NOTES:

1. The maximum weight of this assembly is 250 pounds (115 kg).
2. Use a 14" (355) wheel and tire.
3. Automotive and equipment axle assemblies may not be used for trailer-mounted sign supports.
4. Other NCCHP 350 or MASH crash tested assemblies are acceptable.

**SIGN SUPPORT**

**TRAILER SUPPORT ASSEMBLY**

Units shown in brackets [ ] are metric and are in millimeters (mm) unless other units are shown.
PORTABLE BARRIENCES

RAIL STRIPES

WHERE BARRIENCES EXTEND ENTIRELY ACROSS THE ROADWAY, POSITION BARRIENCES IN THE STREETS LANECfgD IN THE DIRECTION TOWARD WHICH THE ROAD USERS MUST TURN.

NOTE

NOTE

PORTABLE BARRIENCES NOTES

1. RAIL STRIPERS ARE 6" (150 mm) IN WIDTH FOR BARRIENCES 3.8 (10 m) OR GREATER IN LENGTH. FOR BARRIENCES LESS THAN 3.8 (10 m) IN LENGTH, 4" (100 mm) STRIPERS MAY BE USED.

2. THE PREDOMINANT COLOR FOR OTHER BARRIANCE COMPONENTS IS WHITE, BUT ENGINEER GRADE OR ALUMINUM COMPONENTS MAY BE USED.

3. WHERE BARRIANCES ARE TO FACE TRAFFIC FROM TWO DIRECTIONS, STRIPING ON BOTH THE FRONT AND REAR SIDES IS RECOMMENDED.

4. THE MATERIALS FOR BARRIANCE FABRICATING, ASSEMBLY, ATTACHED SIGNS, AND MEANS OF SIGN ATTACHMENT THAT MUST MEET WITH AREA AND OTHER REQUIREMENTS FOR SIGN ZONE DEVICES. OPTIONS FOR SIGN ATTACHMENT ARE:
   - SIGNS UP TO 50 SG FT (3.6 SQ M) MUST BE BOLTED TO THE TOP RAIL
   - SIGNS OVER 50 SG FT (4.5 SQ M) MUST BE BOLTED TO THE RAILS AND BOTH SHIELD SUPPORTS
   - SIGNS MAY BE MOUNTED BEHIND THE BARRIANCE ON A SEPARATE WOOD OR WOOD/PVDF APPLIED SIGN SUPPORT.

5. USE SIGNS OF SUFFICIENT WEIGHT TO HOLD THE BARRIANCE IN PLACE. WATERPROOF SIGNS ARE RECOMMENDED DURING PERIODS OF FLOODING WEATHER.

6. USE RETRO-REFLECTIVE SHEETING AS PER THE CONTRACT.

RAIL STRIPES NOTES

WHERE BOTH LEFT AND RIGHT TURNS ARE PERMITTED, POSITION BARRIENCES IN THE STRIPES SLIGHTLY DOWNDRAFT FROM THE CENTER OF THE BARRIANCE ON BARRIENCES.

NOTE

NOTE

NAME: MDTX

DATE: 2020-03

GENERAL NOTES

1. SEE THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES MATCHED PART 6 FOR ADDITIONAL INFORMATION.

REFERENCE CNGL. NO.

DEPARTMENT OF TRANSPORTATION

BARRIENCES

UNITS SHOWN IN BRACKETS [] ARE METRIC AND ARE IN MILLIMETERS (MM) UNLESS OTHER UNITS ARE SHOWN.

