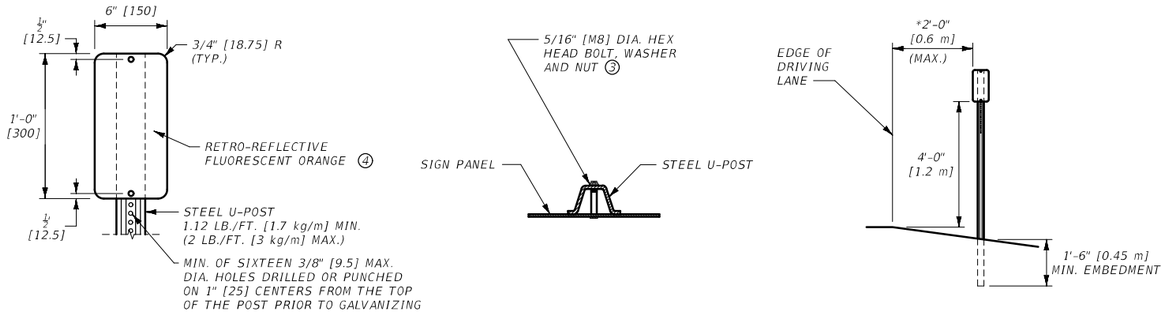


TYPE 2 OBJECT MARKER

TYPE 2 OBJECT MARKER NOTES:

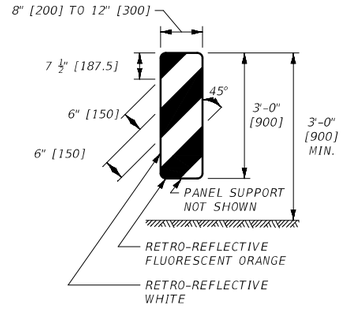
① USE TYPE 2 OBJECT MARKERS TO DELINEATE ROADSIDE CONSTRICTIONS OF THE CLEAR ZONE (i.e. DROP OFFS, OBSTACLES, ABRUPT CHANGES IN ROADWAY ALIGNMENT, ETC.)

② DO NOT USE TYPE 2 OBJECT MARKERS AS CHANNELIZING DEVICES.

③ ATTACH PANELS TO POSTS AT BOTH TOP AND BOTTOM HOLE LOCATIONS.

④ USE RETRO-REFLECTIVE SHEETING AS PER THE CONTRACT.

* REDUCE OR ELIMINATE THE 2'-0" [0.6 m] DISTANCE WHEN OBSTACLE OR HAZARD IS LESS THAN 2'-0" [0.6 m] FROM THE EDGE OF THE DRIVING LANE.



PORTABLE VERTICAL PANEL

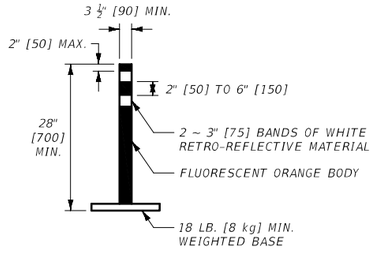
(VP-1R SHOWN. REVERSE FOR VP-1L.)

PORTABLE VERTICAL PANEL NOTES:

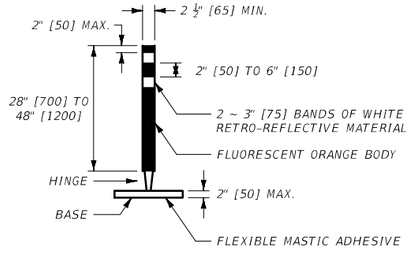
① USE PORTABLE VERTICAL PANELS AS CHANNELIZING DEVICES ONLY. DO NOT USE PORTABLE VERTICAL PANELS TO DELINEATE ROADSIDE CONSTRICTIONS OF THE CLEAR ZONE.

② VERTICAL PANELS DESIGNATED "R" ARE PLACED TO THE RIGHT SIDE OF APPROACHING TRAFFIC. THOSE DESIGNATED "L" ARE PLACED TO THE LEFT SIDE.

③ USE RETRO-REFLECTIVE SHEETING AS PER THE CONTRACT.



FLEXIBLE GUIDE POST (TUBULAR MARKER)



HINGED FLEXIBLE GUIDE POST (TUBULAR MARKER)

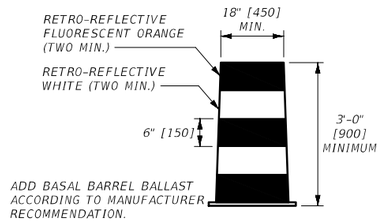
(SELF RIGHTING AFTER IMPACT)

FLEXIBLE GUIDE POST AND PLASTIC DRUM NOTES:

① USE FLEXIBLE GUIDE POSTS AND PLASTIC DRUMS AS CHANNELIZING DEVICES.

② USE ASTM TYPE III RETRO-REFLECTIVE SHEETING ON ALL PLASTIC DRUMS AND FLEXIBLE GUIDE POSTS.

③ USE ONE SIZE GUIDE POST FOR CONTINUOUS RUNS.



DRUMS HAVE CLOSED TOPS.

PLASTIC DRUM

GENERAL NOTES:

① SEE THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) PART 6 FOR ADDITIONAL INFORMATION.

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

--REVISED--
APR 28, 2022
JUN 27, 2024

DETAILED DRAWINGS

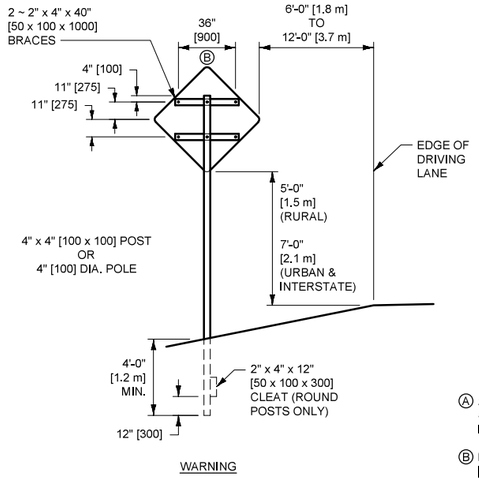
REFERENCE	DWG. NO.
STANDARD SPEC.	618-00
SECTION 618	

CHANNELIZING DEVICES AND OBJECT MARKERS

EFFECTIVE: JAN 23, 2020

MONTANA Department of Transportation

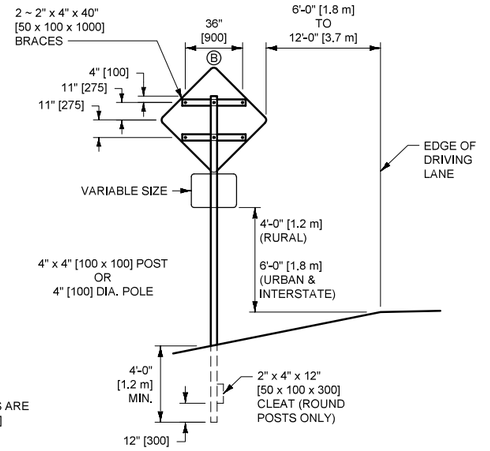
5/14/2024 9:09 AM STDDRD618000.DWG



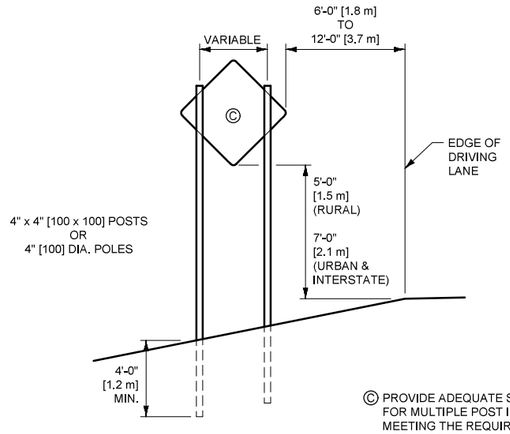
WARNING

Ⓐ ALL WARNING SIGNS ARE 48" x 48" [1200 x 1200] IN SIZE.

Ⓑ DIMENSIONS ARE FROM | BOLT TO | BOLT.

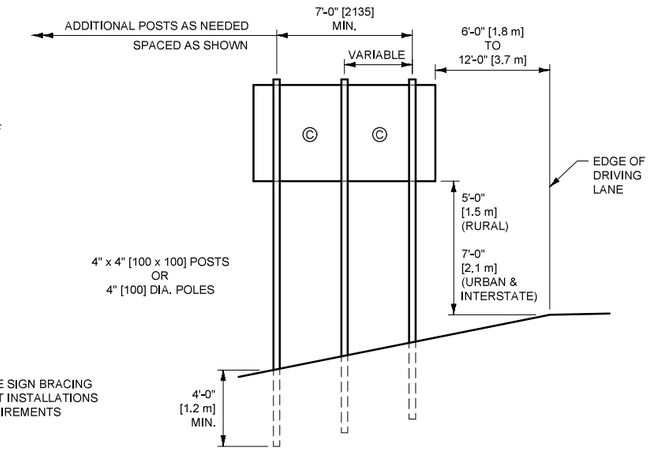


WARNING
WITH SUPPLEMENTAL PANEL



TWO POSTS

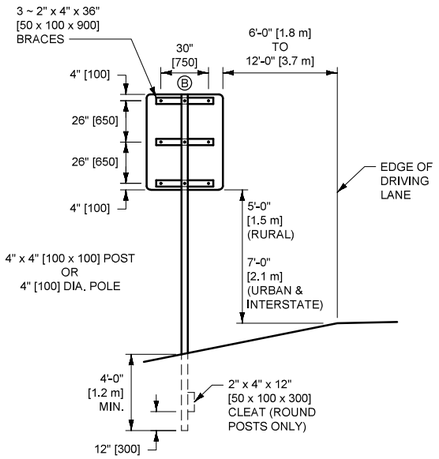
Ⓒ PROVIDE ADEQUATE SIGN BRACING FOR MULTIPLE POST INSTALLATIONS MEETING THE REQUIREMENTS OF NCHRP 350.



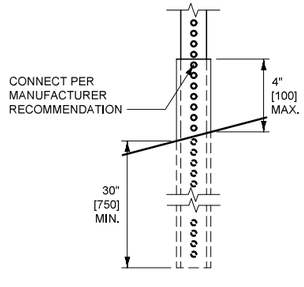
THREE OR MORE POSTS

TYPICAL MULTIPLE POST INSTALLATIONS

(FOR CONSTRUCTION SIGNING ONLY)

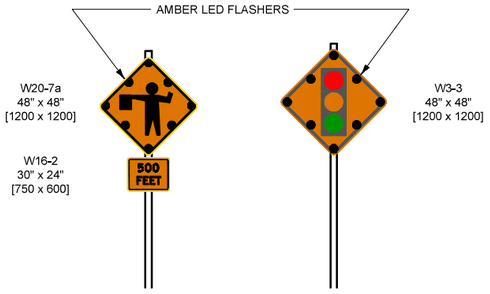


REGULATORY
48" x 60"
[1200 x 1500]
PANEL

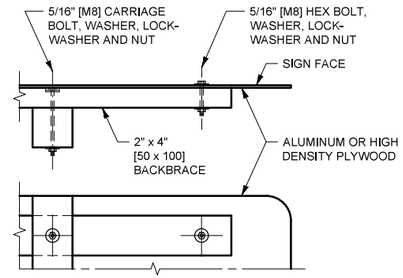


OPTIONAL TELESPAR MOUNTING

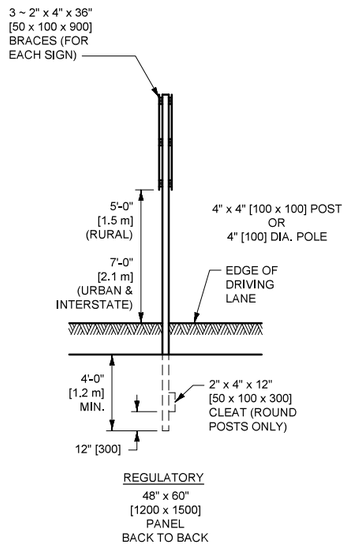
(FOR CONSTRUCTION SIGNING ONLY)



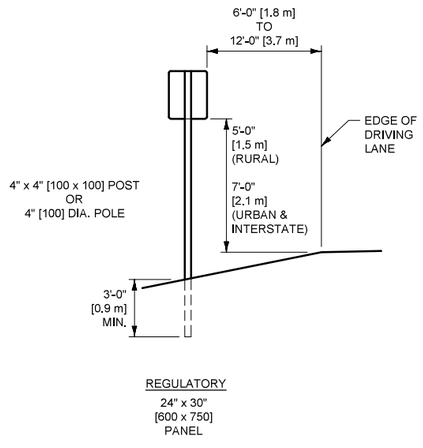
FLASHING FLAGGER AND SIGNAL AHEAD SIGN



SIGN FASTENING DETAILS



REGULATORY
48" x 60"
[1200 x 1500]
PANEL
BACK TO BACK



REGULATORY
24" x 30"
[600 x 750]
PANEL

TYPICAL SIGN MOUNTINGS

(FOR CONSTRUCTION SIGNING ONLY)

NOTES:

① FURNISH POST INSTALLATIONS MEETING NCHRP 350 OR MASH CRASH TEST REQUIREMENTS.

② FURNISH POST OR POLE LENGTHS TO ACCOMMODATE FOUNDATION DEPTH, MOUNTING HEIGHT AND MOUNTINGS.

③ BACKFILL FOUNDATION HOLES USING THOROUGHLY COMPACTED 8" LIFTS.

④ IN HIGH WIND AREAS INSTALL LARGER POSTS OR POLES COMPLYING WITH THE FOUNDATION AND BREAKAWAY REQUIREMENTS OF DTL. DWG. NO. 619-20. THE MINIMUM POST SPACING FOR MULTIPLE POSTS LARGER THAN 4" [100] IS 7'-0" [2135].

⑤ SIGN VERTICAL ALIGNMENT MUST BE WITHIN 5° OF PLUMB.

⑥ USE THE URBAN MOUNTING HEIGHTS IN BUSINESS, COMMERCIAL, AND RESIDENTIAL DISTRICTS WHERE PARKING AND/OR PEDESTRIAN MOVEMENT IS LIKELY TO OCCUR, OR VIEW IS OBSTRUCTED. URBAN MOUNTING HEIGHTS MAY ALSO BE USED IN RURAL AREAS FOR INCREASED VISIBILITY.

⑦ AMBER LED FLASHERS MUST MEET STANDARD SPECIFICATION SECTION 715 REQUIREMENTS.

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

DETAILED DRAWINGS

REFERENCE	DWG. NO.
STANDARD SPEC. SECTION 618, 715	618-01

CONSTRUCTION SIGN DETAILS

EFFECTIVE: JAN 23, 2020

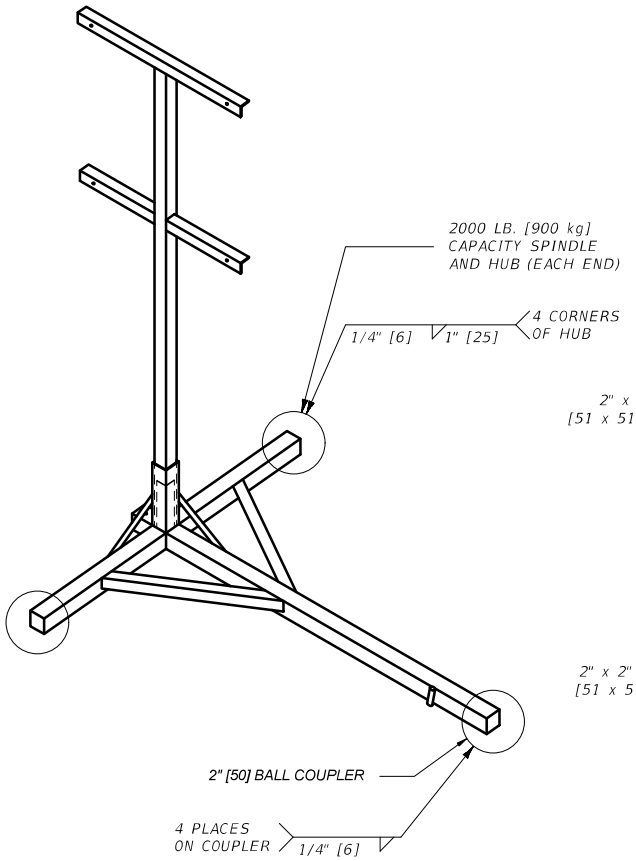
--REVISED--
JUN 27, 2024

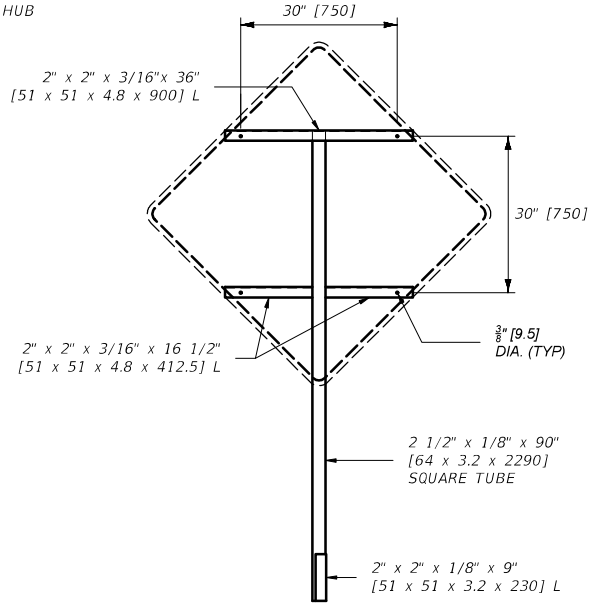
MONTANA
Department of Transportation

5/14/2024 9:13 AM STDDRD618001.DWG

NOTES:

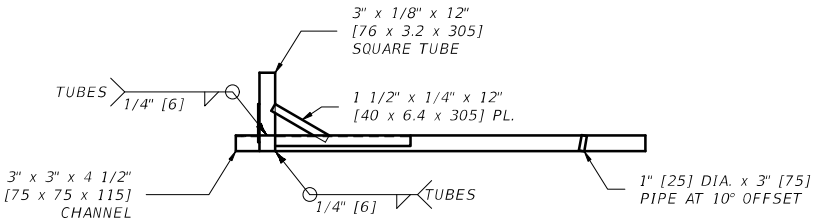
1. MAXIMUM ASSEMBLY WEIGHT IS 250 LBS.
2. USE 14" [355] WHEEL AND TIRE.
3. DO NOT USE AUTOMOTIVE OR EQUIPMENT AXLE ASSEMBLIES WITH TRAILERED SIGN SUPPORTS.
4. NCHRP 350 OR MASH APPROVED ASSEMBLIES ARE ACCEPTABLE.



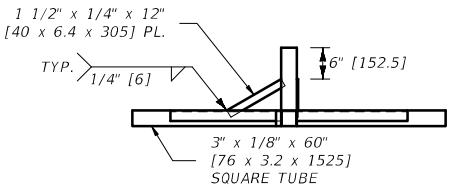


FRONT RIGHT

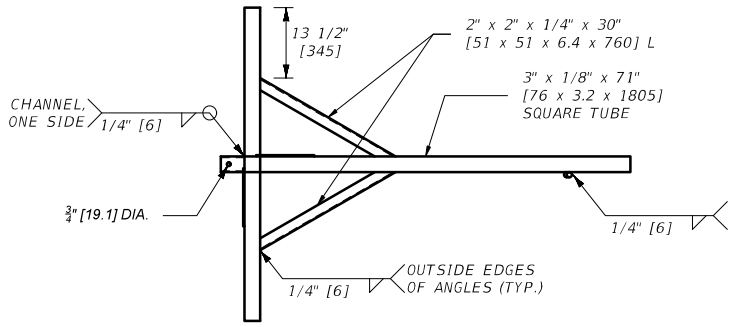
SIGN SUPPORT



FRONT



RIGHT



TOP

TRAILER

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

--REVISED--
JUN 27, 2024

DETAILED DRAWINGS

REFERENCE STANDARD SPEC. SECTION 618, 715

DWG. NO. 618-02

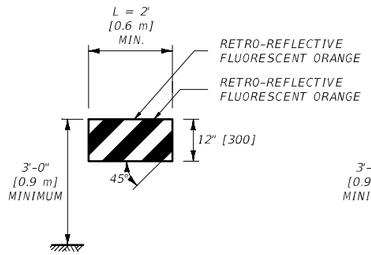
PORTABLE SIGN SUPPORT ASSEMBLY

EFFECTIVE: JAN 23, 2020

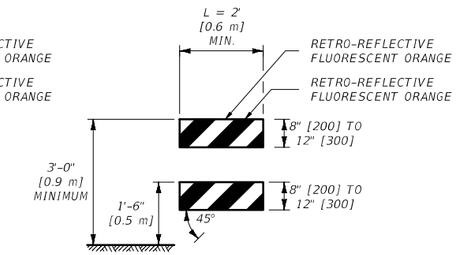
MONTANA Department of Transportation

5/14/2024 9:15 AM STDDRD618002.DWG

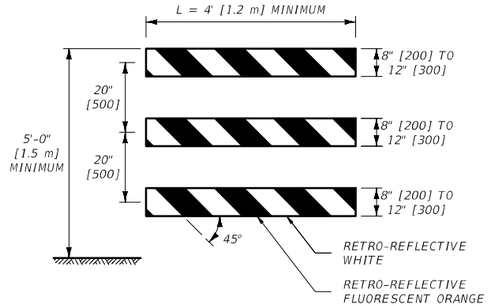
PORTABLE BARRICADES



B(I)-R



B(II)-R

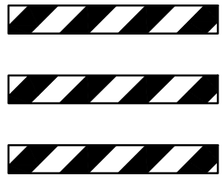


B(III)-L

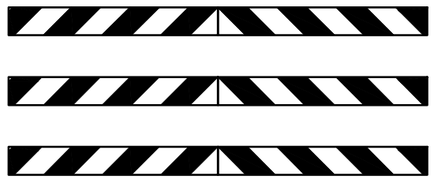
PORTABLE BARRICADE NOTES:

1. RAIL STRIPES ARE 6" [150] IN WIDTH FOR BARRICADES 3' [0.9 m] OR GREATER IN LENGTH. FOR BARRICADES LESS THAN 3' [0.9 m] IN LENGTH, 4" [100] STRIPES MAY BE USED.
2. THE PREDOMINANT COLOR FOR OTHER BARRICADE COMPONENTS IS WHITE, BUT UNPAINTED GALVANIZED METAL OR ALUMINUM COMPONENTS MAY BE USED.
3. B(111) BARRICADES FACING TRAFFIC FROM BOTH DIRECTIONS MUST BE STRIPED ON BOTH SIDES.
4. USE MATERIALS FOR BARRICADE FRAMEWORK, ASSEMBLY, ATTATCHED SIGNS, AND MEANS OF SIGN ATTACHMENT MEETING NCHRP 350 AND/OR MASH REQUIREMENTS FOR WORK ZONE DEVICES. OPTIONS FOR SIGN ATTACHMENT ARE:
   - SIGNS UP TO 10 SQ FT [1.0 SQ m] BOLTED TO TOP RAIL.
   - SIGNS OVER 16 SQ FT [1.5 SQ m] BOLTED TO RAILS AND BOTH UPRIGHT SUPPORTS.
   - SIGNS MAY BE MOUNTED BEHIND BARRICADES ON SEPARATE NCHRP 350 AND/OR MASH APPROVED SIGN SUPPORTS.
5. SUFFICIENTLY WEIGHT SANDBAGS TO ANCHOR BARRICADES. WATERPROOF SANDBAGS DURING FREEZING WEATHER.
6. USE RETRO-REFLECTIVE SHEETING IN ACCORDANCE WITH THE CONTRACT.

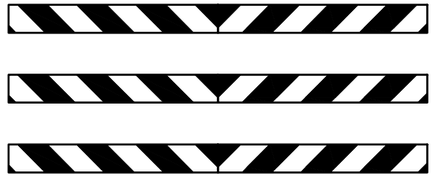
RAIL STRIPES



WHERE BARRICADES EXTEND ACROSS THE ENTIRE ROADWAY, POSITION BARRICADES WITH STRIPES SLOPING DOWNWARD IN THE DIRECTION VEHICLES MUST TURN.



WHERE BOTH LEFT AND RIGHT TURNS ARE PERMITTED, POSITION BARRICADES WITH STRIPES SLOPING DOWNWARD LEFT AND RIGHT AWAY FROM BARRICADE CENTER.



WHERE TURNING IS NOT PERMITTED, POSITION BARRICADES WITH STRIPES SLOPING DOWNWARD TOWARD BARRICADE CENTER.

GENERAL NOTES:

1. SEE THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) PART 6 FOR ADDITIONAL INFORMATION.

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

DETAILED DRAWINGS

REFERENCE STANDARD SPEC. SECTION 618	DWG. NO. 618-03

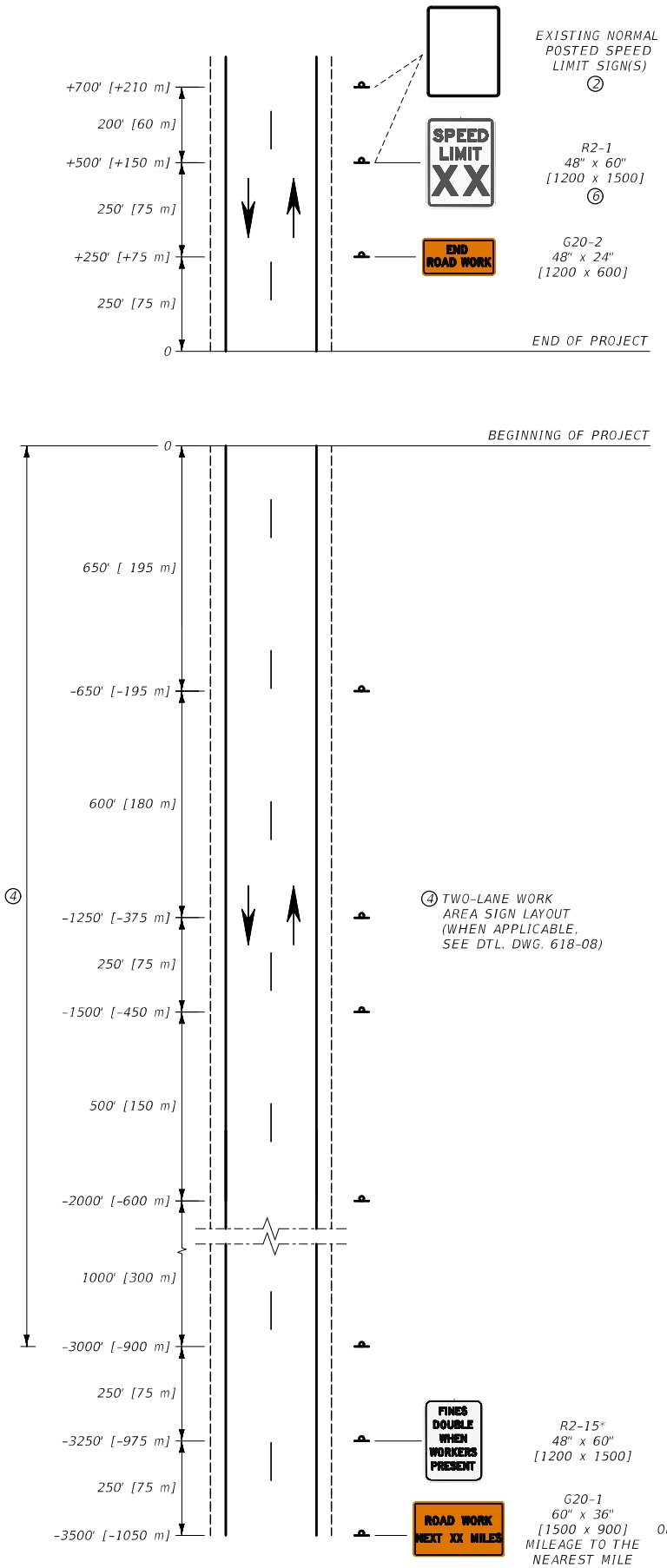
BARRICADES

EFFECTIVE: JAN 23, 2020

MONTANA
Department of Transportation

--REVISED--
JUN 27, 2024

5/14/2024 9:19 AM STDDRD618003.DWG



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 UNWARRANTED SPEED LIMIT SIGNS. REMOVE ANY SIGN SUPPORTS IF THEY WILL NOT BE NEEDED WITHIN 90 DAYS.

(2) POST THE END OF WORK ZONE SPEED LIMIT USING 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 (DTL. 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 UNIQUE TO MONTANA.

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

DETAILED DRAWINGS

REFERENCE STANDARD SPEC. SECTION 618

DWG. NO. 618-04

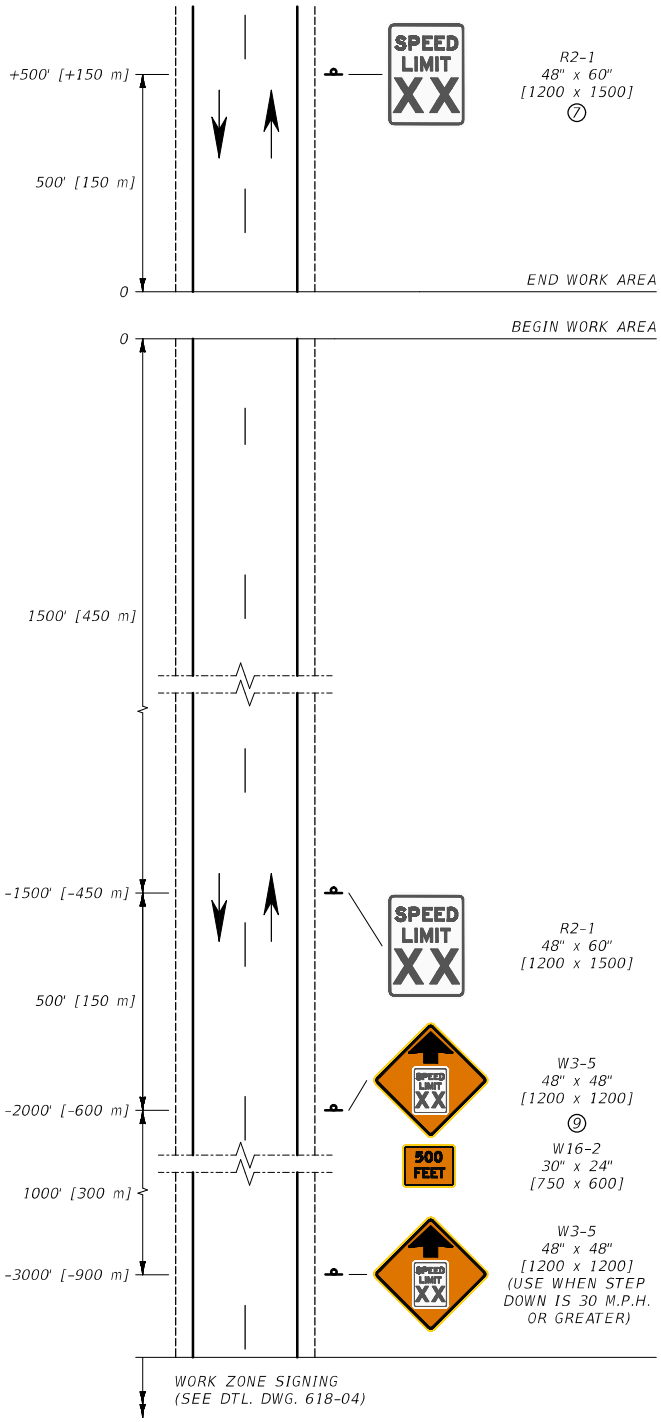
TWO-LANE WORK ZONE

EFFECTIVE: JAN 23, 2020

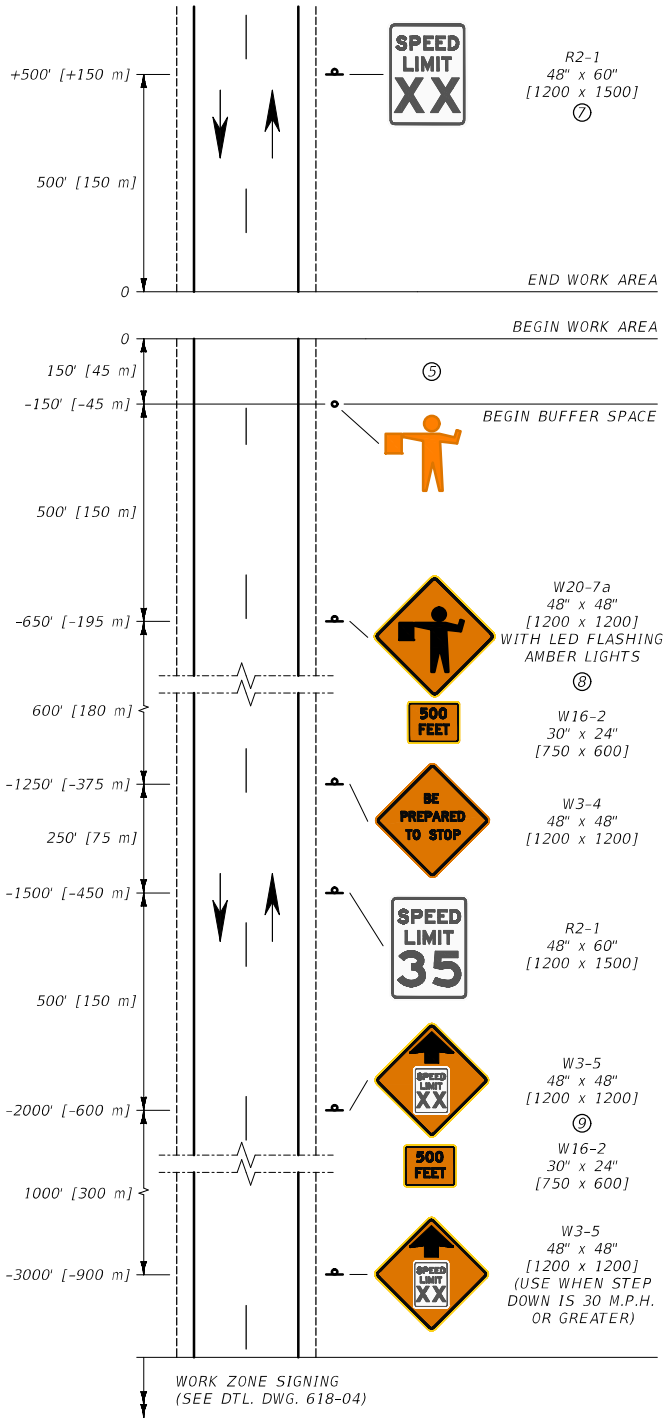
--REVISED--
JUN 27, 2024

MONTANA Department of Transportation

5/14/2024 10:15 AM STDDRD618004.DWG



WORK AREA WITH NO FLAGGER



WORK AREA WITH FLAGGER

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. BUFFER SPACE MAY BE INCREASED FOR DOWNGRADES AND OTHER CONDITIONS AFFECTING 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. AMBER LED FLASHERS MUST MEET STANDARD SPECIFICATION SECTION 715 AND DTL. DWG. 618-01 REQUIREMENTS.
9. INCLUDE THESE SIGNS WITH ALL FLAGGERS. INCLUDE THESE SIGNS WITHIN WORK ZONES WHEN STEP DOWN IS 20 M.P.H. OR GREATER.

