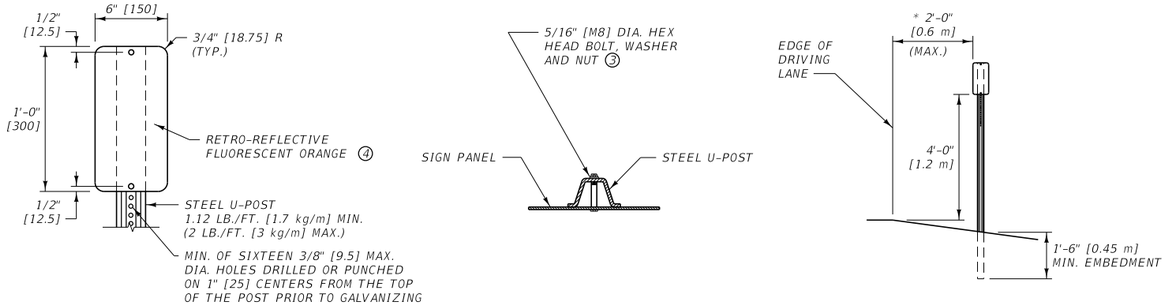


TYPE 2 OBJECT MARKER

TYPE 2 OBJECT MARKER NOTES:

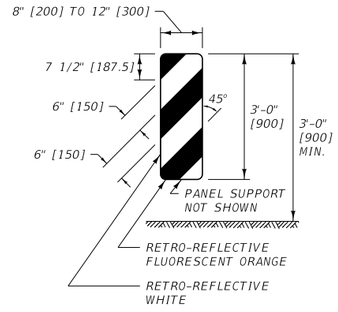
① USE TYPE 2 OBJECT MARKERS TO DELINEATE ROADSIDE CONSTRICTIONS OF THE CLEAR ZONE (i.e. DROP OFFS, OBSTACLES, ABRUPT CHANGES IN ROADWAY ALIGNMENT, ETC.)

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

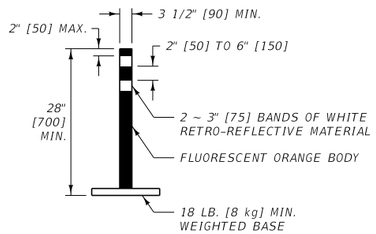
(VP-1R SHOWN. REVERSE FOR VP-1L.)

PORTABLE VERTICAL PANEL NOTES:

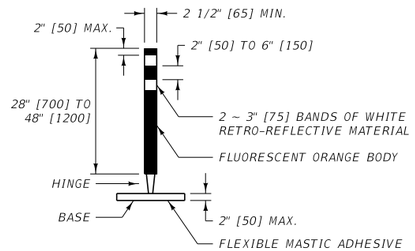
① USE PORTABLE VERTICAL PANELS AS CHANNELIZING DEVICES ONLY. DO NOT USE PORTABLE VERTICAL PANELS TO DELINEATE ROADSIDE CONSTRICTIONS OF THE CLEAR ZONE.

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.

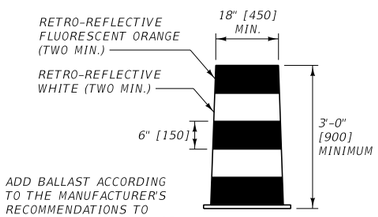


FLEXIBLE GUIDE POST (TUBULAR MARKER)



HINGED FLEXIBLE GUIDE POST (TUBULAR MARKER)

(SELF RIGHTING AFTER IMPACT)



PLASTIC DRUM

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.

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.

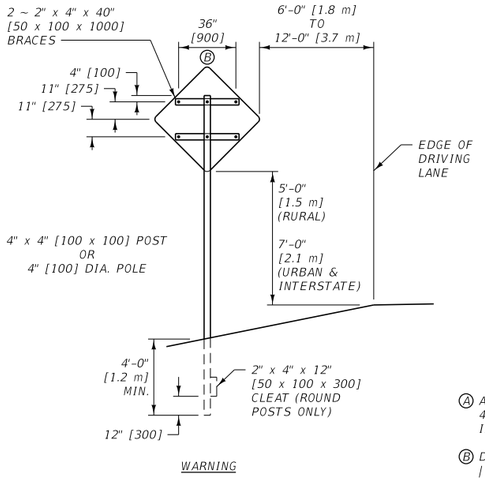
DETAILED DRAWING

REFERENCE
STANDARD SPEC.
SECTION 618

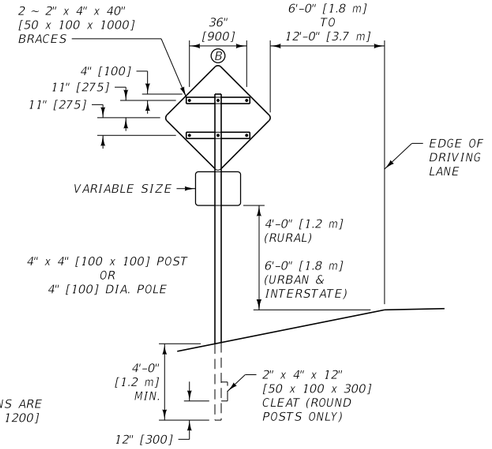
DWG. NO.
618-00

CHANNELIZING DEVICES AND OBJECT MARKERS

MDT MONTANA DEPARTMENT OF TRANSPORTATION



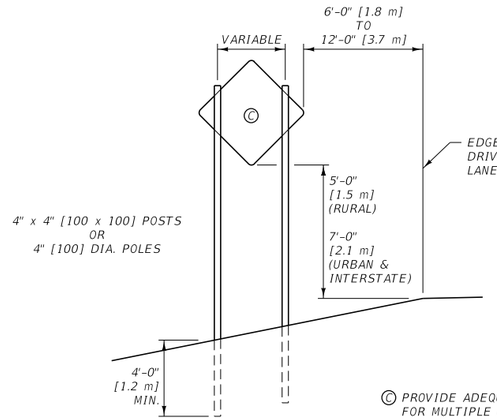
WARNING



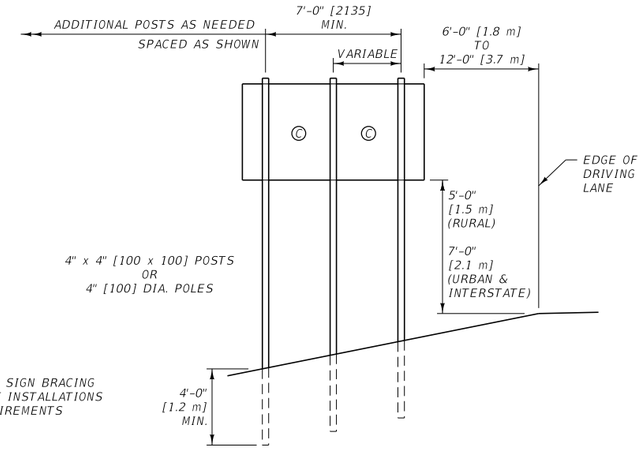
WARNING
WITH SUPPLEMENTAL PANEL

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

Ⓑ DIMENSIONS ARE FROM | BOLT TO | BOLT.



TWO POSTS

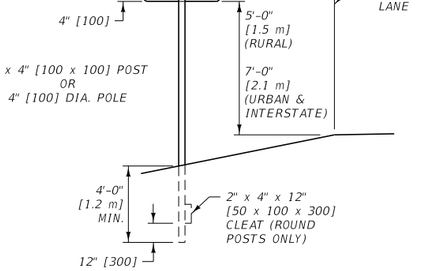


THREE OR MORE POSTS

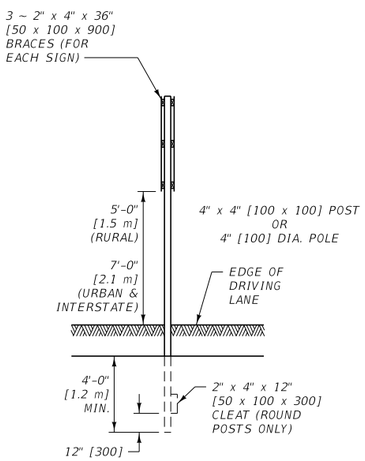
Ⓒ PROVIDE ADEQUATE SIGN BRACING FOR MULTIPLE POST INSTALLATIONS MEETING THE REQUIREMENTS OF NCHRP 350.

TYPICAL MULTIPLE POST INSTALLATIONS

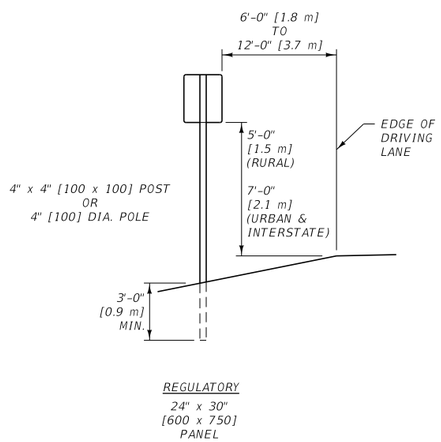
(FOR CONSTRUCTION SIGNING ONLY)



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



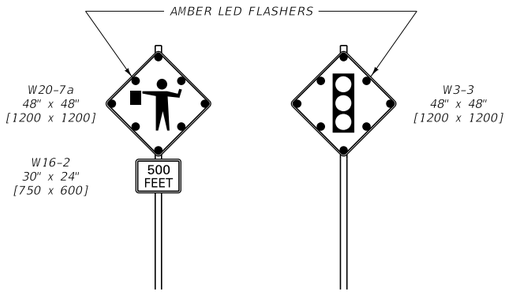
REGULATORY
48" x 60"
[1200 x 1500]
PANEL
BACK TO BACK



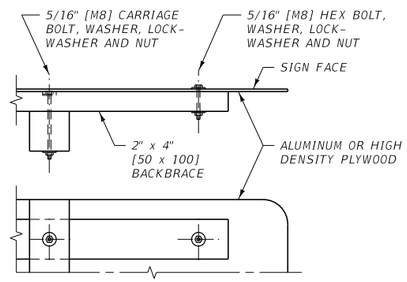
REGULATORY
24" x 30"
[600 x 750]
PANEL

TYPICAL SIGN MOUNTINGS

(FOR CONSTRUCTION SIGNING ONLY)



FLASHING FLAGGER AND SIGNAL AHEAD SIGN



SIGN FASTENING DETAILS

NOTES:

1. FURNISH AND INSTALL POSTS OR POLES MEETING NCHRP 350 REQUIREMENTS.
2. FURNISH POST OR POLE LENGTHS TO ACCOMMODATE THE FOUNDATION DEPTH, THE MOUNTING HEIGHT AND THE MOUNTINGS
3. BACKFILL FOUNDATION HOLES IN 8" [205] LIFTS, THOROUGHLY TAMPING EACH LIFT.
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. VERTICAL ALIGNMENT OF SIGNS IS TO BE WITHIN 5° OF PLUMB (1" IN 1' [85 IN 1000]).
6. USE THE URBAN MOUNTING HEIGHTS IN BUSINESS, COMMERCIAL, AND RESIDENTIAL DISTRICTS WHERE PARKING AND/OR PEDESTRIAN MOVEMENT IS LIKELY TO OCCUR, OR WHERE THERE ARE OTHER OBSTRUCTIONS TO VIEW. URBAN MOUNTING HEIGHTS MAY ALSO BE USED IN RURAL AREAS FOR INCREASED VISIBILITY.
7. ENSURE THE AMBER LED FLASHERS MEET REQUIREMENTS OF STANDARD SPECIFICATION 715.

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

DETAILED DRAWING

REFERENCE STANDARD SPEC. SECTION 618, 715

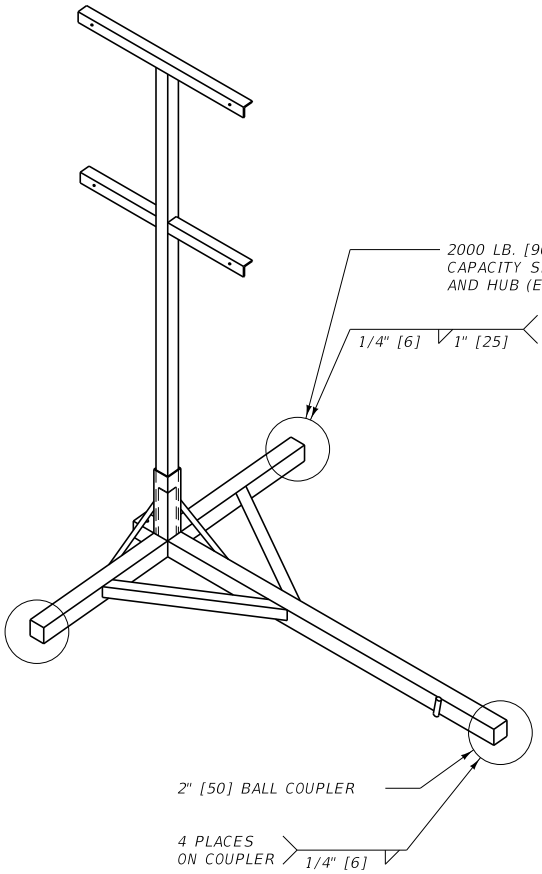
DWG. NO. 618-01

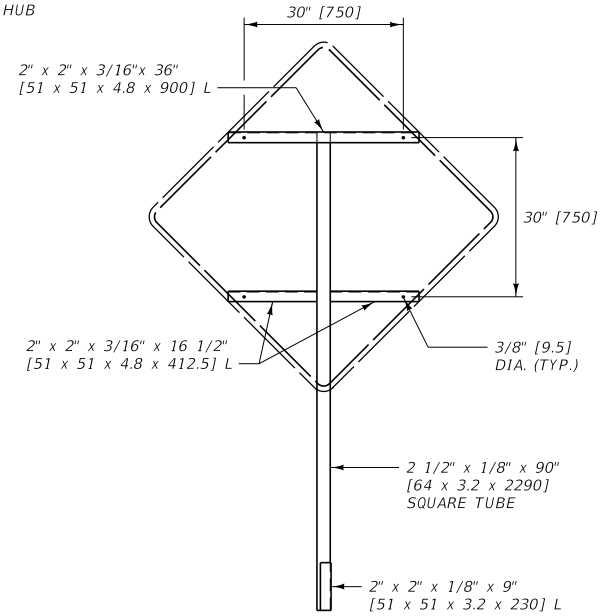
CONSTRUCTION SIGN DETAILS

MDT MONTANA DEPARTMENT OF TRANSPORTATION

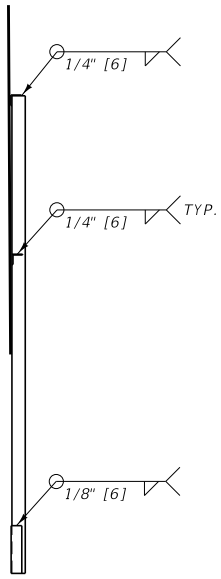
NOTES:

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 NCHRP 350 OR MASH CRASH TESTED ASSEMBLIES ARE ACCEPTABLE.