DETAILED DRAWING
NOTES:
1. THIS SIGN LAYOUT IS INTENDED TO BE A PERMANENT INSTALLATION FOR THE DURATION OF THE CONSTRUCTION PROJECT, AS APPROVED BY THE PROJECT MANAGER. COVER OR REMOVE ANY SIGNS WHEN NOT IN USE, INCLUDING SPEED LIMIT SIGNS NOT WARRANTED. REMOVE ANY SIGN SUPPORTS IF THEY WILL NOT BE NEEDED WITHIN 90 DAYS.
2. POST THE END OF WORK ZONE SPEED LIMIT CONSISTING OF ONE SIGN WHEN THE NORMAL POSTED SPEED LIMIT FOR ALL VEHICLES IS THE SAME. USE TWO SIGNS WHEN CAR, TRUCK AND NIGHTTIME SPEED LIMITS ARE DIFFERENT.
3. INCLUDE REGULATORY SIGNING ONLY IF A WORK ZONE OR ROADWAY HAS CONDITIONS THAT WARRANT SPEED RESTRICTIONS. MODIFY REGULATORY SIGNS TO MATCH ADJACENT REGULATIONS.
4. IN ADDITION TO THE SIGNS SHOWN, INCLUDE THE APPROPRIATE TWO-LANE WORK AREA SIGNS (Dwg. 618-08) WHEN A WORK AREA IS LOCATED AT THE BEGINNING OR END OF THE WORK ZONE.
5. SET UP THIS SIGN LAYOUT IN EACH TRAFFIC DIRECTION.
6. POST THE SPEED LIMIT APPROPRIATE FOR ALL VEHICLES FOR THE REMAINDER OF THE WORK ZONE BEFORE RESUMING TO NORMAL POSTED SPEED LIMITS AT THE END OF THE WORK ZONE.

* DENOTES SIGNS THAT ARE UNIQUE TO MONTANA.

UNITS SHOWN IN BRACKETS ( ) ARE METRIC AND ARE IN MILLIMETERS (mm) UNLESS OTHER UNITS ARE SHOWN.

MDT* MONTANA DEPARTMENT OF TRANSPORTATION

DetaileD DRAWING REFERENCE DWG. NO. 618-04 STANDARD SPEC. 618 TWO-LANE WORK ZONE
NOTES:

1. THESE SIGN LAYOUTS ALSO USED IN CONJUNCTION WITH THE PERMANENT LAYOUT ILLUSTRATED ON DTL. DWG. 618-04 FOR WORK AREAS LOCATED AT THE BEGIN AND END OF THE WORK ZONES.

2. XX = SPEED DETERMINED BY THE PROJECT MANAGER.

3. INCLUDE REGULATORY SIGNING ONLY IF THERE IS REASON TO RESTRICT SPEED WITHIN THE WORK ZONE. REMOVE OR COVER EXISTING REGULATORY SIGNS TO MATCH ADJACENT REGULATIONS.

4. SET UP THIS SIGN LAYOUT IN EACH TRAFFIC DIRECTION COMBINE SUCCESSIVE WORK AREAS WHEN LESS THAN 1.0 MILE (1.6 km) APART.

5. THE BUFFER SPACE MAY BE INCREASED FOR DOWNHANGS AND OTHER CONDITIONS THAT AFFECT STOPPING DISTANCE.

6. PROVIDE A SECOND FLAGGER WHEN REQUIRED PER SECTION 618.

7. POST THE SPEED LIMIT APPROPRIATE FOR ALL VEHICLES FOR THE REMAINDER OF THE WORK ZONE BEFORE RESUMING TO NORMAL POSTED SPEED LIMITS AT THE END OF THE WORK ZONE.

8. ENSURE THE AMBER LED FLASHERS MEET REQUIREMENTS OF STANDARD SPECIFICATION 715 AND DTL. DWG. 618-01.

9. INCLUDE THESE SIGNS WITH ALL FLAGGERS. INCLUDE THESE SIGNS WITHIN WORK ZONES WHEN STEP DOWN IS 20 MPH OR GREATER.

* Denotes signs that are unique to Montana.

UNITS SHOWN IN BRACKETS [ ] ARE METRIC AND ARE IN MILLIMETERS (mm) UNLESS OTHER UNITS ARE SHOWN.

REFERENCE

DWG. NO.

STANDARD SPEC.

SECTION

618-08

618-08

MONTANA DEPARTMENT OF TRANSPORTATION

TWO-LANE WORK AREAS
NOTES:
1. USE THIS SIGN LAYOUT WHEN APPROPRIATE. OTHERWISE REFER TO OTL DWG 618-16 WHEN A FLAGGER IS NEEDED.
2. SET UP THIS SIGN LAYOUT IN EACH TRAFFIC DIRECTION, AS NEEDED.
* DENOTES SIGNS THAT ARE UNIQUE TO MONTANA.