* DENOTES SIGNS UNIQUE TO MONTANA.

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

DETAILED DRAWINGS

REFERENCE	DWG. NO.
STANDARD SPEC. SECTION 618, 715	618-08

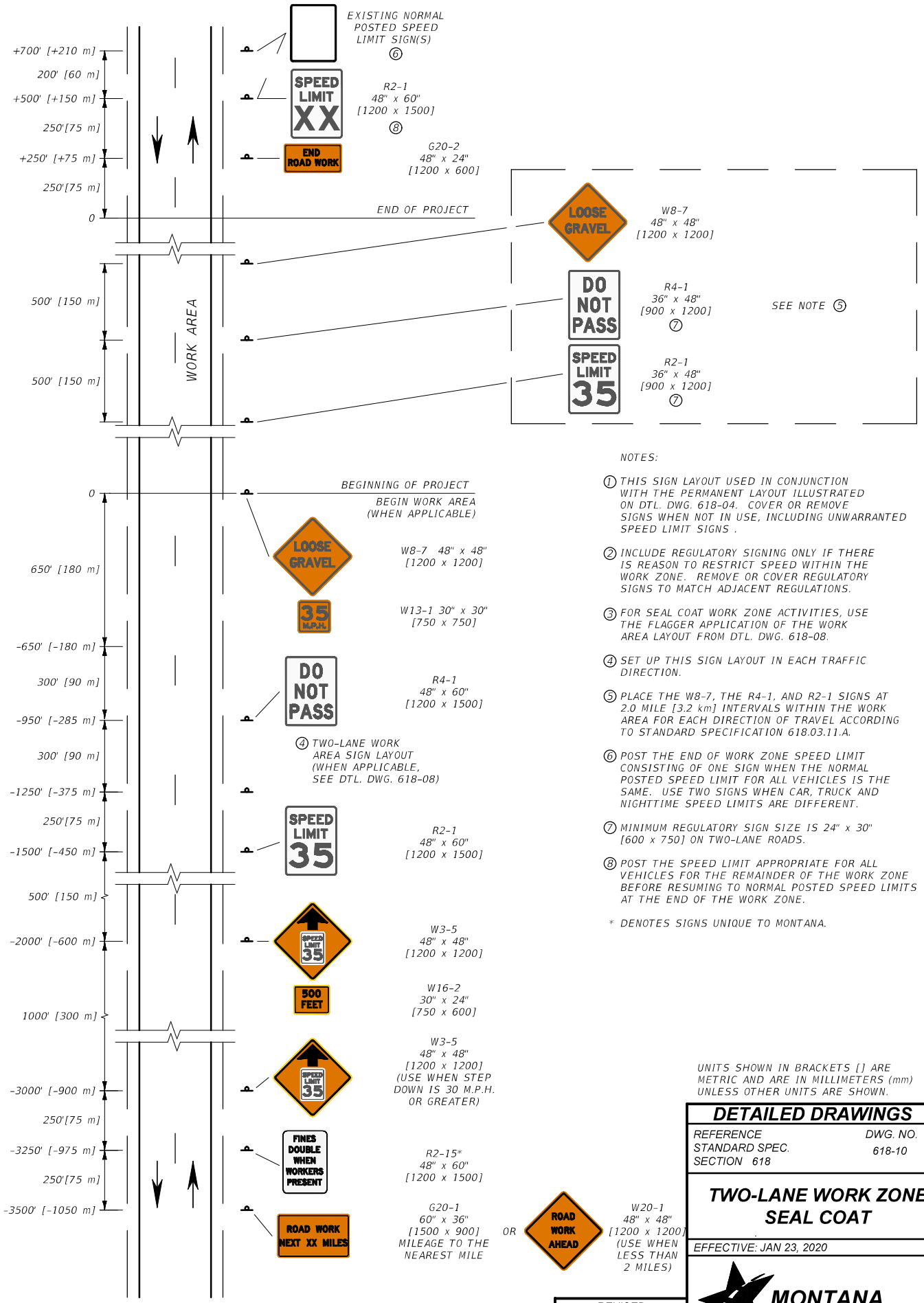
TWO-LANE WORK AREAS

EFFECTIVE: JAN 23, 2020

--REVISED--
JUN 27, 2024

MONTANA
Department of Transportation

5/14/2024 12:15 PM STDDRD618008.DWG



NOTES:

① THIS SIGN LAYOUT USED IN CONJUNCTION WITH THE PERMANENT LAYOUT ILLUSTRATED ON DTL. DWG. 618-04. COVER OR REMOVE SIGNS WHEN NOT IN USE, INCLUDING UNWARRANTED SPEED LIMIT SIGNS .

② INCLUDE REGULATORY SIGNING ONLY IF THERE IS REASON TO RESTRICT SPEED WITHIN THE WORK ZONE. REMOVE OR COVER REGULATORY SIGNS TO MATCH ADJACENT REGULATIONS.

③ FOR SEAL COAT WORK ZONE ACTIVITIES, USE THE FLAGGER APPLICATION OF THE WORK AREA LAYOUT FROM DTL. DWG. 618-08.

④ SET UP THIS SIGN LAYOUT IN EACH TRAFFIC DIRECTION.

⑤ PLACE THE W8-7, THE R4-1, AND R2-1 SIGNS AT 2.0 MILE [3.2 km] INTERVALS WITHIN THE WORK AREA FOR EACH DIRECTION OF TRAVEL ACCORDING TO STANDARD SPECIFICATION 618.03.11.A.

⑥ 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.

⑦ MINIMUM REGULATORY SIGN SIZE IS 24" x 30" [600 x 750] ON TWO-LANE ROADS.

⑧ 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 UNIQUE TO MONTANA.

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

DETAILED DRAWINGS

REFERENCE STANDARD SPEC. SECTION 618

DWG. NO. 618-10

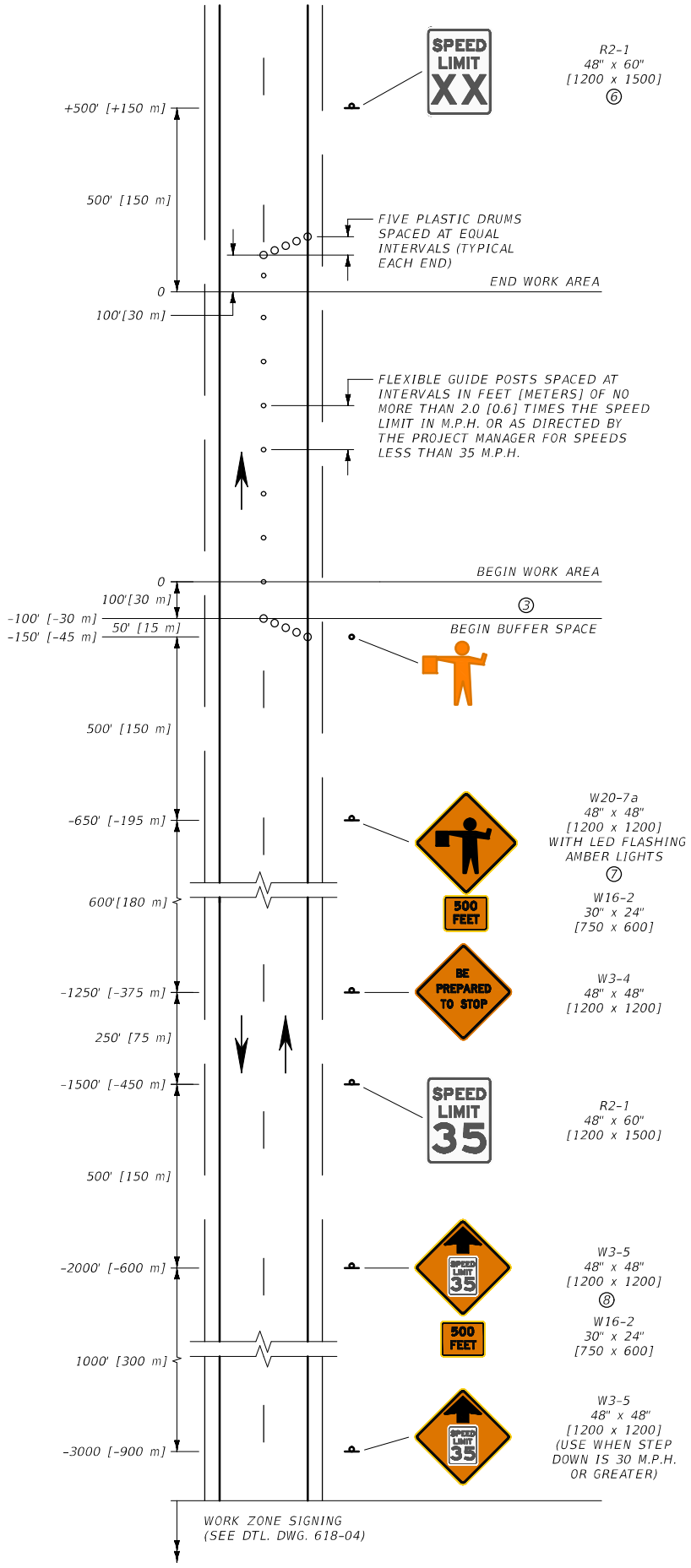
TWO-LANE WORK ZONE SEAL COAT

EFFECTIVE: JAN 23, 2020

--REVISED--
JUN 27, 2024

MONTANA Department of Transportation

5/14/2024 12:31 PM STDDRD618010.DWG



NOTES:

① MODIFY REGULATORY SIGNS TO MATCH ADJACENT REGULATIONS.

② SET UP THIS SIGN LAYOUT IN EACH TRAFFIC DIRECTION.

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

④ PROVIDE A SECOND FLAGGER WHEN REQUIRED BY SECTION 618.03.14.

⑤ XX = SPEED DETERMINED BY PROJECT MANAGER.

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.

⑦ AMBER LED FLASHERS MUST MEET STANDARD SPECIFICATION SECTION 715 AND DTL. DWG. 618-01 REQUIREMENTS.

⑧ INCLUDE THESE SIGNS WITH ALL FLAGGERS. INCLUDE THESE SIGNS WITHIN WORK ZONES WHEN STEP DOWN IS 20 M.P.H. OR GREATER.

* DENOTES SIGNS UNIQUE TO MONTANA.

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

DETAILED DRAWINGS

REFERENCE STANDARD SPEC. SECTION 618, 715

DWG. NO. 618-12

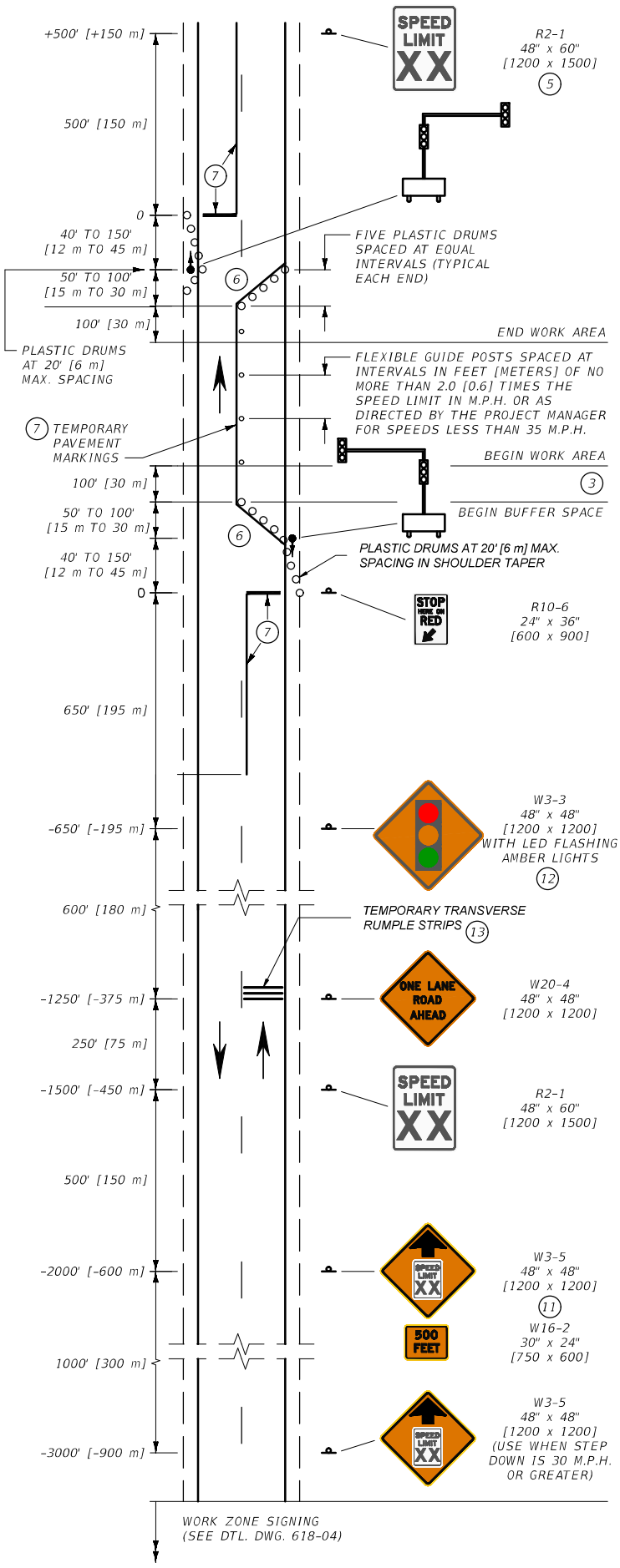
TWO-LANE WORK AREA LANE CLOSURE - FLAGGER CONTROLLED

EFFECTIVE: JAN 23, 2020

MONTANA Department of Transportation

--REVISED--
JUN 27, 2024

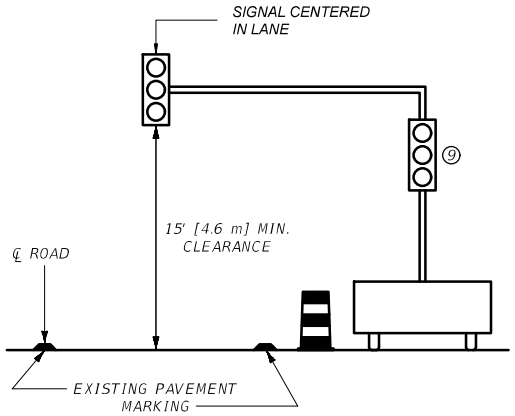
5/14/2024 12:42 PM STDDRD618012.DWG



NOTES:

1. MODIFY REGULATORY SIGNS TO MATCH ADJACENT REGULATIONS.
2. SET UP THIS SIGN LAYOUT IN EACH TRAFFIC DIRECTION.
3. BUFFER SPACE MAY BE INCREASED FOR DOWNGRADES AND OTHER CONDITIONS AFFECTING STOPPING DISTANCE.
4. XX = SPEED DETERMINED BY THE PROJECT MANAGER.
5. 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.
6. REMOVE ANY CONFLICTING PAVEMENT MARKINGS BETWEEN THE STOP LINE AND WORK ZONE BOUNDARY.
7. PLACE TEMPORARY PAVEMENT MARKINGS AS SHOWN WHEN ROADWAY SURFACE IS PAVED AND THE SIGNALS WILL BE IN PLACE LONGER THAN 3 DAYS. REMOVABLE TEMPORARY TAPE PAVEMENT MARKINGS AND MASKING MAY BE USED. IF TRAFFIC PAINT IS USED FOLLOW 620.03.6 FOR APPLICATION THICKNESS AND GLASS BEAD RATE. TEMPORARY STRIPING INSTALLATION AND MAINTENANCE AND MARKING REMOVAL COST IS INCIDENTAL TO SIGNAL INSTALLATION COST. STOP BARS MUST BE 24" WIDE AND SPAN THE ENTIRE LANE WIDTH. UPON REMOVAL OF THE TEMPORARY TRAFFIC CONTROL SIGNALS, REMOVE ALL TEMPORARY PAVEMENT MARKINGS USING NONDESTRUCTIVE METHODS AND RESTORE PERMANENT OR INTERIM PAVEMENT MARKINGS.
8. TEMPORARY TRAFFIC CONTROL SIGNALS MUST MEET PERMANENT TRAFFIC CONTROL SIGNAL PHYSICAL DISPLAY AND OPERATIONAL REQUIREMENTS.
9. ESTABLISH TEMPORARY TRAFFIC CONTROL SIGNAL TIMING BY CONSULTING WITH AN AUTHORIZED TRAFFIC ENGINEER. ENSURE RED CLEARANCE INTERVAL DURATIONS ALLOW VEHICLES TRAVELING IN OPPOSING DIRECTIONS TO CLEAR THE SINGLE LANE SECTION. INCORPORATE SAFEGUARDS TO AVOID CONFLICTING SIGNAL INDICATIONS AT OPPOSITE ENDS OF THE WORK ZONE.
10. USE TEMPORARY TRAFFIC CONTROL SIGNS AND DEVICES TO DIRECT TRAFFIC ENTERING FROM APPROACHES INTO THE SIGNAL CONTROLLED MAINLINE WORK AREA.
11. INCLUDE THESE SIGNS WITH ALL FLAGGERS. INCLUDE THESE SIGNS WITHIN WORK ZONES WHEN STEP DOWN IS 20 M.P.H. OR GREATER.
12. ENSURE AMBER LED FLASHERS MEET STANDARD SPECIFICATION 715 AND DTL. DWG. 618-01 REQUIREMENTS.
13. TEMPORARY TRANSVERSE RUMBLE STRIPS REQUIRED FOR NIGHTTIME OPERATIONS. REFER TO STANDARD SPECIFICATION 618.03.14.

* DENOTES SIGNS UNIQUE TO MONTANA.



TEMPORARY TRAFFIC CONTROL SIGNAL DETAIL

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

DETAILED DRAWINGS

REFERENCE STANDARD SPEC. SECTION 618

DWG. NO. 618-13

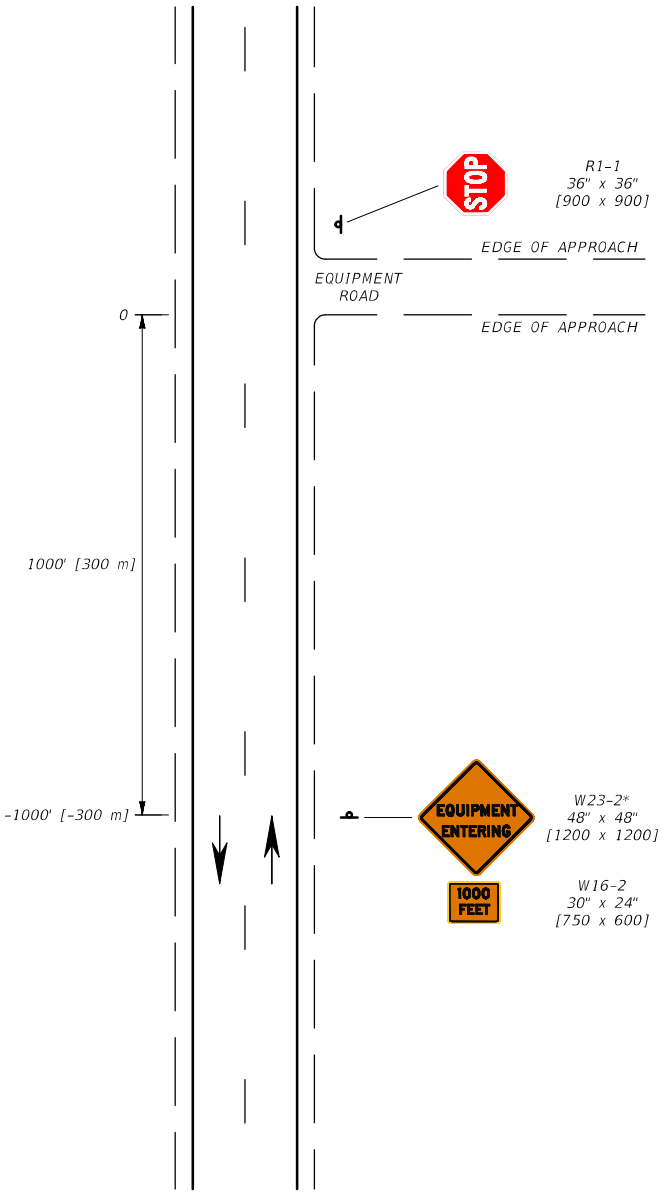
TWO-LANE WORK ZONE LANE CLOSURE - SIGNAL CONTROLLED

EFFECTIVE: JAN 23, 2020

--REVISED--
APR 28, 2022
JUN 27, 2024

MONTANA Department of Transportation

5/14/2024 12:57 PM STDDRD618013.DWG



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

NOTES:

1. REFER TO DTL. DWG. 618-16 IF FLAGGER IS NEEDED.
2. SET UP THIS SIGN LAYOUT IN EACH TRAFFIC DIRECTION, AS NEEDED.

* DENOTES SIGNS UNIQUE TO MONTANA.

DETAILED DRAWINGS

REFERENCE STANDARD SPEC. SECTION 618

DWG. NO. 618-14

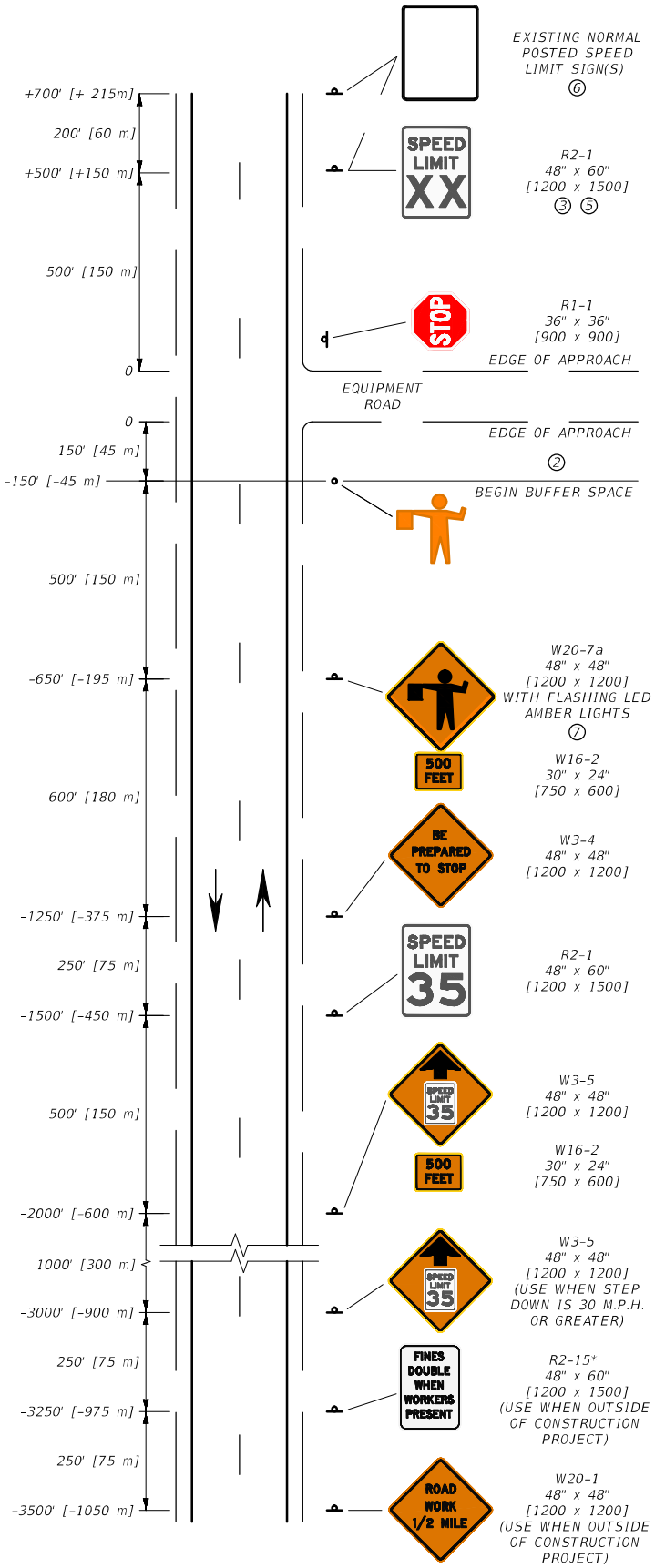
TWO-LANE EQUIPMENT ENTRANCES

EFFECTIVE: JAN 23, 2020

MONTANA Department of Transportation

--REVISED--
JUN 27, 2024

5/14/2024 1:09 PM STDDRD618014.DWG



EQUIPMENT ENTRANCE WITH FLAGGER

NOTES:

① SET UP THIS SIGN LAYOUT IN EACH TRAFFIC DIRECTION, AS NEEDED.

② BUFFER SPACE MAY BE INCREASED FOR DOWNGRADES AND OTHER CONDITIONS AFFECTING STOPPING DISTANCE.

③ XX = SPEED DETERMINED BY THE PROJECT MANAGER.

④ WHEN THIS SIGN LAYOUT OCCURS OUTSIDE A CONSTRUCTION PROJECT, INCLUDE THE W20-1 AND R2-15* SIGNS.

⑤ 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.

⑥ OUTSIDE THE PROJECT, USE A SINGLE SIGN TO POST THE SPEED LIMIT WHEN THE NORMALLY POSTED SPEED LIMIT IS THE SAME FOR ALL VEHICLES. USE TWO SEPARATE SPEED LIMIT SIGNS TO DENOTE TRUCK SPEED LIMIT, AND CAR DAYTIME/NIGHTTIME SPEED LIMITS.

⑦ ENSURE AMBER LED FLASHERS MEET STANDARD SPECIFICATION SECTION 715 AND DTL. DWG. 618-01 REQUIREMENTS.

* DENOTES SIGNS UNIQUE TO MONTANA.

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

DETAILED DRAWINGS

REFERENCE STANDARD SPEC. SECTION 618, 715

DWG. NO. 618-16

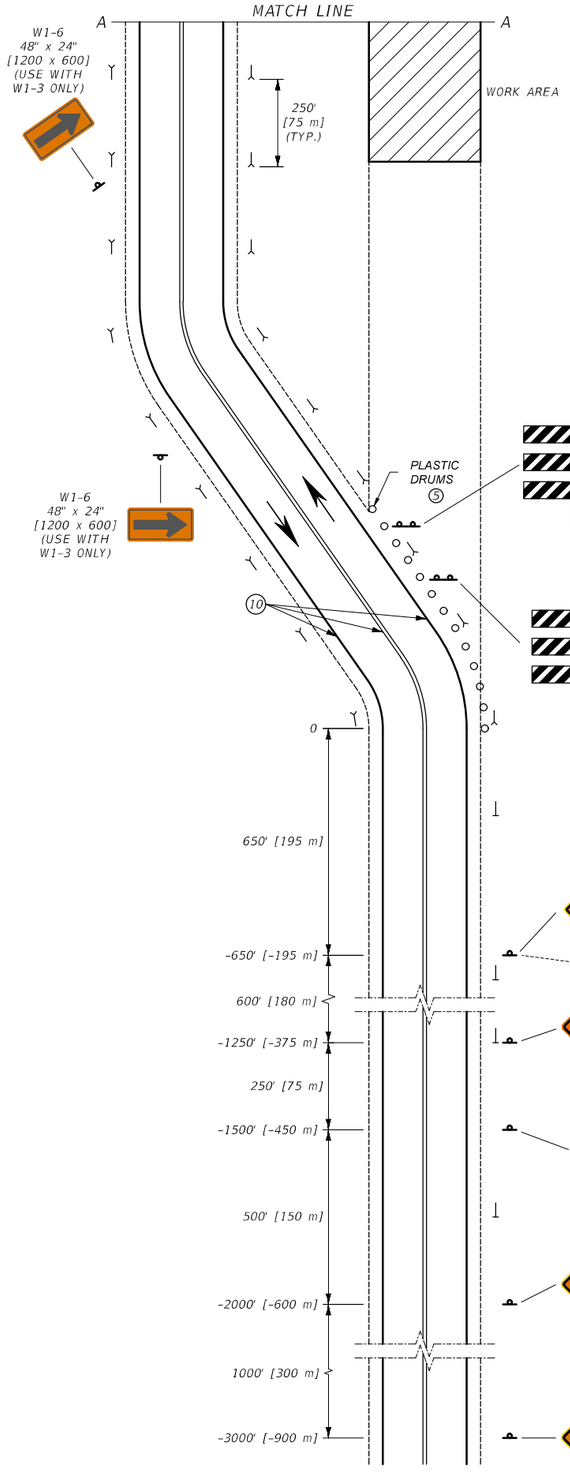
TWO-LANE EQUIPMENT ENTRANCES

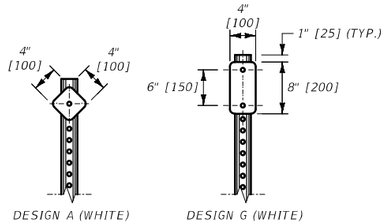
EFFECTIVE: JAN 23, 2020

MONTANA Department of Transportation

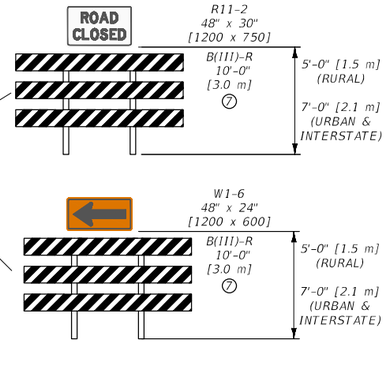
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JUN 27,2024

5/14/2024 1:12 PM STDDRD618016.DWG



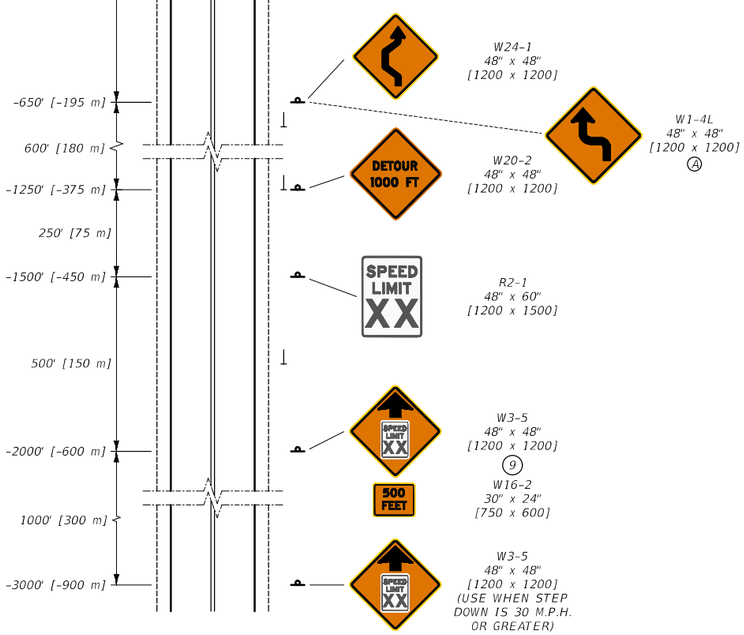


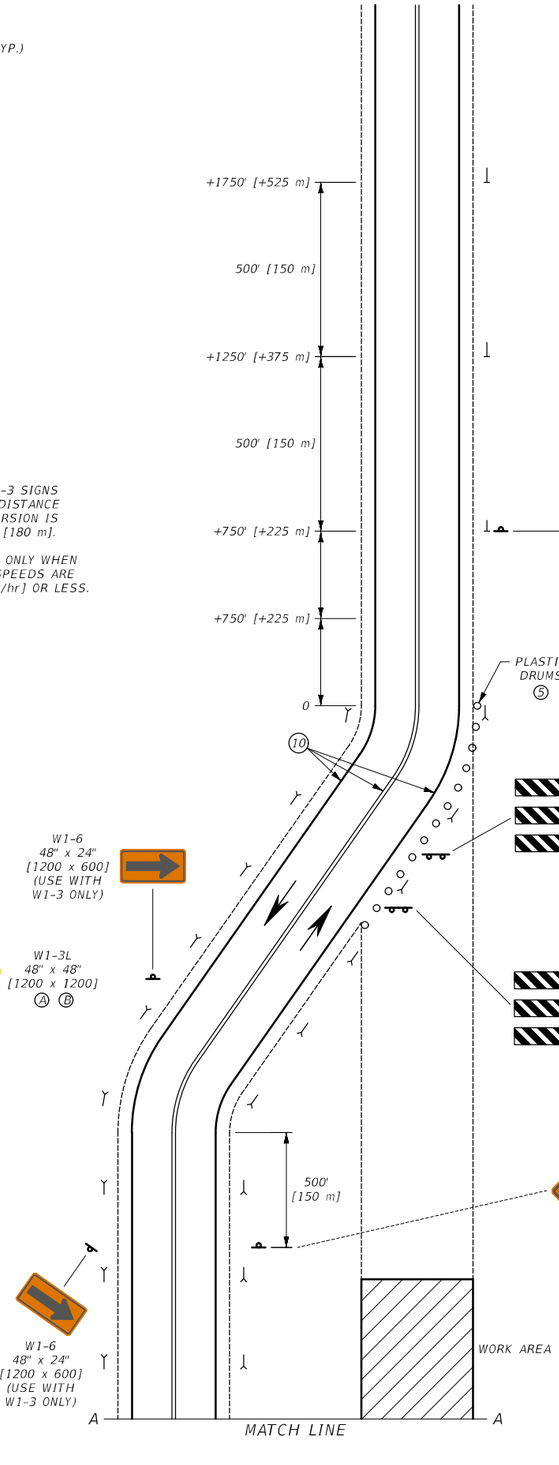
DELINEATOR LEGEND	
—|	DESIGN A
—<	DESIGN G

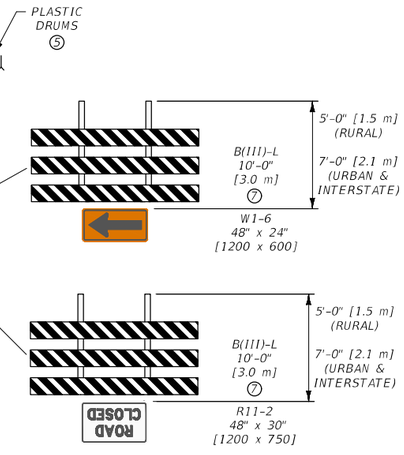


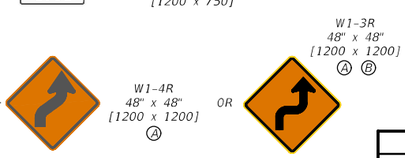
Ⓐ USE W1-4 OR W1-3 SIGNS WHEN TANGENT DISTANCE ALONG THE DIVERSION IS MORE THAN 600' [180 m].