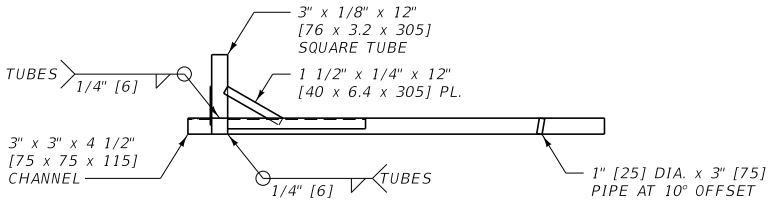


FRONT

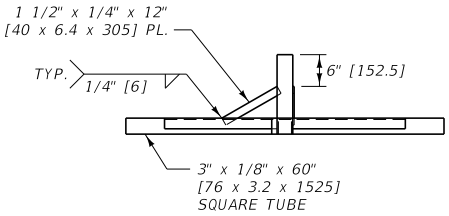


RIGHT

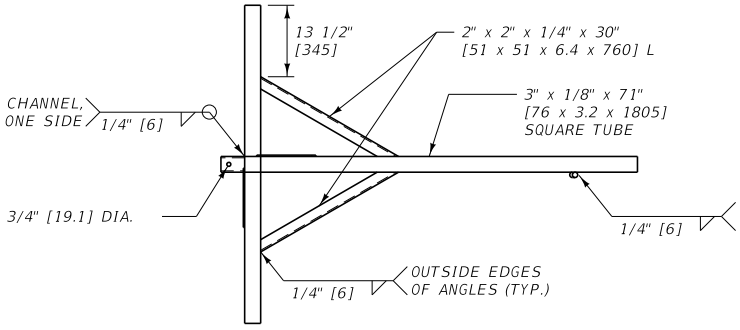
SIGN SUPPORT



FRONT



RIGHT



TOP

TRAILER

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

DETAILED DRAWING

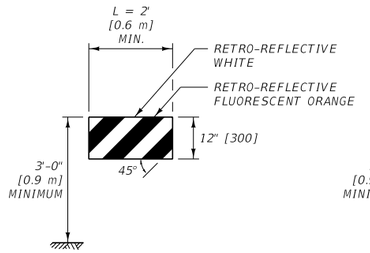
REFERENCE
STANDARD SPEC.
SECTION 618,715

DWG. NO.
618-02

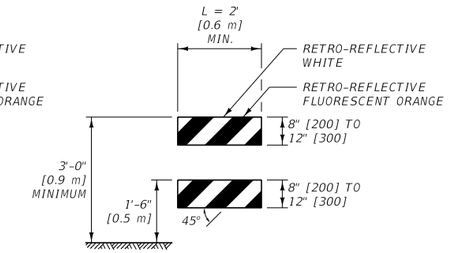
PORTABLE SIGN SUPPORT ASSEMBLY

MDT MONTANA DEPARTMENT OF TRANSPORTATION

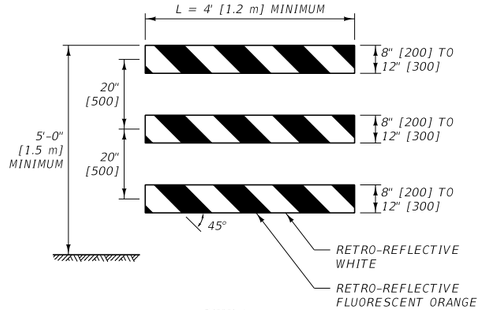
PORTABLE BARRICADES



B(I)-R



B(II)-R

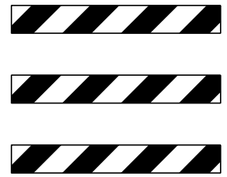


B(III)-L

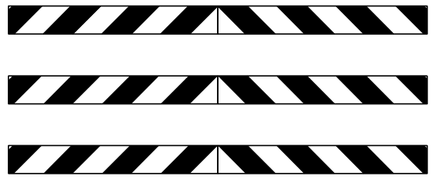
PORTABLE BARRICADE NOTES:

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. WHERE B(III) BARRICADES ARE TO FACE TRAFFIC FROM TWO DIRECTIONS, STRIPING ON BOTH THE FRONT AND REAR SIDES IS REQUIRED.
4. USE MATERIALS FOR BARRICADE FRAMEWORK, ASSEMBLY, ATTATCHED SIGNS, AND MEANS OF SIGN ATTACHMENT THAT MEET NCHRP 350 AND/OR MASH REQUIREMENTS FOR WORK ZONE DEVICES. OPTIONS FOR SIGN ATTACHMENT ARE:
   - SIGNS UP TO 10 SQ FT [3.0 SQ m] MUST BE BOLTED TO THE TOP RAIL.
   - SIGNS OVER 16 SQ FT [4.9 SQ m] MUST BE BOLTED TO THE RAILS AND BOTH UPRIGHT SUPPORTS.
   - SIGNS MAY BE MOUNTED BEHIND THE BARRICADE ON A SEPERATE NCHRP 350 AND/OR MASH APPROVED SIGN SUPPORT.
5. USE SANDBAGS OF SUFFICIENT WEIGHT TO HOLD THE BARRICADES IN PLACE. WATERPROOF SANDBAGS DURING PERIODS OF FREEZING WEATHER.
6. USE RETRO-REFLECTIVE SHEETING AS PER THE CONTRACT.

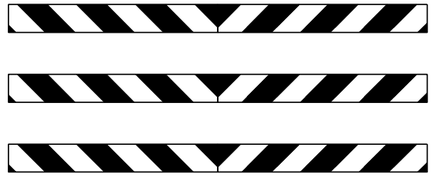
RAIL STRIPES



WHERE BARRICADES EXTEND ENTIRELY ACROSS THE ROADWAY, POSITION BARRICADES SO THE STRIPES SLOPE DOWNWARD IN THE DIRECTION TOWARD WHICH THE ROAD USERS MUST TURN.



WHERE BOTH LEFT AND RIGHT TURNS ARE PERMITTED, POSITION BARRICADES SO THE STRIPES SLOPE DOWNWARD IN BOTH DIRECTIONS AWAY FROM THE CENTER OF THE BARRICADE OR BARRICADES.



WHERE NO TURNS ARE PERMITTED, POSITION THE BARRICADES SO THE STRIPES SLOPE DOWNWARD IN BOTH DIRECTIONS TOWARDS THE CENTER OF THE BARRICADE OR BARRICADES.

GENERAL NOTES:

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

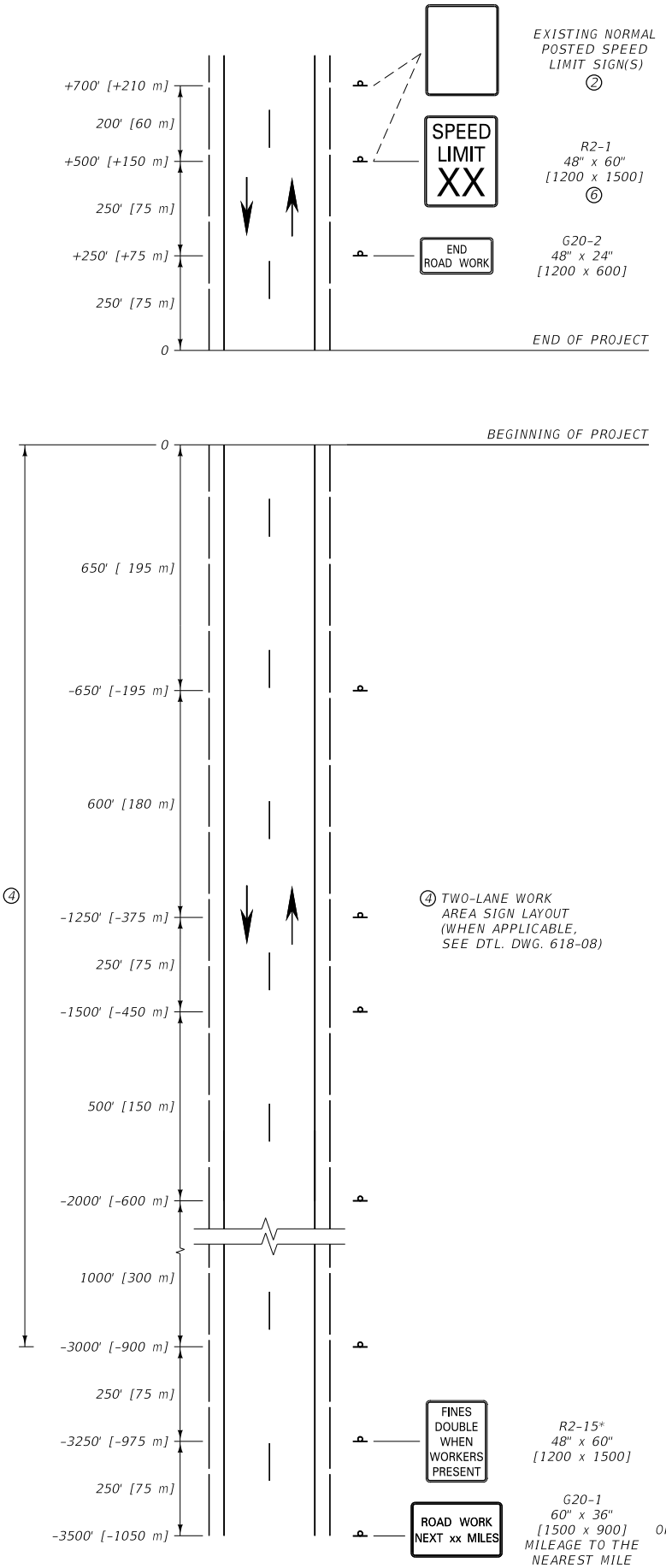
UNITS SHOWN IN BRACKETS [] ARE METRIC AND ARE IN MILLIMETERS (mm) UNLESS OTHER UNITS ARE SHOWN.

DETAILED DRAWING

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

BARRICADES

MONTANA DEPARTMENT OF TRANSPORTATION



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 (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 THAT ARE UNIQUE TO MONTANA.