UNITS SHOWN IN BRACKETS [ ] ARE METRIC AND ARE IN MILLIMETERS (mm) UNLESS OTHER UNITS ARE SHOWN.

DETAILED DRAWING
REFERENCE DWG. NO.
STANDARD SPEC. 618-14
SECTION 618

TWO-LANE EQUIPMENT ENTRANCES
NOTES:

1. This sign layout is intended to be a permanent installation for the duration of the construction project, as approved by the project manager. Cover or remove signs when not in use. Including speed limit signs not warranted. Remove any sign supports if they will not be needed within 90 days.

2. Post the end of work zone speed limit consisting of one limit when the normal posted speed limit for all vehicles is the same. When car and truck speed limits differ, post both limits on a single sign.

3. Include regulatory signing only if a work zone or roadway has conditions that warrant speed restrictions. Modify regulatory signs to match adjacent regulations.

4. Set up this sign layout in each traffic direction.

5. In addition to the signs shown, include the appropriate four-lane work zone signs (DTL Dwg. 618-24) when a work area falls at the begin or end of the work zone.

6. Divided four-lane is shown. For un-divided four-lane, place signs on right side only.

* Denotes signs that are unique to Montana.

Units shown in brackets [ ] are metric and are in millimeters (mm) unless other units are shown.
NOTES:

1. THESE SIGN LAYOUTS USED IN CONJUNCTION WITH THE LAYOUT ILLUSTRATED ON DTL. DWG. 618-28.
2. INCLUDE REGULATORY SIGNING ONLY AS REQUIRED. REMOVE OR COVER REGULATORY SIGNS TO MATCH ADJACENT REGULATIONS.
3. XX = SPEED DETERMINED BY THE PROJECT MANAGER.
4. SPACE CHANNELIZING DEVICES ON TANGENTS AT INTERVALS IN FEET [METERS] OF NO MORE THAN TWO [5.6] TIMES THE SPEED LIMIT IN M.P.H. AND ON ALL TAPER SECTIONS AT INTERVALS IN FEET [METERS] OF NO MORE THAN ONE [0.3] TIMES THE SPEED LIMIT IN M.P.H. FOR SPEED LIMITS LESS THAN 35 M.P.H., SPACE CHANNELIZING DEVICES AS DIRECTED BY THE PROJECT MANAGER.
5. SPACE FLEXIBLE GLUE-DOWN GUIDE POSTS USED FOR LANE SHIFT TAPER AT INTERVALS IN FEET [METERS] OF M.P.H.
6. THE LANE SHIFT TAPER LENGTH ASSUMES AN 8\degree (2400) LANE SHIFT OFFSET AND AN 80 M.P.H. APPROACH SPEED. CONTACT THE PROJECT MANAGER IF CONDITIONS VARY.
7. TEMPORARY POSITIVE PROTECTION BARRIER CAN TERMINATE AT THE CENTER OF THE CLOSED LANE FOR ACCESS PURPOSES IF AN APPROVED TEMPORARY IMPACT ATTENUATOR IS USED.
8. PLACE REFLECTIVE MARKERS ALONG THE TOP OF TEMPORARY BARRIER AND ENSURE REFLECTORS ON EXISTING BARRIER ARE INTACT.
9. POST THE SPEED LIMIT APPROPRIATE FOR ALL VEHICLES FOR THE REMAINDER OF THE WORK ZONE BEFORE RESUMING TO NORMAL POSTED SPEED LIMITS AT THE END OF THE WORK ZONE.
10. OBLITERATE CONFLICTING PAVEMENT MARKINGS BEGINNING AT THE SHIFTING TAPER AND CONTINUING THROUGH THE WORK AREA.

\* DENOTES SIGNS THAT ARE UNIQUE TO MONTANA.

UNITS SHOWN IN BRACKETS ( ) ARE METRIC AND ARE IN MILLIMETERS (mm) UNLESS OTHER UNITS ARE SHOWN.