Ⓑ USE W1-3 SIGNS ONLY WHEN CURVE DESIGN SPEEDS ARE 30 M.P.H. [50 km/hr] OR LESS.









NOTES:

1. SET UP THE SIGN LAYOUT IN THIS DRAWING FOR BOTH TRAFFIC DIRECTIONS.
2. PAVED DETOURS 24 FEET [7.2 m] WIDE OR GREATER REQUIRE 4 INCH [100] WHITE SHOULDER STRIPES AND APPROPRIATE CENTERLINE STRIPES.
3. UNPAVED DETOURS MAY REQUIRE ADDITIONAL DELINEATION.
4. USE ONLY POST MOUNTED SIGNS. DO NOT USE PORTABLE SIGN MOUNTS.
5. PLACE PLASTIC DRUMS AT INTERVALS IN FEET [METERS] OF NO MORE THAN ONE [0.3] TIMES THE SPEED LIMIT IN M.P.H. OR AS DIRECTED BY THE PROJECT MANAGER FOR SPEEDS LESS THAN 35 M.P.H.
6. XX = SPEED DETERMINED BY THE DETOUR DESIGN SPEED OR THE PROJECT MANAGER.
7. SEE DTL. DWG. 618-03.
8. 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.
9. INCLUDE THESE SIGNS WITH ALL FLAGGERS. INCLUDE THESE SIGNS WITHIN WORK ZONES WHEN STEP DOWN IS 20 M.P.H. OR GREATER.
10. PROVIDE PAVEMENT MARKINGS TO DELINEATE CENTERLINE AND LANE EDGE LINE THROUGHOUT TRANSITION FROM PAVED TO GRAVELED SURFACE. REMOVE NO LONGER APPLICABLE PERMANENT PAVEMENT MARKINGS WITHIN THE TRAVELED WAY PER STANDARD SPECIFICATION 618.03.5.

* DENOTES SIGNS UNIQUE TO MONTANA.

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

DETAILED DRAWINGS

REFERENCE STANDARD SPEC. SECTION 618

DWG. NO. 618-18

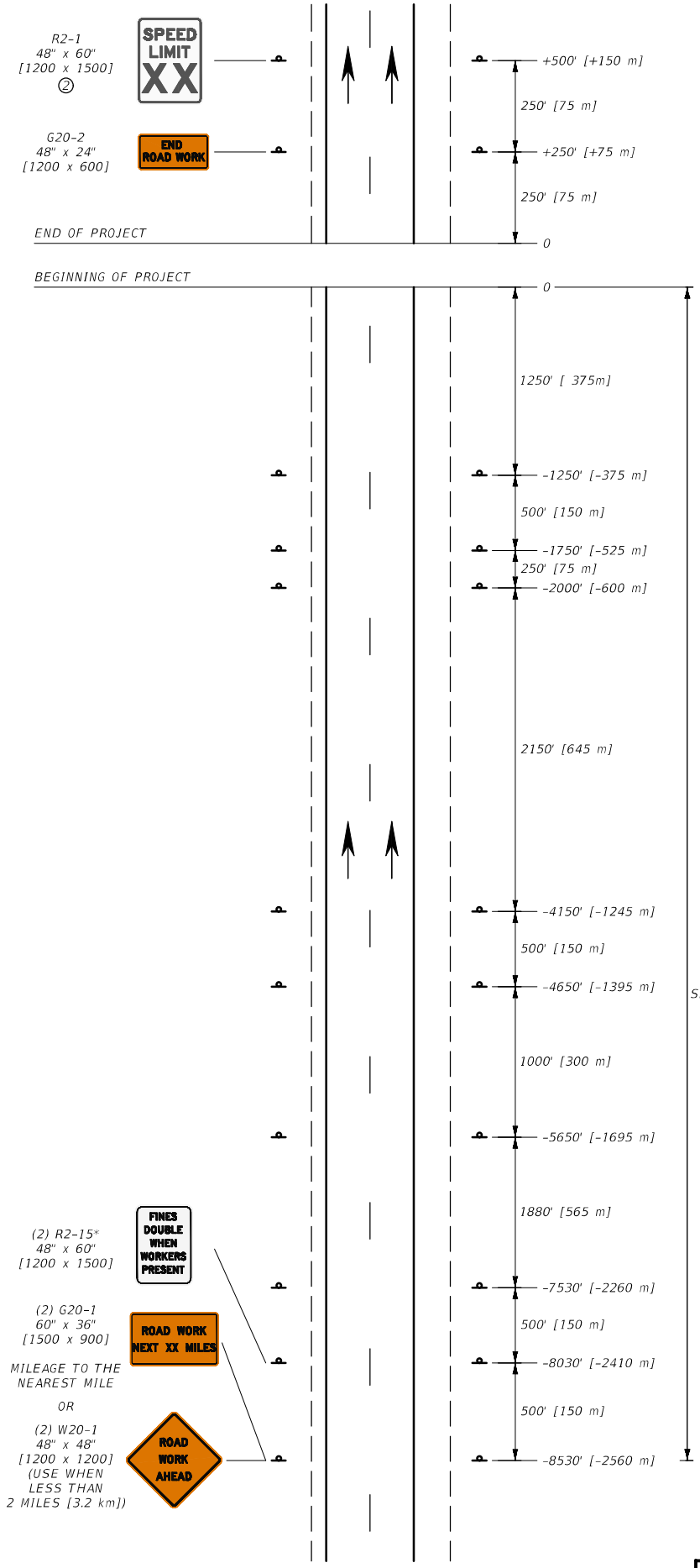
TWO-LANE WORK ZONE DIVERSION

EFFECTIVE: JAN 23, 2020

MONTANA Department of Transportation

--REVISED--
JUN 27, 2024

5/14/2024 1:33 PM STDDRD618018.DWG



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 UNWARRANTED SPEED LIMIT SIGNS. 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 UNIQUE TO MONTANA.

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

--REVISED--
JUN 27, 2024

DETAILED DRAWINGS

REFERENCE STANDARD SPEC. SECTION 618

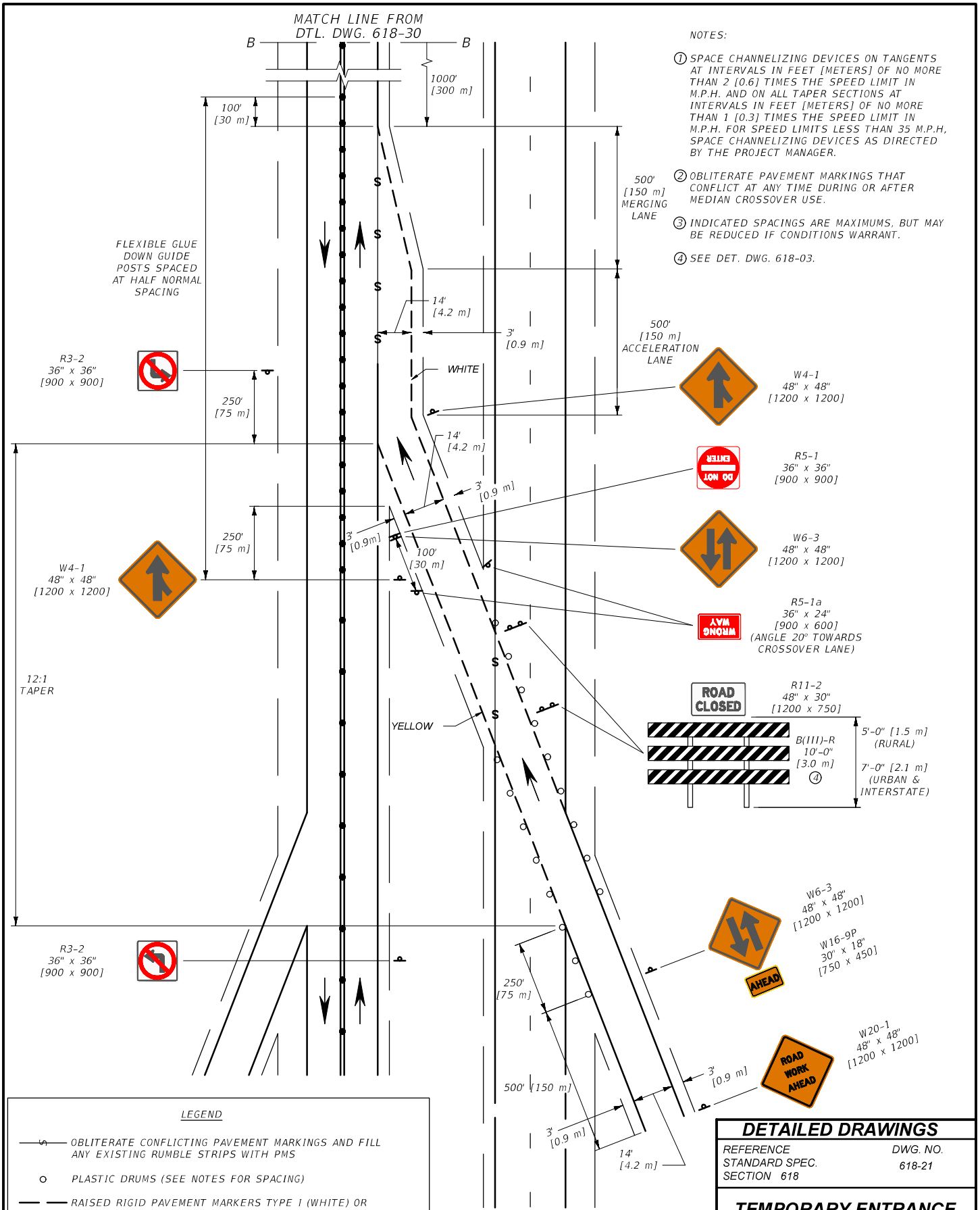
DWG. NO. 618-20

DIVIDED FOUR-LANE WORK ZONE

EFFECTIVE: JAN 23, 2020

MONTANA Department of Transportation

5/14/2024 1:36 PM STDDRD618020.DWG



NOTES:

① SPACE CHANNELIZING DEVICES ON TANGENTS AT INTERVALS IN FEET [METERS] OF NO MORE THAN 2 [0.6] TIMES THE SPEED LIMIT IN M.P.H. AND ON ALL TAPER SECTIONS AT INTERVALS IN FEET [METERS] OF NO MORE THAN 1 [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.

② OBLITERATE PAVEMENT MARKINGS THAT CONFLICT AT ANY TIME DURING OR AFTER MEDIAN CROSSOVER USE.

③ INDICATED SPACINGS ARE MAXIMUMS, BUT MAY BE REDUCED IF CONDITIONS WARRANT.

④ SEE DET. DWG. 618-03.

LEGEND

- OBLITERATE CONFLICTING PAVEMENT MARKINGS AND FILL ANY EXISTING RUMBLE STRIPS WITH PMS
- PLASTIC DRUMS (SEE NOTES FOR SPACING)
- RAISED RIGID PAVEMENT MARKERS TYPE I (WHITE) OR TYPE II (YELLOW) AT 5' [1.5 m] SPACING
- DOUBLE YELLOW PAINT OR DOUBLE PLASTIC PAVEMENT MARKING TABS AT 5' [1.5 m] SPACING
- FLEXIBLE GLUE-DOWN GUIDE POSTS ON TWO-LANE (SEE NOTES FOR SPACING EXCEPT AS SHOWN)

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

--REVISED--
JUN 27, 2024

DETAILED DRAWINGS

REFERENCE STANDARD SPEC. SECTION 618

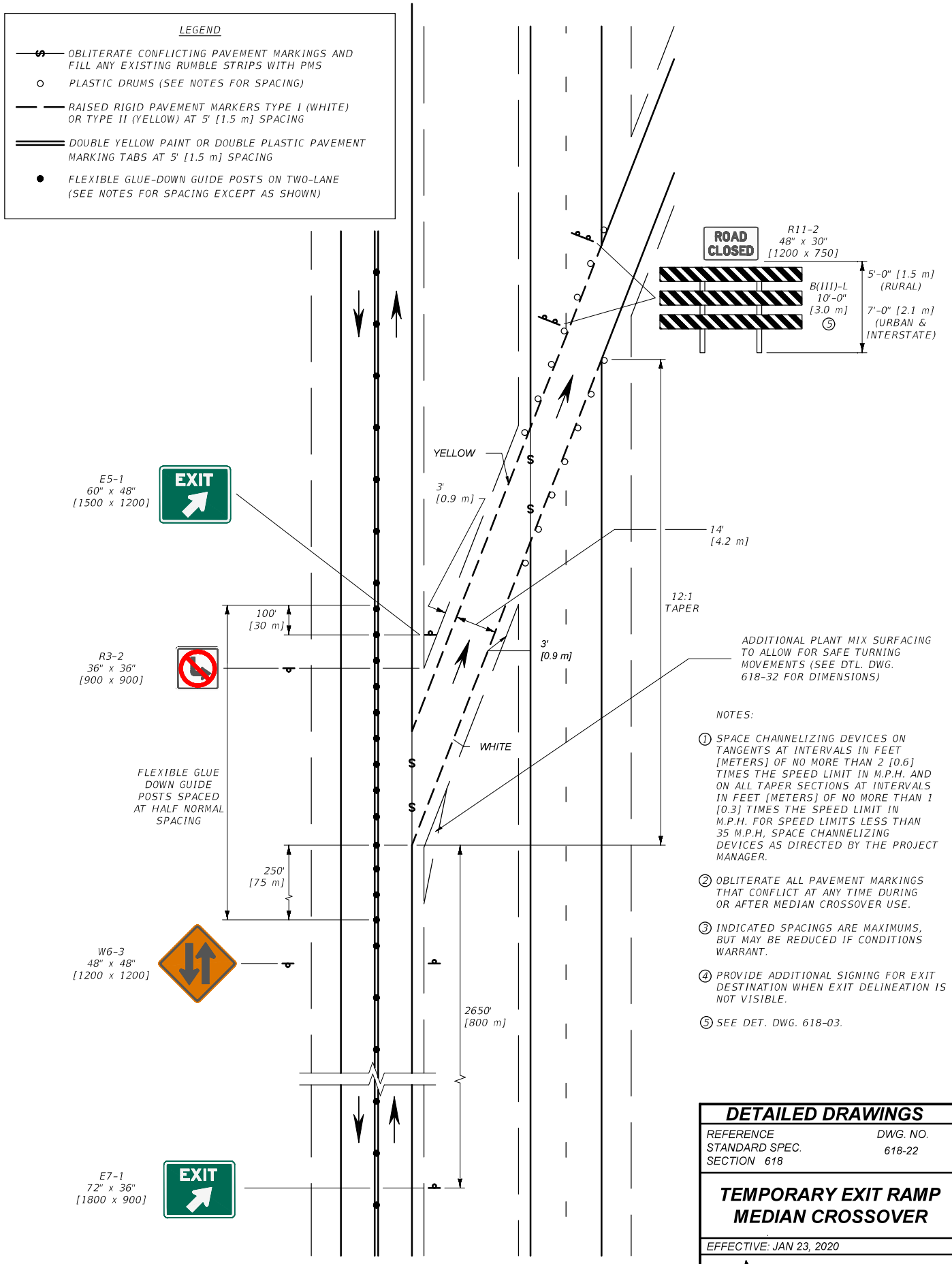
DWG. NO. 618-21

TEMPORARY ENTRANCE RAMP MEDIAN CROSSOVER

EFFECTIVE: JAN 23, 2020

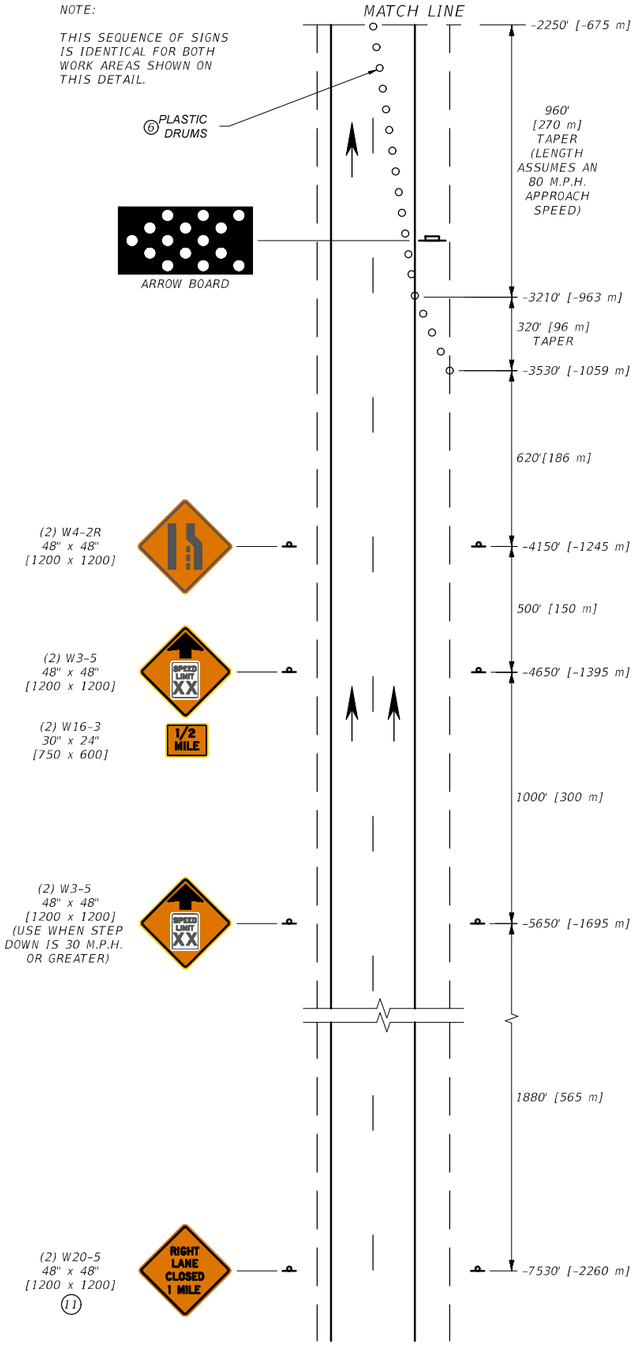
MONTANA Department of Transportation

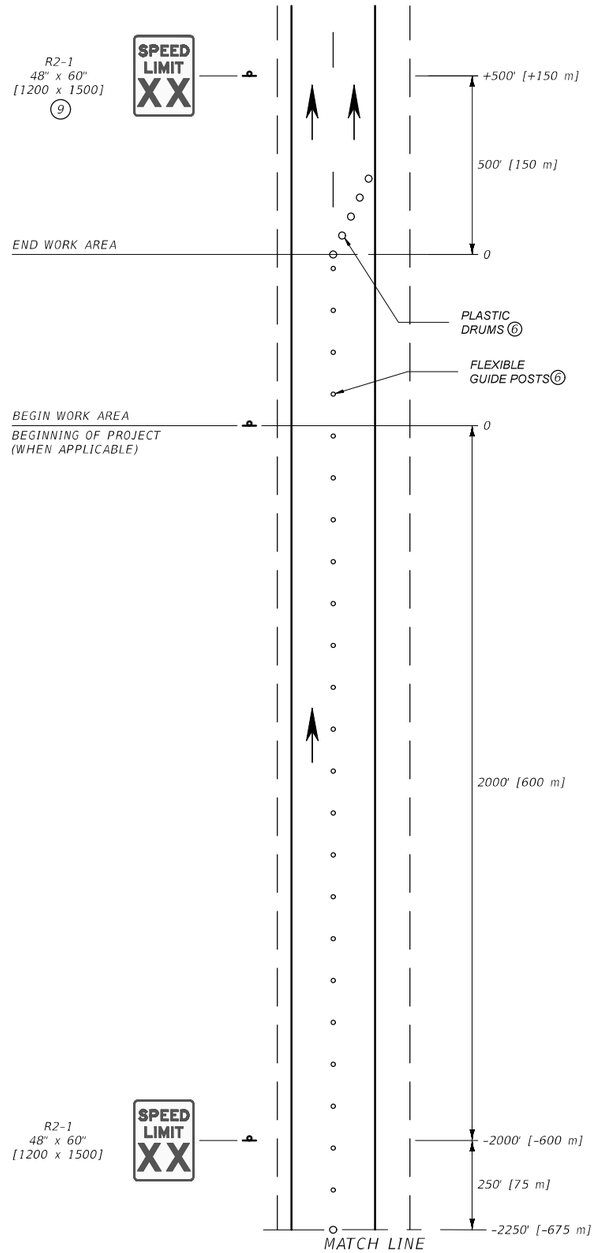
5/14/2024 1:40 PM STDDRD618021.DWG


LEGEND
OBLITERATE CONFLICTING PAVEMENT MARKINGS AND FILL ANY EXISTING RUMBLE STRIPS WITH PMS
PLASTIC DRUMS (SEE NOTES FOR SPACING)
RAISED RIGID PAVEMENT MARKERS TYPE I (WHITE) OR TYPE II (YELLOW) AT 5' [1.5 m] SPACING
DOUBLE YELLOW PAINT OR DOUBLE PLASTIC PAVEMENT MARKING TABS AT 5' [1.5 m] SPACING
FLEXIBLE GLUE-DOWN GUIDE POSTS ON TWO-LANE (SEE NOTES FOR SPACING EXCEPT AS SHOWN)
ROAD CLOSED
R11-2
48" x 30"
[1200 x 750]
5'-0" [1.5 m] (RURAL)
7'-0" [2.1 m] (URBAN & INTERSTATE)
B(III)-L
10'-0"
[3.0 m]
5
E5-1
60" x 48"
[1500 x 1200]
EXIT
YELLOW
3'
[0.9 m]
14'
[4.2 m]
12:1
TAPER
100'
[30 m]
R3-2
36" x 36"
[900 x 900]
3'
[0.9 m]
ADDITIONAL PLANT MIX SURFACING TO ALLOW FOR SAFE TURNING MOVEMENTS (SEE DTL. DWG. 618-32 FOR DIMENSIONS)
WHITE
FLEXIBLE GLUE DOWN GUIDE POSTS SPACED AT HALF NORMAL SPACING
250'
[75 m]
W6-3
48" x 48"
[1200 x 1200]
2650'
[800 m]
E7-1
72" x 36"
[1800 x 900]
EXIT
NOTES:
1 SPACE CHANNELIZING DEVICES ON TANGENTS AT INTERVALS IN FEET [METERS] OF NO MORE THAN 2 [0.6] TIMES THE SPEED LIMIT IN M.P.H. AND ON ALL TAPER SECTIONS AT INTERVALS IN FEET [METERS] OF NO MORE THAN 1 [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.
2 OBLITERATE ALL PAVEMENT MARKINGS THAT CONFLICT AT ANY TIME DURING OR AFTER MEDIAN CROSSOVER USE.
3 INDICATED SPACINGS ARE MAXIMUMS, BUT MAY BE REDUCED IF CONDITIONS WARRANT.
4 PROVIDE ADDITIONAL SIGNING FOR EXIT DESTINATION WHEN EXIT DELINEATION IS NOT VISIBLE.
5 SEE DET. DWG. 618-03.
UNITS SHOWN IN BRACKETS [] ARE METRIC AND ARE IN MILLIMETERS (mm) UNLESS OTHER UNITS ARE SHOWN.
--REVISED--
JUN 27, 2024
DETAILED DRAWINGS
REFERENCE STANDARD SPEC. SECTION 618
DWG. NO. 618-22
TEMPORARY EXIT RAMP MEDIAN CROSSOVER
EFFECTIVE: JAN 23, 2020
MONTANA Department of Transportation
5/14/2024 1:49 PM
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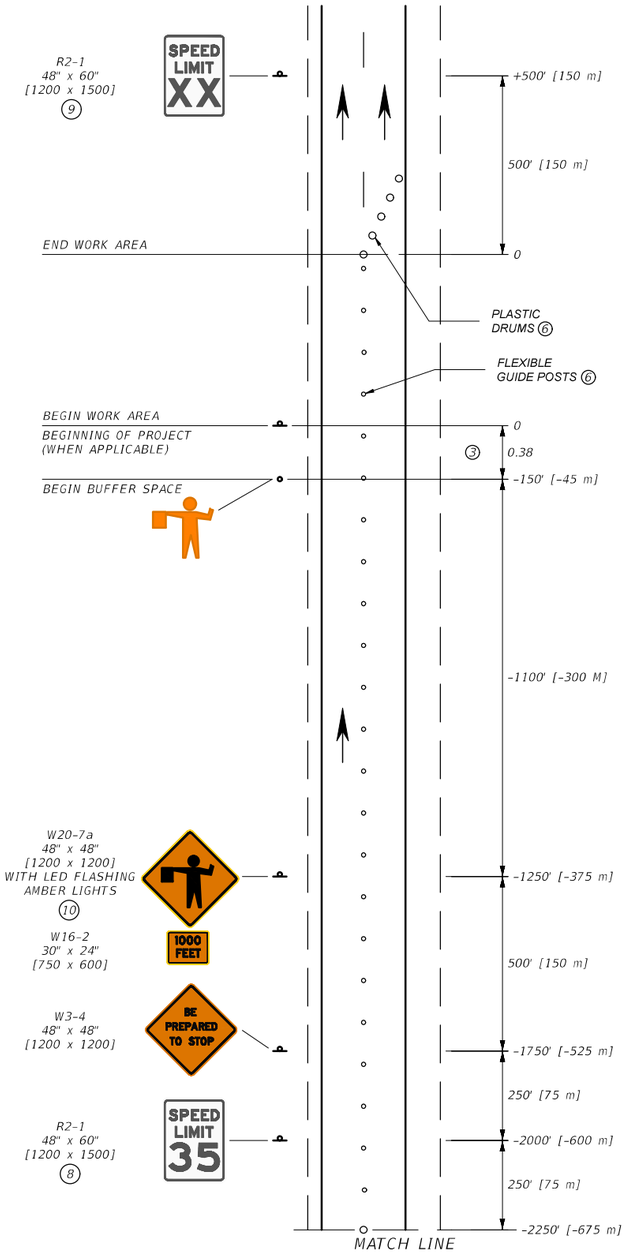
NOTE:

THIS SEQUENCE OF SIGNS IS IDENTICAL FOR BOTH WORK AREAS SHOWN ON THIS DETAIL.





WORK AREA WITH NO FLAGGER



WORK AREA WITH FLAGGER

NOTES:

① THESE SIGN LAYOUTS ALSO USED IN CONJUNCTION WITH THE PERMANENT LAYOUT ILLUSTRATED ON DTL. DWG. 618-20 FOR WORK AREAS LOCATED AT THE BEGIN AND END OF THE WORK ZONES.

② INCLUDE REGULATORY SIGNING ONLY IF THERE IS REASON TO RESTRICT SPEED WITHIN THE WORK ZONE. MODIFY REGULATORY SIGNS TO MATCH ADJACENT REGULATIONS.

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

④ XX = SPEED DETERMINED BY THE PROJECT MANAGER.

⑤ PROVIDE A SECOND FLAGGER WHEN REQUIRED BY STANDARD SPECIFICATIONS, SECTION 618.

⑥ SPACE FLEXIBLE GUIDE POSTS ON TANGENTS AT INTERVALS IN FEET [METERS] OF NO MORE THAN TWO [0.6] TIMES THE SPEED LIMIT IN M.P.H. SPACE PLASTIC DRUMS IN 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.

⑦ WHEN PORTABLE SIGNS ARE USED, PLACE AS DIRECTED BY THE PROJECT MANAGER.

⑧ IF FLAGGER IS MORE THAN ONE MILE [1.6 km] FROM THE LANE CLOSURE, INCLUDE W3-5 SIGNS, AS REQUIRED.

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 AMBER LED FLASHERS MUST MEET STANDARD SPECIFICATION 715 AND DTL. DWG. 618-01 REQUIREMENTS.

⑪ POST THE W20-5 AFTER THE W20-1 OR G20-1 AND THE R2-15 IF THE MERGING TAPER OCCURS AT PROJECT BEGINNING.

* DENOTES SIGNS UNIQUE TO MONTANA.