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

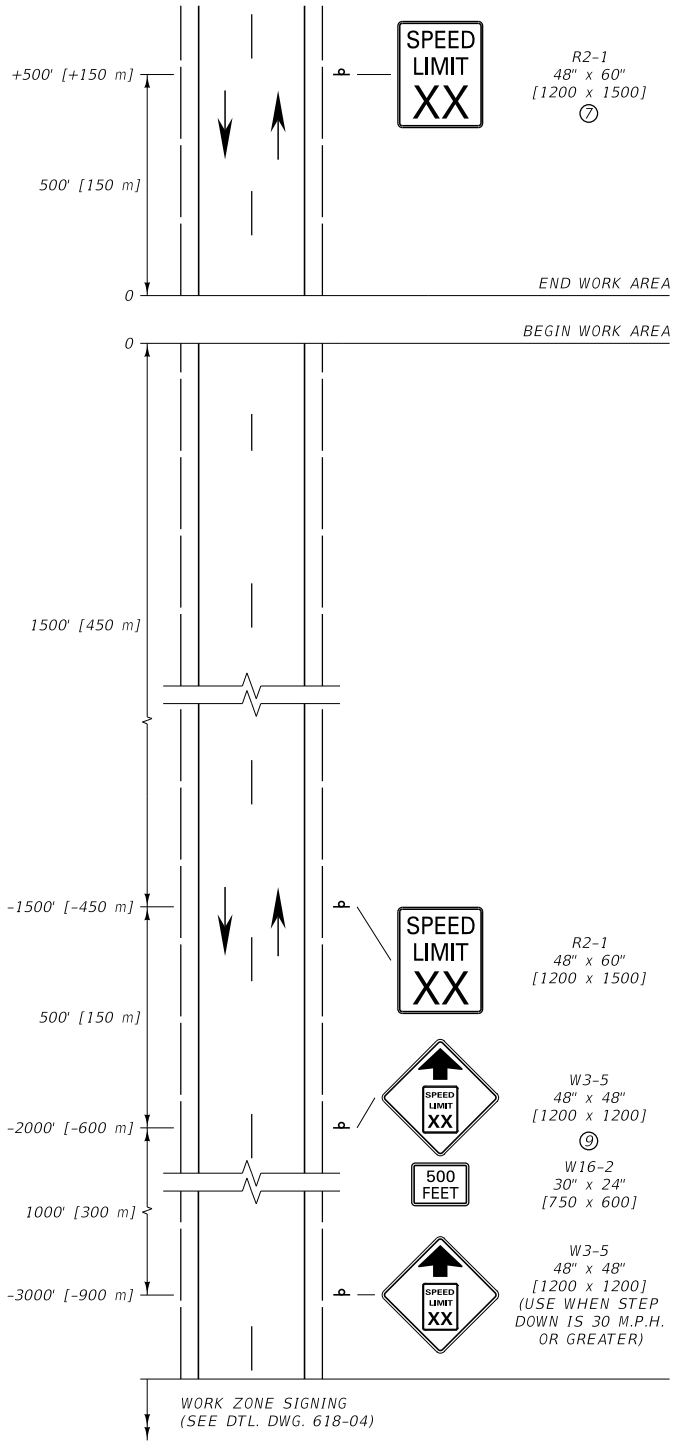
DETAILED DRAWING

REFERENCE STANDARD SPEC. SECTION 618

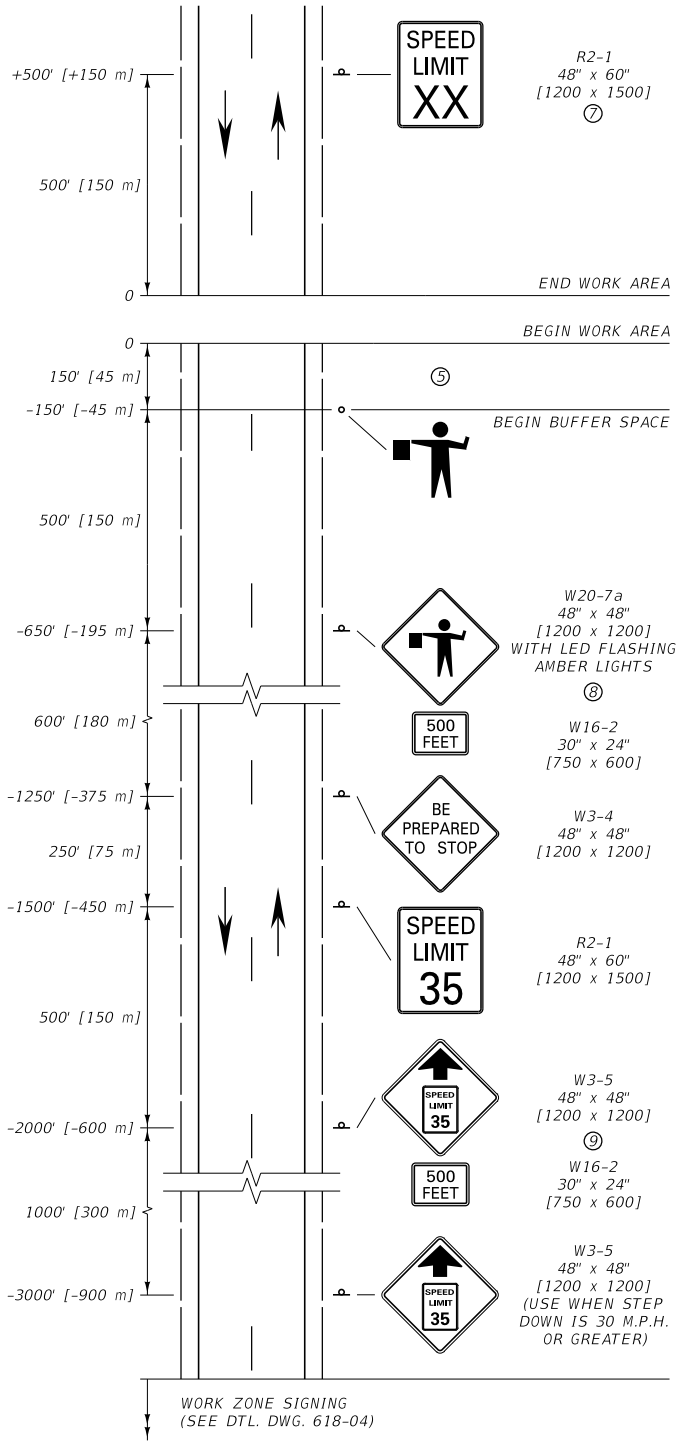
DWG. NO. 618-04

TWO-LANE WORK ZONE

MDT MONTANA DEPARTMENT OF TRANSPORTATION



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 THE BUFFER SPACE MAY BE INCREASED FOR DOWNGRADES 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 M.P.H. 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.

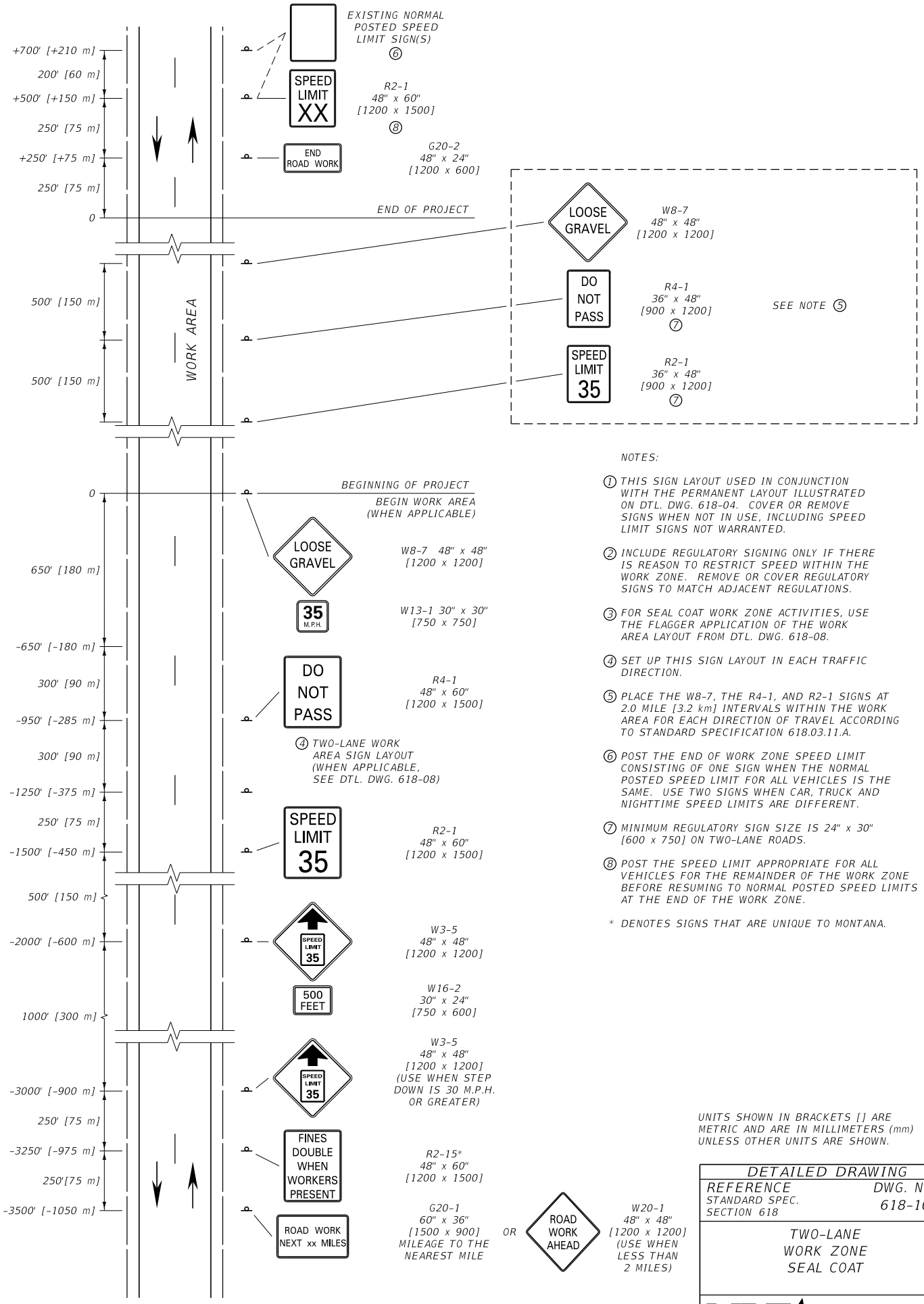
DETAILED DRAWING

REFERENCE
STANDARD SPEC.
SECTION 618, 715

DWG. NO.
618-08

TWO-LANE WORK AREAS

MDT MONTANA DEPARTMENT OF TRANSPORTATION



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 SPEED LIMIT SIGNS NOT WARRANTED.

(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 THAT ARE UNIQUE TO MONTANA.

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

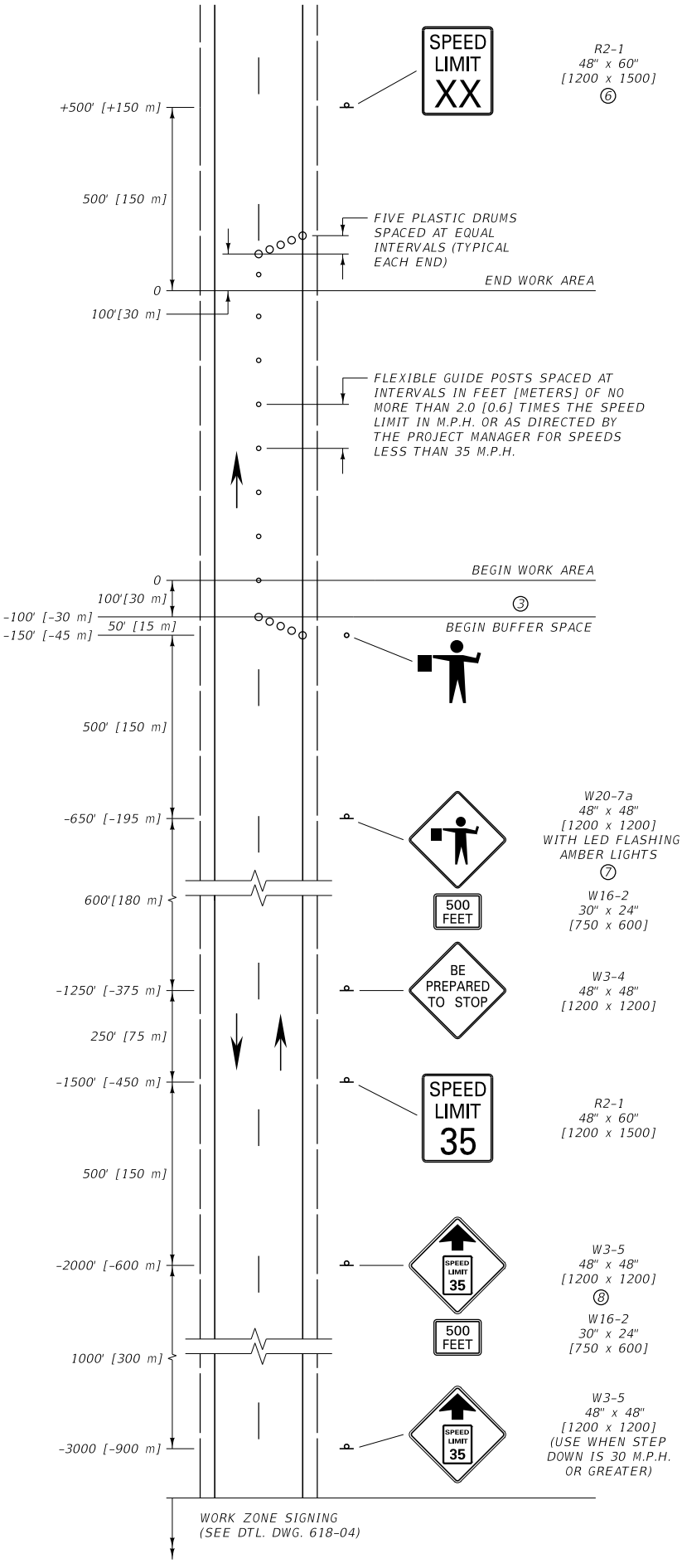
DETAILED DRAWING

REFERENCE
STANDARD SPEC.
SECTION 618

DWG. NO.
618-10

TWO-LANE WORK ZONE SEAL COAT

MDT MONTANA DEPARTMENT OF TRANSPORTATION



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 THAT AFFECT STOPPING DISTANCE.

④ PROVIDE A SECOND FLAGGER WHEN REQUIRED BY SECTION 618.03.14.

⑤ XX = SPEED DETERMINED BY THE 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 ENSURE THE AMBER LED FLASHERS MEET REQUIREMENTS OF STANDARD SPECIFICATION 715 AND DTL. DWG. 618-01.

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 THAT ARE UNIQUE TO MONTANA.

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

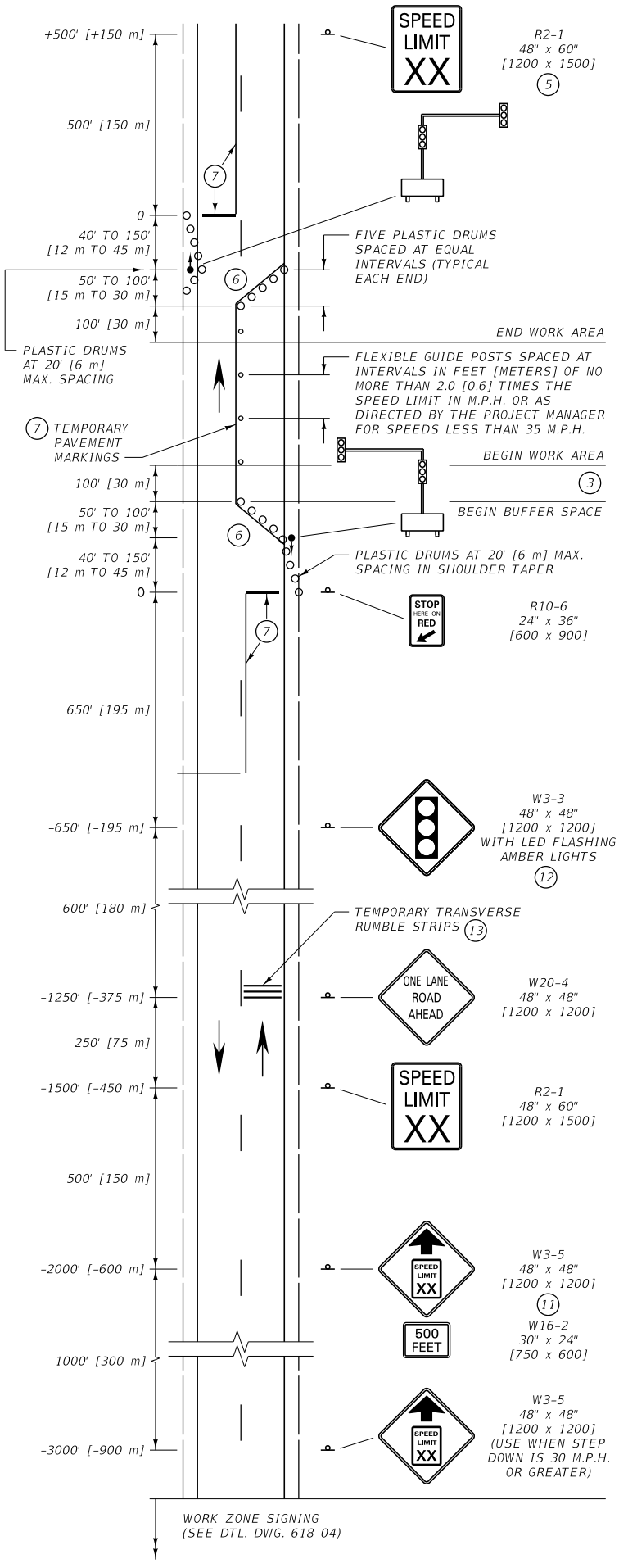
DETAILED DRAWING

REFERENCE
STANDARD SPEC.
SECTION 618, 715

DWG. NO.
618-12

TWO-LANE WORK AREA LANE CLOSURE-FLAGGER CONTROLLED

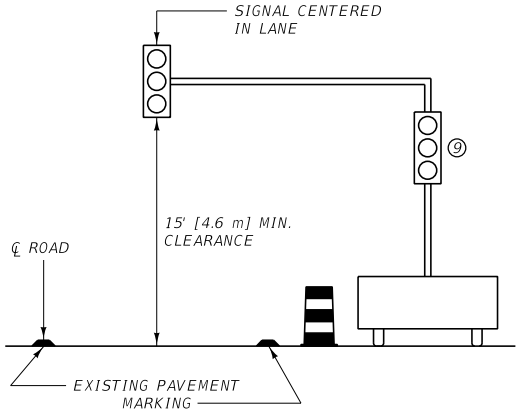
MDT MONTANA DEPARTMENT OF TRANSPORTATION