DETAILED DRAWING
REFERENCE DWG. NO. DTL. DWG. 618-33
STANDARD SPEC. SECTION 618
DIVIDED FOUR-LANE SINGLE LANE CLOSURE LANE SHIFT

LEGEND

- OBLITERATE CONFLICTING PAVEMENT MARKINGS
- PLASTIC DRUMS (SEE NOTES FOR SPACING)
- FLEXIBLE GLUE DOWN GUIDE POSTS (SEE NOTES FOR SPACING)
- FLEXIBLE GUIDE POSTS
NOTES:

1. SHORT DURATION ACTIVITIES ARE DEFINED AS THOSE LASTING UP TO ONE HOUR.
2. SHORT-TERM STATIONARY ACTIVITIES ARE DEFINED AS THOSE LASTING GREATER THAN ONE HOUR, UP TO A FULL SHIFT.
3. THE REGULATORY SPEED SIGNS MUST MOVE AS NEEDED TO REMAIN WITHIN 500 FEET [150 m] OF THE WORK AREA.
4. SIGN BOTH TRAVEL DIRECTIONS ON TWO-LANE, TWO-WAY ROADWAYS OR BOTH SHOULDERS ON TWO-LANE, ONE-WAY ROADWAYS.
5. PROVIDE AT LEAST THE DISTANCE SHOWN FOR DELINERATOR MOUNTED SIGNS.
6. USE REFLECTIVE DEVICES.
7. XX = NORMAL POSTED SPEED LIMIT(S).
   * DENOTES SIGNS THAT ARE UNIQUE TO MONTANA.

UNITS SHOWN IN BRACKETS [ ] ARE METRIC AND ARE IN MILLIMETERS (mm) UNLESS OTHER UNITS ARE SHOWN.

DETAILED DRAWING
REFERENCE DWG. NO.
618-34
STANDARD SPEC. SECTION 618
SHORT DURATION OR SHORT-TERM STATIONARY CREW SIGNING

MONTANA DEPARTMENT OF TRANSPORTATION
NOTES:

1. Minimum regulatory sign size is 24" x 20" [600 x 500] on two-lane roads.

2. On roadways with high traffic volumes or visibility restrictions, a 500' (150 m) spacing for all signs is recommended.

3. Space channelizing devices at intervals in feet (meters) equal to twice [6.6 times] the speed limit in m.p.h. through the buffer and work area.

4. If a need arises to increase vehicle storage, add an additional W20-7a "Flagger Ahead" sign between the R2-1 and W3-4 signs and consider an additional advance flagger.

5. A mirror image of this sign sequence is required for the traffic from the opposite direction.

6. For more information or clarification contact the district traffic engineer. For example, if work zone is close to a horizontal curve, a vertical curve, a bridge, interchange, poor sight distance, or other special condition.

7. Cover any conflicting signs in the work zone.

8. Short-term work zone signing is not required to be post mounted.

9. The buffer space can be lateral and longitudinal and may be increased for downgrades and other conditions that affect stopping distance.

10. Typically 2 miles (3.2 km) is the max work area. However, when sight distance, buffer zones or accomplishment rates for equipment are considered, some minor adjustments to this max may be considered.

XX = Normal posted speed limit(s).

* Denotes signs that are unique to Montana.

UNITS SHOWN IN BRACKETS [ ] ARE METRIC AND ARE IN MILLIMETERS (mm) UNLESS OTHER UNITS ARE SHOWN.
NOTES:

1. MINIMUM REGULATORY SIGN SIZE IS 24" x 30" (600 x 750) ON TWO-LANE ROADS.

2. ON ROADWAYS WITH HIGH TRAFFIC VOLUMES OR VISIBILITY RESTRICTIONS, A 500 [150 m] SPACING FOR ALL SIGNS IS RECOMMENDED.

3. IF A NEED ARISES TO INCREASE VEHICLE STORAGE, ADD AN ADDITIONAL W20-7a "FLAGGER AHEAD" SIGN BETWEEN THE R2-1 AND W3-4 SIGNS AND/OR CONSIDER AN ADDITIONAL ADVANCE FLAGGER.

4. A MIRROR IMAGE OF THIS SIGN SEQUENCE IS REQUIRED FOR THE TRAFFIC FROM THE OPPOSITE DIRECTION.

5. FOR MORE INFORMATION OR CLARIFICATION CONTACT THE DISTRICT TRAFFIC ENGINEER. FOR EXAMPLE, IF WORK ZONE IS CLOSE TO A HORIZONTAL CURVE, A VERTICAL CURVE, A BRIDGE, INTERCHANGE, POOR SIGHT DISTANCE OR OTHER SPECIAL CONDITION.