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

DETAILED DRAWINGS

REFERENCE STANDARD SPEC. SECTION 618, 715

DWG. NO. 618-24

DIVIDED FOUR-LANE WORK AREAS

EFFECTIVE: JAN 23, 2020

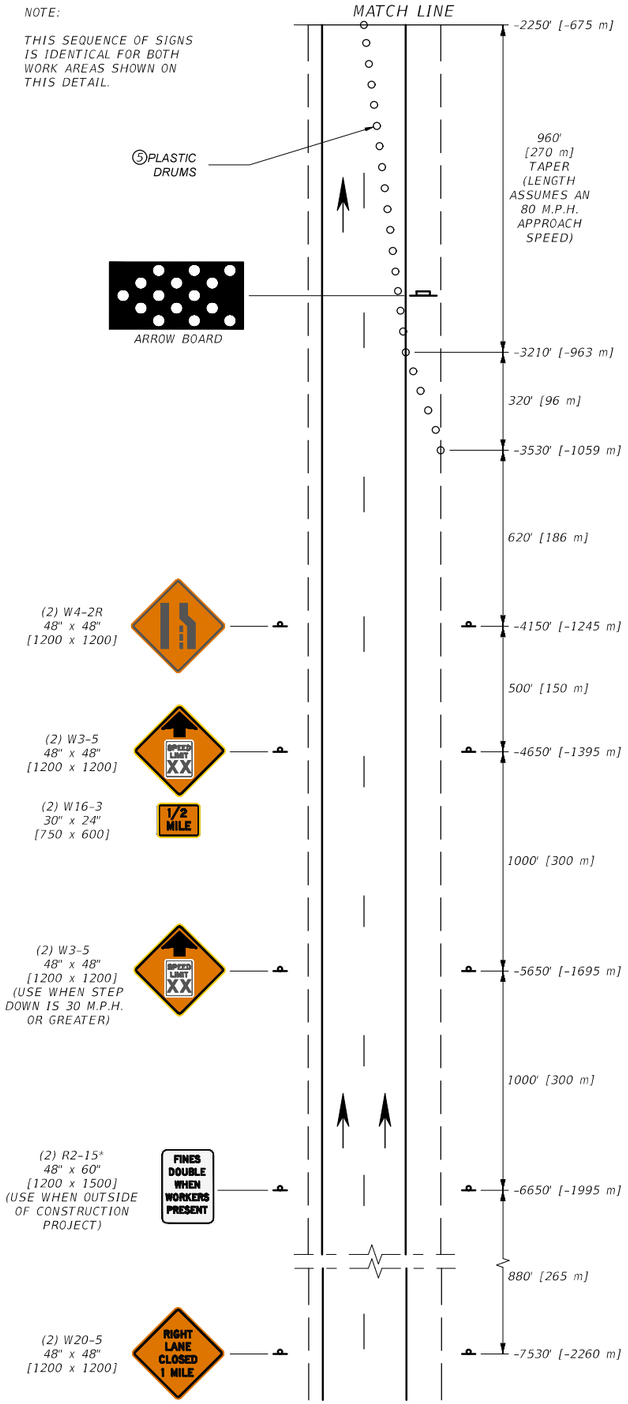
MONTANA Department of Transportation

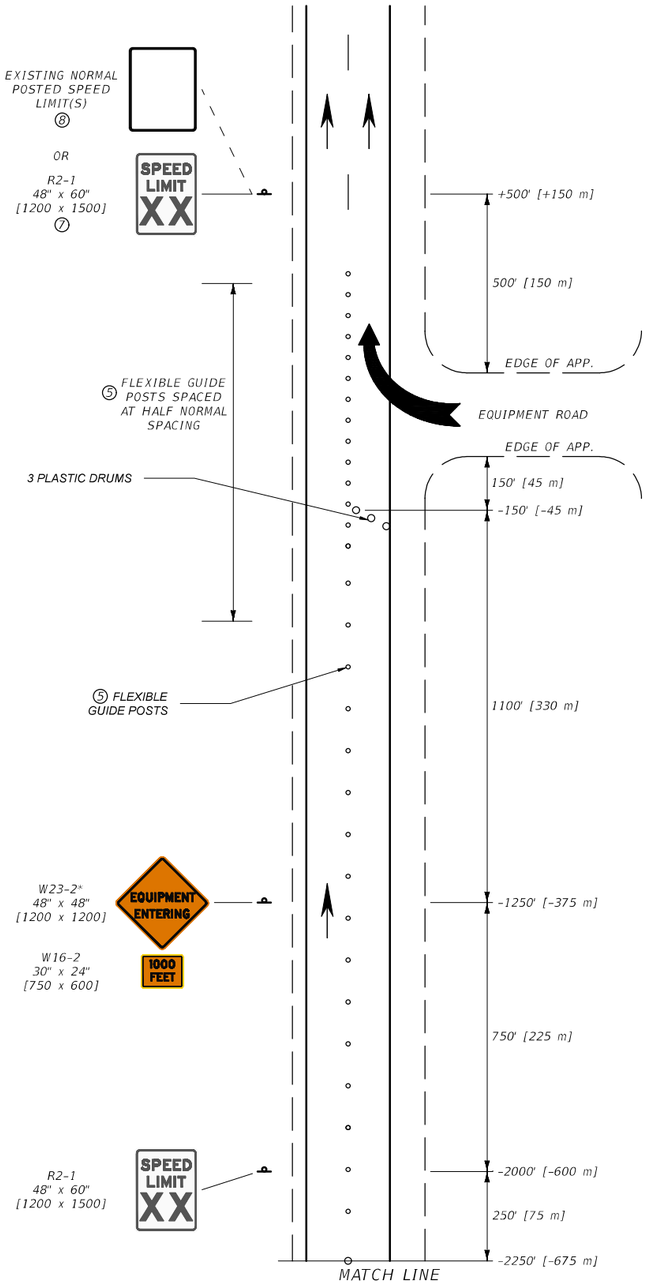
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JUN 27, 2024

5/14/2024 2:02 PM STDDRD618024.DWG

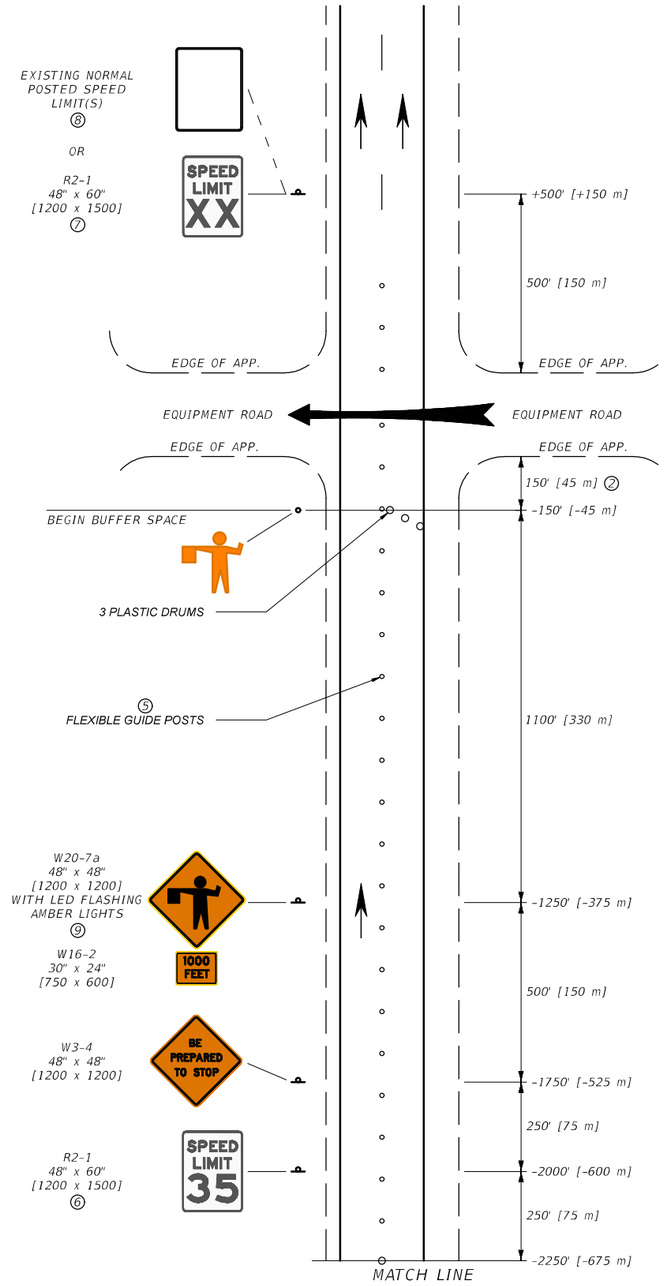
NOTE:

THIS SEQUENCE OF SIGNS IS IDENTICAL FOR BOTH WORK AREAS SHOWN ON THIS DETAIL.





EQUIPMENT ENTRANCE WITH NO FLAGGER



EQUIPMENT ENTRANCE WITH FLAGGER

NOTES:

① INCLUDE SPEED LIMIT SIGNING ONLY IF SPEED MUST BE RESTRICTED WITHIN THE WORK ZONE.REMOVE OR COVER REGULATORY SIGNS TO MATCH ADJACENT REGULATIONS.

② THE BUFFER SPACE MAY BE INCREASED FOR DOWNGRADES AND OTHER CONDITIONS AFFECTING STOPPING DISTANCE.

③ XX = SPEED DETERMINED BY THE PROJECT MANAGER.

④ WHEN THIS OCCURS OUTSIDE A CONSTRUCTION PROJECT, INCLUDE THE W20-1 AND R2-15* SIGNS.

⑤ SPACE FLEXIBLE GUIDE POSTS ON TANGENTS AT INTERVALS IN FEET [METERS] OF NO MORE THAN TWO [0.6] TIMES THE SPEED LIMIT IN M.P.H. SPACE PLASTIC DRUMS IN 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.

⑥ IF FLAGGER IS MORE THAN ONE MILE [1.6 km] FROM THE LANE CLOSURE, INCLUDE W3-5 SIGNS, AS REQUIRED.

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 WHEN OUTSIDE OF A CONSTRUCTION PROJECT, POST THE 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.

⑨ AMBER LED FLASHERS MUST MEET STANDARD SPECIFICATION SECTION 715 AND DTL. DWG. 618-01.

⑩ POST THE W20-1 AFTER THE W20-1 OR THE G20-1 AND THE R2-15 IF THE MERGING TAPER OCCURS AT PROJECT BEGINNING.

* DENOTES SIGNS UNIQUE TO MONTANA.

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

DETAILED DRAWINGS

REFERENCE STANDARD SPEC. SECTION 618, 715

DWG. NO. 618-27

DIVIDED FOUR-LANE EQUIPMENT ENTRANCE

EFFECTIVE: JAN 23, 2020

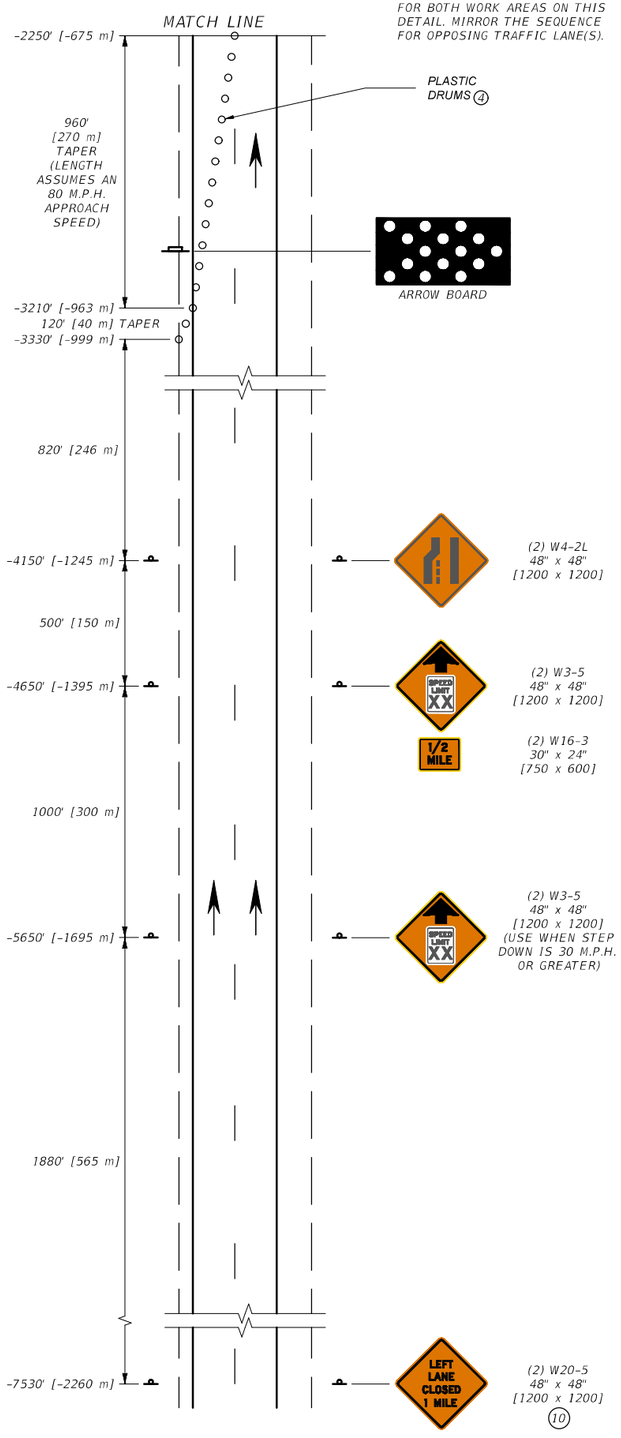
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JUN 27, 2024

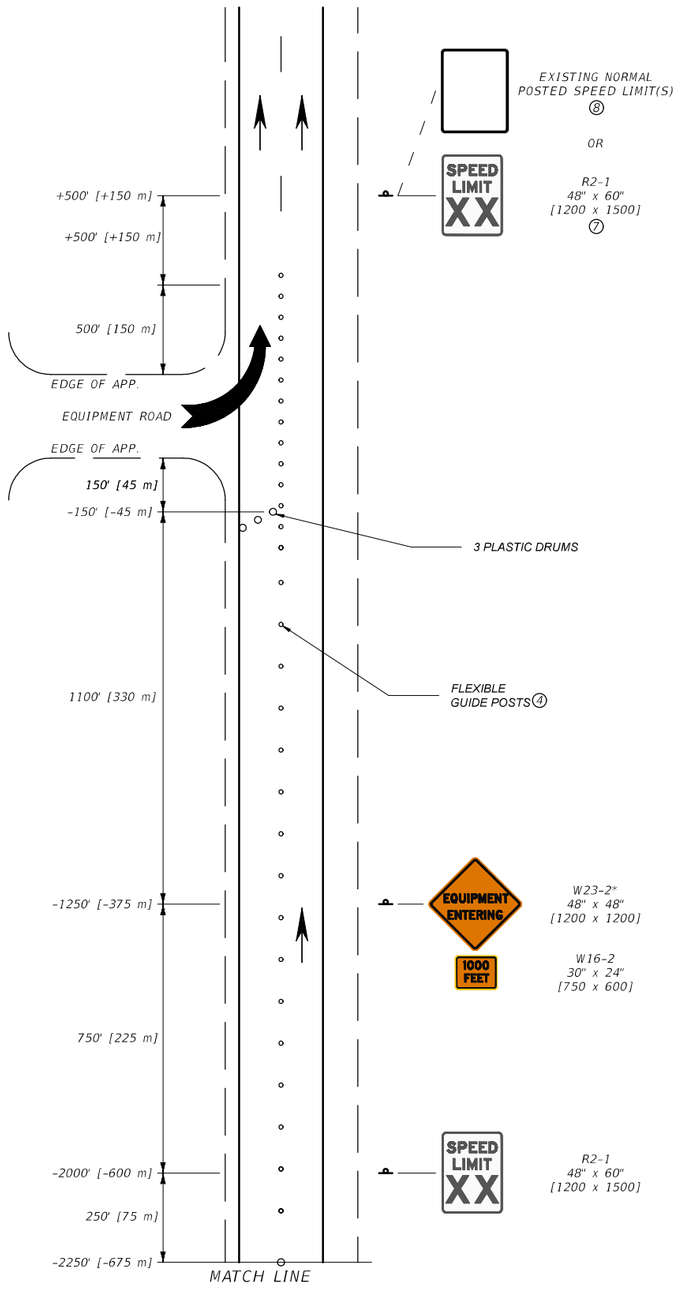
MONTANA Department of Transportation

5/14/2024 2:09 PM STDDRD618027.DWG

NOTE:

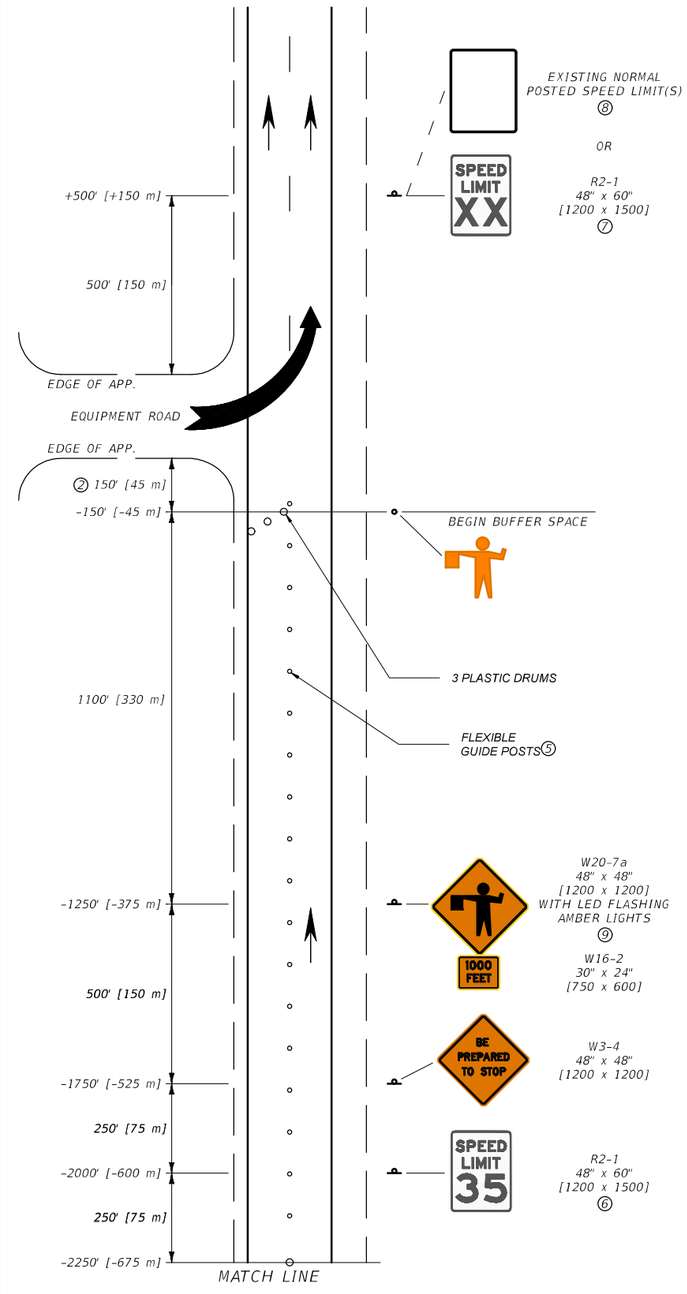
THIS SIGN SEQUENCE IS IDENTICAL FOR BOTH WORK AREAS ON THIS DETAIL. MIRROR THE SEQUENCE FOR OPPOSING TRAFFIC LANE(S).





MEDIAN CROSSING WITH NO FLAGGER

(USE WITH WIDE MEDIANS)



MEDIAN CROSSING WITH FLAGGER

(USE WITH NARROW MEDIANS)

NOTES:

(1) INCLUDE SPEED LIMIT SIGNING ONLY IF SPEED MUST BE RESTRICTED WITHIN THE WORK ZONE. REMOVE OR COVER REGULATORY SIGNS TO MATCH ADJACENT REGULATIONS.

(2) THE BUFFER SPACE MAY BE INCREASED FOR DOWNGRADES AND OTHER CONDITIONS AFFECTING STOPPING DISTANCE.

(3) XX = SPEED DETERMINED BY PROJECT MANAGER.

(4) WHEN TAPER SECTIONS OCCUR OUTSIDE OF A CONSTRUCTION PROJECT, INCLUDE THE W20-1 AND R2-15* SIGNS.

(5) SPACE FLEXIBLE GUIDE POSTS ON TANGENTS AT INTERVALS IN FEET [METERS] OF NO MORE THAN TWO [0.6] TIMES THE SPEED LIMIT IN M.P.H. SPACE PLASTIC DRUMS IN 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.

(6) IF FLAGGER IS MORE THAN ONE MILE [1.6 km] FROM THE LANE CLOSURE, INCLUDE W3-5 SIGNS, AS REQUIRED.

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

(8) WHEN OUTSIDE OF A CONSTRUCTION PROJECT, POST THE 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.

(9) AMBER LED FLASHERS MUST MEET STANDARD SPECIFICATION SECTION 715 AND DTL. DWG. 618-01 REQUIREMENTS.

(10) POST THE W20-5 AFTER THE W20-1 OR G20-1 AND THE R2-15 IF THE MERGING TAPER OCCURS AT PROJECT BEGINNING.

* DENOTES SIGNS UNIQUE TO MONTANA.

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

--REVISED--
JUN 27, 2024

DETAILED DRAWINGS

REFERENCE STANDARD SPEC. SECTION 618, 715

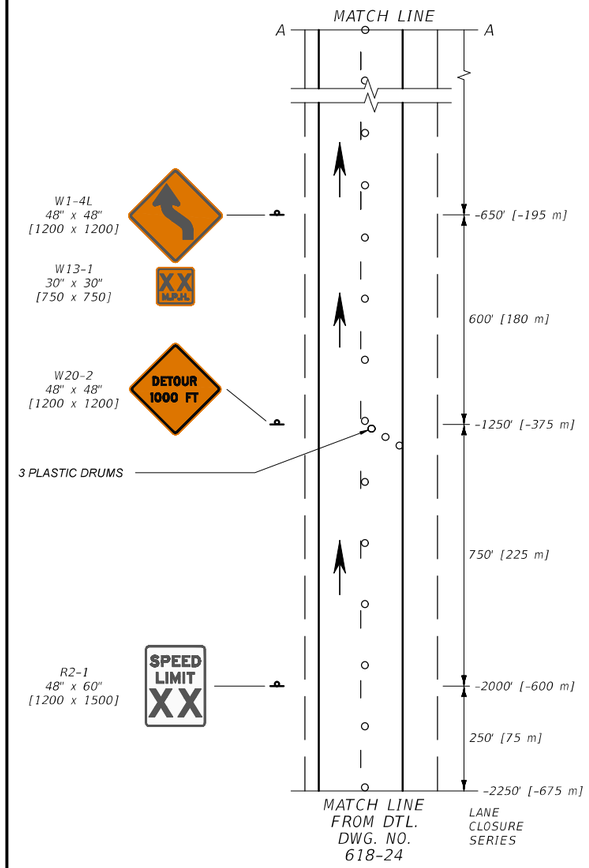
DWG. NO. 618-28

DIVIDED FOUR-LANE MEDIAN CROSSING

EFFECTIVE: JAN 23, 2020

MONTANA Department of Transportation

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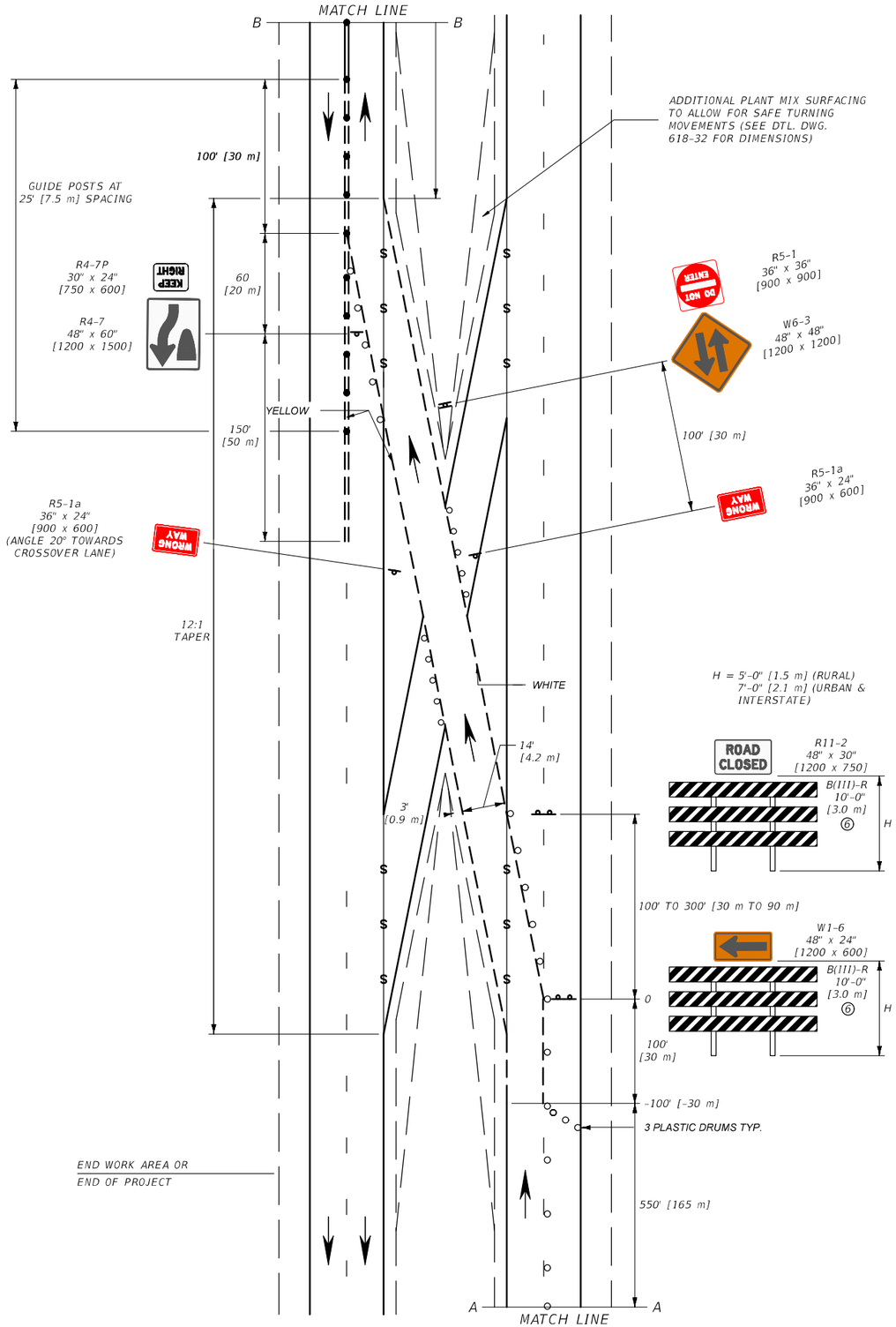


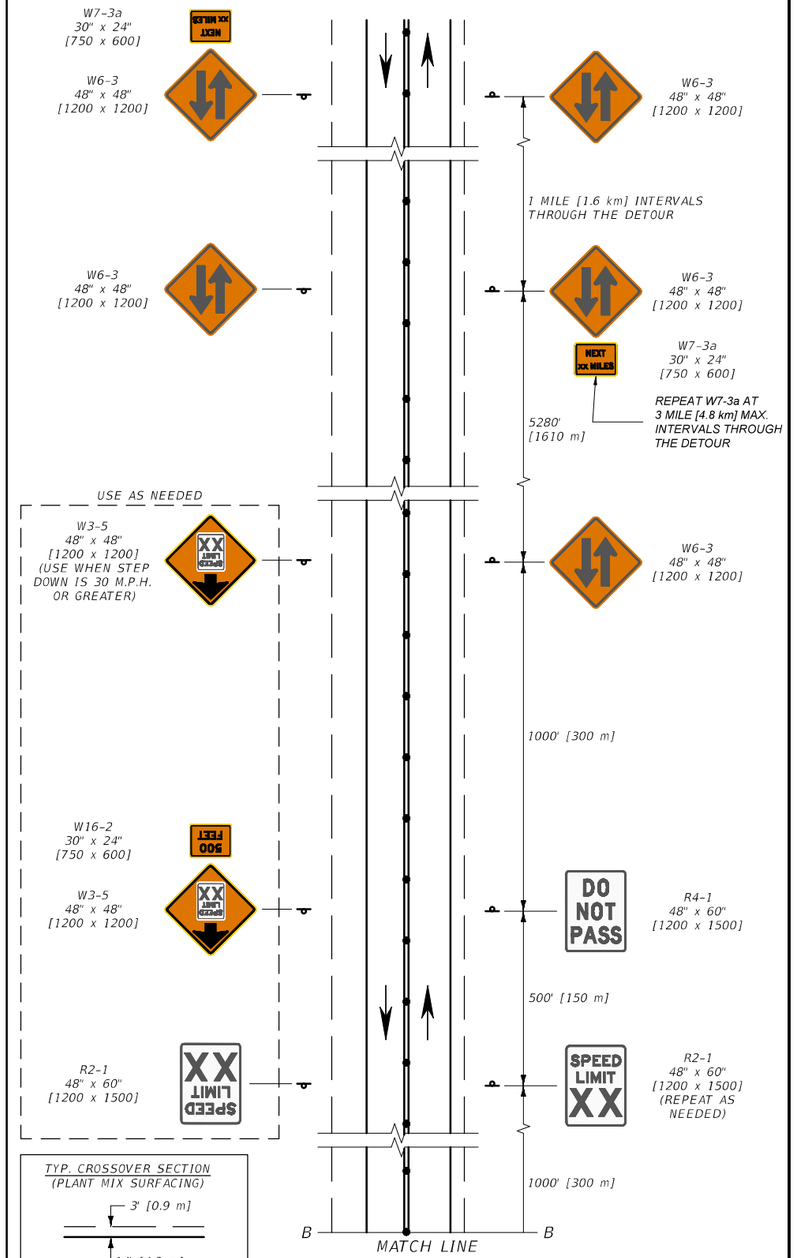
LEGEND

- OBLITERATE CONFLICTING PAVEMENT MARKINGS AND FILL ANY EXISTING RUMBLE STRIPS WITH PMS
- PLASTIC DRUMS (SEE NOTES FOR SPACING)
- TEMPORARY STRIPING IN ACCORDANCE WITH SECTION 620 OR RAISED RIGID PAVEMENT MARKERS
- DOUBLE YELLOW PAINT OR DOUBLE PLASTIC PAVEMENT MARKING TABS AT 5' [1.5 m] SPACING
- FLEXIBLE GLUE-DOWN GUIDE POSTS ON TWO-LANE (SEE NOTES FOR SPACING EXCEPT AS SHOWN)

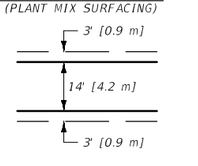
NOTES:

1. INCLUDE REGULATORY SIGNING ONLY AS REQUIRED. REMOVE OR COVER REGULATORY SIGNS TO MATCH ADJACENT REGULATIONS.
2. INDICATED SPACINGS ARE INTENDED TO BE A MAXIMUM AND MAY BE REDUCED IF CONDITIONS WARRANT.
3. XX = SPEED DETERMINED BY THE MEDIAN CROSSOVER DESIGN SPEED OR TABLE 618-5.
4. SPACE CHANNELIZING DEVICES ON TANGENTS AT INTERVALS IN FEET [METERS] OF NO MORE THAN TWO [0.6] 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. OBLITERATE ALL PAVEMENT MARKINGS THAT CONFLICT AT ANY TIME DURING OR AFTER MEDIAN CROSSOVER USE.
6. SEE DTL. DWG. 618-03.