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 THAT AFFECT 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. THE COST OF TEMPORARY STRIPING, MAINTENANCE, AND MARKING REMOVAL IS INCIDENTAL TO THE INSTALLATION OF THE SIGNALS. STOP BARS SHALL BE 24" IN WIDTH 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 ARE TO MEET THE PHYSICAL DISPLAY AND OPERATIONAL REQUIREMENTS OF PERMANENT TRAFFIC CONTROL SIGNALS.
9. ESTABLISH TEMPORARY TRAFFIC CONTROL SIGNAL TIMING BY CONSULTING WITH AN AUTHORIZED TRAFFIC ENGINEER. ENSURE THAT THE DURATIONS OF RED CLEARANCE INTERVALS ARE ADEQUATE TO CLEAR THE ONE-LANE SECTION OF CONFLICTING VEHICLES. INCORPORATE SAFEGUARDS TO AVOID THE POSSIBILITY OF CONFLICTING SIGNAL INDICATIONS AT EACH END OF THE WORK ZONE.
10. INCORPORATE ANY SIDE APPROACH TRAFFIC THAT OCCURS WITHIN THE WORK AREA BOUNDARIES INTO THE MAINLINE SIGNAL CONTROLLED OPERATION VIA. THE USE OF TEMPORARY TRAFFIC CONTROL SIGNS, DEVICES, ETC.
11. INCLUDE THESE SIGNS WITH ALL FLAGGERS. INCLUDE THESE SIGNS WITHIN WORK ZONES WHEN STEP DOWN IS 20 M.P.H. OR GREATER.
12. INSURE THE AMBER LED FLASHERS MEET REQUIREMENTS OF STANDARD SPECIFICATION 715 AND DTL. DWG. 618-01.
13. TEMPORARY TRANSVERSE RUMBLE STRIPS REQUIRED FOR NIGHTTIME OPERATIONS. REFER TO STANDARD SPECIFICATION 618.03.14.

* DENOTES SIGNS THAT ARE UNIQUE TO MONTANA.



TEMPORARY TRAFFIC CONTROL SIGNAL DETAIL

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

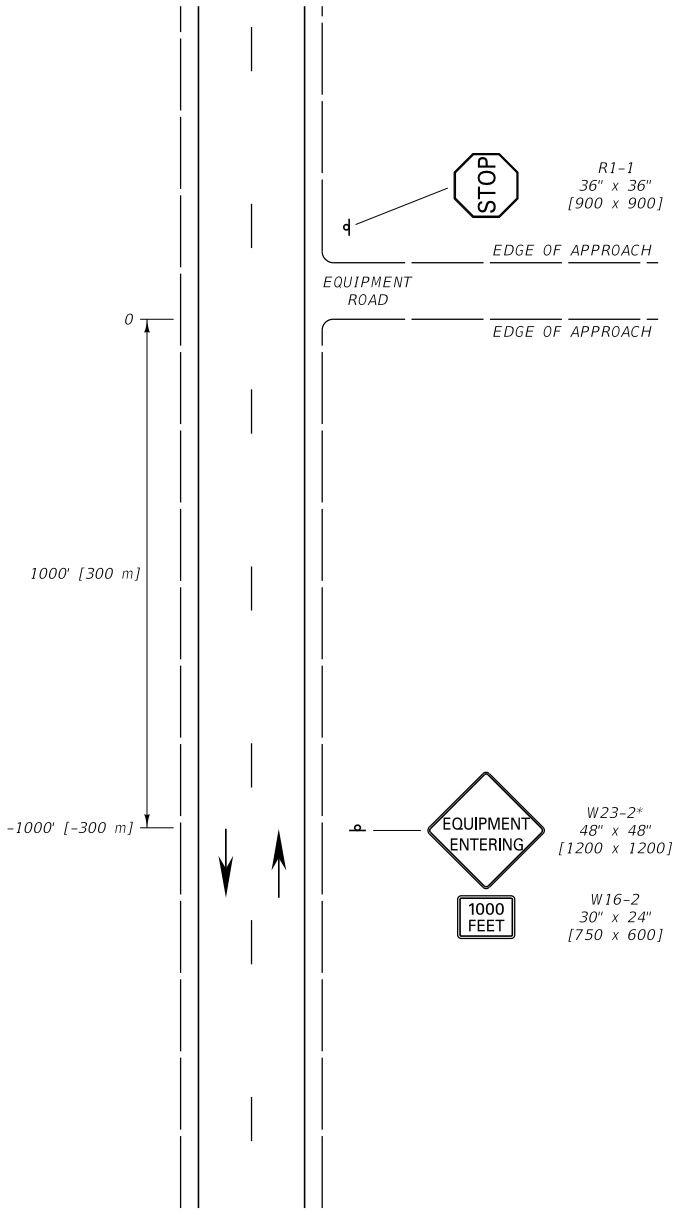
DETAILED DRAWING

REFERENCE
STANDARD SPEC.
SECTION 618

DWG. NO.
618-13

TWO-LANE WORK ZONE LANE CLOSURE-SIGNAL CONTROLLED

MONTANA DEPARTMENT OF TRANSPORTATION



NOTES:

① USE THIS SIGN LAYOUT WHEN APPROPRIATE. OTHERWISE REFER TO DTL. 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.

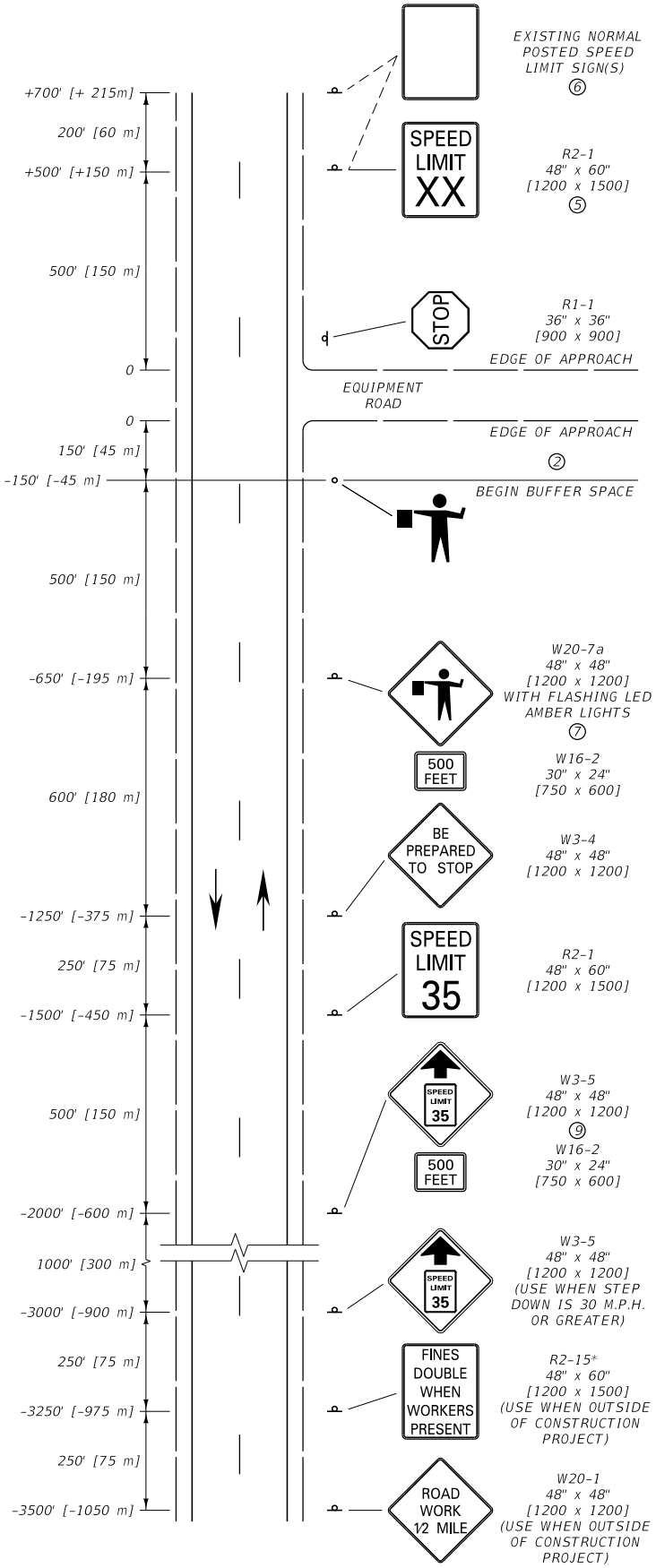
DETAILED DRAWING

REFERENCE
STANDARD SPEC.
SECTION 618

DWG. NO.
618-14

TWO-LANE EQUIPMENT ENTRANCES

MDT MONTANA DEPARTMENT OF TRANSPORTATION



EQUIPMENT ENTRANCE WITH FLAGGER

NOTES:

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

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

③ XX = SPEED DETERMINED BY THE PROJECT MANAGER.

④ WHEN THIS OCCURS OUTSIDE OF 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 WHEN OUTSIDE OF A CONSTRUCTION PROJECT, POST THE 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 ENSURE THE AMBER LED FLASHERS MEET REQUIREMENTS OF SECTION 715 AND DTL. DWG. 618-01.

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 THAT ARE UNIQUE TO MONTANA.

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

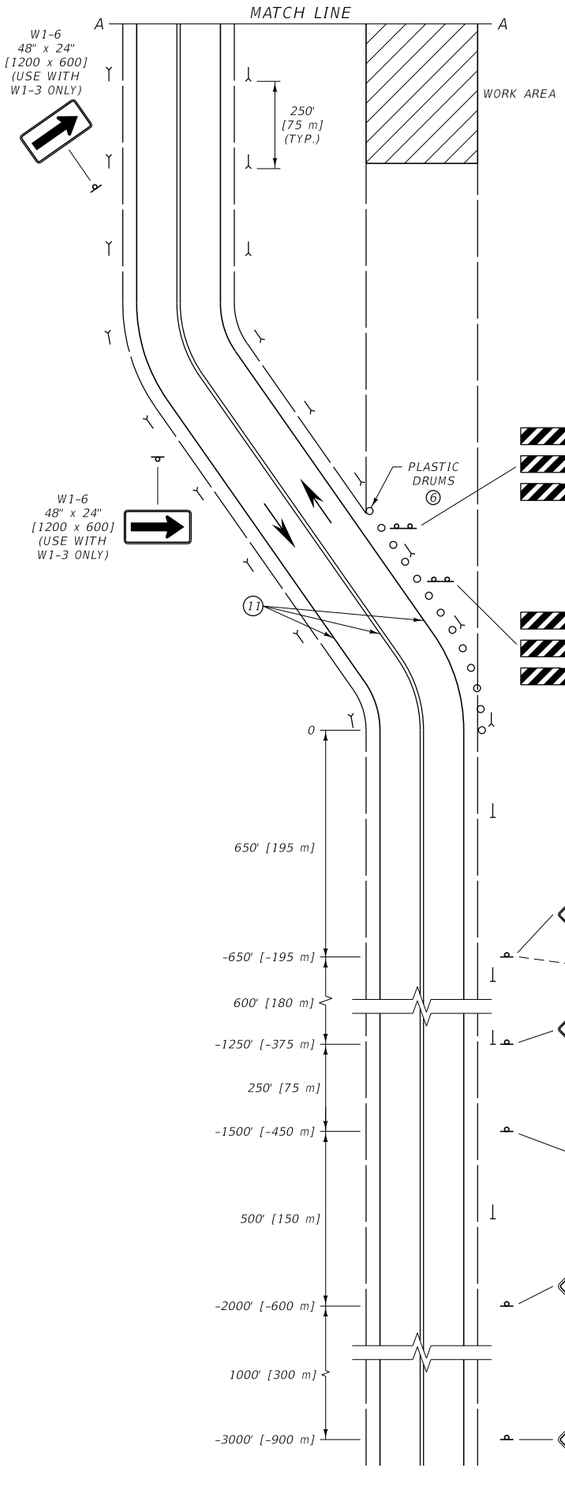
DETAILED DRAWING

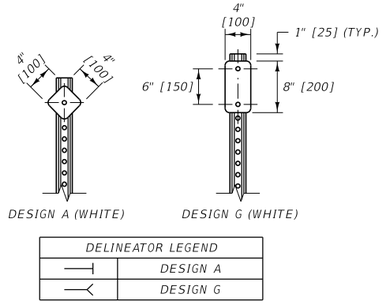
REFERENCE
STANDARD SPEC.
SECTION 618, 715