6. COVER ANY CONFLICTING SIGNS IN THE WORK ZONE.

7. SHORT-TERM WORK ZONE SIGNING IS NOT REQUIRED TO BE POST MOUNTED.

8. THE BUFFER SPACE CAN BE LATERAL AND LONGITUDINAL AND MAY BE INCREASED FOR DOWNGRADES AND OTHER CONDITIONS THAT AFFECT STOPPING DISTANCE.

9. XX = NORMAL POSTED SPEED LIMIT(S).

* DENOTES SIGNS THAT ARE UNIQUE TO MONTANA.
NOTES:

1. USE A MINIMUM 300 [100 m] SHOULDER TAPER.
2. USE THIRTEEN APPROVED CHANNELIZING DEVICES FOR A 12 [18 m] LANE CLOSURE TAPER [80 M.P.H. SPACED AT 80 [25 m]]. ASSURE THAT THE TAPER IS A MINIMUM LENGTH OF 900 [300 m].
3. SPACE CHANNELIZING DEVICES AT INTERVALS IN FEET [METERS] EQUAL TO TWICE [OR TIMES] THE SPEED LIMIT IN M.P.H. THROUGH THE BUFFER AND WORK AREA.
4. PLACE THE ARROW BOARD ON THE SHOULDER AT THE START OF THE TRAVEL LANE CLOSURE TAPER.
5. THE BUFFER SPACE CAN BE LATENT AND LONGITUDINAL. KEEP THE BUFFER SPACE CLEAR OF EQUIPMENT AND PERSONNEL.
6. FOR MORE INFORMATION OR CLARIFICATION CONTACT THE DISTRICT TRAFFIC ENGINEER. FOR EXAMPLE, IF WORK AREA IS CLOSE TO A HORIZONTAL CURVE, A VERTICAL CURVE, A BRIDGE, INTERCHANGE, POOR SIGHT DISTANCE OR OTHER SPECIAL CONDITION.
7. COVER ANY CONFLICTING SIGNS IN THE WORK AREA.
8. SHORT-TERM WORK ZONE SIGNING IS NOT REQUIRED TO BE POST MOUNTED.
9. WHEN THE WORK AREA CHANGES WITHIN THE WORK AREA, THESE SIGNS SHOULD BE MOVED TO REFLECT THE ACTUAL WORK AREA.
10. TYPICALLY 2 MILES [3.2 km] IS THE MAX. WORK AREA. HOWEVER, WHEN SIGHT DISTANCE, BUFFER ZONES OR ACCOMPLISHMENT RATES FOR EQUIPMENT ARE CONSIDERED, SOME MINOR ADJUSTMENTS TO THIS MAX. MAY BE CONSIDERED.
11. XX = NORMAL POSTED SPEED LIMIT(S).
* DENOTES SIGNS THAT ARE UNIQUE TO MONTANA.

UNITS SHOWN IN BRACKETS [] ARE METRIC AND ARE IN MILLIMETERS (mm) UNLESS OTHER UNITS ARE ShOWN.

MAINTENANCE GUIDELINE
FOR SHORT-TERM LANE CLOSURE ON INTERSTATE

DetaileD DRAWING
REFERENCE DWG. NO. 618-M3
STANDARD SPEC. SECTION 618
MONTANA DEPARTMENT OF TRANSPORTATION
NOTES:

1. MINIMAL TRAFFIC CONTROL DEVICES CONTROLLING PEDESTRIAN FLOWS ARE SHOWN. OTHER DEVICES MAY BE NEEDED TO CONTROL TRAFFIC ON THE STREETS. USE THE APPROPRIATE PARKING LANE CLOSURE WHEN NEEDED.

2. DO NOT DIRECT PEDESTRIANS INTO A LANE OF MOVING TRAFFIC.

3. WHERE SPEEDS EXCEED 25 M.P.H., PHYSICAL BARRIERS SHOULD BE USED TO SEPARATE THE TEMPORARY WALKWAY FROM VEHICULAR TRAFFIC. FLEXIBLE GUIDE POSTS WITH DETECTABLE EDGING IS THE MINIMUM REQUIREMENT FOR SEPARATION. PROVIDE LARGER PHYSICAL BARRIERS, AS DETERMINED BY THE PROJECT MANAGER, ON A CASE BY CASE BASIS.