TYP. CROSSOVER SECTION
(PLANT MIX SURFACING)



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

--REVISED--
JUN 27, 2024

DETAILED DRAWINGS

REFERENCE STANDARD SPEC. SECTION 618

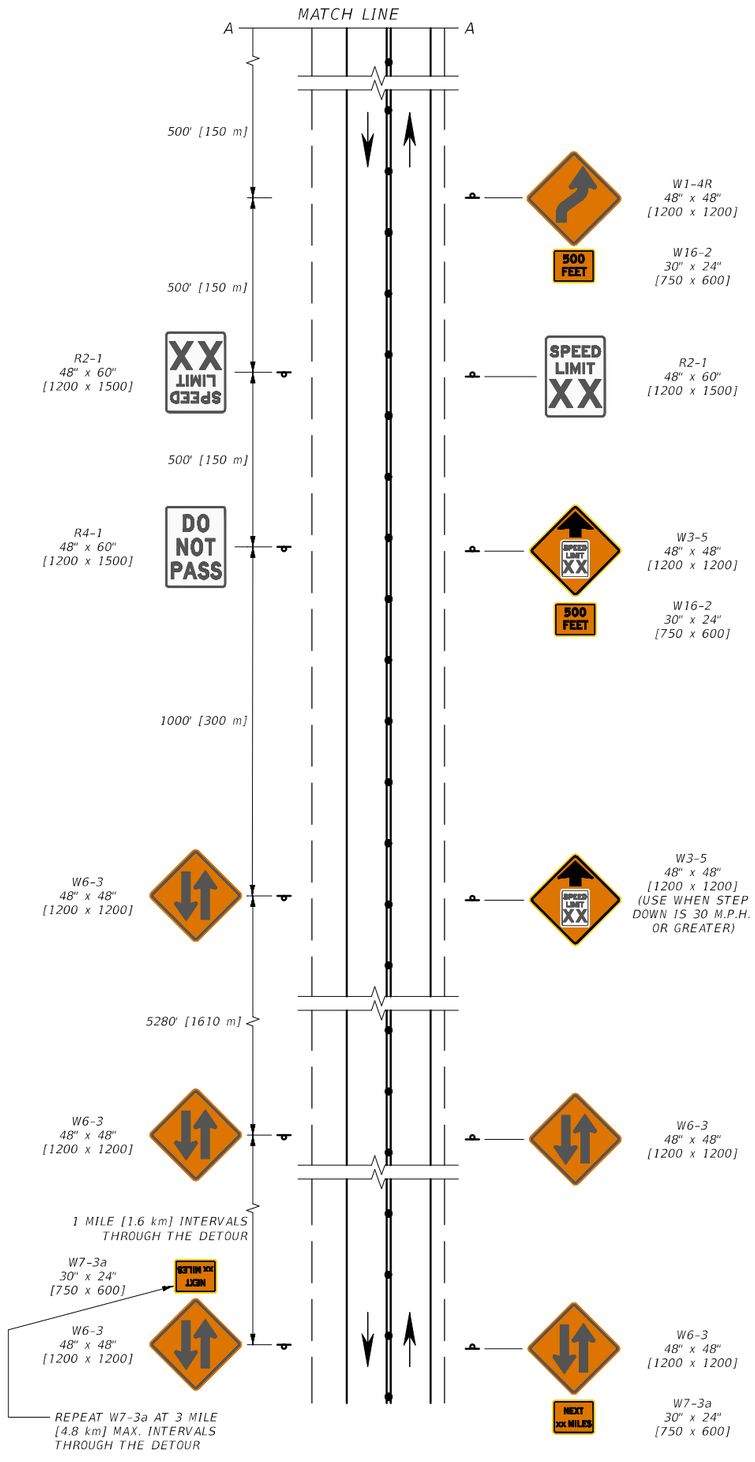
DWG. NO. 618-30

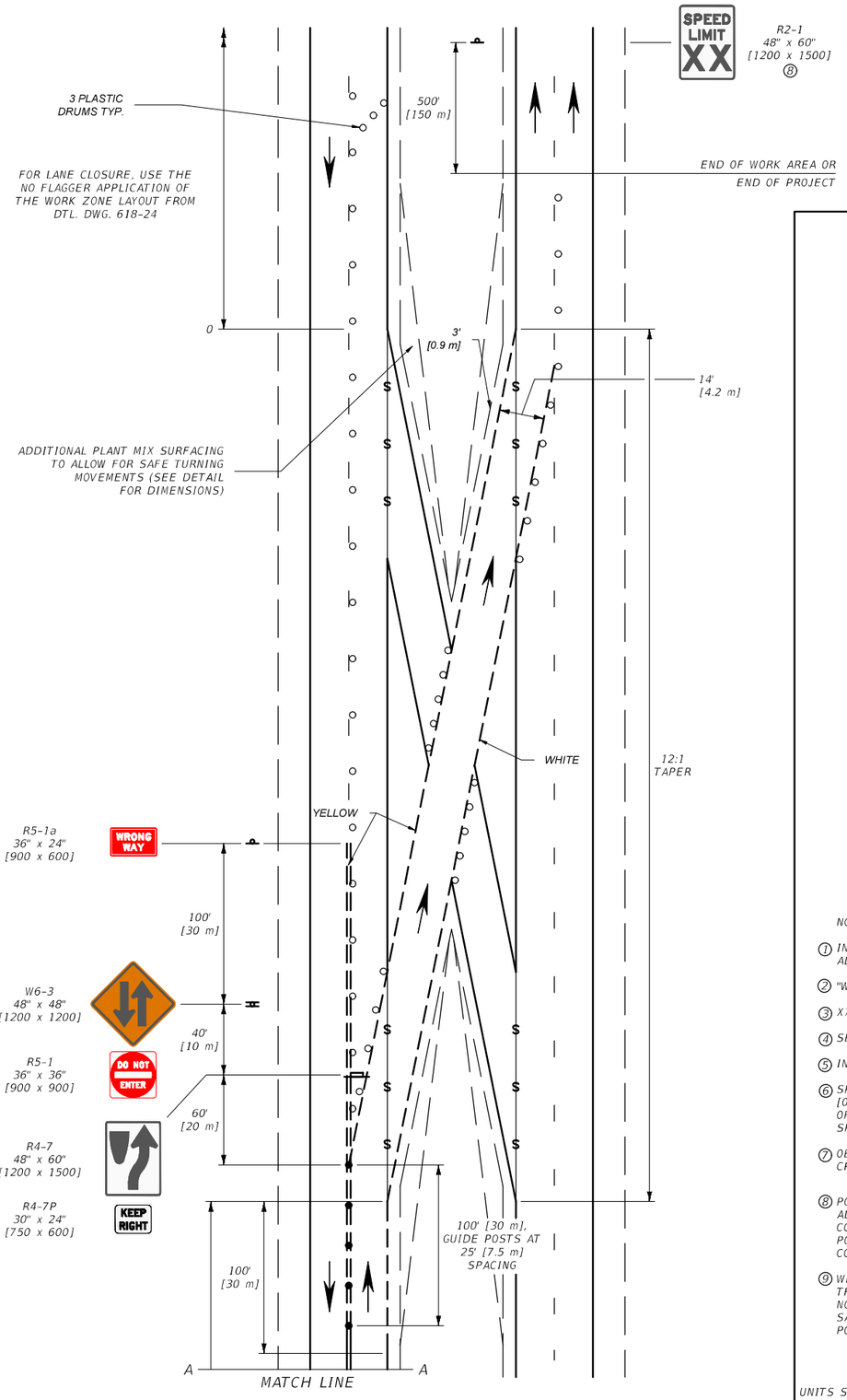
TEMPORARY FOUR-LANE TO TWO-LANE MEDIAN CROSSOVER

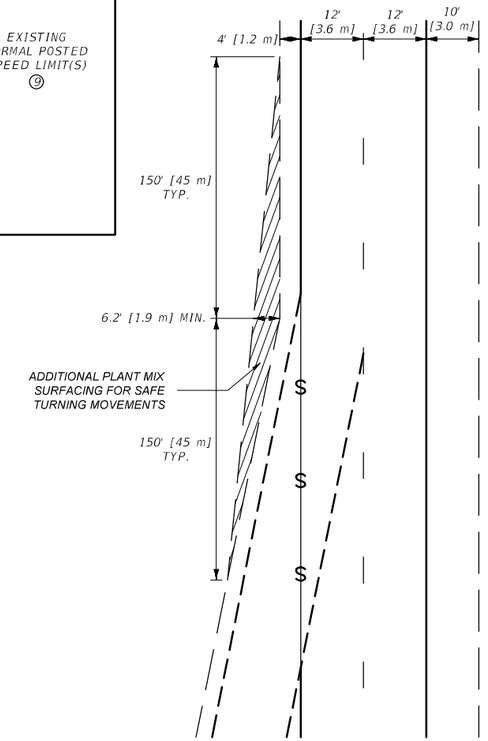
EFFECTIVE: JAN 23, 2020

MONTANA Department of Transportation

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ADDITIONAL SURFACING DETAIL

LEGEND

- OBLITERATE CONFLICTING PAVEMENT MARKINGS AND FILL ANY EXISTING RUMBLE STRIPS WITH PMS
- PLASTIC DRUMS (SEE NOTES FOR SPACING)
- TEMPORARY STRIPING IN ACCORDANCE WITH SECTION 620 OR RAISED RIGID PAVEMENT MARKERS
- DOUBLE YELLOW PAINT OR DOUBLE PLASTIC PAVEMENT MARKING TABS AT 5' [1.5 m] SPACING
- FLEXIBLE GLUE-DOWN GUIDE POSTS ON TWO-LANE (SEE NOTES FOR SPACING EXCEPT AS SHOWN)

NOTES:

1. INCLUDE REGULATORY SIGNING ONLY AS REQUIRED. REMOVE OR COVER REGULATORY SIGNS TO MATCH ADJACENT REGULATIONS.
2. "WORK ZONE" IS THE AREA WITHIN THE CONSTRUCTION PROJECT WHERE WORK IS TAKING PLACE.
3. XX = SPEED DETERMINED BY THE MEDIAN CROSSOVER DESIGN SPEED OR TABLE 618-5.
4. SEE DTL. DWG. 618-30 FOR TYPICAL CROSSOVER SECTION DIMENSIONS.
5. INDICATED SPACINGS ARE MAXIMUMS,BUT MAY BE REDUCED IF CONDITIONS WARRANT.
6. SPACE CHANNELIZING DEVICES ON TANGENTS AT INTERVALS IN FEET [METERS] OF NO MORE THAN TWO [0.6] 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.
7. OBLITERATE ALL PAVEMENT MARKINGS THAT CONFLICT AT ANY TIME DURING OR AFTER MEDIAN CROSSOVER USE.
8. POST THE SPEED LIMIT APPROPRIATE FOR ALL VEHICLES FOR THE REMAINDER OF THE CONSTRUCTION PROJECT BEFORE RESUMING TO NORMAL POSTED SPEED LIMITS AT THE END OF THE CONSTRUCTION PROJECT.
9. WHEN AT THE END OF A CONSTRUCTION PROJECT, POST THE 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.

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

--REVISED--
JUN 27, 2024

DETAILED DRAWINGS

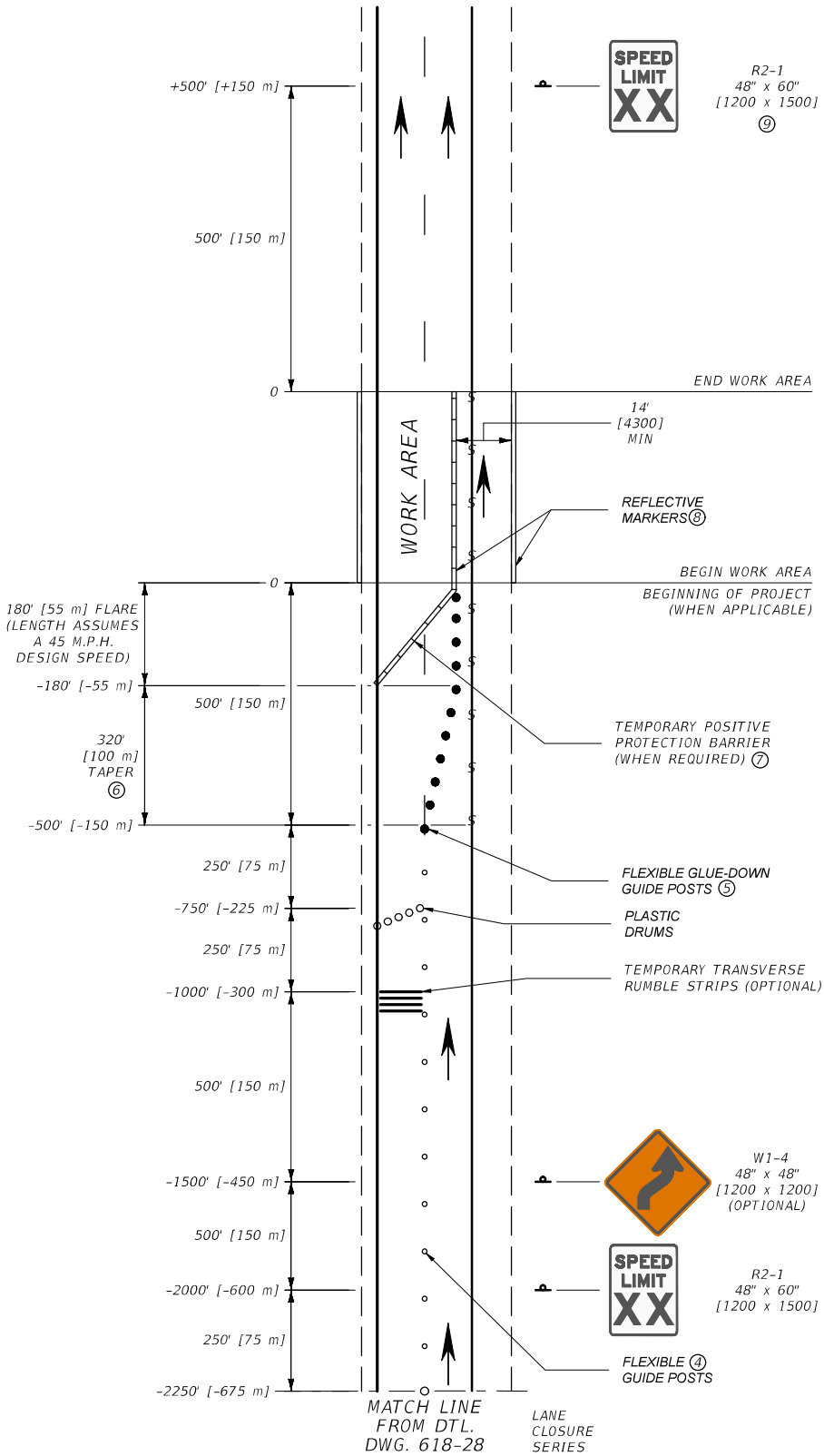
REFERENCE	DWG. NO.
STANDARD SPEC. SECTION 618	618-32

TEMPORARY TWO-LANE TO FOUR-LANE MEDIAN CROSSOVER

EFFECTIVE: JAN 23, 2020

MONTANA Department of Transportation

5/14/2024 3:08 PM STDDRD618032.DWG



WORK AREA

LEGEND

- OBLITERATE CONFLICTING PAVEMENT MARKINGS (10)
- PLASTIC DRUMS (SEE NOTES FOR SPACING)
- FLEXIBLE GLUE-DOWN GUIDE POSTS (SEE NOTES FOR SPACING)
- FLEXIBLE GUIDE POSTS

NOTES:

(1) USE THESE SIGN LAYOUTS 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 [0.6] 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' [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 EXISTING BARRIER REFLECTORS 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 UNIQUE TO MONTANA.

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

DETAILED DRAWINGS

REFERENCE	DWG. NO.
STANDARD SPEC. SECTION 618	618-33

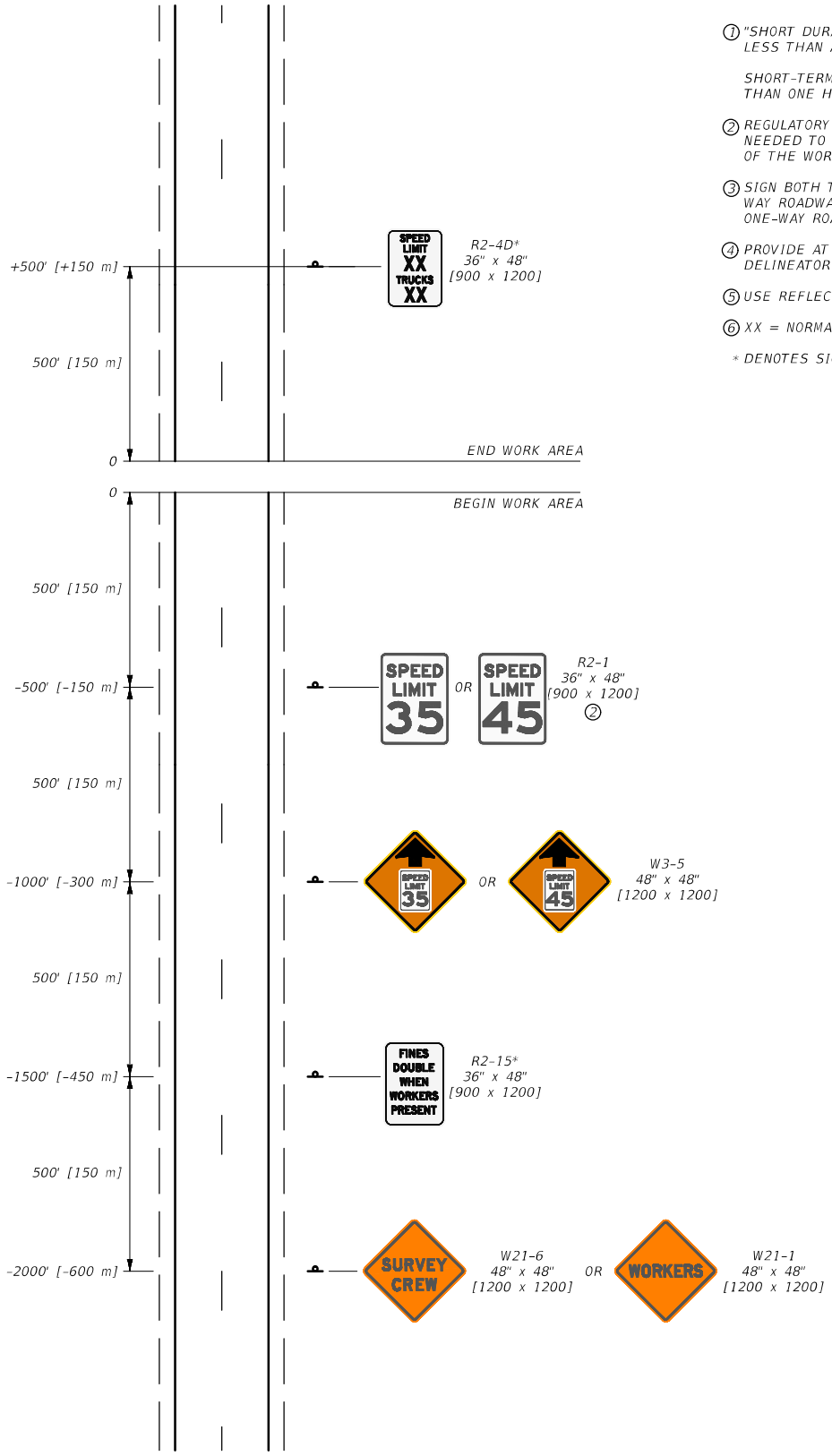
DIVIDED FOUR-LANE SINGLE LANE CLOSURE LANE SHIFT

EFFECTIVE: JAN 23, 2020

MONTANA Department of Transportation

--REVISED--
JUN 27, 2024

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NOTES:

① "SHORT DURATION ACTIVITIES" ARE THOSE LASTING LESS THAN AN HOUR.

SHORT-TERM ACTIVITIES ARE THOSE LASTING LONGER THAN ONE HOUR BUT ENDING WITHIN A FULL SHIFT.

② REGULATORY SPEED SIGNS MUST MOVE AS NEEDED TO REMAIN WITHIN 500 FEET [150 m] OF THE WORK AREA.

③ SIGN BOTH TRAVEL DIRECTIONS ON TWO-LANE, TWO-WAY ROADWAYS OR BOTH SHOULDERS ON TWO-LANE, ONE-WAY ROADWAYS.

④ PROVIDE AT LEAST THE DISTANCE SHOWN FOR DELINEATOR MOUNTED SIGNS.

⑤ USE REFLECTIVE DEVICES.

⑥ XX = NORMAL POSTED SPEED LIMIT(S).

* DENOTES SIGNS UNIQUE TO MONTANA.

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

DETAILED DRAWINGS

REFERENCE STANDARD SPEC. SECTION 618

DWG. NO. 618-34

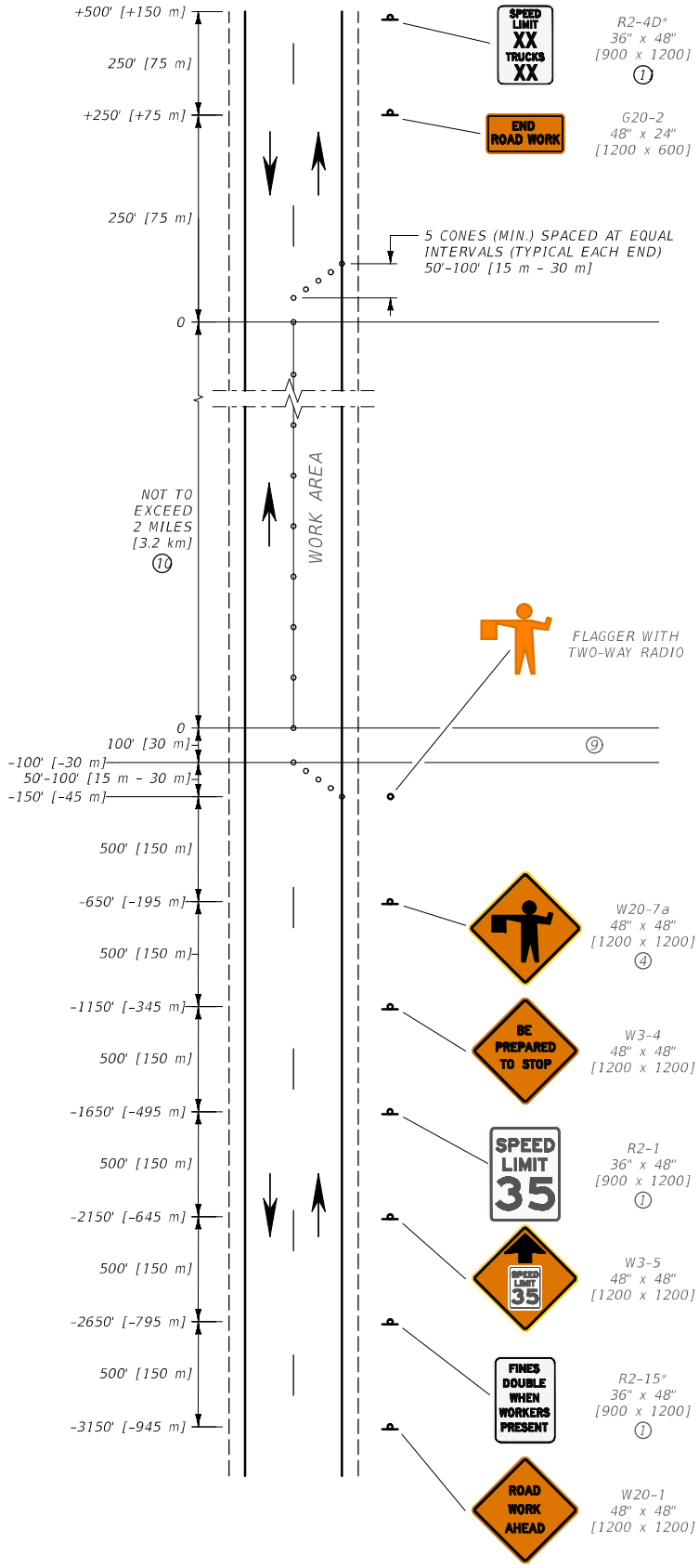
SHORT DURATION OR SHORT-TERM STATIONARY CREW SIGNING

EFFECTIVE: JAN 23, 2020

MONTANA Department of Transportation

--REVISED--
JUN 27, 2024

5/15/2024 2:07 PM STDDRD618034.DWG



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) SPACE CHANNELIZING DEVICES AT INTERVALS IN FEET [METERS] EQUAL TO TWICE [0.6 TIMES] THE SPEED LIMIT IN M.P.H. THROUGH THE BUFFER AND WORK AREA.

(4) IF INCREASED VEHICLE STORAGE IS NEEDED, ADD AN ADDITIONAL W20-7a "FLAGGER AHEAD" SIGN BETWEEN THE R2-1 AND W3-4 SIGNS AND/OR CONSIDER AN ADDITIONAL ADVANCE FLAGGER.

(5) REPLICATE THIS SIGN SEQUENCE FOR OPPOSING TRAFFIC.

(6) CONTACT THE DISTRICT TRAFFIC ENGINEER FOR CLARIFYING INFORMATION REGARDING THIS LAYOUT OR OTHER SPECIAL SITUATIONS INCLUDING WORK ZONES INVOLVING CURVATURES, BRIDGES,INTERCHANGE OR DECREASED SIGHT DISTANCE.

(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 AFFECTING 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.

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

* DENOTES SIGNS UNIQUE TO MONTANA.

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

FOR USE BY MDT FORCES

DETAILED DRAWINGS

REFERENCE	DWG. NO.
STANDARD SPEC.	618-M1
SECTION 618	

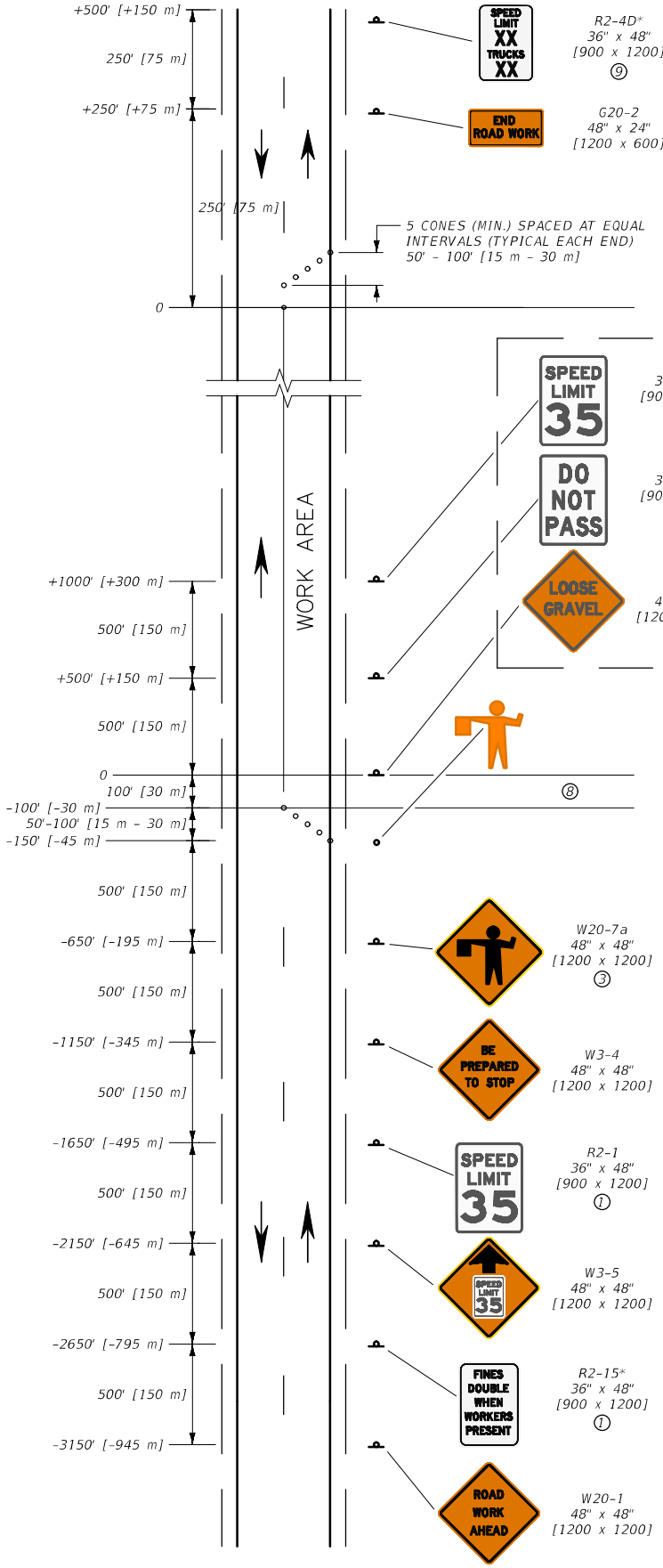
MAINTENANCE GUIDELINE FOR SHORT-TERM TWO-LANE CRACK SEALING WORK ZONE

EFFECTIVE: JAN 23, 2020

MONTANA Department of Transportation

--REVISED--
APR 28, 2022
JUN 27, 2024

5/15/2024 2:11 PM STDDRD6180M1.DWG



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 INCREASED VEHICLE STORAGE IS NEEDED, ADD AN ADDITIONAL W20-7a "FLAGGER AHEAD" SIGN BETWEEN THE R2-1 AND W3-4 SIGNS AND/OR CONSIDER AN ADDITIONAL ADVANCE FLAGGER.
4. REPLICATE THIS SIGN SEQUENCE FOR OPPOSING TRAFFIC.
5. CONTACT THE DISTRICT TRAFFIC ENGINEER FOR CLARIFYING INFORMATION REGARDING THIS LAYOUT OR OTHER SPECIAL SITUATIONS INCLUDING WORK ZONES INVOLVING CURVATURES, BRIDGES,INTERCHANGES OR DECREASED SIGHT DISTANCE.
6. COVER 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 UNIQUE TO MONTANA.

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

FOR USE BY MDT FORCES

DETAILED DRAWINGS

REFERENCE	DWG. NO.
STANDARD SPEC.	618-M2
SECTION 618	

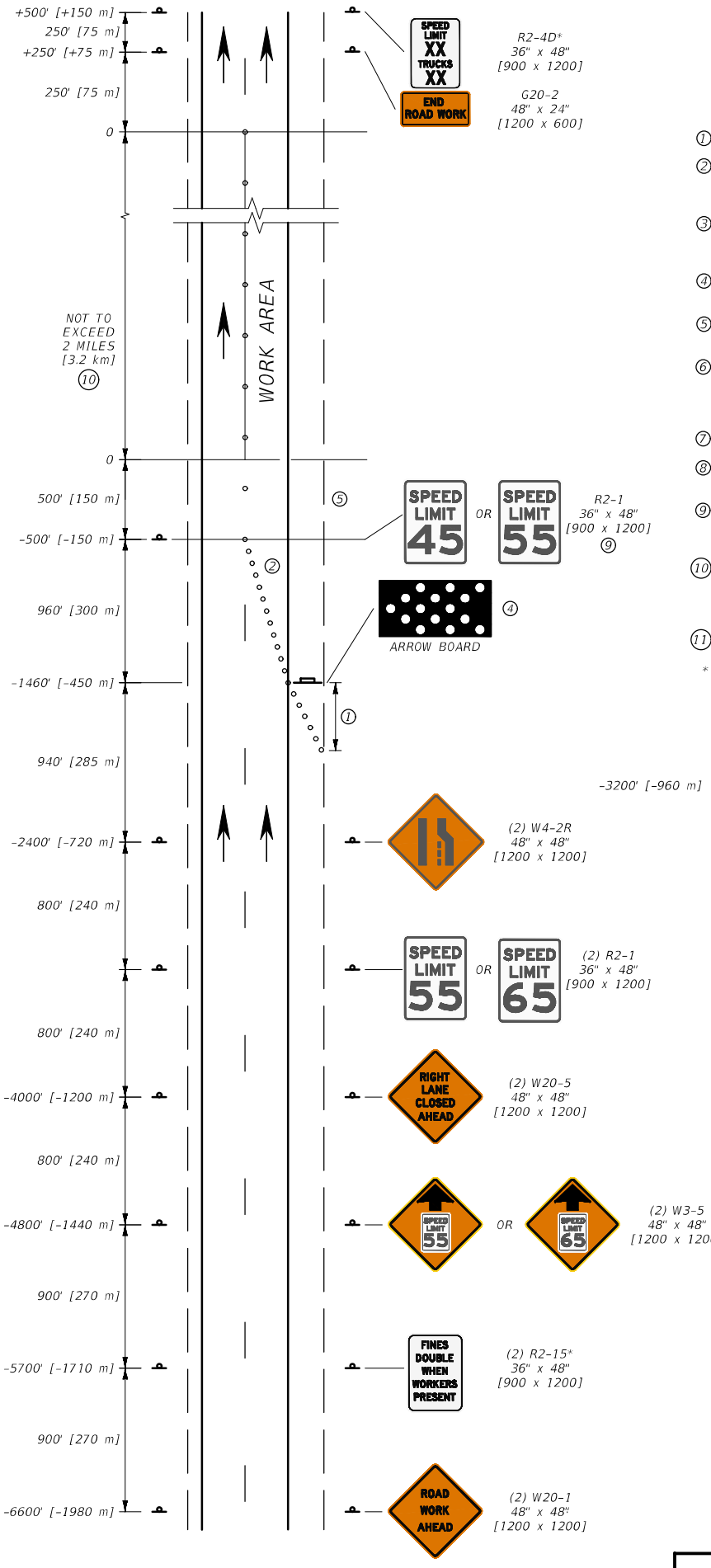
MAINT. GUIDELINE FOR SHORT-TERM TWO-LANE CHIP SEAL & OVERLAY (PILOTED TRAFFIC)

EFFECTIVE: JAN 23, 2020

MONTANA Department of Transportation

--REVISED--
APR 28, 2022
JUN 27, 2024

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NOTES:

1. USE A MINIMUM 320' [100 m] SHOULDER TAPER.
2. USE THIRTEEN APPROVED CHANNELIZING DEVICES FOR A 12' [3.6 m] LANE CLOSURE TAPER (80 M.P.H. SPACED AT 80' [25 m].) ENSURE TAPER IS AT LEAST 960' [300 m].
3. SPACE CHANNELIZING DEVICES AT INTERVALS IN FEET [METERS] EQUAL TO TWICE [0.6 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 LATERAL AND LONGITUDINAL. KEEP THE BUFFER SPACE CLEAR OF EQUIPMENT AND PERSONNEL.
6. CONTACT THE DISTRICT TRAFFIC ENGINEER FOR CLARIFYING INFORMATION REGARDING THIS LAYOUT OR OTHER SPECIAL SITUATIONS INCLUDING WORK ZONES INVOLVING CURVATURES, BRIDGES,INTERCHANGES OR DECREASED SIGHT DISTANCE.
7. COVER 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 ZONE, THESE SIGNS SHOULD BE MOVED TO REFLECT THE NEW WORK AREA.
10. TYPICALLY 2 MILES [3.2 km] IS THE MAX. WORK AREA. HOWEVER, WHEN SIGHT DISTANCE, BUFFER ZONES OR EQUIPMENT WORK RATES ARE CONSIDERED, MINOR ADJUSTMENTS TO THIS MAX. MAY BE CONSIDERED.
11. XX = NORMAL POSTED SPEED LIMIT(S).