DWG. NO.
618-16

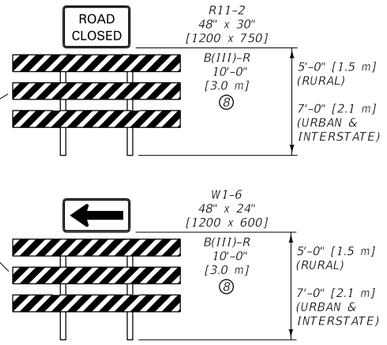
TWO-LANE
EQUIPMENT ENTRANCES

MDT MONTANA DEPARTMENT OF TRANSPORTATION



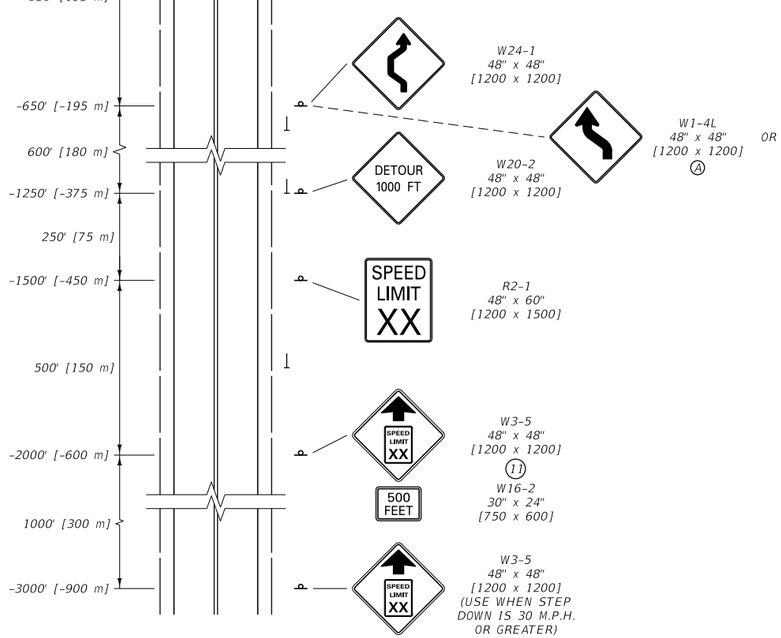


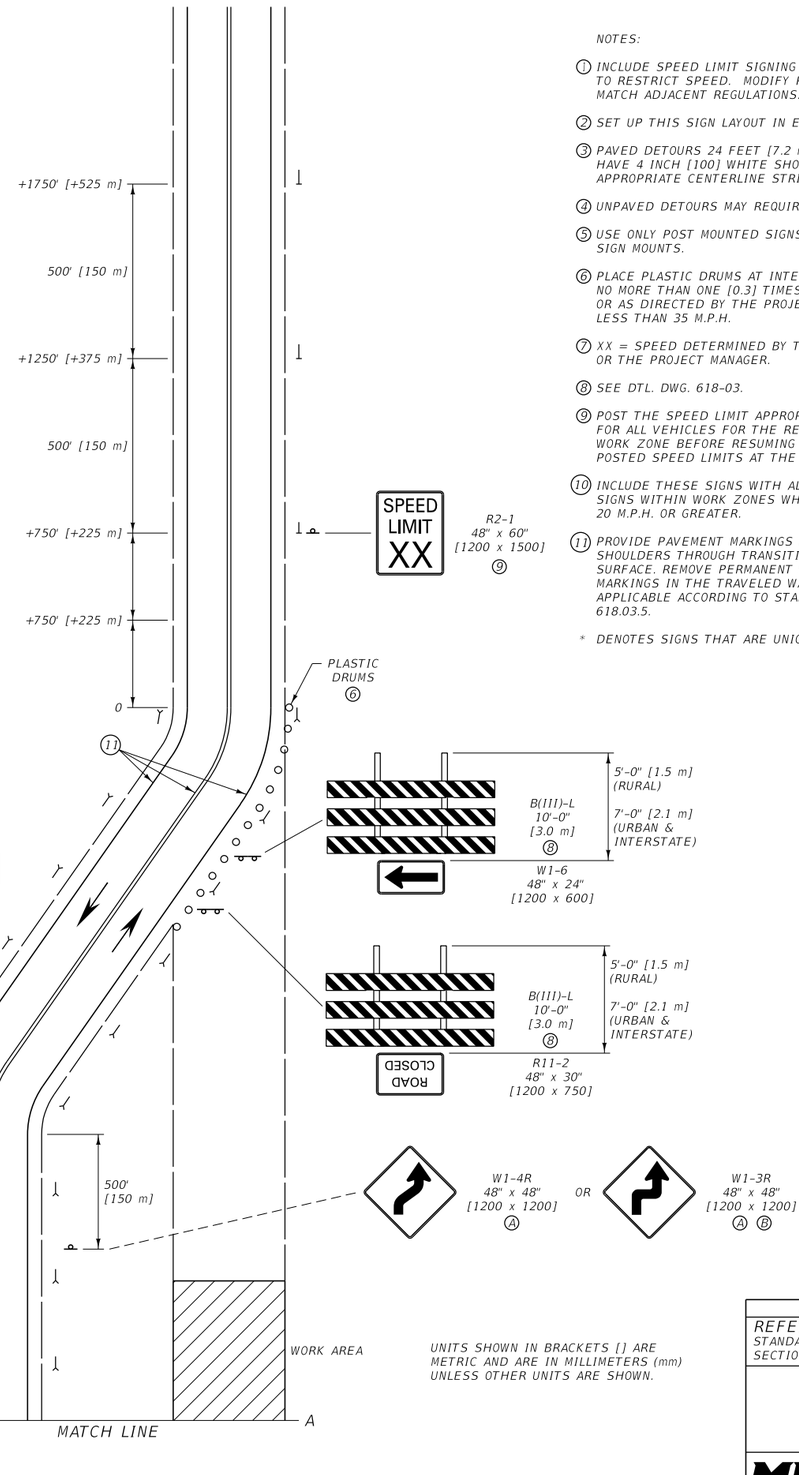
DELINEATOR LEGEND	
	DESIGN A
	DESIGN G



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

Ⓑ USE W1-3 SIGNS ONLY WHEN THE DESIGN SPEED OF THE CURVES IS 30 M.P.H. [50 km/hr] OR LESS.





NOTES:

1. INCLUDE SPEED LIMIT SIGNING ONLY IF THERE IS REASON TO RESTRICT SPEED. MODIFY REGULATORY SIGNS TO MATCH ADJACENT REGULATIONS.
2. SET UP THIS SIGN LAYOUT IN EACH TRAFFIC DIRECTION.
3. PAVED DETOURS 24 FEET [7.2 m] WIDE OR GREATER HAVE 4 INCH [100] WHITE SHOULDER STRIPES AND APPROPRIATE CENTERLINE STRIPES.
4. UNPAVED DETOURS MAY REQUIRE ADDITIONAL DELINEATION.
5. USE ONLY POST MOUNTED SIGNS. DO NOT USE PORTABLE SIGN MOUNTS.
6. 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.
7. XX = SPEED DETERMINED BY THE DETOUR DESIGN SPEED OR THE PROJECT MANAGER.
8. SEE DTL. DWG. 618-03.
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. INCLUDE THESE SIGNS WITH ALL FLAGGERS. INCLUDE THESE SIGNS WITHIN WORK ZONES WHEN STEP DOWN IS 20 M.P.H. OR GREATER.
11. PROVIDE PAVEMENT MARKINGS TO DELINEATE CENTERLINE AND SHOULDERS THROUGH TRANSITION FROM PAVED TO GRAVELED SURFACE. REMOVE PERMANENT PAVEMENT MARKINGS IN THE TRAVELED WAY THAT ARE NO LONGER APPLICABLE ACCORDING TO STANDARD SPECIFICATION 618.03.5.

* DENOTES SIGNS THAT ARE UNIQUE TO MONTANA.

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

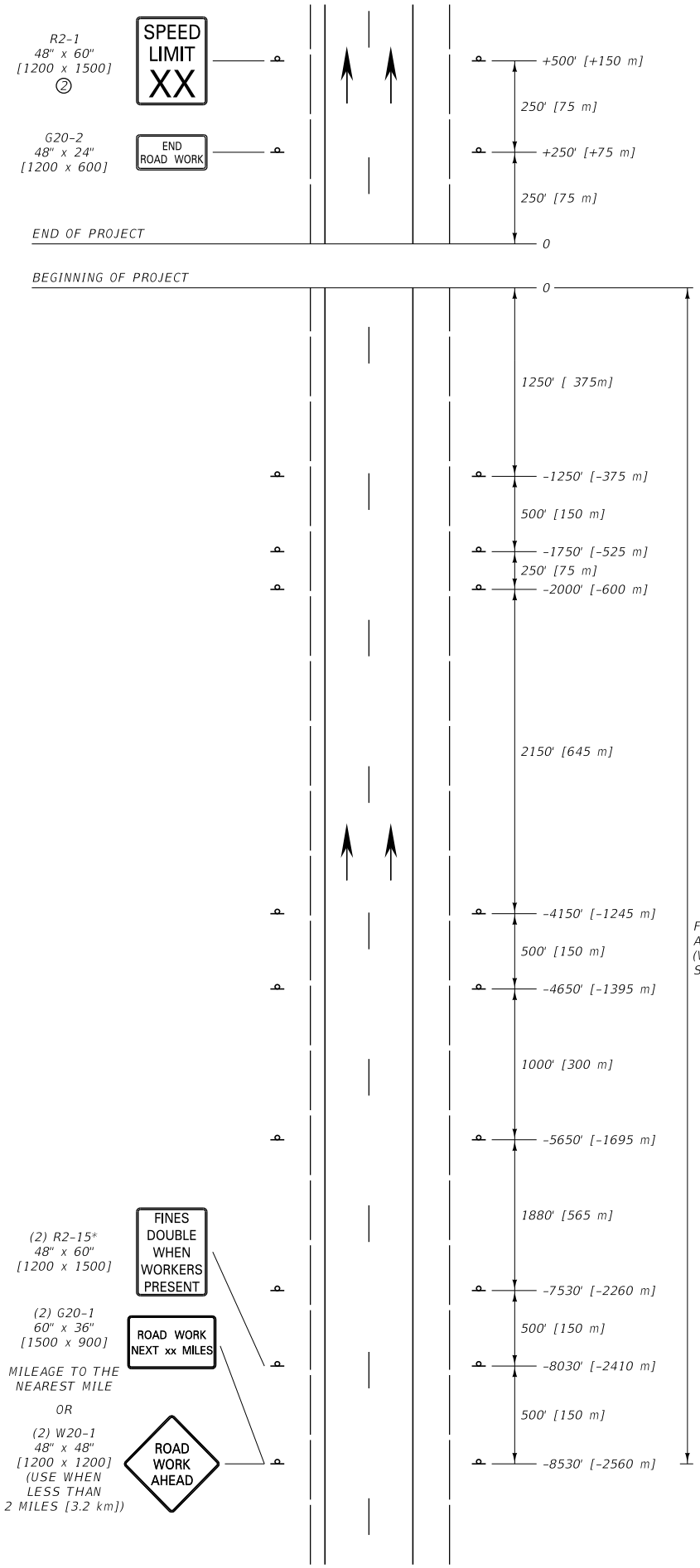
DETAILED DRAWING

REFERENCE STANDARD SPEC. SECTION 618

DWG. NO. 618-18

TWO-LANE WORK ZONE DIVERSION

MDT MONTANA DEPARTMENT OF TRANSPORTATION



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.

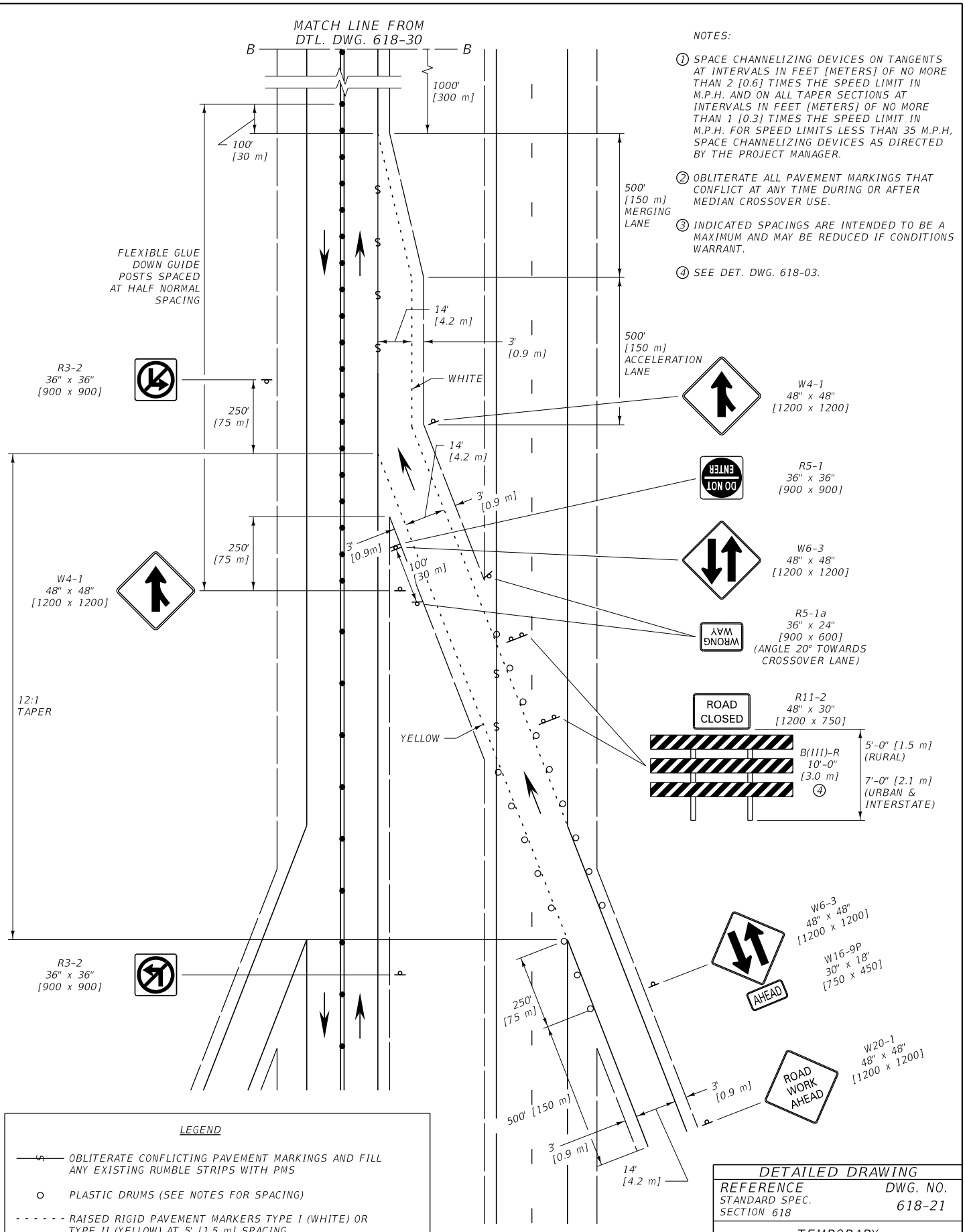
DETAILED DRAWING

REFERENCE
STANDARD SPEC.
SECTION 618

DWG. NO.
618-20

DIVIDED FOUR-LANE WORK ZONE

MDT MONTANA DEPARTMENT OF TRANSPORTATION



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 INTENDED TO BE A MAXIMUM AND 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.