4. SEE DTL. DWG. 618-03.

5. PROVIDE A PHYSICAL BARRIER, WITH A MINIMUM 6 INCH (150 mm) HEIGHT DETECTABLE EDGING, BETWEEN THE PEDESTRIAN DETOUR WALKWAY AND THE WORK AREA. PROVIDE LARGER PHYSICAL BARRIERS TO PROTECT PEDESTRIANS FROM HAZARDS IN THE WORK AREA, AS DETERMINED BY THE PROJECT MANAGER.

6. ENSURE THAT ENTIRE WALKWAY MEETS ADA REQUIREMENTS. PROVIDE A MINIMUM WALKWAY WIDTH OF 5 FEET (1525 mm) AND A FIRM, STABLE, SLIP RESISTANT WALKING SURFACE ALONG ENTIRE WALKWAY.

7. PROVIDE TEMPORARY RAMPS AND DETECTABLE EDGING (MINIMUM 6 INCH HEIGHT (150 mm) ON BOTH SIDES OF WALKWAY) ALONG TEMPORARY PEDESTRIAN DETOUR ROUTE. SEE MUTCD FOR ADDITIONAL GUIDANCE.

8. PLACE RR-11 OR SIGN POSTS (AS ShOWN BELOW) IF BUSINESS ACCESS IS REQUIRED, PLACE TYPE I BARRICADE ON SIDEWALK WITH RR-11 SIGN IF BUSINESS ACCESS IS NOT REQUIRED.

9. PLACE TYPE I BARRICADE ON SIDEWALK WITH RR-9 SIGN.

---

PEDESTRIAN DETOUR

BYPASS WALKWAY PROVIDED THROUGH WORK ZONE

---

LEGEND

- = FLEXIBLE GUIDE POSTS

UNITs SHOWN IN BRACKETS [ ] ARE METRIC AND ARE IN MILLIMETERS (mm) UNLESS OTHER UNITS ARE SHOWN.
<table>
<thead>
<tr>
<th>POSTED SPEED LIMIT FOR WORK ZONE</th>
<th>SIGN SPACING (A)</th>
<th>TAPER LENGTH (L)</th>
<th>SPACING OF CHANNELIZING DEVICES (MAX) (G)**</th>
<th>BUFFER SPACE (B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(M.P.H.)</td>
<td>FEET [m]</td>
<td>FEET [m]</td>
<td>FEET [m]</td>
<td>FEET [m]</td>
</tr>
</tbody>
</table>

** SPACE ALL CHANNELIZING DEVICES AT "G" UNLESS OTHERWISE NOTED.

---

** NOTES:

1. USE THIS SIGN LAYOUT IN URBAN APPLICATIONS ONLY. USE THE RURAL, OPEN ROADWAY SIGNING DETAILS WHEN HIGHER SPEED LIMITS ARE USED.

2. INCLUDE SPEED LIMIT SIGNS ONLY IF THERE IS A REASON TO RESTRICT SPEED, COVER OR REMOVE EXISTING CONFLICTING SIGNS.

3. THE BUFFER SPACE MAY BE INCREASED FOR DOWNGRADES AND OTHER CONDITIONS THAT AFFECT STOPPING DISTANCE.

4. THE SHOULDER TAPER MAY BE OMITTED WHEN THE PAVED SHOULDER IS LESS THAN 8’ [2.4 m] IN WIDTH.

5. IF PEDESTRIAN TRAFFIC IS IMPACTED SEE DTL. DWS. 618-005.

6. LARGER SIGN SIZES MAY BE APPROVED BY THE PROJECT MANAGER.

7. PLACE END ROAD WORK SIGNS AT END OF PROJECT LIMITS.

8. POST EXISTING SPEED LIMIT IF CHANGED BY WORK ZONE.

9. SEE DTL. DWS. 618-03.

---

** LEGEND**

- FLEXIBLE GUIDE POSTS
- PLASTIC DRUMS
- DENOTES SIGNS THAT ARE UNIQUE TO MONTANA.