* DENOTES SIGNS UNIQUE TO MONTANA.

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

FOR USE BY MDT FORCES

DETAILED DRAWINGS

REFERENCE STANDARD SPEC. SECTION 618

DWG. NO. 618-M3

MAINTENANCE GUIDELINE FOR SHORT-TERM LANE CLOSURE ON INERSTATE

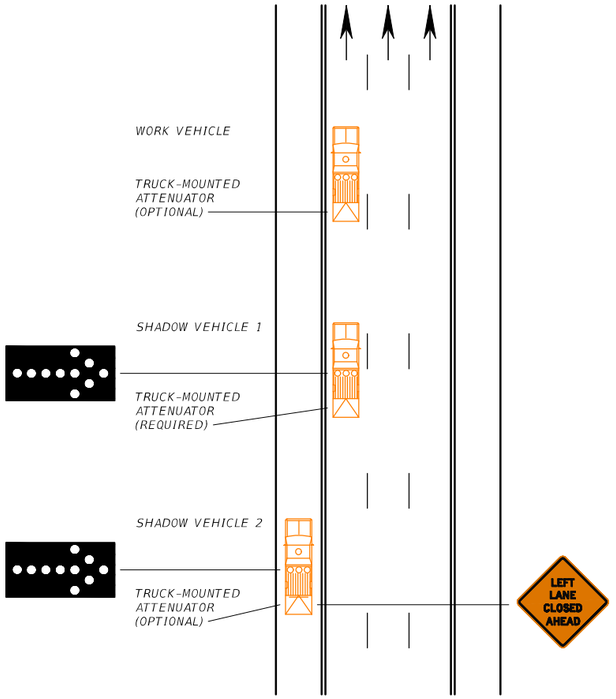
EFFECTIVE: JAN 23, 2020

MONTANA Department of Transportation

--REVISED--
APR 28, 2022
JUN 27, 2024

5/15/2024 2:14 PM STDDRD6180M3.DWG

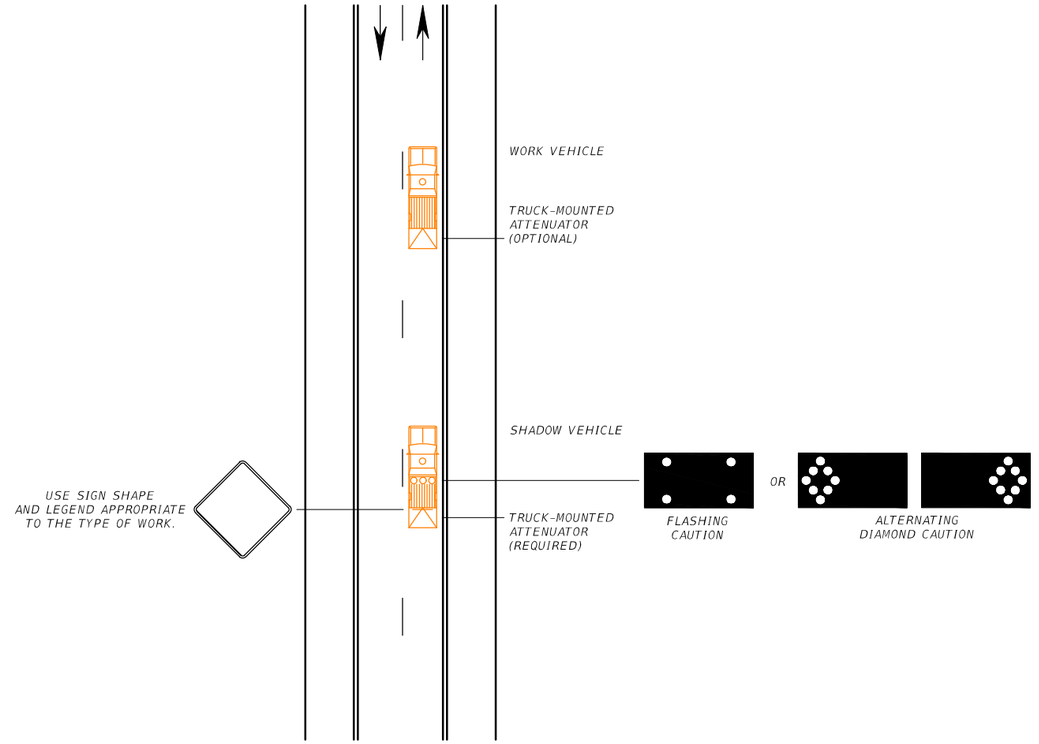
MOBILE OPERATIONS ON MULTILANE ROAD



NOTES:

1. PLACE APPROPRIATE LANE CLOSURE SIGN ON SHADOW VEHICLE 2 SO AS NOT TO OBSCURE THE ARROW BOARD.
2. FOLLOW THE WORK OPERATION WITH SHADOW VEHICLE 2 SO AS TO PROVIDE ADEQUATE SIGHT DISTANCE FOR VEHICULAR TRAFFIC APPROACHING FROM THE REAR.
3. COVER OR TURN THE SIGN LEGENDS ON VEHICLE-MOUNTED SIGNS FROM VIEW WHEN WORK IS NOT IN PROGRESS.
4. WHEN THE WORK VEHICLE OCCUPIES AN INTERIOR LANE OF A DIRECTIONAL ROADWAY HAVING A RIGHT SHOULDER 10 FEET [3 m] OR MORE IN WIDTH, DRIVE SHADOW VEHICLE 2 ALONG THE RIGHT-HAND SHOULDER WITH A SIGN INDICATING WORK IS TAKING PLACE IN THE INTERIOR LANE.
5. ON HIGH-SPEED ROADWAYS, A THIRD SHADOW VEHICLE MAY BE USED WITH SHADOW VEHICLE 1 IN THE CLOSED LANE, SHADOW VEHICLE 2 STRADDLING THE EDGE LINE, AND SHADOW VEHICLE 3 ON THE SHOULDER. WHERE ADEQUATE SHOULDER WIDTH IS NOT AVAILABLE, SHADOW VEHICLE 3 MAY ALSO STRADDLE THE EDGE LINE.
6. THE MINIMUM ARROW BOARD SIZE IS TYPE B, 60 INCHES X 30 INCHES [1500 X 750].
7. VARY THE DISTANCE BETWEEN THE WORK LOCATION AND SHADOW VEHICLE 2 TO PROVIDE ADEQUATE SIGHT DISTANCE FOR VEHICULAR TRAFFIC APPROACHING FROM THE REAR.
8. MAINTAIN A MINIMUM SPACING BETWEEN THE WORK VEHICLE AND SHADOW VEHICLES, AND BETWEEN EACH SHADOW VEHICLE TO DETER ROAD USERS FROM DRIVING IN BETWEEN.

MOBILE OPERATIONS ON TWO-LANE ROAD



NOTES:

1. TRUCK-MOUNTED ATTENUATOR IS REQUIRED FOR SHADOW VEHICLE.
2. EQUIP SHADOW VEHICLE WITH VEHICLE-MOUNTED SIGN. USE SIGN SHAPE AND LEGEND APPROPRIATE TO THE TYPE OF WORK.
3. MOUNT VEHICLE-MOUNTED SIGN SO EQUIPMENT OR SUPPLIES DO NOT OBSCURE THE SIGN.
4. COVER OR TURN THE SIGN LEGENDS ON VEHICLE-MOUNTED SIGNS FROM VIEW WHEN WORK IS NOT IN PROGRESS.
5. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, MAINTAIN A MINIMUM DISTANCE FROM THE WORK VEHICLE WITH THE SHADOW VEHICLE AND PROCEED AT THE SAME SPEED.
6. SLOW THE SHADOW VEHICLE BEFORE ROADWAY CURVATURES OR SITUATIONS RESTRICTING SIGHT DISTANCE.

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

DETAILED DRAWINGS

REFERENCE	DWG. NO.
STANDARD SPEC. SECTION 618	618-M4

MOBILE OPERATIONS

EFFECTIVE: JAN 23, 2020

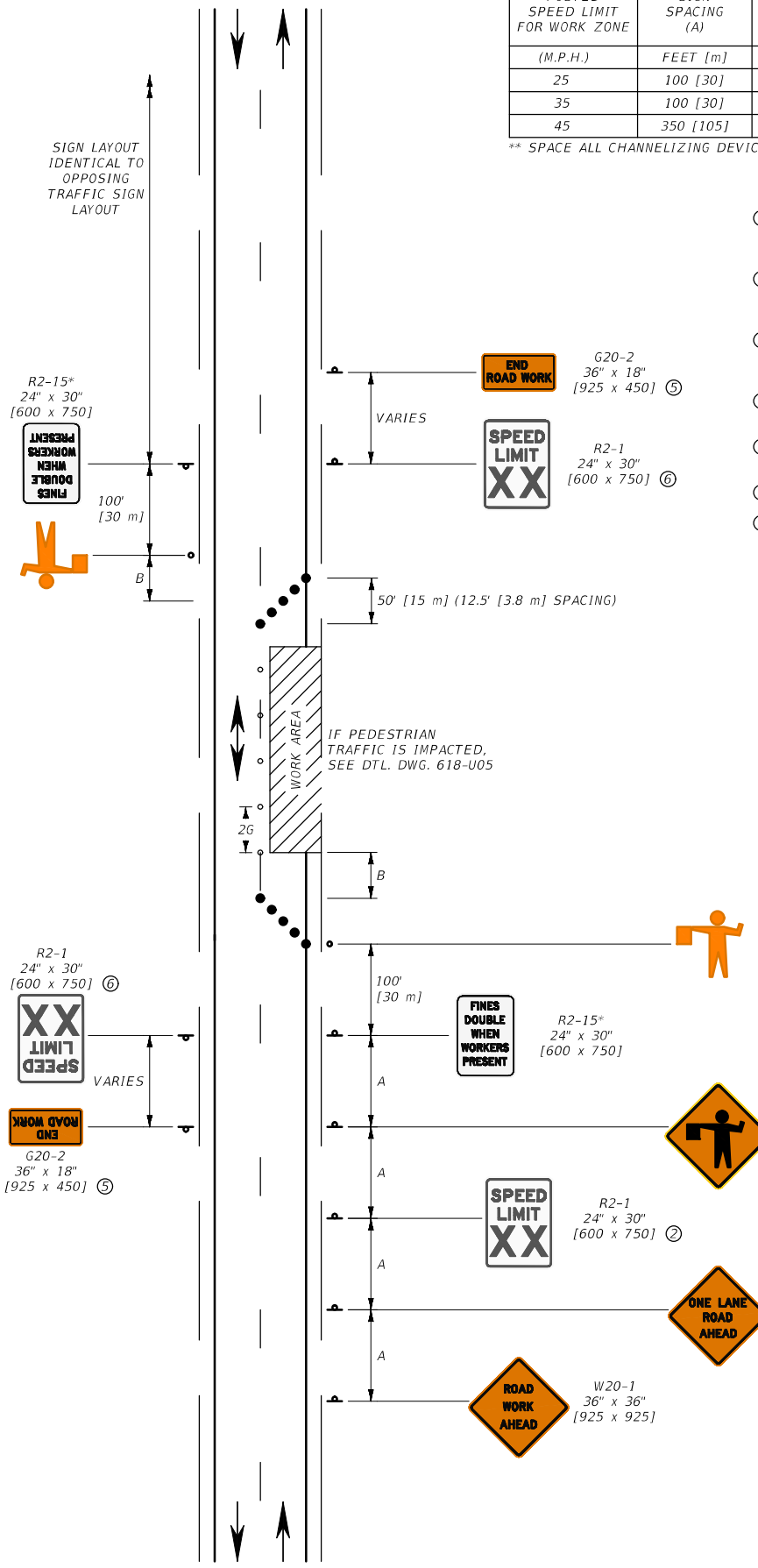
MONTANA
Department of Transportation

--REVISED--
JUN 27, 2024

5/15/2024 2:19 PM STDDRD6180M4.DWG

POSTED SPEED LIMIT FOR WORK ZONE	SIGN SPACING (A)	SPACING OF CHANNELIZING DEVICES (MAX.) (G) **	BUFFER SPACE ③ (B)
(M.P.H.)	FEET [m]	FEET [m]	FEET [m]
25	100 [30]	25 [7.6]	155 [45]
35	100 [30]	35 [10.7]	250 [75]
45	350 [105]	45 [14]	360 [110]

** 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 CONFLICTING EXISTING SPEED LIMIT SIGNS.

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

④ LARGER SIGN SIZES MAY BE APPROVED BY THE PROJECT MANAGER.

⑤ PLACE "END ROADWORK" SIGN AT END OF PROJECT LIMITS.

⑥ POST EXISTING SPEED LIMIT IF CHANGED BY WORK ZONE.

⑦ AMBER LED FLASHERS MUST MEET STANDARD SPECIFICATION SECTION 715 AND DTL. DWG. 618-01 REQUIREMENTS.

LEGEND

○ – FLEXIBLE GUIDE POSTS

● – PLASTIC DRUMS

* – DENOTES SIGNS UNIQUE TO MONTANA.

XX – SPEED DETERMINED BY THE PROJECT MANAGER. (25 M.P.H. OR 35 M.P.H. OR 45 M.P.H.)

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

DETAILED DRAWINGS

REFERENCE STANDARD SPEC. SECTION 618

DWG. NO. 618-U01

LANE CLOSURE-FLAGGER CONTROLLED (URBAN TWO-LANE, TWO-WAY ROAD)

EFFECTIVE: JAN 23, 2020

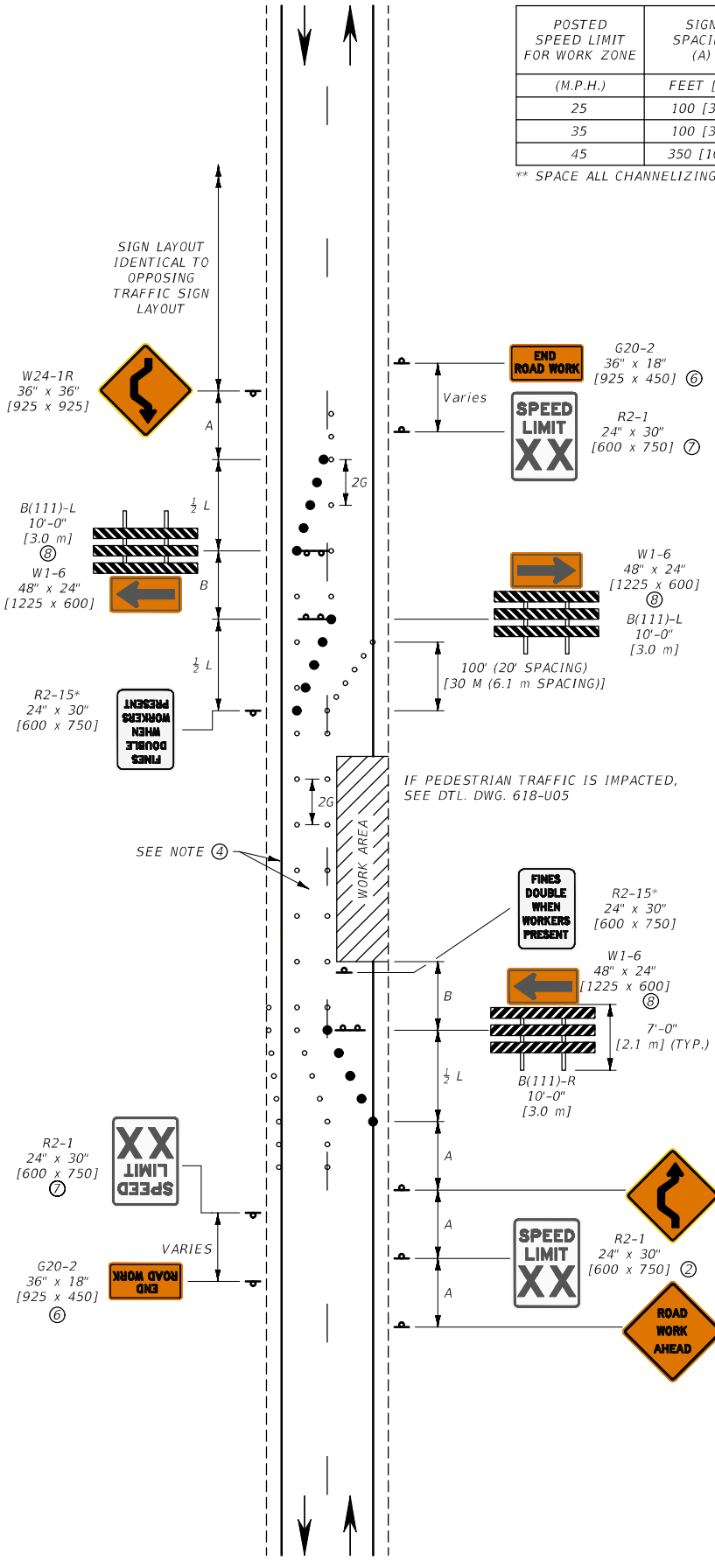
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JUN 27, 2024

MONTANA Department of Transportation

5/15/2024 2:22 PM STDDRD618U01.DWG

POSTED SPEED LIMIT FOR WORK ZONE	SIGN SPACING (A)	TAPER LENGTH (L)	SPACING OF CHANNELIZING DEVICES (MAX.) (G) **	BUFFER SPACE ③ (B)
(M.P.H.)	FEET [m]	FEET [m]	FEET [m]	FEET [m]
25	100 [30]	125 [40]	25 [7.6]	155 [45]
35	100 [30]	245 [75]	35 [10.7]	250 [75]
45	350 [105]	540 [165]	45 [14]	360 [110]

** 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 CONFLICTING EXISTING SPEED LIMIT SIGNS.

③ BUFFER SPACE MAY BE INCREASED FOR DOWNGRADES AND OTHER CONDITIONS AFFECTING STOPPING DISTANCE.

④ THIS LAYOUT SHOULD ONLY BE USED WHEN THERE IS AT LEAST 10' [3.0 m] IN WIDTH BETWEEN THE CHANNELIZING DEVICES AND THE EDGE OF PAVEMENT.

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 UNIQUE TO MONTANA.

XX – SPEED DETERMINED BY THE PROJECT MANAGER. (25 M.P.H. OR 35 M.P.H. OR 45 M.P.H.)

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

DETAILED DRAWINGS

REFERENCE STANDARD SPEC. SECTION 618

DWG. NO. 618-U02

WORK ZONE OCCUPIES ONE HALF OF ROAD (LOW SPEED URBAN TWO-LANE,TWO-WAY ROAD)

EFFECTIVE: JAN 23, 2020

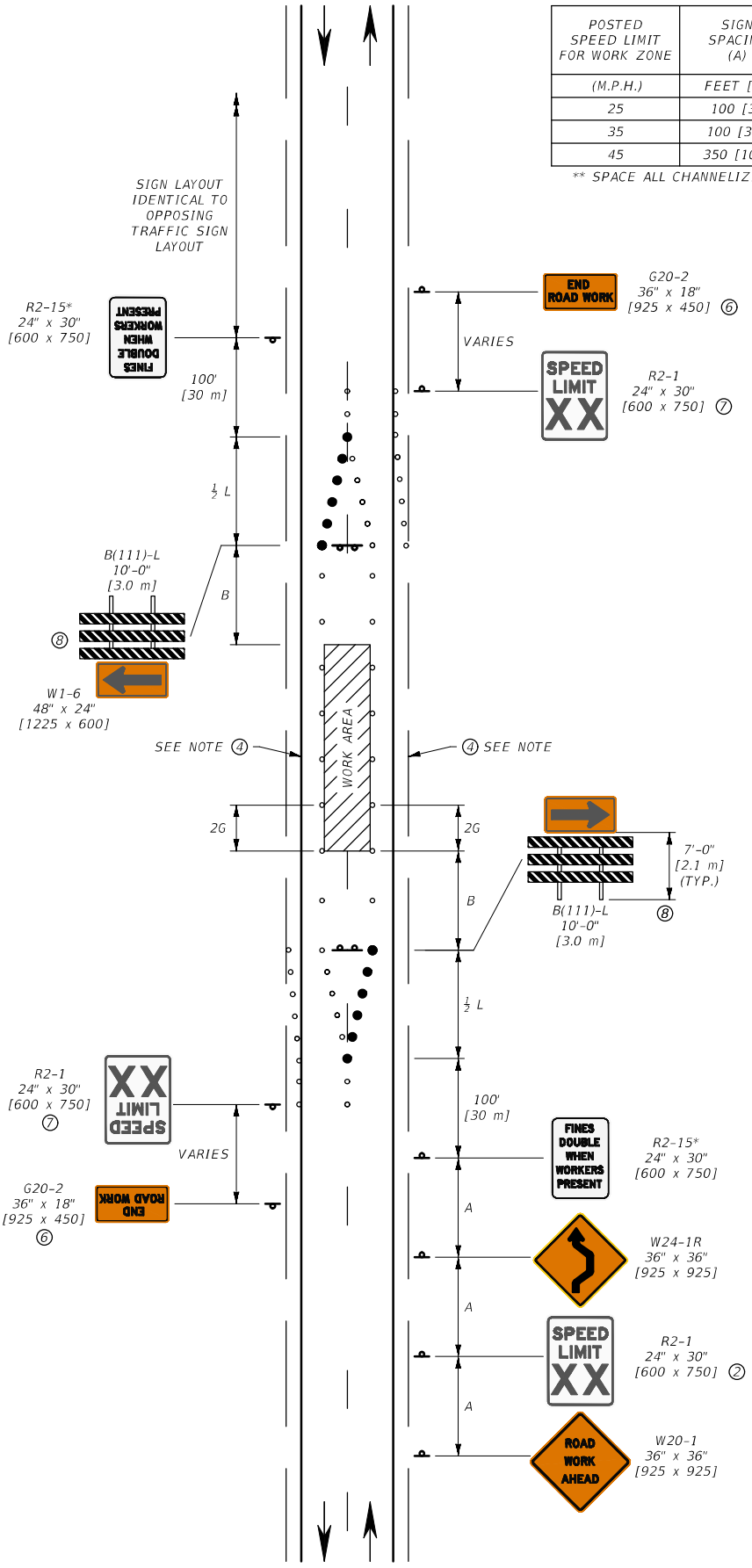
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JUN 27, 2024

MONTANA Department of Transportation

5/15/2024 2:43 PM STDDRD618U02.DWG

POSTED SPEED LIMIT FOR WORK ZONE	SIGN SPACING (A)	TAPER LENGTH (L)	SPACING OF CHANNELIZING DEVICES (MAX.) (G) **	BUFFER SPACE ③ (B)
(M.P.H.)	FEET [m]	FEET [m]	FEET [m]	FEET [m]
25	100 [3]	125 [40]	25 [7.6]	155 [45]
35	100 [30]	245 [75]	35 [10.7]	250 [75]
45	350 [105]	540 [165]	45 [14]	360 [110]

** 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 CONFLICTING EXISTING SPEED LIMIT SIGNS.

③ BUFFER SPACE MAY BE INCREASED FOR DOWNGRADES AND OTHER CONDITIONS AFFECTING STOPPING DISTANCE.

④ USE THIS SIGN LAYOUT ONLY WHEN AT LEAST 10' [3 m] SEPARATION EXISTS BETWEEN THE CHANNELIZING DEVICES AND THE EDGE OF PAVEMENT. PROVIDE NO PARKING SIGNS WHEN APPROPRIATE.

⑤ LARGER SIGNS 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. 608-03.

LEGEND

○ – FLEXIBLE GUIDE POSTS

● – PLASTIC DRUMS

* – DENOTES SIGNS UNIQUE TO MONTANA.

XX – SPEED DETERMINED BY THE PROJECT MANAGER. (25 M.P.H. OR 35 M.P.H. OR 45 M.P.H.)

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

DETAILED DRAWINGS

REFERENCE STANDARD SPEC. SECTION 618

DWG. NO. 618-U03

WORK ZONE IN CENTER OF ROAD (URBAN TWO-LANE, TWO-WAY ROAD)

EFFECTIVE: JAN 23, 2020

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JUN 27, 2024

5/15/2024 2:35 PM STDDRD618U03.DWG

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 WALKWAY IS ADA COMPLIANT THROUGHOUT. PROVIDE A MINIMUM WALKWAY WIDTH OF 5 FEET [1525 mm] AND A FIRM, STABLE, SLIP RESISTANT WALKING SURFACE ALONG ENTIRE WALKWAY.

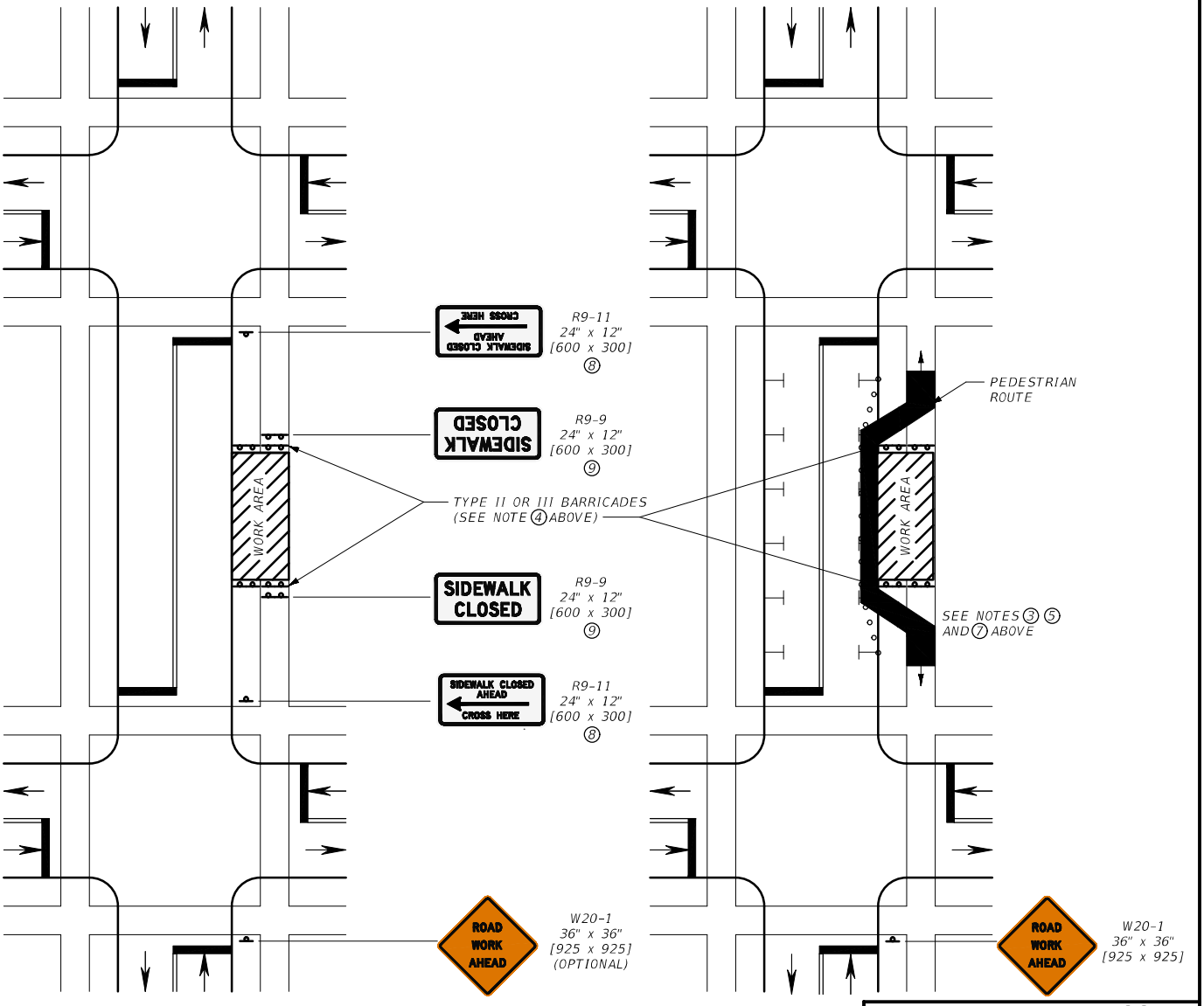
7. PROVIDE TEMPORARY RAMPS AND DETECTABLE EDGING (MINIMUM 6 INCH HEIGHT [150 mm] ON BOTH SIDES OF WALKWAY) ALONG TEMPORARY PEDESTRIAN DETOUR ROUTE. SEE MUTCD FOR ADDITIONAL GUIDANCE.

8. PLACE R9-11 ON SIGN POSTS (AS SHOWN BELOW) IF BUSINESS ACCESS IS REQUIRED. PLACE TYPE I BARRICADE ON SIDEWALK WITH R9-11 SIGN IF BUSINESS ACCESS IS NOT REQUIRED.

9. PLACE TYPE I BARRICADE ON SIDEWALK WITH R9-9 SIGN.

PEDESTRIAN DETOUR

BYPASS WALKWAY PROVIDED THROUGH WORK ZONE (6)



LEGEND

∘ – FLEXIBLE GUIDE POSTS

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

DETAILED DRAWINGS

REFERENCE STANDARD SPEC. SECTION 618

DWG. NO. 618-U05

SIDEWALK CLOSURES AND BYPASS WALKWAY

EFFECTIVE: JAN 23, 2020

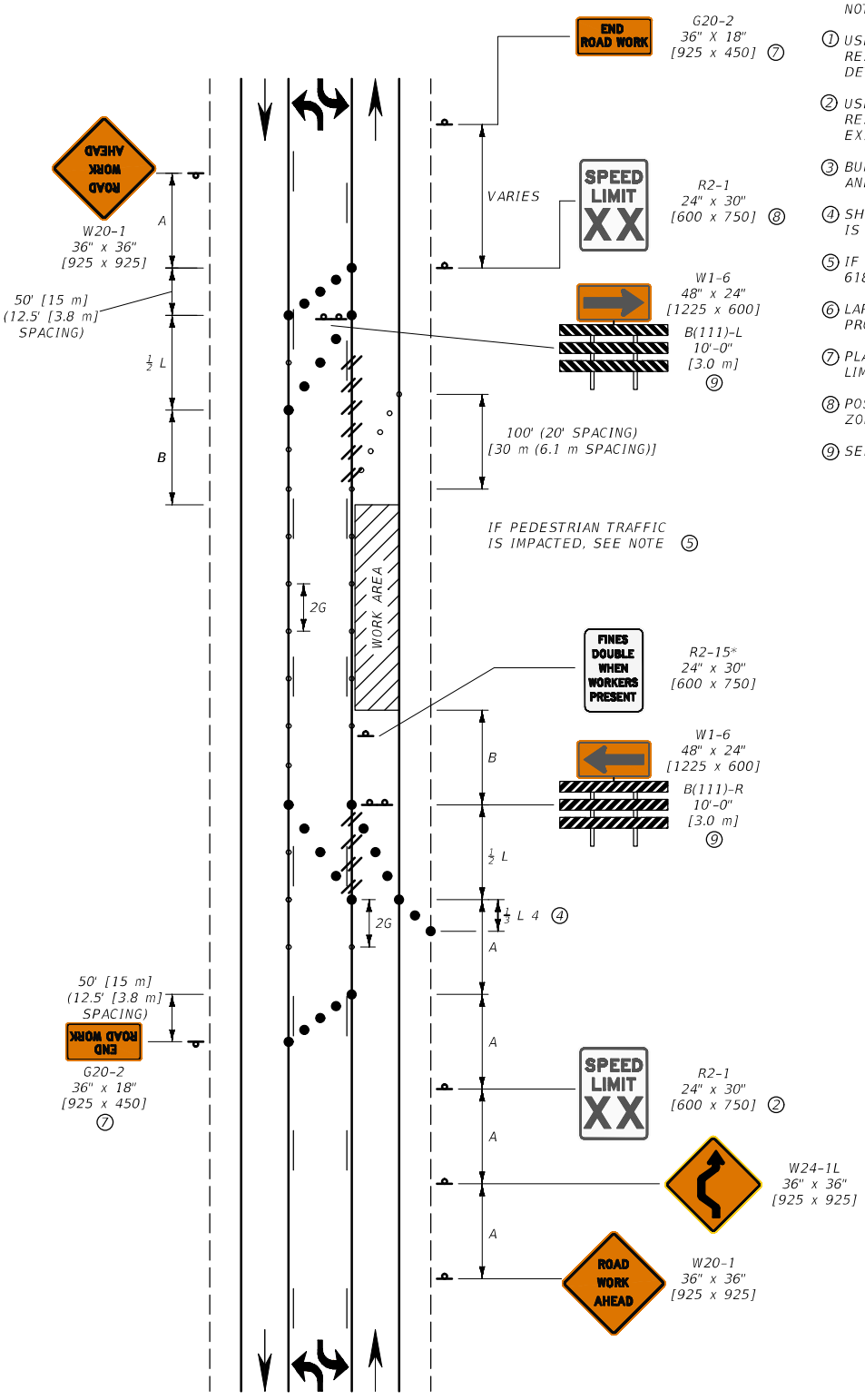
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JUN 27, 2024

5/15/2024 2:43 PM STDDRD618U05.DWG

POSTED SPEED LIMIT FOR WORK ZONE	SIGN SPACING (A)	TAPER LENGTH (L)	SPACING OF CHANNELIZING DEVICES (MAX.) (G) **	BUFFER SPACE ③ (B)
(M.P.H.)	FEET [m]	FEET [m]	FEET [m]	FEET [m]
25	100 [30]	125 [40]	25 [7.6]	155 [45]
35	100 [30]	245 [75]	35 [10.7]	250 [75]
45	350 [105]	540 [165]	45 [14]	360 [110]

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



NOTES:

① USE SPEED LIMIT SIGNS ONLY IF SPEED MUST BE RESTRICTED. USE THE RURAL, OPEN ROADWAY SIGNING DETAILS WHEN HIGHER SPEED LIMITS ARE USED.