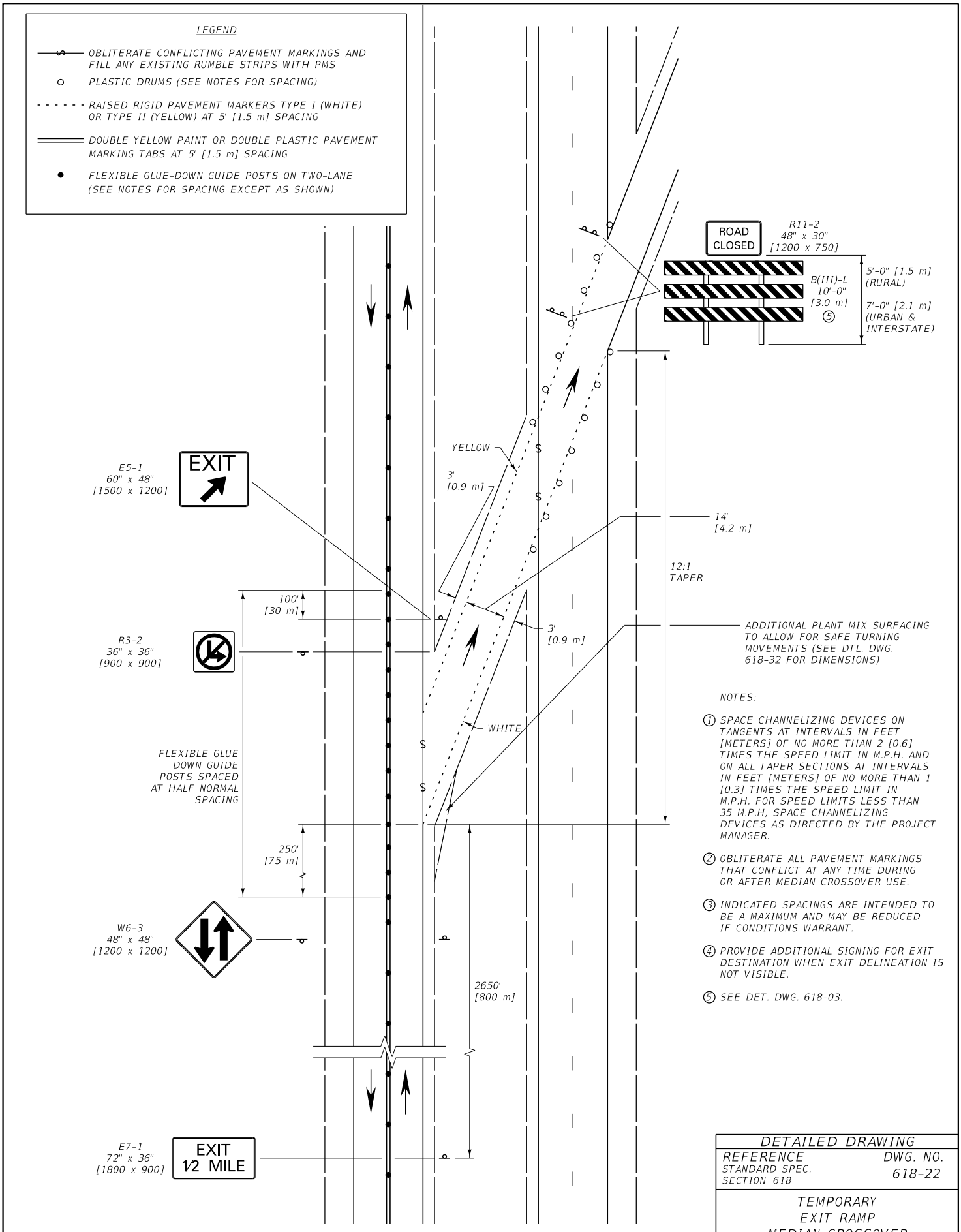
DETAILED DRAWING

REFERENCE STANDARD SPEC. SECTION 618

DWG. NO. 618-21

TEMPORARY ENTRANCE RAMP MEDIAN CROSSOVER

MDT MONTANA DEPARTMENT OF TRANSPORTATION



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 INTENDED TO BE A MAXIMUM AND 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.

DETAILED DRAWING

REFERENCE
STANDARD SPEC.
SECTION 618

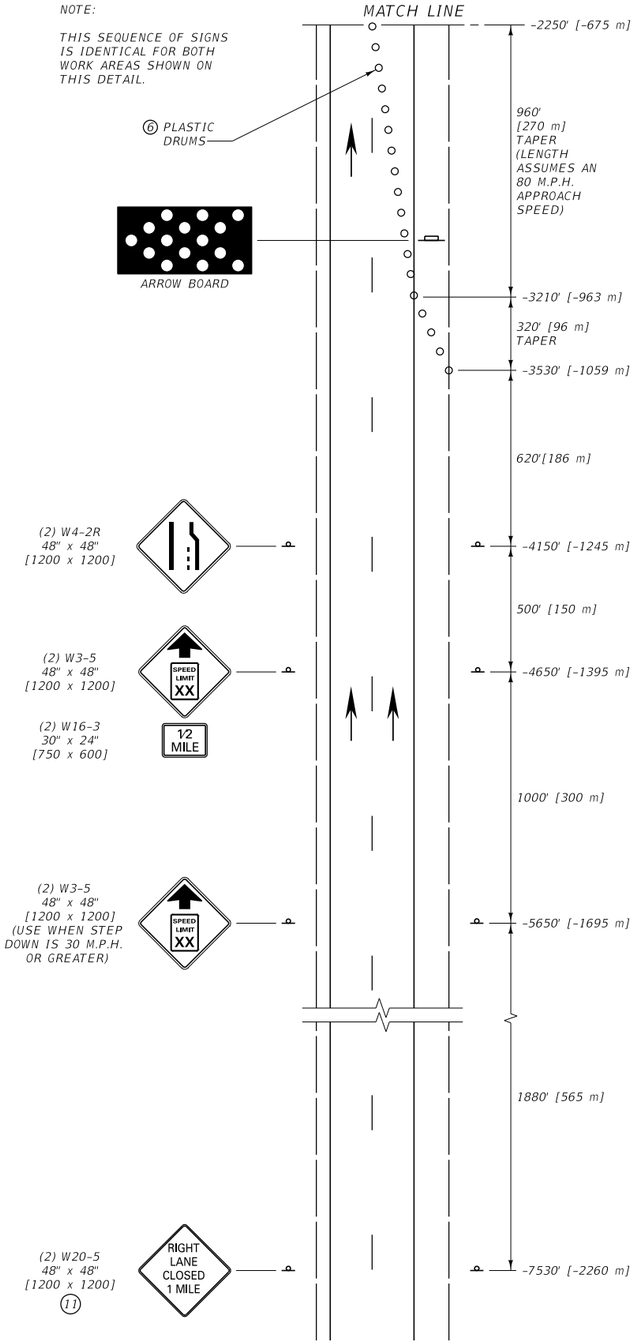
DWG. NO.
618-22

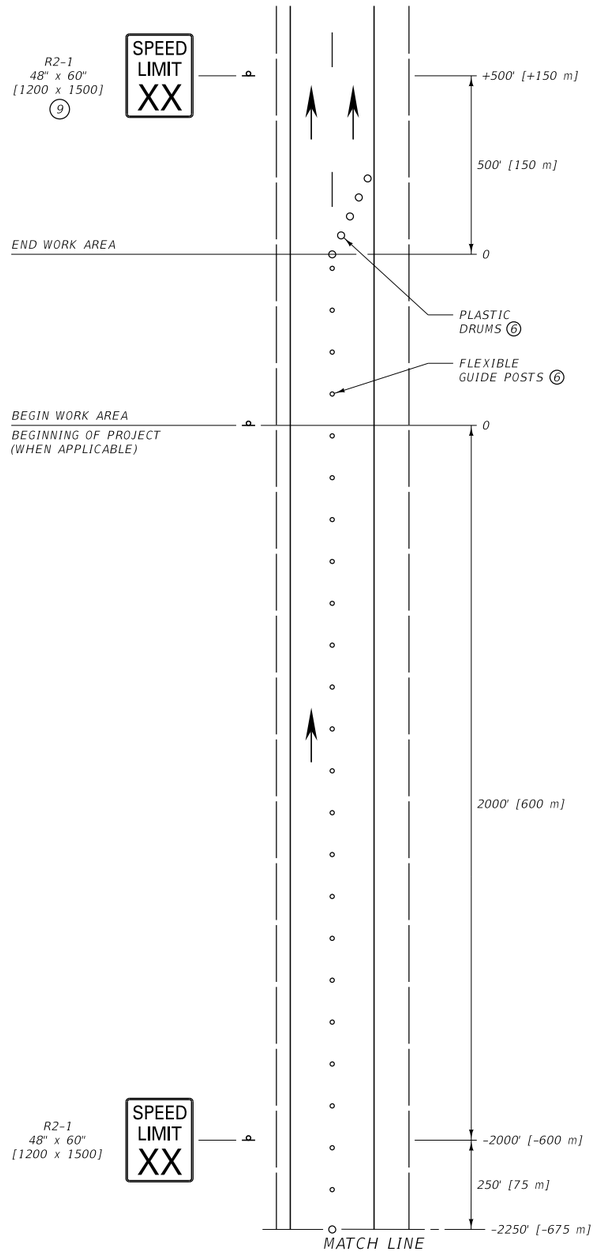
TEMPORARY EXIT RAMP MEDIAN CROSSOVER

MDT MONTANA DEPARTMENT OF TRANSPORTATION

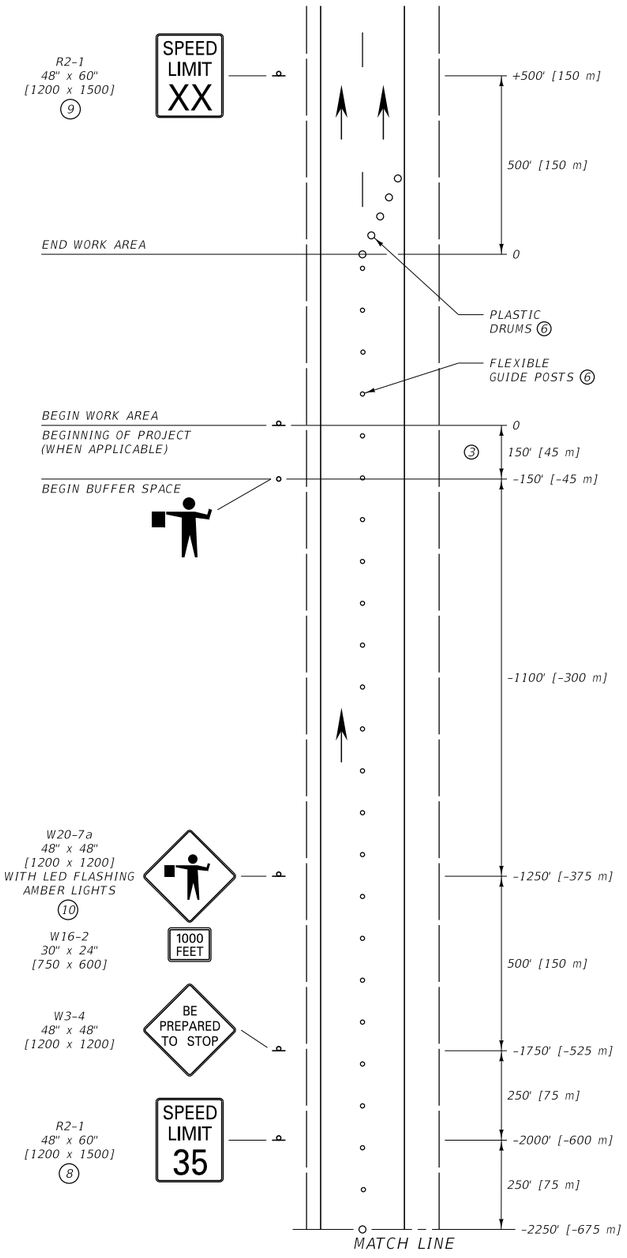
NOTE:

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

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

✱ 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 STANDARD SPEC. SECTION 618, 715