XX - SPEED DETERMINED BY THE PROJECT MANAGER (25 M.P.H. OR 35 M.P.H.)

# - DELITERATE CONFlicting PAVEMENT MARKINGS WHEN WORK OPERATION IS LONGER THAN 3 DAYS.

(Do not remove thermoplastic)

---

UNITS SHOWN IN BRACKETS [ ] ARE METRIC AND ARE IN MILLIMETERS (mm) UNLESS OTHER UNITS ARE SHOWN.

---

** DETAILED DRAWING **

REFERENCE DWG. NO. 618-U15

STANDARD SPEC. 618

SECTION 618

LANE CLOSURE (URBAN TWO-LANE, TWO-WAY ROAD WITH TWO-WAY LEFT TURN LANE)

MTDA MONTANA DEPARTMENT OF TRANSPORTATION
### Table:Posted Speed Limit for Work Zone

<table>
<thead>
<tr>
<th>Posted Speed Limit (M.P.H.)</th>
<th>Sign Spacing (A)</th>
<th>Taper Length (L)</th>
<th>Spacing of Channelizing Devices (Max. G)</th>
<th>Buffer Space (B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>100 (30)</td>
<td>125 (40)</td>
<td>25 (8)</td>
<td>50 (15)</td>
</tr>
<tr>
<td>35</td>
<td>100 (30)</td>
<td>245 (84)</td>
<td>35 (12)</td>
<td>100 (30)</td>
</tr>
</tbody>
</table>

** Space all channelizing devices at "G" unless otherwise noted.

### Notes:
1. Use this sign layout in urban applications only. Use the rural, open roadway signing details when higher speed limits are used.
2. Include speed limit signs only if there is a reason to restrict speed, cover or remove conflicting existing speed limit signs.
3. The buffer space may be increased for downgrades and other conditions that affect stopping distance.
4. Larger sign sizes may be approved by the project manager.
5. Place end road work signs at end of project limits.
6. Post existing speed limit if changed by work zone.
7. See DTL DWE 618-03.

### Legend:
- Flexible guide posts
- Plastic drums
- Denotes signs that are unique to Montana.

**XX** = Speed determined by the project manager (25 M.P.H. or 35 M.P.H.)

### Units:
Units shown in brackets [ ] are metric and are in millimeters (mm) unless other units are shown.

---

**Detailed Drawing Reference:** Dwg. No. 618-U16
**Standard Spec. Section:** 618
**Turn Lane Closure (Urban Two-Lane, Two-Way Road With Two-Way Left Turn Lane)**

---

**MDT** Montana Department of Transportation
NOTES:

1. Use this sign layout in urban applications only. Use the rural, open roadway signing details when higher speed limits are used.

2. Include speed limit signs only if there is a reason to restrict speed, cover or remove conflicting existing speed limit signs.

3. The buffer space may be increased for downgrades and other conditions that affect stopping distance.

4. The shoulder taper may be omitted when paved shoulder is less than 2 (0.4 m) in width.

5. Larger sign sizes may be approved by the project manager.

6. Place end road work signs at end of project limits.

7. Post existing speed limit if changed by work zone.

8. See DTL Dwg. 618-03.

**SPACE ALL CHANNELIZING DEVICES AT "A" UNLESS OTHERWISE NOTED.**
**TABLE 1: POSTED SPEED LIMIT FOR WORK ZONE**

<table>
<thead>
<tr>
<th>POSTED SPEED LIMIT FOR WORK ZONE (M.P.H.)</th>
<th>SIGN SPACING (A)</th>
<th>TAPER LENGTH (L)</th>
<th>SPACING OF CHANNELIZING DEVICES (M.A.K.) (G) **</th>
<th>BUFFER SPACE (B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>100 (30)</td>
<td>125 (40)</td>
<td>25 (8)</td>
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<td>35</td>
<td>100 (30)</td>
<td>245 (84)</td>
<td>35 (12)</td>
<td>100 (30)</td>
</tr>
</tbody>
</table>