② USE SPEED LIMIT SIGNS ONLY IF SPEED MUST BE RESTRICTED. COVER OR REMOVE CONFLICTING EXISTING SPEED LIMIT SIGNS.

③ BUFFER SPACE MAY BE INCREASED FOR DOWNGRADES AND OTHER CONDITIONS AFFECTING STOPPING DISTANCE.

④ SHOULDER TAPER MAY BE OMITTED IF PAVED SHOULDER IS LESS THAN 8' [2.4 m] WIDE.

⑤ IF PEDESTRIAN TRAFFIC IS IMPACTED SEE DTL. DWG. 618-U05.

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

⑦ PLACE "END ROADWORK" SIGNS AT END OF PROJECT LIMITS.

⑧ POST EXISTING SPEED LIMIT IF CHANGED BY WORK ZONE.

⑨ SEE DTL. DWG. 618-03.

LEGEND

○ – FLEXIBLE GUIDE POSTS

● – PLASTIC DRUMS

* – DENOTES SIGNS UNIQUE TO MONTANA.

XX – SPEED DETERMINED BY THE PROJECT MANAGER. (25 M.P.H. OR 35 M.P.H. OR 45 M.P.H.)

// – OBLITERATE 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 DRAWINGS

REFERENCE STANDARD SPEC. SECTION 618

DWG. NO. 618-U15

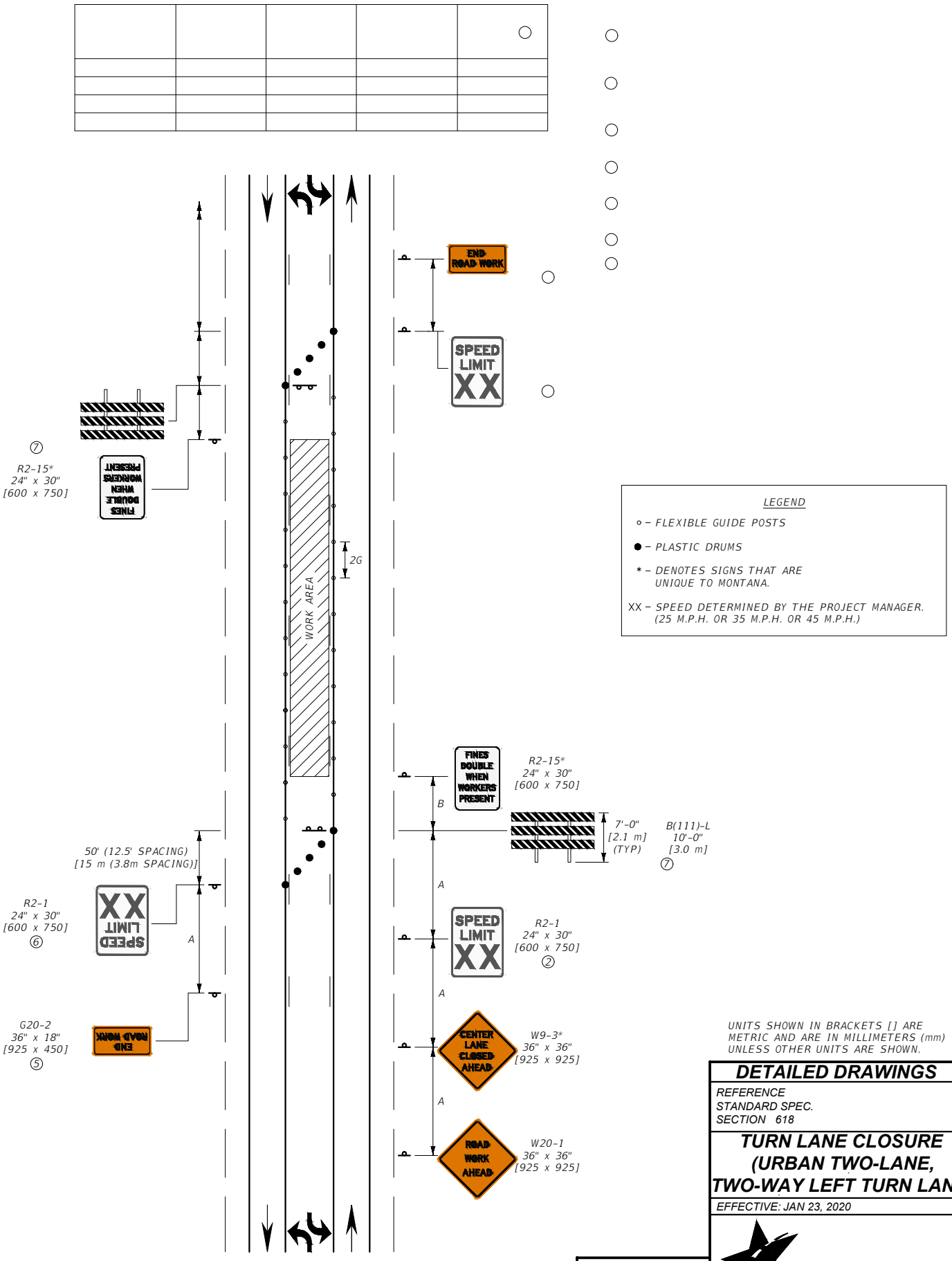
LANE CLOSURE (URBAN TWO-LANE, TWO-WAY ROAD WITH TWO-WAY LEFT TURN LANE)

EFFECTIVE: JAN 23, 2020

MONTANA Department of Transportation

--REVISED--
JUN 27, 2024

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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. OR 45 M.P.H.)

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

DETAILED DRAWINGS

REFERENCE
STANDARD SPEC.
SECTION 618

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

EFFECTIVE: JAN 23, 2020

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JUN 27, 2024

5/17/2024 1:45 PM

POSTED SPEED LIMIT FOR WORK ZONE	SIGN SPACING (A)	TAPER LENGTH (L)	SPACING OF CHANNELIZING DEVICES (MAX.) (G) **	BUFFER SPACE ③ (B)
(M.P.H.)	FEET [m]	FEET [m]	FEET [m]	FEET [m]
25	100 [30]	125 [40]	25 [7.6]	155 [45]
35	100 [30]	245 [75]	35 [10.7]	250 [75]
45	350 [105]	540 [165]	45 [14]	360 [110]

** 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 USE SPEED LIMIT SIGNS ONLY IF SPEED MUST BE RESTRICTED. COVER OR REMOVE CONFLICTING EXISTING SPEED LIMIT SIGNS.

③ BUFFER SPACE MAY BE INCREASED FOR DOWNGRADES AND OTHER CONDITIONS AFFECTING STOPPING DISTANCE.

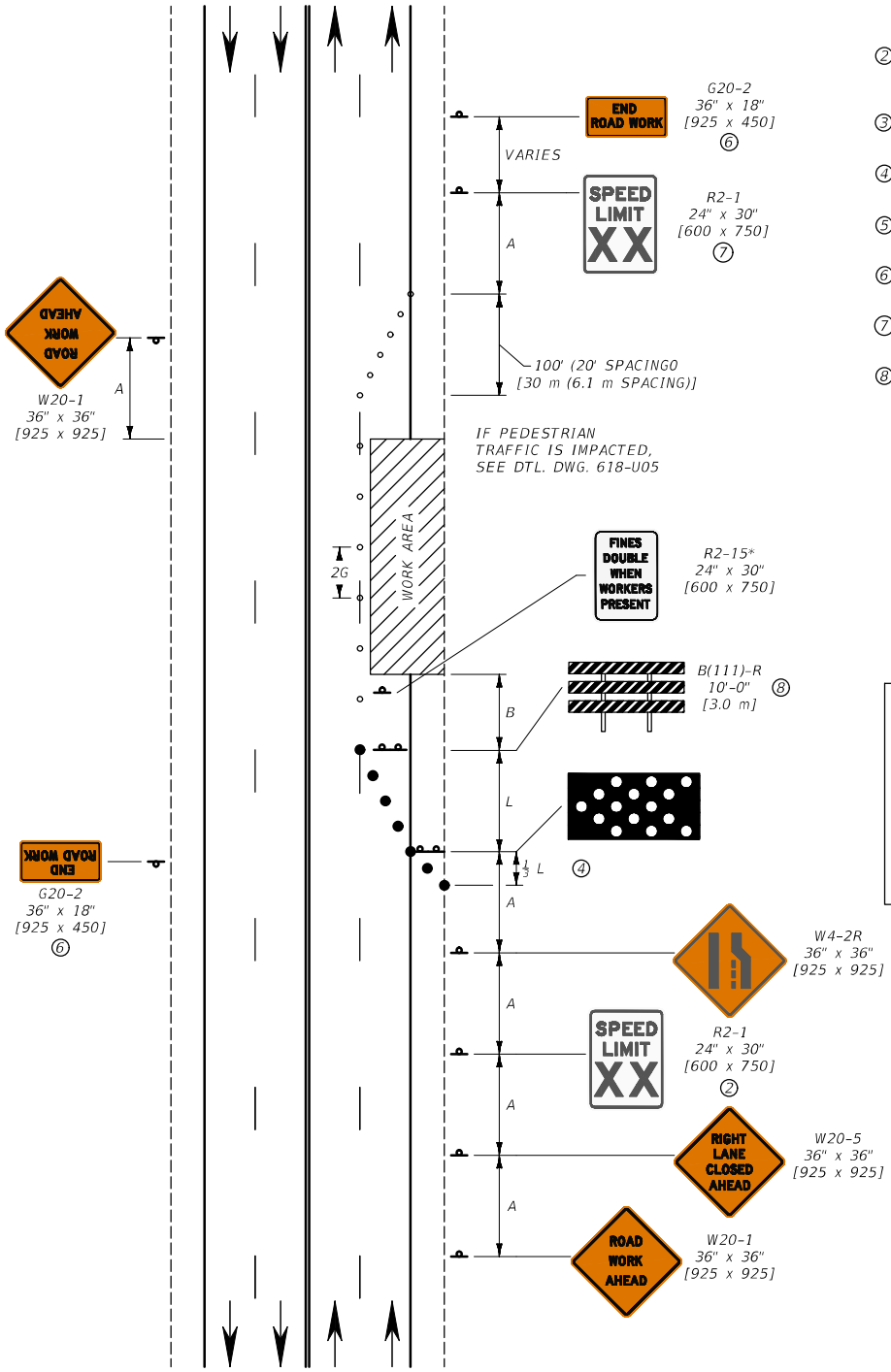
④ SHOULDER TAPER MAY BE OMITTED IF PAVED SHOULDER IS LESS THAN 8' [2.4 m] WIDE.

⑤ LARGER SIGN SIZES MAY BE APPROVED BY THE PROJECT MANAGER.

⑥ PLACE "END ROADWORK" 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 UNIQUE TO MONTANA.

XX – SPEED DETERMINED BY THE PROJECT MANAGER.
(25 M.P.H. OR 35 M.P.H. OR 45 M.P.H.)

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

DETAILED DRAWINGS

REFERENCE STANDARD SPEC. SECTION 618

DWG. NO. 618-U20

RIGHT LANE CLOSURE (URBAN MULTI-LANE, UNDIVIDED ROAD)

EFFECTIVE: JAN 23, 2020

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JUN 27, 2024

5/15/2024 2:48 PM STDDRD618U20.DWG

POSTED SPEED LIMIT FOR WORK ZONE	SIGN SPACING (A)	TAPER LENGTH (L)	SPACING OF CHANNELIZING DEVICES (MAX.) (G) **	BUFFER SPACE ③ (B)
(M.P.H.)	FEET [m]	FEET [m]	FEET [m]	FEET [m]
25	100 [30]	125 [40]	25 [7.6]	155 [45]
35	100 [30]	245 [75]	35 [10.7]	250 [75]
45	350 [105]	540 [165]	45 [14]	360 [110]

** 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.

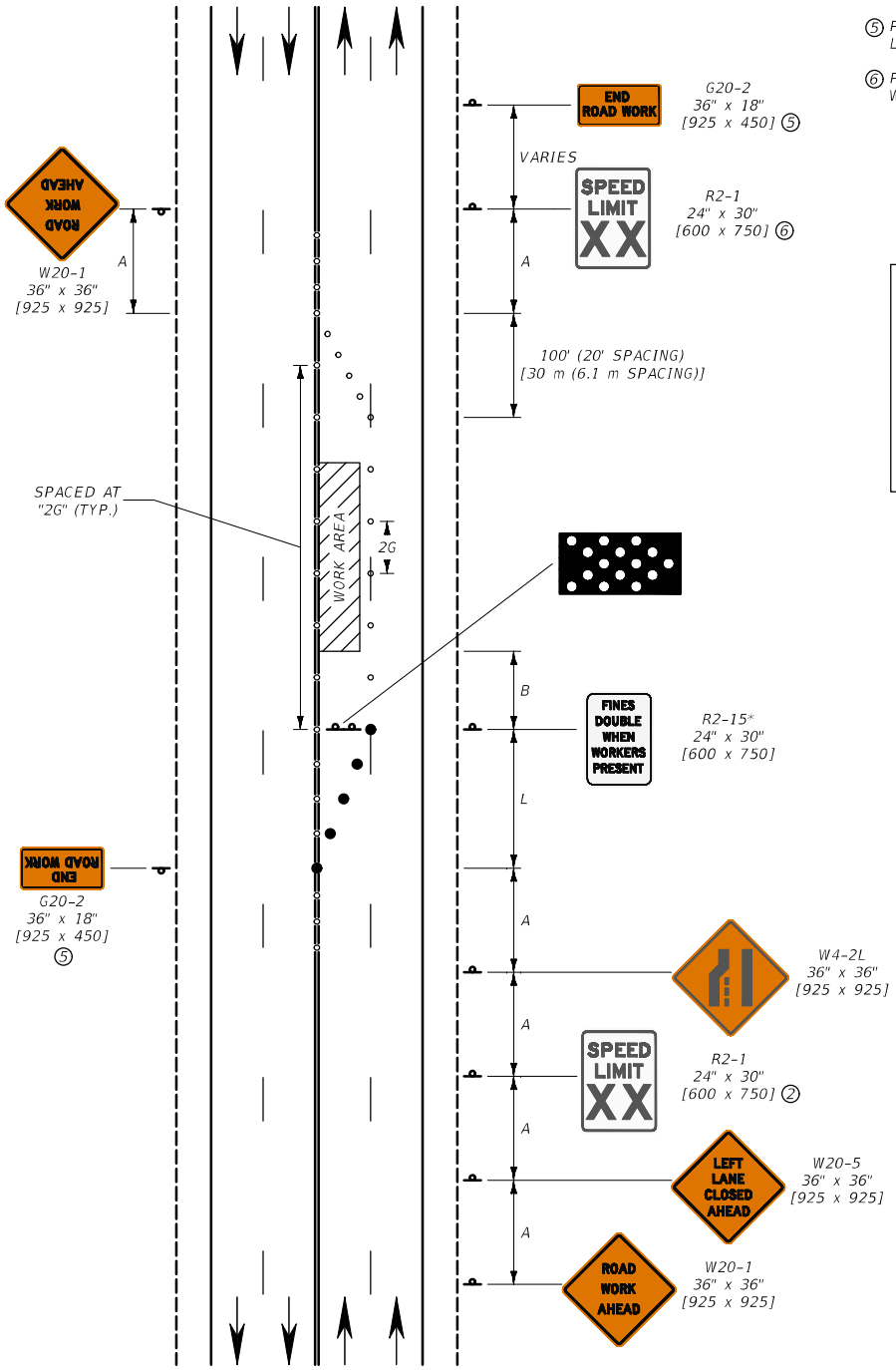
② USE SPEED LIMIT SIGNS ONLY IF SPEED MUST BE RESTRICTED. COVER OR REMOVE CONFLICTING EXISTING SPEED LIMIT SIGNS.

③ BUFFER SPACE MAY BE INCREASED FOR DOWNGRADES AND OTHER CONDITIONS AFFECTING STOPPING DISTANCE.

④ LARGER SIGN SIZES MAY BE APPROVED BY THE PROJECT MANAGER.

⑤ PLACE "END ROADWORK" SIGN AT END OF PROJECT LIMITS.

⑥ POST EXISTING SPEED LIMIT IF CHANGED BY WORK ZONE.



LEGEND

○ – FLEXIBLE GUIDE POSTS

● – PLASTIC DRUMS

* – DENOTES SIGNS UNIQUE TO MONTANA.

XX – SPEED DETERMINED BY THE PROJECT MANAGER. (25 M.P.H. OR 35 M.P.H. OR 45 M.P.H.)

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

DETAILED DRAWINGS

REFERENCE STANDARD SPEC. SECTION 618

DWG. NO. 618-U25

LEFT TURN CLOSURE (LOW SPEED URBAN MULTI-LANE, UNDIVIDED ROAD)

EFFECTIVE: JAN 23, 2020

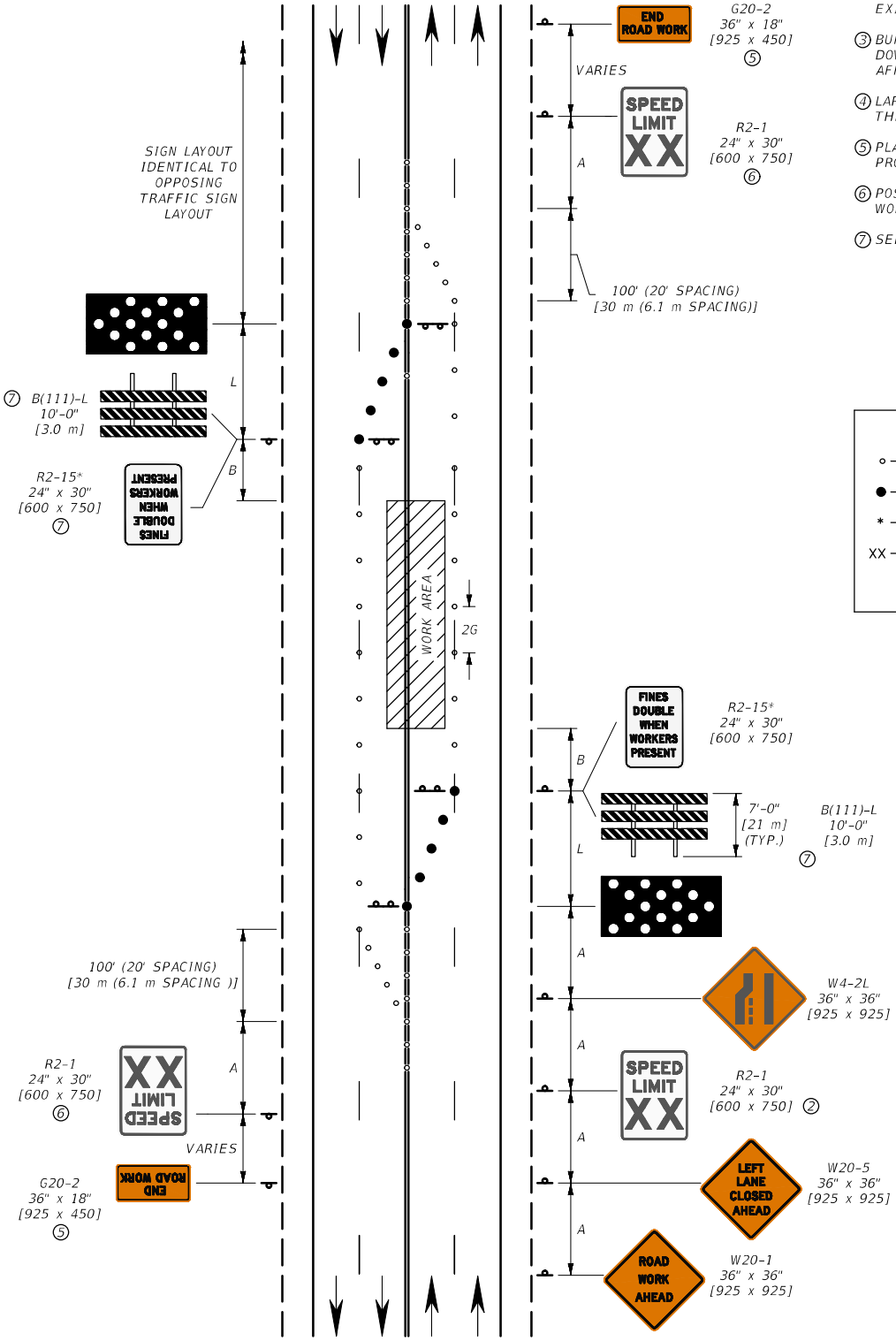
MONTANA Department of Transportation

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JUN 27, 2024

5/15/2024 2:51 PM STDDRD618U25.DWG

POSTED SPEED LIMIT FOR WORK ZONE	SIGN SPACING (A)	TAPER LENGTH (L)	SPACING OF CHANNELIZING DEVICES (MAX.) (G) **	BUFFER SPACE ③ (B)
(M.P.H.)	FEET [m]	FEET [m]	FEET [m]	FEET [m]
25	100 [30]	125 [40]	25 [7.6]	155 [45]
35	100 [30]	245 [75]	35 [10.7]	250 [75]
45	350 [105]	540 [165]	45 [14]	360 [110]

** 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 USE SPEED LIMIT SIGNS ONLY IF SPEED MUST BE RESTRICTED. COVER OR REMOVE CONFLICTING EXISTING SPEED LIMIT SIGNS.

③ BUFFER SPACE MAY BE INCREASED FOR DOWNGRADES AND OTHER CONDITIONS AFFECTING STOPPING DISTANCE.

④ LARGER SIGN SIZES MAY BE APPROVED BY THE PROJECT MANAGER.

⑤ PLACE "END ROADWORK" SIGNS AT END OF PROJECT LIMITS.

⑥ POST EXISTING SPEED LIMIT IF CHANGED BY WORK ZONE.

⑦ SEE DTL. DWG. 618-03.

LEGEND

○ – FLEXIBLE GUIDE POSTS

● – PLASTIC DRUMS

* – DENOTES SIGNS UNIQUE TO MONTANA.

XX – SPEED DETERMINED BY THE PROJECT MANAGER. (25 M.P.H. OR 35 M.P.H. OR 45 M.P.H.)

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

DETAILED DRAWINGS

REFERENCE STANDARD SPEC. SECTION 618

DWG. NO. 618-U30

LEFT LANE CLOSURES (LOW SPEED URBAN MULTI-LANE, UNDIVIDED ROAD)

EFFECTIVE: JAN 23, 2020

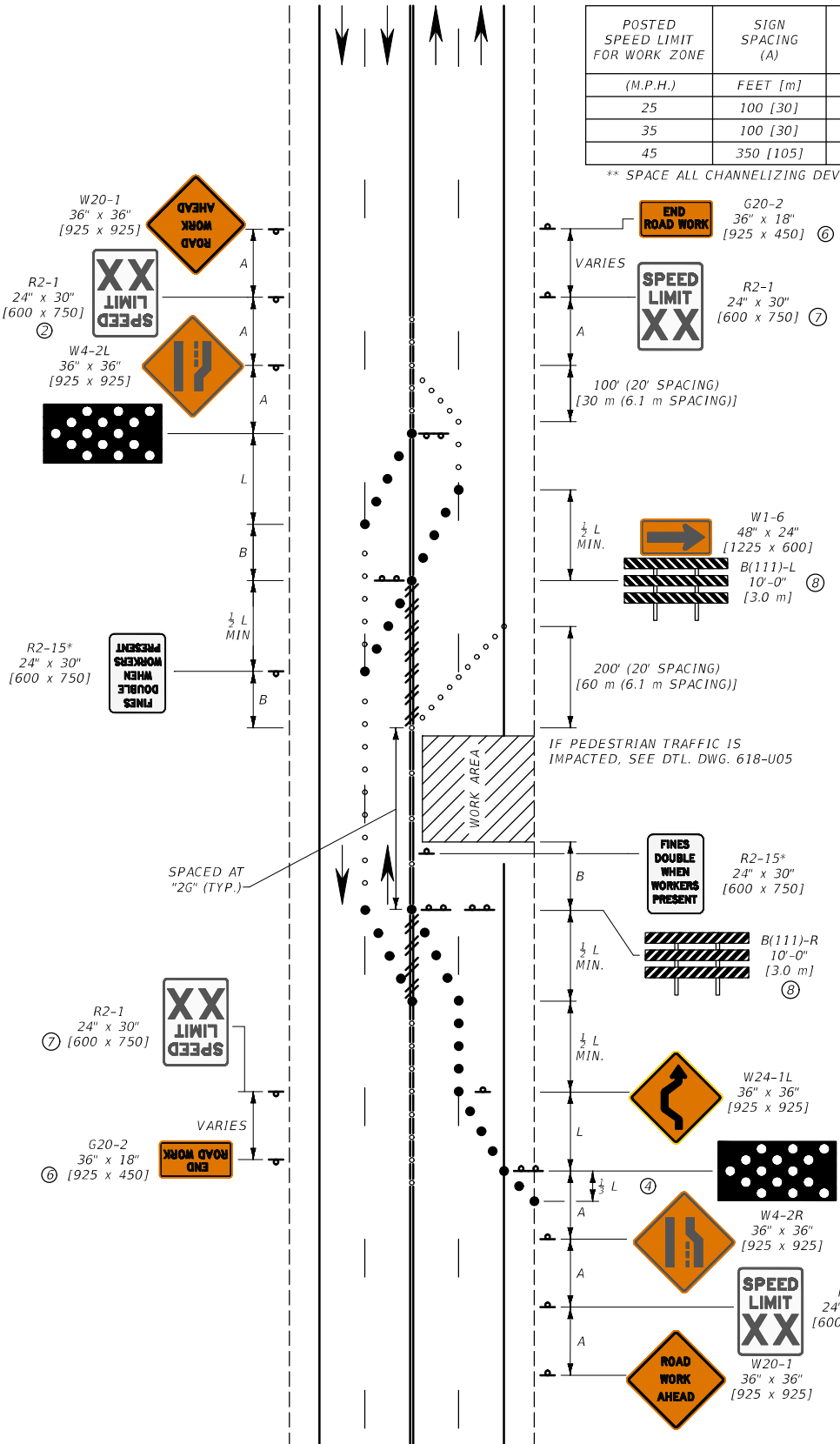
MONTANA Department of Transportation

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JUN 27, 2024

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POSTED SPEED LIMIT FOR WORK ZONE	SIGN SPACING (A)	TAPER LENGTH (L)	SPACING OF CHANNELIZING DEVICES (MAX.) (G) **	BUFFER SPACE ③ (B)
(M.P.H.)	FEET [m]	FEET [m]	FEET [m]	FEET [m]
25	100 [30]	125 [40]	25 [7.6]	155 [45]
35	100 [30]	245 [75]	35 [10.7]	250 [75]
45	350 [105]	540 [165]	45 [14]	360 [110]

** 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 USE SPEED LIMIT SIGNS ONLY IF SPEED MUST BE RESTRICTED. COVER OR REMOVE CONFLICTING EXISTING SPEED LIMIT SIGNS.

③ BUFFER SPACE MAY BE INCREASED FOR DOWNGRADES AND OTHER CONDITIONS AFFECTING STOPPING DISTANCE.

④ SHOULDER TAPER MAY BE OMITTED IF PAVED SHOULDER IS LESS THAN 8' [2.4 m] WIDE.

⑤ LARGER SIGN SIZES MAY BE APPROVED BY THE PROJECT MANAGER.

⑥ PLACE "END ROADWORK" 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 UNIQUE TO MONTANA.
- XX – SPEED DETERMINED BY THE PROJECT MANAGER. (25 M.P.H. OR 35 M.P.H. OR 45 M.P.H.)
- // – OBLITERATE 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 DRAWINGS

REFERENCE STANDARD SPEC. SECTION 618

DWG. NO. 618-U35

DOUBLE LANE CLOSURE (URBAN MULTI-LANE, UNDIVIDED ROAD)

EFFECTIVE: JAN 23, 2020

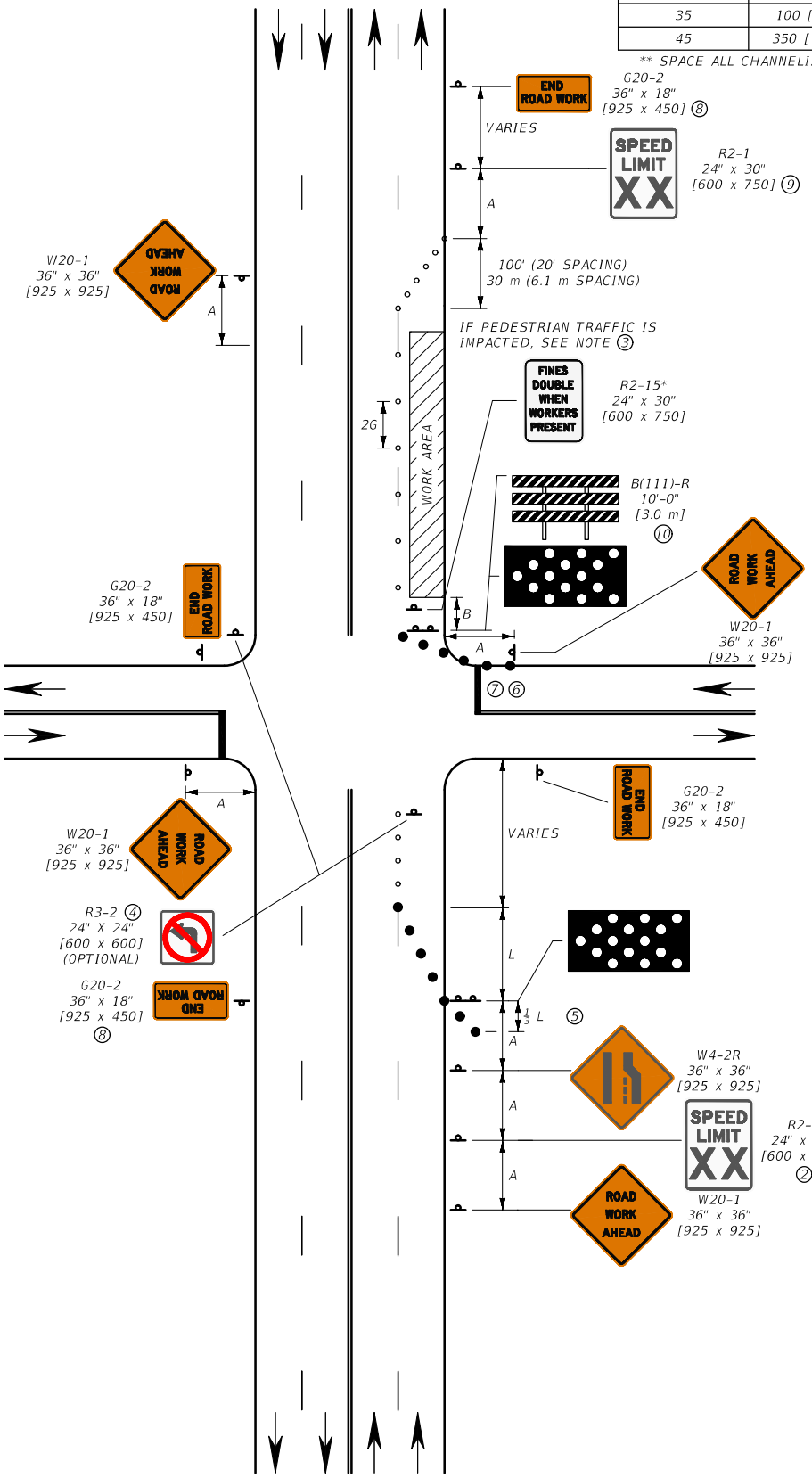
MONTANA Department of Transportation

--REVISED--
JUN 27, 2024

5/15/2024 2:58 PM STDDRD618U35.DWG

POSTED SPEED LIMIT FOR WORK ZONE	SIGN SPACING (A)	TAPER LENGTH (L)	SPACING OF CHANNELIZING DEVICES (MAX.) (G) **	BUFFER SPACE (11) (B)
(M.P.H.)	FEET [m]	FEET [m]	FEET [m]	FEET [m]
25	100 [30]	125 [40]	25 [7.6]	155 [45]
35	100 [30]	245 [75]	35 [10.7]	250 [75]
45	350 [105]	540 [165]	45 [14]	360 [110]

** 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) USE SPEED LIMIT SIGNS ONLY IF SPEED MUST BE RESTRICTED. COVER OR REMOVE CONFLICTING EXISTING SPEED LIMIT SIGNS.