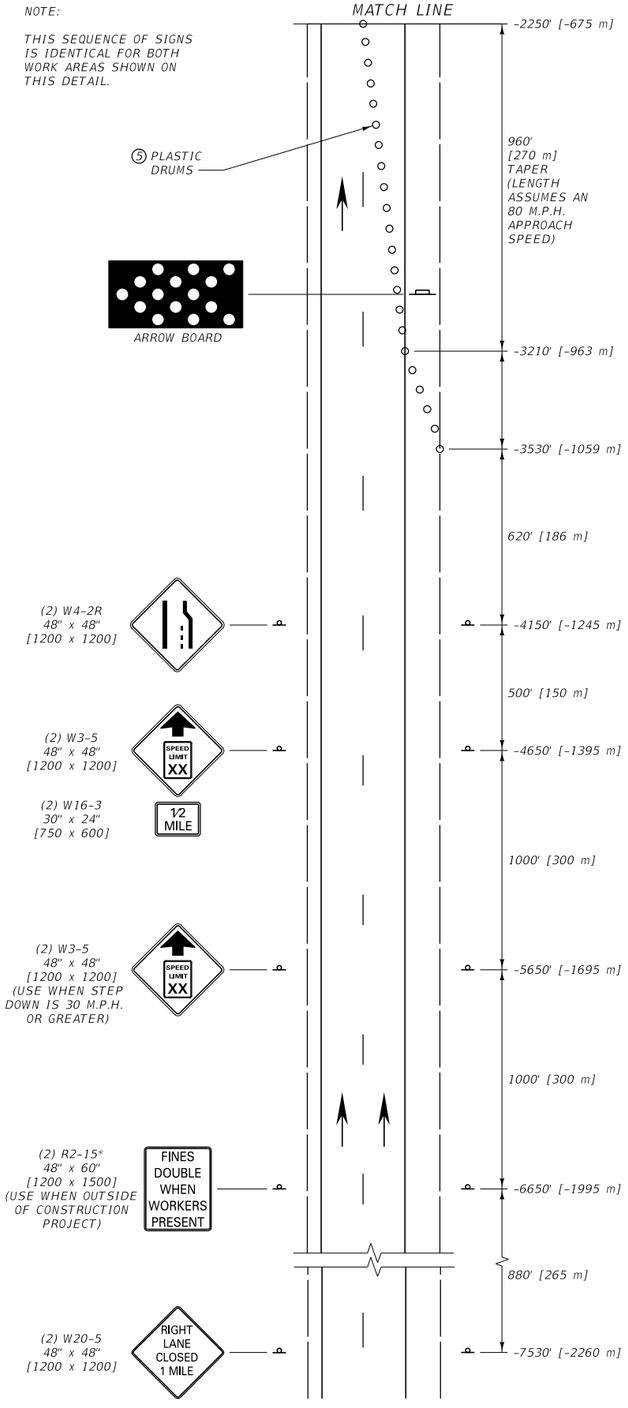
DWG. NO. 618-24

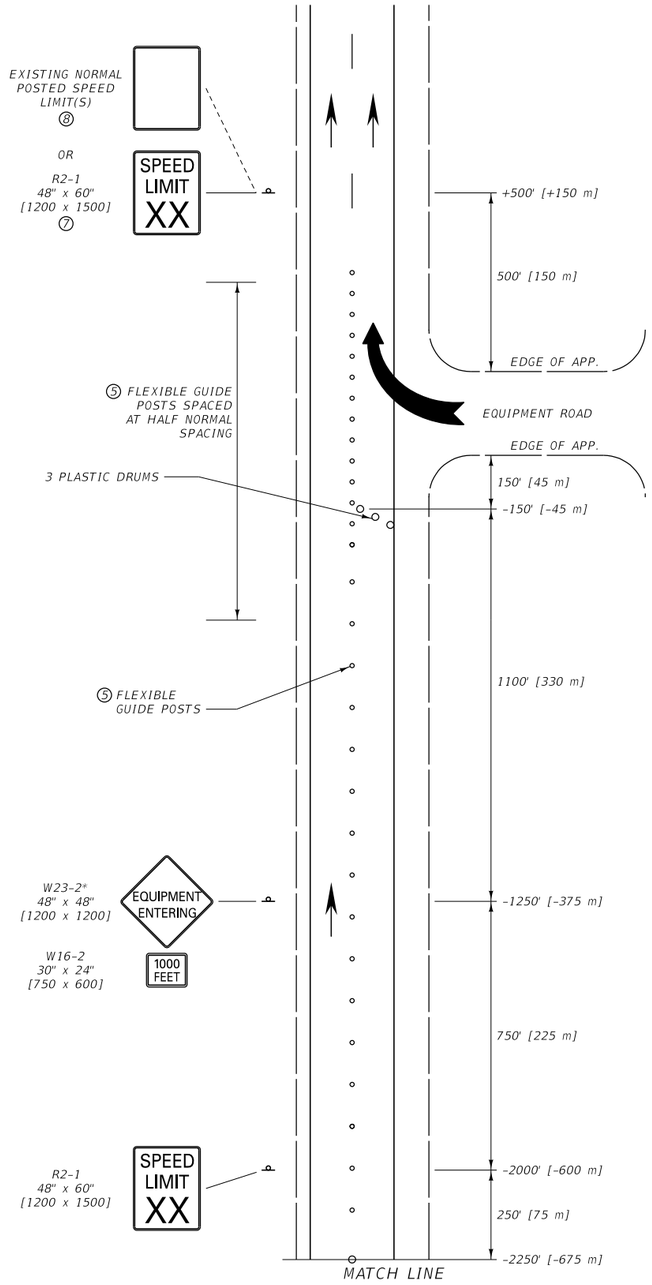
DIVIDED FOUR-LANE WORK AREAS

MDT MONTANA DEPARTMENT OF TRANSPORTATION

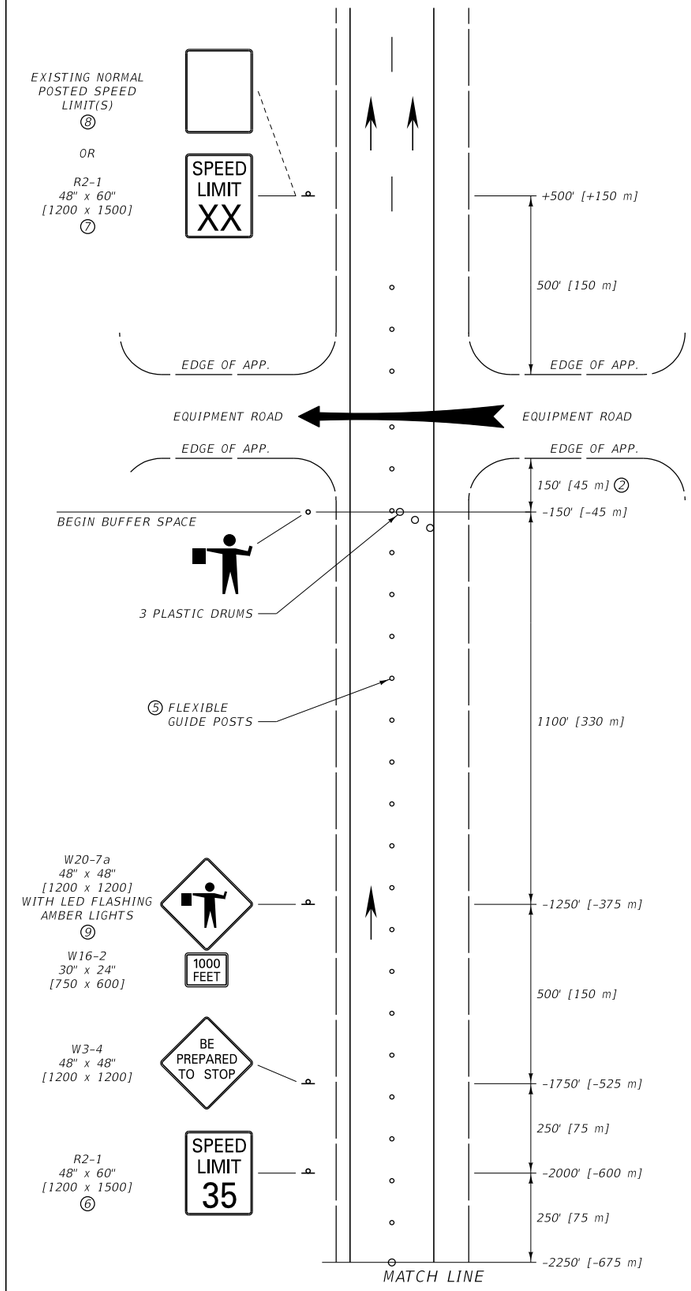
NOTE:

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 THERE IS REASON TO RESTRICT SPEED 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 THAT AFFECT STOPPING DISTANCE.

③ XX = SPEED DETERMINED BY THE PROJECT MANAGER.

④ WHEN THIS OCCURS 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 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 ENSURE THE AMBER LED FLASHERS MEET REQUIREMENTS OF SECTION 715 AND DTL. DWG. 618-01.

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

* 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 STANDARD SPEC. SECTION 618, 715

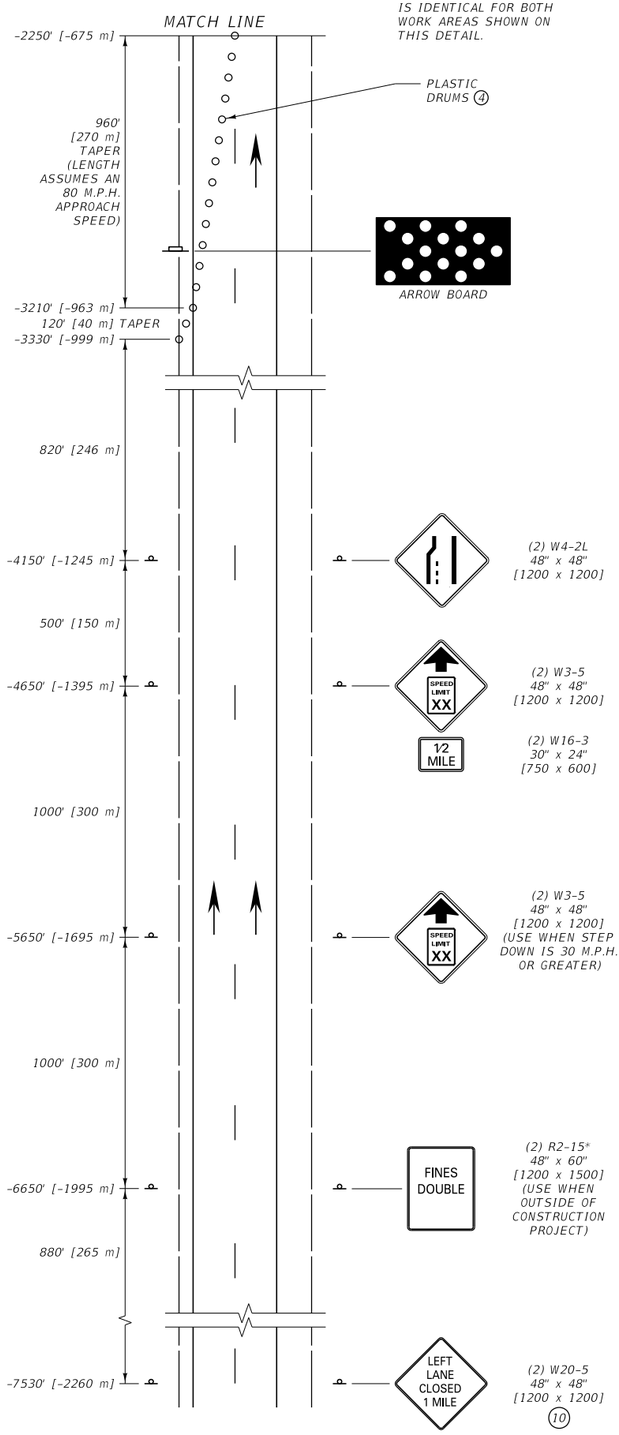
DWG. NO. 618-27

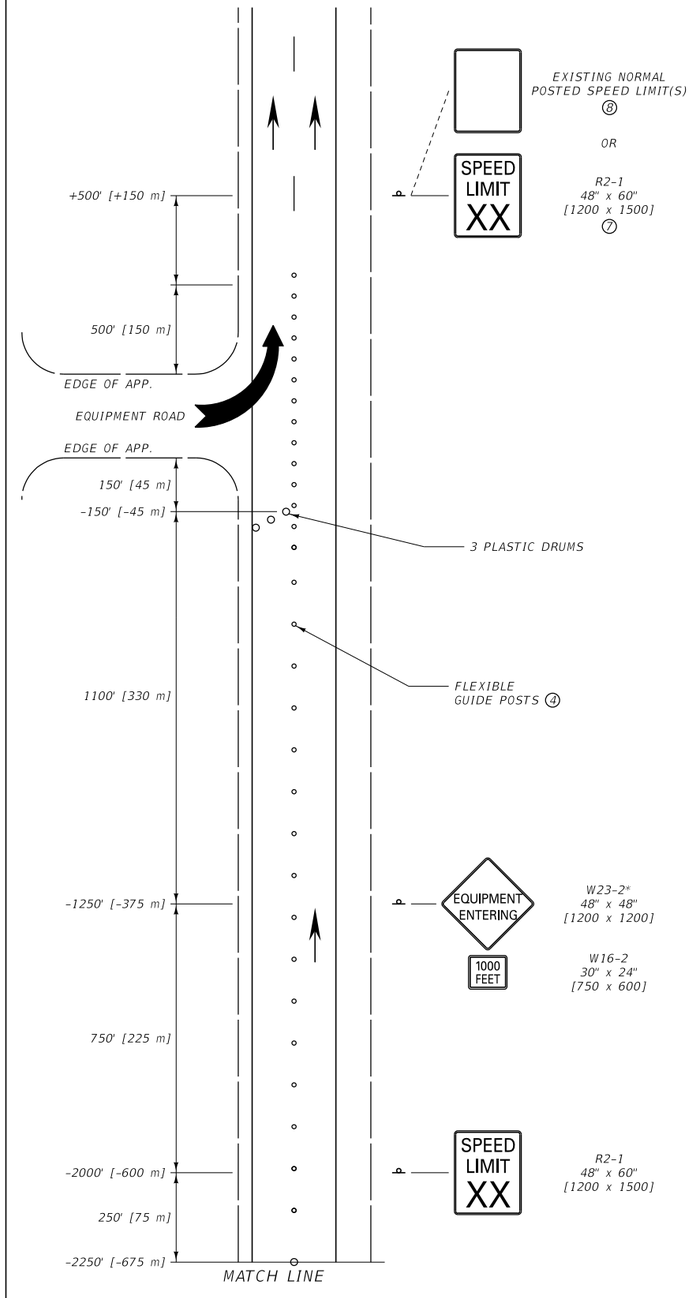
DIVIDED FOUR-LANE EQUIPMENT ENTRANCE

MDT MONTANA DEPARTMENT OF TRANSPORTATION

NOTE:

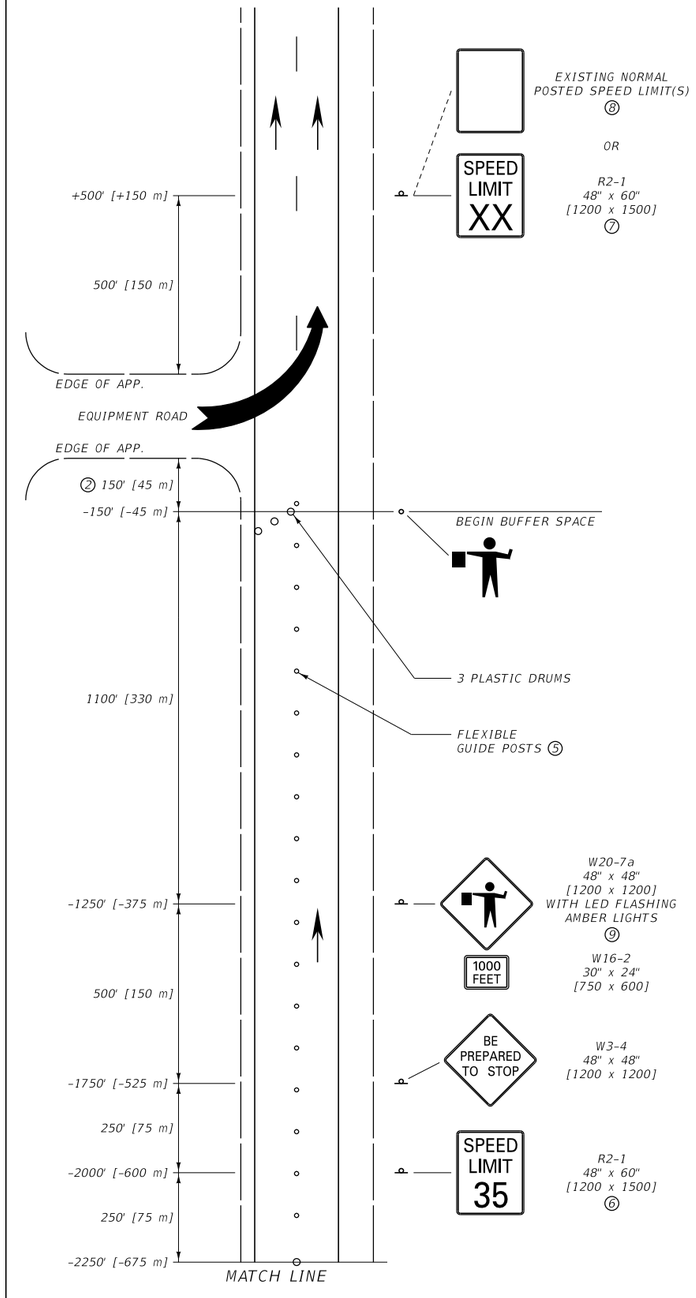
THIS SEQUENCE OF SIGNS IS IDENTICAL FOR BOTH WORK AREAS SHOWN ON THIS DETAIL.