**NOTE:**
- **SPACE ALL CHANNELIZING DEVICES AT "G" UNLESS OTHERWISE NOTED.**

---

**NOTES:**
1. **USE THIS SIGN LAYOUT IN URBAN APPLICATIONS ONLY. USE THE RURAL OPEN ROADWAY SIGNING DETAILS WHEN HIGHER SPEED LIMITS ARE USED.**
2. **INCLUDE SPEED LIMIT SIGNS ONLY IF THERE IS A REASON TO RESTRICT SPEED COVER OR REMOVE CONFLICTING EXISTING SPEED LIMIT SIGNS.**
3. **THE BUFFER SPACE MAY BE INCREASED FOR DOWNGRADES AND OTHER CONDITIONS THAT AFFECT STOPPING DISTANCE.**
4. **LARGER SIGN SIZES MAY BE APPROVED BY THE PROJECT MANAGER.**
5. **PLACE END ROAD WORK SIGN AT END OF PROJECT LIMITS.**
6. **POST EXISTING SPEED LIMIT IF CHANGED BY WORK ZONE.**

---

**LEGEND**

- **FLEXIBLE GUIDE POSTS**
- **PLASTIC DRUMS**
- **DENOTES SIGNS THAT ARE UNIQUE TO MONTANA.**
- **XX = SPEED DETERMINED BY THE PROJECT MANAGER (25 M.P.H. OR 35 M.P.H.)**

---

**UNITS SHOWN IN BRACKETS [ ] ARE METRIC AND ARE IN MILLIMETERS (mm). UNLESS OTHERS ARE SHOWN.**
** Space all channelizing devices at 'C' unless otherwise noted.
** POSTED SPEED LIMIT FOR WORK ZONE **

<table>
<thead>
<tr>
<th>SPEED LIMIT (M.P.H.)</th>
<th>FEET (m)</th>
<th>FEET (m)</th>
<th>FEET (m)</th>
<th>FEET (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>100 (30)</td>
<td>125 (40)</td>
<td>25 (8)</td>
<td>50 (15)</td>
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<tr>
<td>35</td>
<td>100 (30)</td>
<td>245 (84)</td>
<td>35 (12)</td>
<td>100 (30)</td>
</tr>
</tbody>
</table>

** SPACE ALL CHANNELIZING DEVICES AT "0" UNLESS OTHERWISE NOTED. **

** NOTES: **
1. USE THIS SIGN LAYOUT IN URBAN APPLICATIONS ONLY. USE THE RURAL, OPEN ROADWAY SIGNING DETAILS WHEN HIGHER SPEED LIMITS ARE USED.
2. INCLUDE SPEED LIMIT SIGNS ONLY IF THERE IS A REASON TO RESTRICT SPEED, COVER OR REMOVE CONFlicting EXISTING SPEED LIMIT SIGNS.
3. THE BUFFER SPACE MAY BE INCREASED FOR DOWNGRADES AND OTHER CONDITIONS THAT AFFECT STOPPING DISTANCE.
4. THE SHOULDER TAPER MAY BE OMITTED WHEN THE PAVED SHOULDER IS LESS THAN 8' (2.4 m) IN WIDTH.
5. LARGER SIGN SIZES MAY BE APPROVED BY THE PROJECT MANAGER.
6. PLACE END ROAD WORK SIGNS AT END OF PROJECT LIMITS.
7. POST EXISTING SPEED LIMIT IF CHANGED BY WORK ZONE.
8. SEE DTL. DWG. 618-03.

** LEGEND **
- FLEXIBLE GUIDE POSTS
- PLASTIC DRUMS
- ** - DENOTES SIGNS THAT ARE UNIQUE TO MONTANA
- XX - SPEED DETERMINED BY THE PROJECT MANAGER (25 M.P.H. OR 35 M.P.H.)
- - - OBLITERATE CONFlicting PAVEMENT MARKINGS WHEN WORK OPERates LONGER THAN 3 DAYS (DO NOT REMOVE THERMOPLASTIC)

** UNITS SHOWN IN BRACKETS [ ] ARE METRIC AND ARE IN MILLIMETERS (mm) UNLESS OTHER UNITS ARE SHOWN. **

** DETAILED DRAWING **

** REFERENCE DWG. NO. STANDARD SPEC. SECTION 618 **

** MONTANA DEPARTMENT OF TRANSPORTATION **