(3) IF PEDESTRIAN TRAFFIC IS IMPACTED BY THE WORK ZONE, USE THE INFORMATION AND DEVICES SHOWN IN DTL. DWG. 618-U05.

(4) LEFT TURNING MOVEMENTS MAY BE PROHIBITED TO MAINTAIN CAPACITY FOR THROUGH VEHICULAR TRAFFIC (UNLESS CONTROLLED BY TRAFFIC SIGNAL).

(5) INCLUDE A SHOULDER TAPER WHEN PAVED SHOULDER IS 8' [2.4 m] OR GREATER IN WIDTH OR WHEN A PARKING LANE IS PRESENT.

(6) IF LIMITED SIGHT DISTANCE FROM THIS APPROACH, CONSIDER RIGHT TURN ONLY OR CLOSING THE APPROACH.

(7) LARGER SIGN SIZES MAY BE APPROVED BY THE PROJECT MANAGER.

(8) PLACE "END ROADWORK" SIGNS AT END OF PROJECT LIMITS.

(9) POST EXISTING SPEED LIMIT IF CHANGED BY WORK ZONE.

(10) SEE DTL. DWG. 618-03.

(11) BUFFER SPACE MAY BE INCREASED FOR DOWNGRADES AND OTHER CONDITIONS AFFECTING STOPPING DISTANCE.

LEGEND

- ○ – FLEXIBLE GUIDE POSTS
- ● – PLASTIC DRUMS
- * – DENOTES SIGNS UNIQUE TO MONTANA.
- XX – SPEED DETERMINED BY THE PROJECT MANAGER. (25 M.P.H. OR 35 M.P.H. OR 45 M.P.H.)

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

DETAILED DRAWINGS

REFERENCE STANDARD SPEC. SECTION 618

DWG. NO. 618-U40

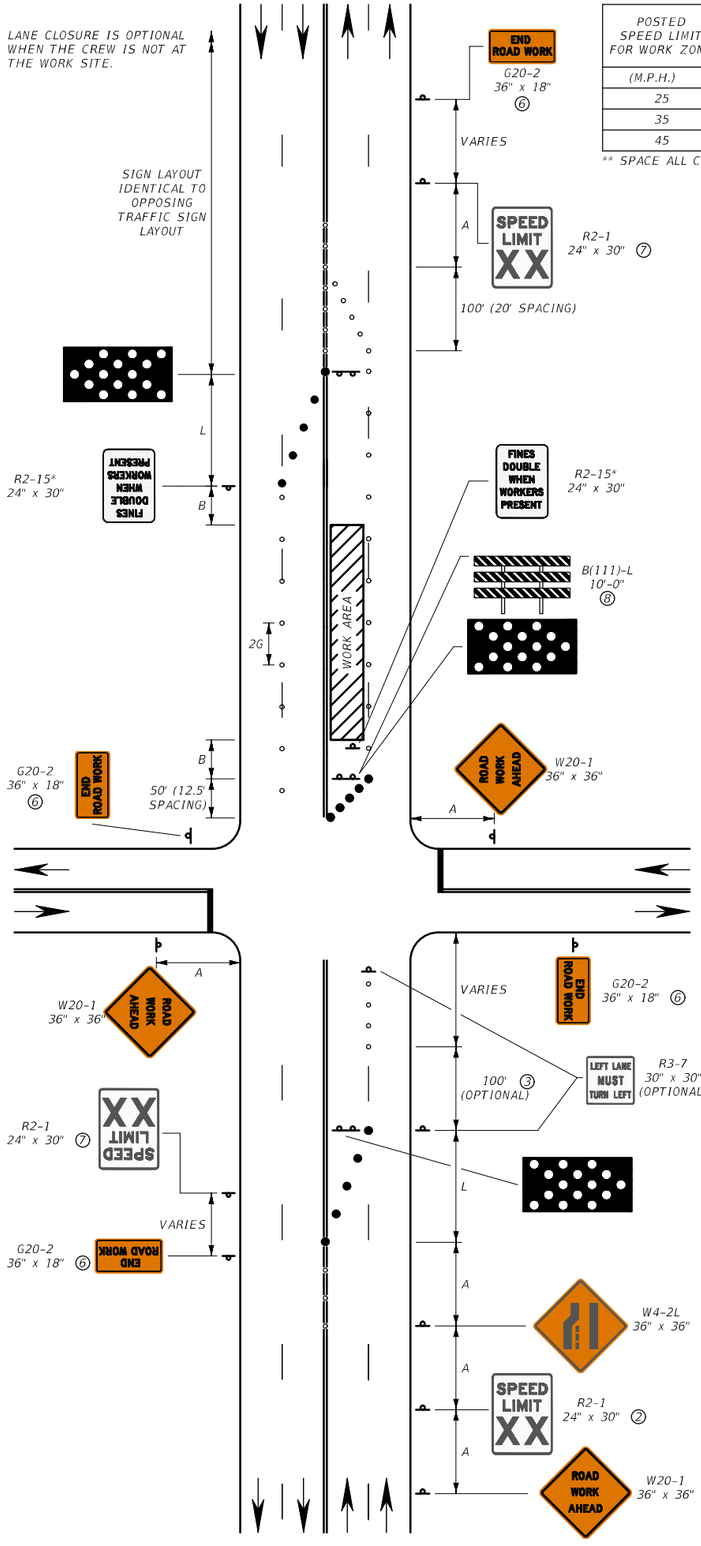
RIGHT LANE CLOSURE-WORK AREA BEYOND INTERSECTION (URBAN MULTI-LANE, UNDIVIDED ROAD

EFFECTIVE: JAN 23, 2020

MONTANA Department of Transportation

--REVISED--
JUN 27, 2024

5/15/2024 2:58 PM STDDRD618U40.DWG



POSTED SPEED LIMIT FOR WORK ZONE	SIGN SPACING (A)	TAPER LENGTH (L)	SPACING OF CHANNELIZING DEVICES (MAX.) (G) **	BUFFER SPACE (9) (B)
(M.P.H.)	FEET	FEET	FEET	FEET
25	100	125	25	155
35	100	245	35	250
45	350	540	45	360

** 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) NORMAL PROCEDURE IS TO COMPLETELY CLOSE THE LEFT LANE, BUT IF THE LEFT LANE HAS SIGNIFICANT LEFT-TURNING TRAFFIC, THE OPTION SHOWN MAY BE USED. ADJUST FLEXIBLE GUIDE POSTS TO ALLOW THE TURNING MOVEMENTS.

(4) LARGER SIGN SIZES MAY BE APPROVED BY THE PROJECT MANAGER.

(5) IF LIMITED SIGHT DISTANCE FROM EITHER APPROACH, CONSIDER RIGHT TURNS ONLY OR CLOSING EACH APPROACH WHEN CONDITIONS WARRANT.

(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.

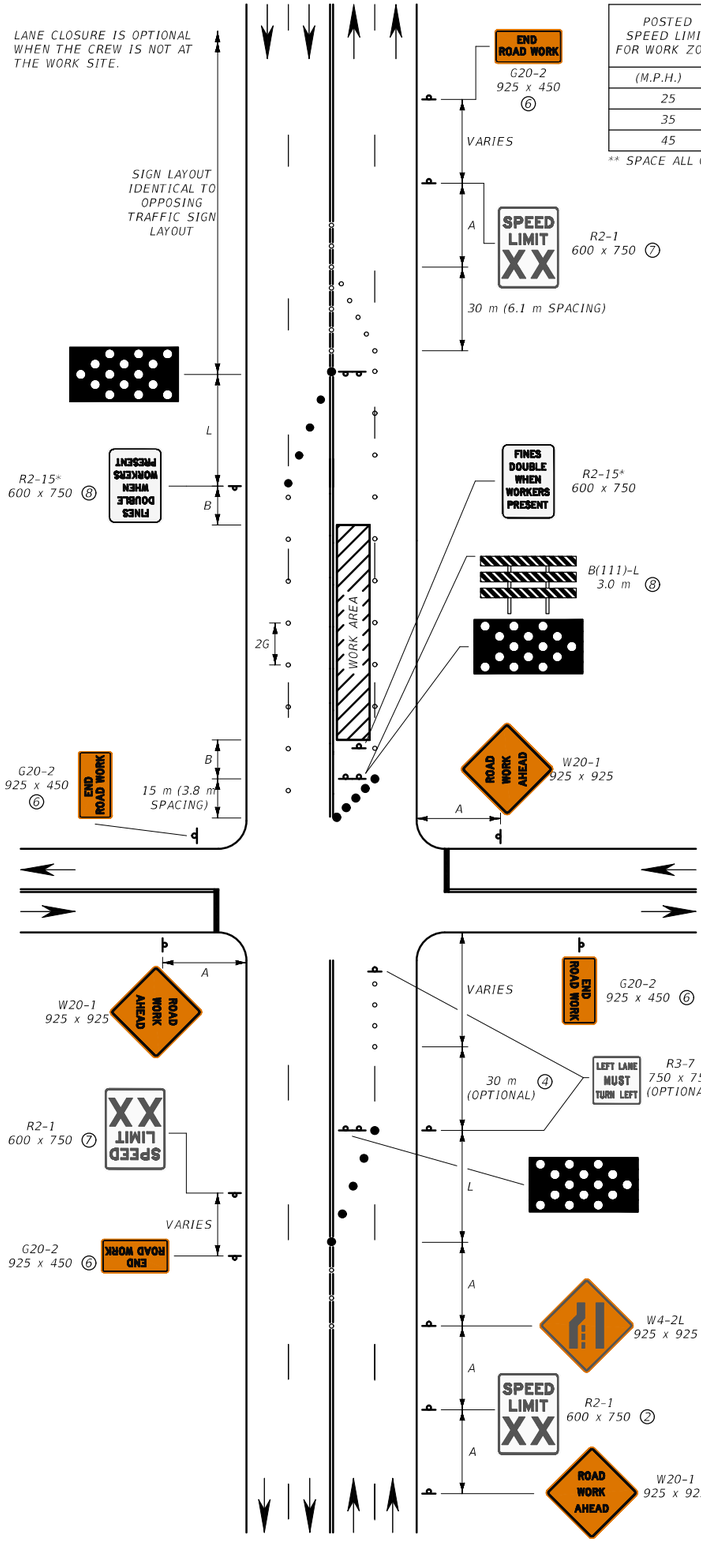
(9) THE BUFFER SPACE MAY BE INCREASED FOR DOWNGRADES AND OTHER CONDITIONS THAT AFFECT STOPPING DISTANCE.

LEGEND

- ◦ – FLEXIBLE GUIDE POSTS
- ● – PLASTIC DRUMS
- * – DENOTES SIGNS UNIQUE TO MONTANA.
- XX – SPEED DETERMINED BY THE PROJECT MANAGER. (25 M.P.H. OR 35 M.P.H. or 45 M.P.H.)

R3-2 24" X 24" (OPTIONAL)

FOR INTERSECTION APPROACHES REDUCED TO A SINGLE LANE, LEFT TURNS MAY BE PROHIBITED TO MAINTAIN CAPACITY FOR THROUGH TRAFFIC. WHEN PROHIBITING A TURN, TWO TURN PROHIBITION SIGNS SHOULD BE USED, ONE ON THE NEAR SIDE AND, SPACE PERMITTING, ONE ON THE FAR SIDE OF THE INTERSECTION.



POSTED SPEED LIMIT FOR WORK ZONE	SIGN SPACING (A)	TAPER LENGTH (L)	SPACING OF CHANNELIZING DEVICES (MAX.) (G) **	BUFFER SPACE (9) (B)
(M.P.H.)	m	m	m	m
25	30	40	7.6	45
35	30	75	10.7	75
45	105	165	14	110

** 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) NORMAL PROCEDURE IS TO COMPLETELY CLOSE THE LEFT LANE, BUT IF THE LEFT LANE HAS SIGNIFICANT LEFT-TURNING TRAFFIC, THE OPTION SHOWN MAY BE USED. ADJUST FLEXIBLE GUIDE POSTS TO ALLOW THE TURNING MOVEMENTS.

(4) LARGER SIGN SIZES MAY BE APPROVED BY THE PROJECT MANAGER.

(5) IF LIMITED SIGHT DISTANCE FROM EITHER APPROACH, CONSIDER RIGHT TURNS ONLY OR CLOSING EACH APPROACH WHEN CONDITIONS WARRANT.

(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.

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

LEGEND

- ◦ – FLEXIBLE GUIDE POSTS
- ● – PLASTIC DRUMS
- * – DENOTES SIGNS UNIQUE TO MONTANA.
- XX – SPEED DETERMINED BY THE PROJECT MANAGER. (25 M.P.H. OR 35 M.P.H. or 45 M.P.H.)

R3-2 600 x 600 (OPTIONAL)

FOR INTERSECTION APPROACHES REDUCED TO A SINGLE LANE, LEFT TURNS MAY BE PROHIBITED TO MAINTAIN CAPACITY FOR THROUGH TRAFFIC. WHEN PROHIBITING A TURN, TWO TURN PROHIBITION SIGNS SHOULD BE USED, ONE ON THE NEAR SIDE AND, SPACE PERMITTING, ONE ON THE FAR SIDE OF THE INTERSECTION.

ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

DETAILED DRAWINGS

REFERENCE STANDARD SPEC. SECTION 618	DWG. NO. 618-U45

LEFT LANE CLOSURE-WORK AREA BEYOND INTERSECTION (URBAN MULTI-LANE, UNDIVIDED ROAD)

EFFECTIVE: JAN 23, 2020

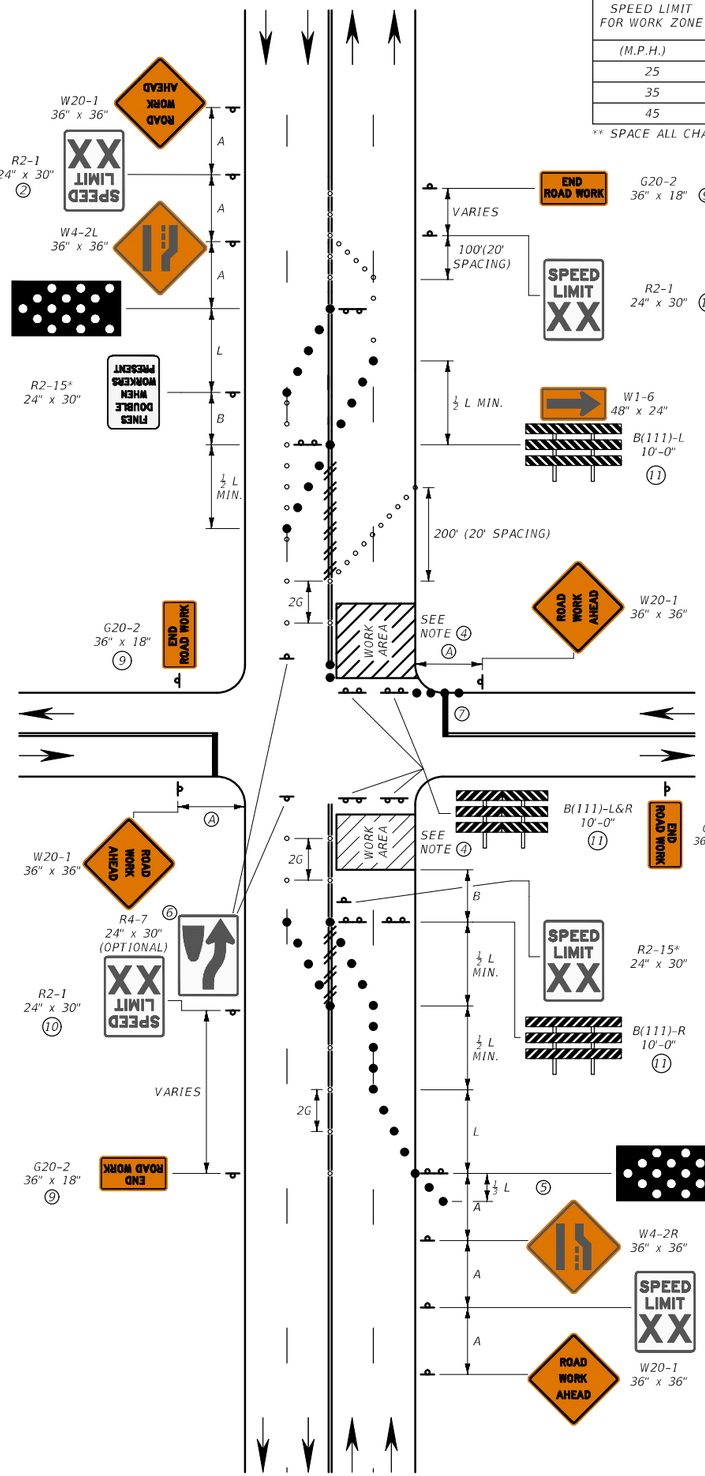
MONTANA Department of Transportation

--REVISED--
JUN 27, 2024

5/15/2024 3:35 PM STDDRD618U45.DWG

POSTED SPEED LIMIT FOR WORK ZONE	SIGN SPACING (A)	TAPER LENGTH (L)	SPACING OF CHANNELIZING DEVICES (MAX.) (G) **	BUFFER SPACE (3) (B)
(M.P.H.)	FEET	FEET	FEET	FEET
25	100	125	25	155
35	100	245	35	250
45	350	540	45	360

** 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. USE SPEED LIMIT SIGNS ONLY IF SPEED MUST BE RESTRICTED.COVER OR REMOVE CONFLICTING EXISTING SPEED LIMIT SIGNS.
3. BUFFER SPACE MAY BE INCREASED FOR DOWNGRADES AND OTHER CONDITIONS AFFECTING STOPPING DISTANCE.
4. IF PEDESTRIAN TRAFFIC IS IMPACTED BY THE WORK ZONE, USE THE INFORMATION AND DEVICES SHOWN IN DTL. DWG. 618-U5.
5. INCLUDE A SHOULDER TAPER WHEN PAVED SHOULDER IS 8' OR GREATER IN WIDTH OR WHEN A PARKING LANE IS PRESENT.
6. KEEP RIGHT SIGNS MAY BE OMITTED IF THERE IS INSUFFICIENT SPACE TO PLACE THE BACK-TO-BACK KEEP RIGHT SIGN AND NO LEFT TURN SYMBOL SIGNS.
7. IF LIMITED SIGHT DISTANCE FROM THIS APPROACH, CONSIDER RIGHT TURN ONLY OR CLOSING THE APPROACH.
8. LARGER SIGN SIZES MAY BE APPROVED BY THE PROJECT MANAGER.
9. PLACE "END ROADWORK" SIGNS AT END OF PROJECT LIMITS.
10. POST EXISTING SPEED LIMIT IF CHANGED BY WORK ZONE.
11. SEE DTL. DWG. 618-03.

LEGEND

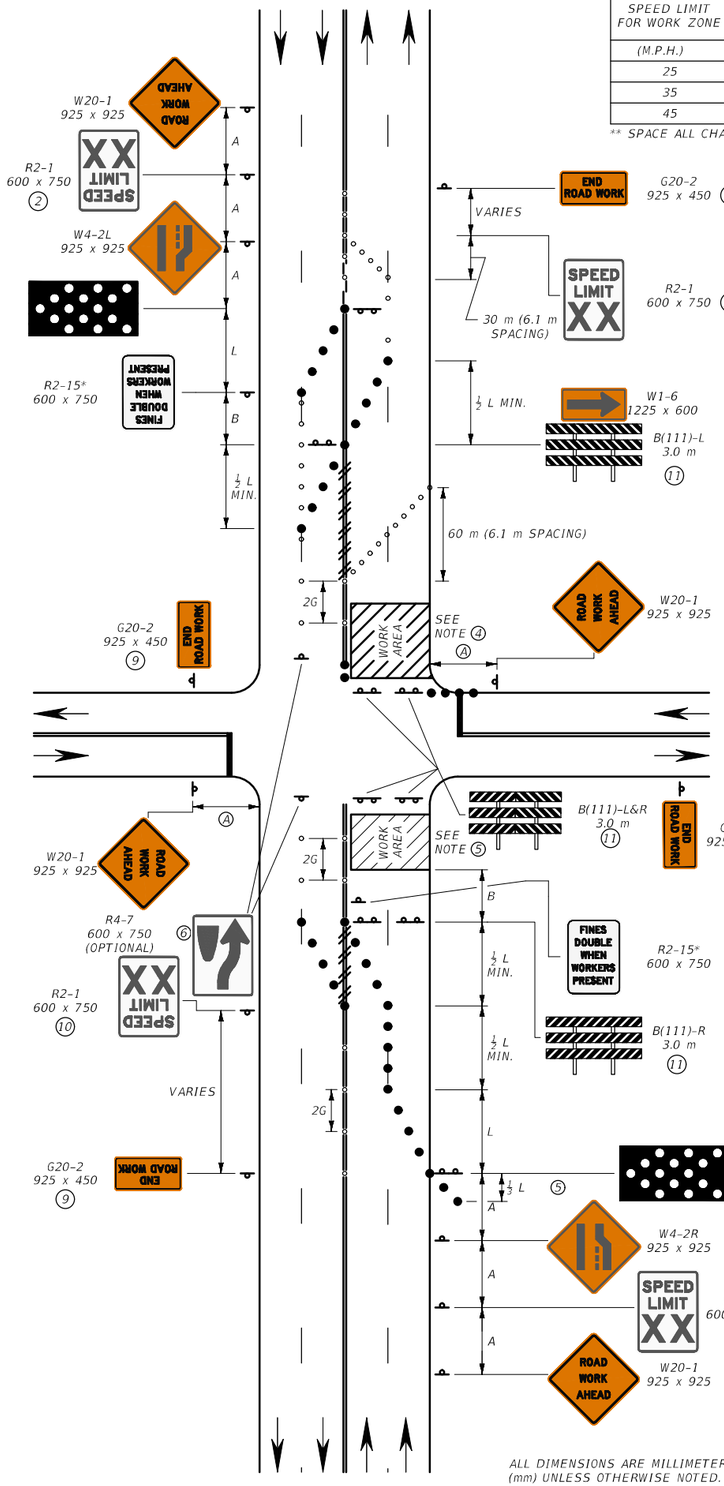
- ○ – FLEXIBLE GUIDE POSTS
- ● – PLASTIC DRUMS
- * – DENOTES SIGNS UNIQUE TO MONTANA.
- XX – SPEED DETERMINED BY THE PROJECT MANAGER. (25 M.P.H. OR 35 M.P.H. OR 45 M.P.H.)
- // – OBLITERATE CONFLICTING PAVEMENT MARKINGS WHEN WORK OPERATION IS LONGER THAN 3 DAYS. (DO NOT REMOVE THERMOPLASTIC).



FOR INTERSECTION APPROACHES REDUCED TO A SINGLE LANE, LEFT TURNS MAY BE PROHIBITED TO MAINTAIN CAPACITY FOR THROUGH TRAFFIC. WHEN PROHIBITING A TURN, TWO TURN PROHIBITION SIGNS SHOULD BE USED, ONE ON THE NEAR SIDE AND, SPACE PERMITTING, ONE ON THE FAR SIDE OF THE INTERSECTION.

POSTED SPEED LIMIT FOR WORK ZONE	SIGN SPACING (A)	TAPER LENGTH (L)	SPACING OF CHANNELIZING DEVICES (MAX.) (G) **	BUFFER SPACE (3) (B)
(M.P.H.)	m	m	m	m
25	30	40	7.6	45
35	30	75	10.7	75
45	105	165	14	110

** 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. USE SPEED LIMIT SIGNS ONLY IF SPEED MUST BE RESTRICTED.COVER OR REMOVE CONFLICTING EXISTING SPEED LIMIT SIGNS.
3. BUFFER SPACE MAY BE INCREASED FOR DOWNGRADES AND OTHER CONDITIONS AFFECTING STOPPING DISTANCE.
4. IF PEDESTRIAN TRAFFIC IS IMPACTED BY THE WORK ZONE, USE THE INFORMATION AND DEVICES SHOWN IN DTL. DWG. 618-U5.
5. INCLUDE A SHOULDER TAPER WHEN PAVED SHOULDER IS 2.4 m OR GREATER IN WIDTH OR WHEN A PARKING LANE IS PRESENT.
6. KEEP RIGHT SIGNS MAY BE OMITTED IF THERE IS INSUFFICIENT SPACE TO PLACE THE BACK-TO-BACK KEEP RIGHT SIGN AND NO LEFT TURN SYMBOL SIGNS.
7. IF LIMITED SIGHT DISTANCE FROM THIS APPROACH, CONSIDER RIGHT TURN ONLY OR CLOSING THE APPROACH.
8. LARGER SIGN SIZES MAY BE APPROVED BY THE PROJECT MANAGER.
9. PLACE "END ROADWORK" SIGNS AT END OF PROJECT LIMITS.
10. POST EXISTING SPEED LIMIT IF CHANGED BY WORK ZONE.
11. SEE DTL. DWG. 618-03.

LEGEND

- ○ – FLEXIBLE GUIDE POSTS
- ● – PLASTIC DRUMS
- * – DENOTES SIGNS UNIQUE TO MONTANA.
- XX – SPEED DETERMINED BY THE PROJECT MANAGER. (25 M.P.H. OR 35 M.P.H. OR 45 M.P.H.)
- // – OBLITERATE CONFLICTING PAVEMENT MARKINGS WHEN WORK OPERATION IS LONGER THAN 3 DAYS. (DO NOT REMOVE THERMOPLASTIC).



FOR INTERSECTION APPROACHES REDUCED TO A SINGLE LANE, LEFT TURNS MAY BE PROHIBITED TO MAINTAIN CAPACITY FOR THROUGH TRAFFIC. WHEN PROHIBITING A TURN, TWO TURN PROHIBITION SIGNS SHOULD BE USED, ONE ON THE NEAR SIDE AND, SPACE PERMITTING, ONE ON THE FAR SIDE OF THE INTERSECTION.

ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

DETAILED DRAWINGS

REFERENCE STANDARD SPEC. SECTION 618

DWG. NO. 618-U50

DOUBLE LANE CLOSURE AT INTERSECTION (URBAN MULTI-LANE, UNDIVIDED ROAD)

EFFECTIVE: JAN 23, 2020

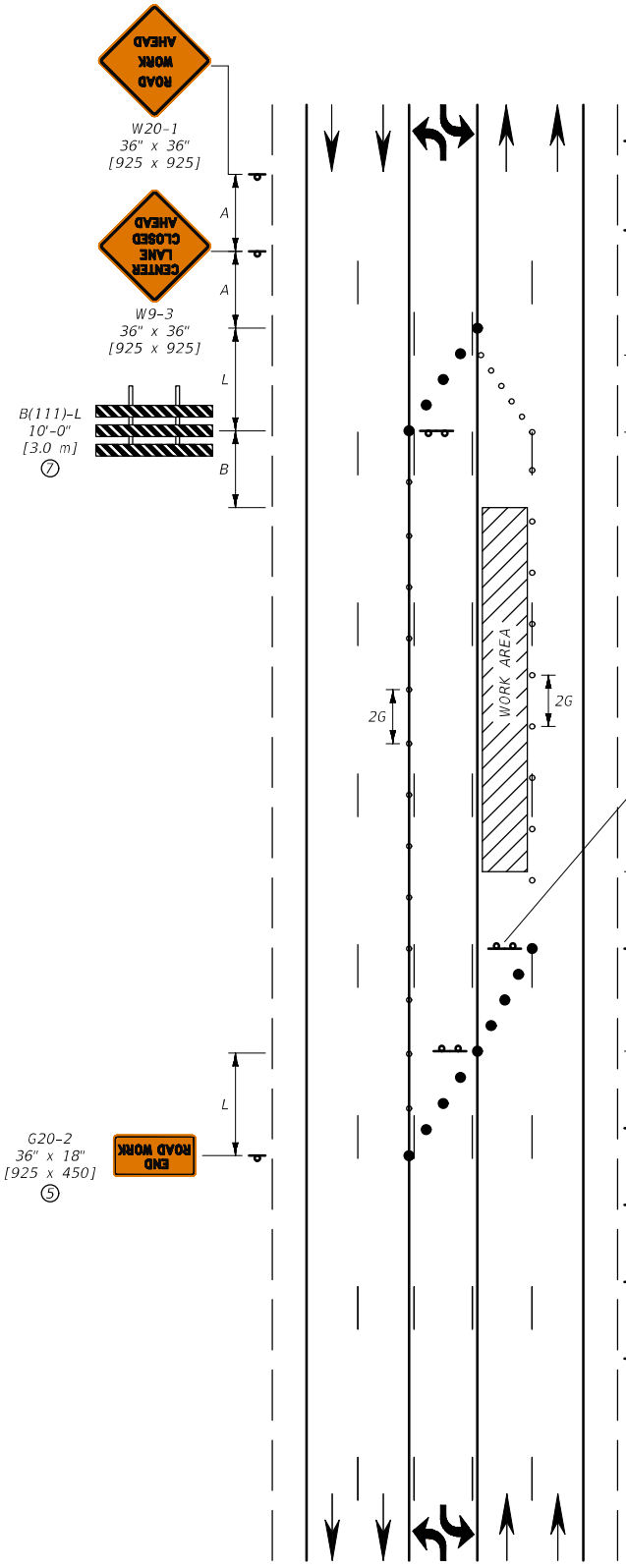
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JUN 27, 2024

MONTANA
Department of Transportation

5/15/2024 3:02 PM STDDRD618U50.DWG

POSTED SPEED LIMIT FOR WORK ZONE	SIGN SPACING (A)	TAPER LENGTH (L)	SPACING OF CHANNELIZING DEVICES (MAX.) (G) **	BUFFER SPACE ③ (B)
(M.P.H.)	FEET [m]	FEET [m]	FEET [m]	FEET [m]
25	100 [30]	125 [40]	25 [7.6]	155 [45]
35	100 [30]	245 [75]	35 [10.7]	250 [75]
45	350 [105]	540 [165]	45 [14]	360 [110]

** 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 USE SPEED LIMIT SIGNS ONLY IF SPEED MUST BE RESTRICTED. COVER OR REMOVE CONFLICTING EXISTING SPEED LIMIT SIGNS.

③ BUFFER SPACE MAY BE INCREASED FOR DOWNGRADES AND OTHER CONDITIONS AFFECTING STOPPING DISTANCE.

④ LARGER SIGN SIZES MAY BE APPROVED BY THE PROJECT MANAGER.

⑤ PLACE "END ROADWORK" SIGNS AT END OF PROJECT LIMITS.

⑥ POST EXISTING SPEED LIMIT IF CHANGED BY WORK ZONE.

⑦ SEE DTL. DWG. 618-03.

LEGEND

○ – FLEXIBLE GUIDE POSTS

● – PLASTIC DRUMS

* – DENOTES SIGNS UNIQUE TO MONTANA.

XX – SPEED DETERMINED BY THE PROJECT MANAGER.
(25 M.P.H. OR 35 M.P.H. OR 45 M.P.H.)

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

DETAILED DRAWINGS

REFERENCE STANDARD SPEC. SECTION 618

DWG. NO. 618-U60

LEFT LANE CLOSURE (URBAN LOW SPEED, MULTI-LANE, UNDIVIDED ROAD WITH TWO-WAY LEFT TURN LANE)

EFFECTIVE: JAN 23, 2020

MONTANA Department of Transportation

--REVISED--
JUN 27, 2024

5/15/2024 3:04 PM STDDRD618U60.DWG