings of A and B throughout the corridor.

8. Side-street delay at stop-controlled intersections during the AM and PM peak hours is substantial, as evidenced by LOS ratings of C, D, E, and F throughout the corridor. Accordingly, it is very difficult to access US 93 from side streets at stop-controlled intersections during the peak hours of travel.

9. There are scattered locations throughout the corridor with higher numbers of crashes per half-mile segment as compared to the projected number of crashes expected to occur based on the statewide average crash rate. These segments cover approximately 37 percent of the study area.

Improvement Options

Improvement options were developed to address the deficiencies noted above and were evaluated in the context of the corridor goals and objectives.

The following table presents the full list of improvement options and the results of the improvement option screening process.

The list of recommended improvement options presented in this study is greatly constrained by funding availability over the planning horizon. This study attempts to realistically identify those options that will help to address corridor-wide issues and meet corridor goals and objectives while considering potential funding mechanisms.

Full Set of Improvement Options

Option		Screening Result and Rationale
Options Adding Vehicular Capacity	Two new travel lanes on US 93 from Lolo to Missoula	**Currently Not Advanced** due to lack of funding.
	Two new HOV lanes from Lolo to Missoula	
	Elevated Expressway with two new lanes from Lolo to Missoula	
	Two new lanes & center reversible HOV lane from Lolo to Missoula	
	Center reversible HOV lanes with new lane from Lolo to Missoula	
	Center reversible lanes with new lane from Lolo to Missoula	
	East Side Bypass between Florence and Missoula	
	East Side Access Roadway between Lolo and Missoula	
	Lolo Options	
Transit / Multi-Modal Options	Enhanced Vanpool / Rideshare Programs	**Recommend**
	Improved Park and Ride Facilities	
	Fixed Route Bus Service	
	Passenger Rail	**Currently Not Advanced** due to lack of funding and low ridership projections.
	Bike Lanes on US 93	**Currently Not Advanced** due to public preference for separated pathway.
	Separated Bike / Pedestrian Path	**Recommend**
TSM / TDM	Super Two with Roundabouts	**Currently Not Advanced** due to operation and functionality concerns.
	Two dedicated HOV lanes within existing lane structure	
	Center reversible HOV lane within existing lane structure	**Currently Not Advanced** due to lack of funding.
	Center reversible lane within existing lane structure	
	Junior Interchanges / Grade-separated Intersections	
	Frontage Roads / Connecting Local Roadway Networks	
Spot Improvements	Improvements to Intersections in Lolo	**Currently Not Advanced** due to failure to improve operations
	Improvements to US 93 Intersections with Blue Mountain Road and Highway 203	**Recommend**
	Improved Pedestrian Crossings	
	Improved Animal Crossings	
	Transportation Communication System	
	Improved Pullout Locations	
Policy Tools	Incentive / Disincentive Programs	**Recommend**
	Zoning	
	Corridor Preservation	
	Incident Management	
	Access Management	

Improvement Options Currently Not Advanced

Fully meeting the corridor goal of improving corridor operation and design and accommodating projected 2030 demand would require a major construction project adding additional capacity and/or limiting access and providing connecting local roadways and grade separation at several locations throughout the US 93 corridor. These options would be able to fully address the congestion, delay, and access problems projected over the 2030 planning horizon.

There is no available state or federal funding for these options over the planning horizon. Given the lack of funding, these options are currently not advanced in this study.

In the event that funding sources are identified for major reconstruction projects beyond the 2030 planning horizon, this study recommends reconsideration of the following set of improvement options:

- Center Reversible Travel Lane within Existing Lane Structure
- Grade Separated Intersections Throughout the Corridor
- Frontage Roads / Connecting local Roadway Networks
- Lolo Options

This package of options provides the most comprehensive solution to the current and projected congestion, delay, and access problems within the corridor.

Under optimum conditions, the Passenger Rail option could also reduce congestion and delay on US 93. In order to be cost effective, however, this option would require a combination of densification of population and employment throughout the US 93 corridor, and a higher mode share than is projected over the 2030 planning horizon. Additionally, implementation of passenger rail would require local / private funding sources.

Recommendations

Despite the current lack of funding for large-scale construction projects within the US 93 corridor, progress towards addressing operational and design needs can be achieved through implementation of spot improvement, transit options, and policy tools over the 2030 planning horizon. Recommended improvement options are listed in the table below. Timeframes for implementation and the lead party responsible for coordination and implementation of the option are also noted.

Recommended Improvement Options

Option		Lead Party Responsible for Coordination and Implementation	Time Frame for Implementation	Cost
Transit / Multi-Modal Options	Enhanced Vanpool / Rideshare Programs	Missoula and Ravalli Counties; MR TMA; MIM	Near-Term	$5,000 to $40,000
	Improved Park and Ride Facilities			$150,000 per location
	Separated Bike / Pedestrian Path			$2,200,000
	Fixed Route Bus Service		Mid- to Long-Term	$400,000 to $8,000,000
Spot Improvements	Improvements to US 93 Intersections with Blue Mountain Road and Highway 203	MDT	Near-Term	$500,000 per location
	Improved Pedestrian Crossings	MDT		$2,500 to $1,500,000 per location
	Improved Animal Crossings	MDT		$100,000 to $2,000,000 per location
	Transportation Communication System	MDT		$350,000 per location
	Improved Pullout Locations	MDT		$150,000 per location
Policy Tools	Incentive / Disincentive Programs	MDT; City of Missoula; Missoula and Ravalli Counties; MIM; MR TMA; Employers	Near-Term	NA
	Zoning			
	Corridor Preservation			
	Incident Management			
	Access Management			

Potential Funding Sources

There are several transit capital and operating assistance funding sources, including Urbanized Area Formula Program (Section 5307), Public Transportation for Rural Areas Program (Section 5311), Job Access and Reverse Commute Program (Section 5316), and New Freedom (Section 5317). These programs may be potential funding sources for the enhancement of vanpool and

rideshare programs and improved park and ride facilities. CTEP and the Recreational Trails Program may be sources of funds for a separated bicycle / pedestrian path. The peak hour fixed route bus service option would likely qualify for Small Starts funding if amenities such as developed stations, branding, and signal priority were included in the project. In order to pursue Small Starts funding for this option, a formal Alternatives Analysis would need to be initiated as per FTA guidelines.

Regarding recommended spot improvements, the Safe Routes to School (SRTS) Program may be a potential source of funds for a pedestrian crossing associated with one of the schools in the US 93 corridor. Improved animal crossings could be funded with safety projects monies from the Highway Safety Improvement Program (HSIP) and the High Risk Rural Roads Program (HRRP). Intersection improvements may also be eligible for these funds if it were demonstrated that congestion and delays are related to safety issues in these locations. Improvements to the intersection of US 93 and Highway 203 could potentially be funded through the Surface Transportation Program – Secondary (STPS) program. Additionally, a transportation communication system could be funded in conjunction with the development of any federal –aid eligible project (with the exception of pavement preservation projects) if the communication system were intended to serve incident, traffic, or transit management purposes, or to provide traveler information..

It should be noted that no funds have been dedicated through these programs for any of the improvement options noted above.

The minimal costs associated with policy implementation would be assumed jointly by participating entities.