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 THERE IS REASON TO RESTRICT SPEED 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 THAT AFFECT STOPPING DISTANCE.

(3) XX = SPEED DETERMINED BY THE PROJECT MANAGER.

(4) WHEN THIS OCCURS 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) ENSURE THE AMBER LED FLASHERS MEET REQUIREMENTS OF SECTION 715 AND DTL. DWG. 618-01.

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

* DENOTES SIGNS THAT ARE UNIQUE TO MONTANA.

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

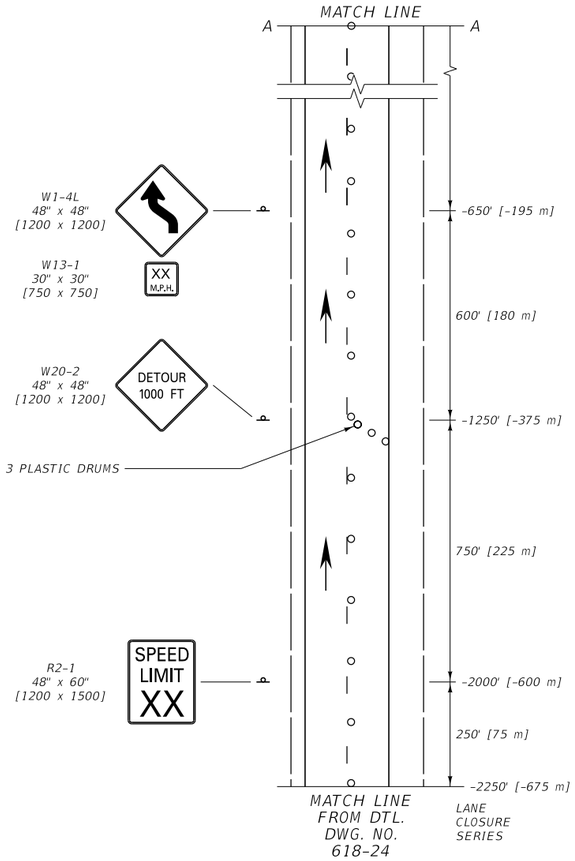
DETAILED DRAWING

REFERENCE
STANDARD SPEC.
SECTION 618, 715

DWG. NO.
618-28

DIVIDED FOUR-LANE MEDIAN CROSSING

MDT MONTANA DEPARTMENT OF TRANSPORTATION

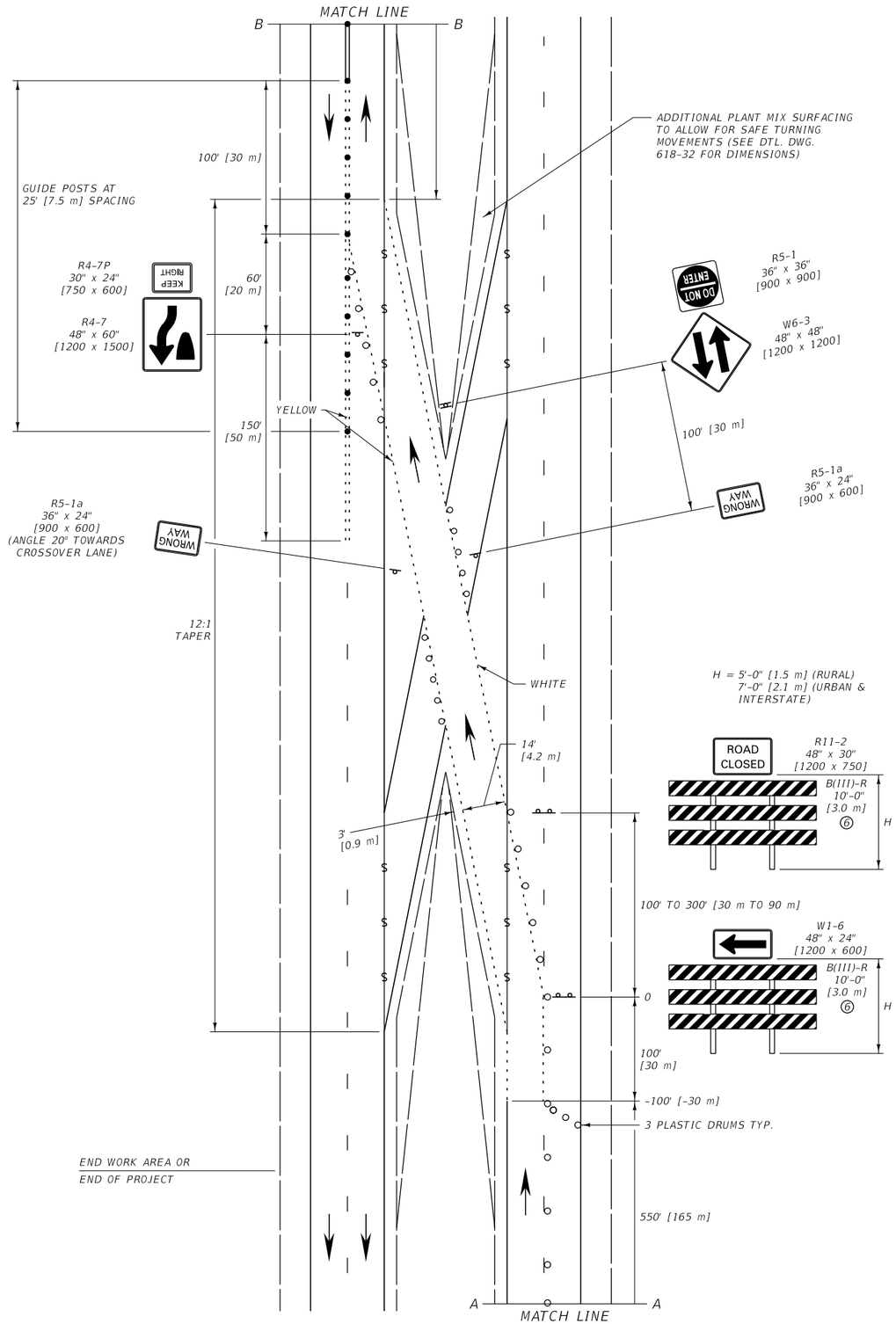


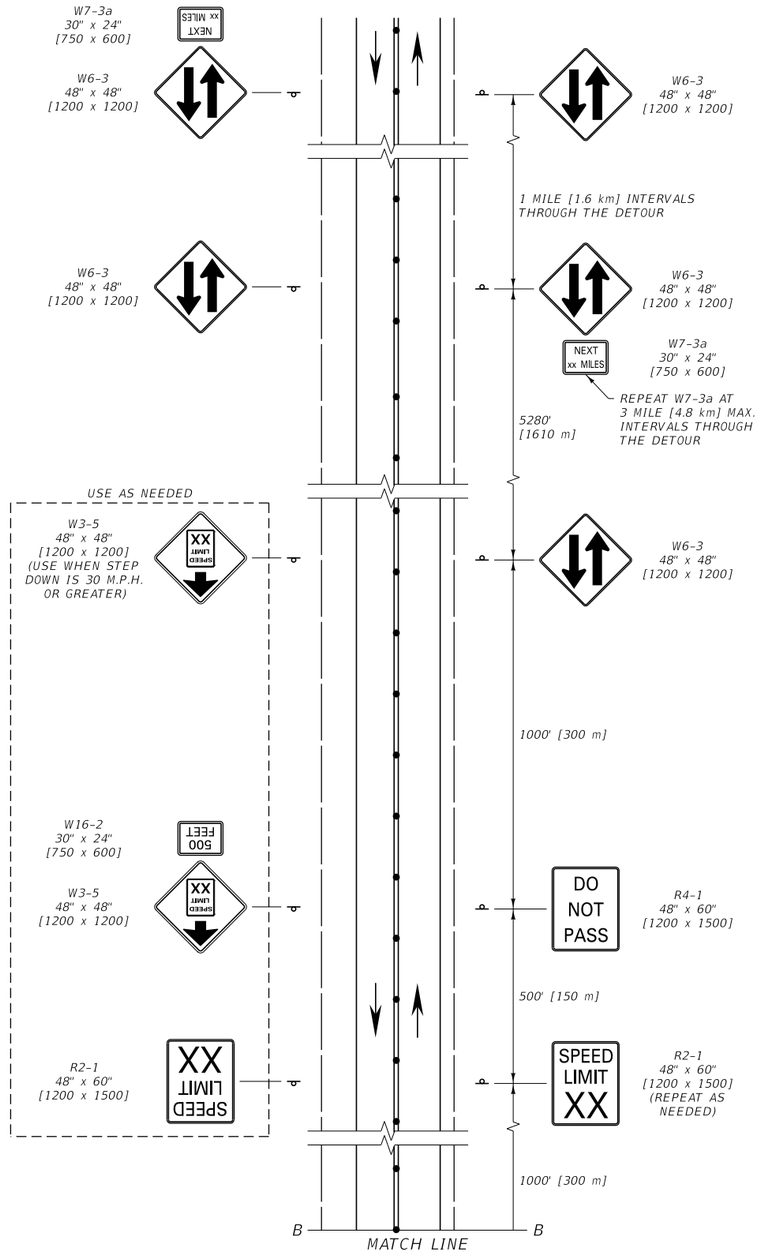
LEGEND

- 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)

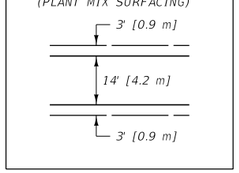
NOTES:

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 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. 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.

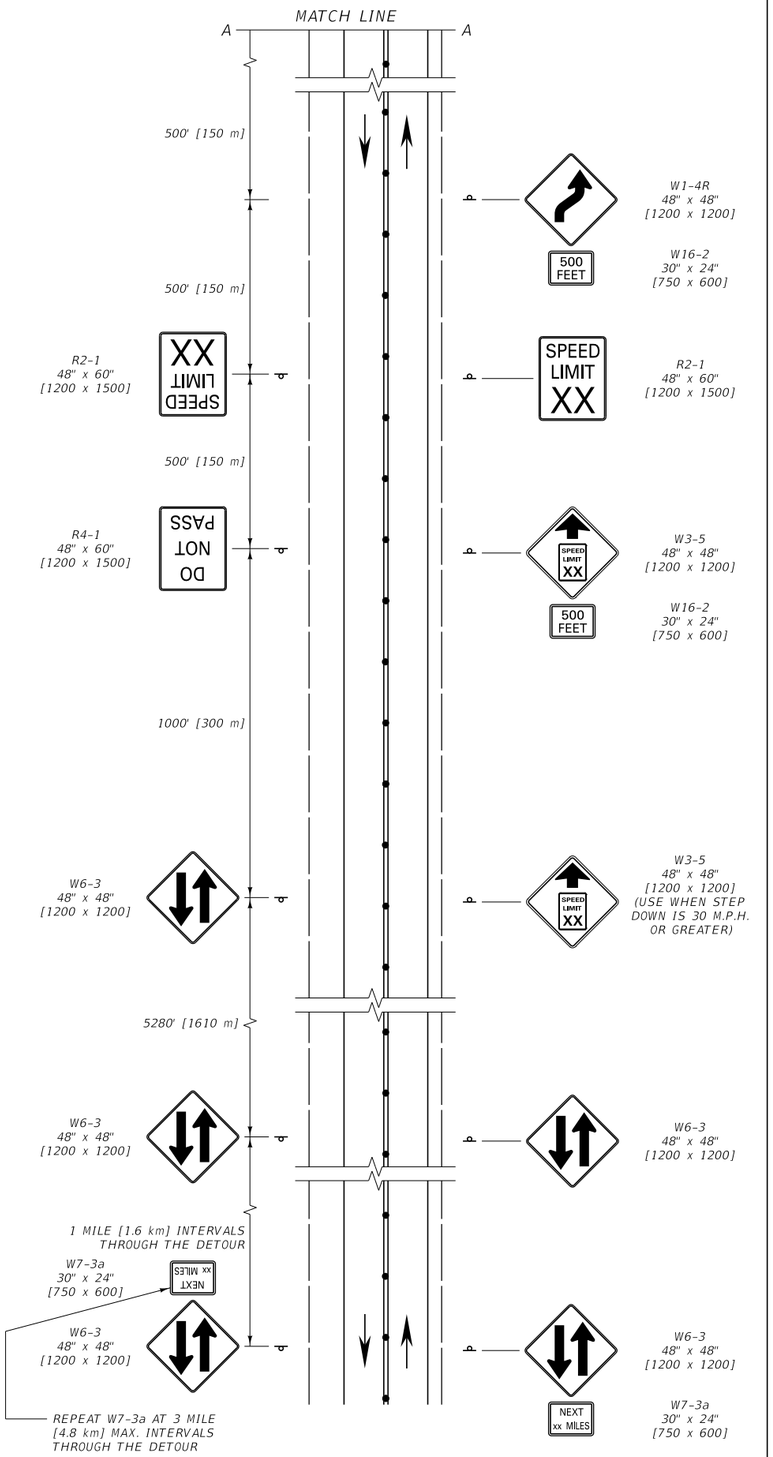
DETAILED DRAWING

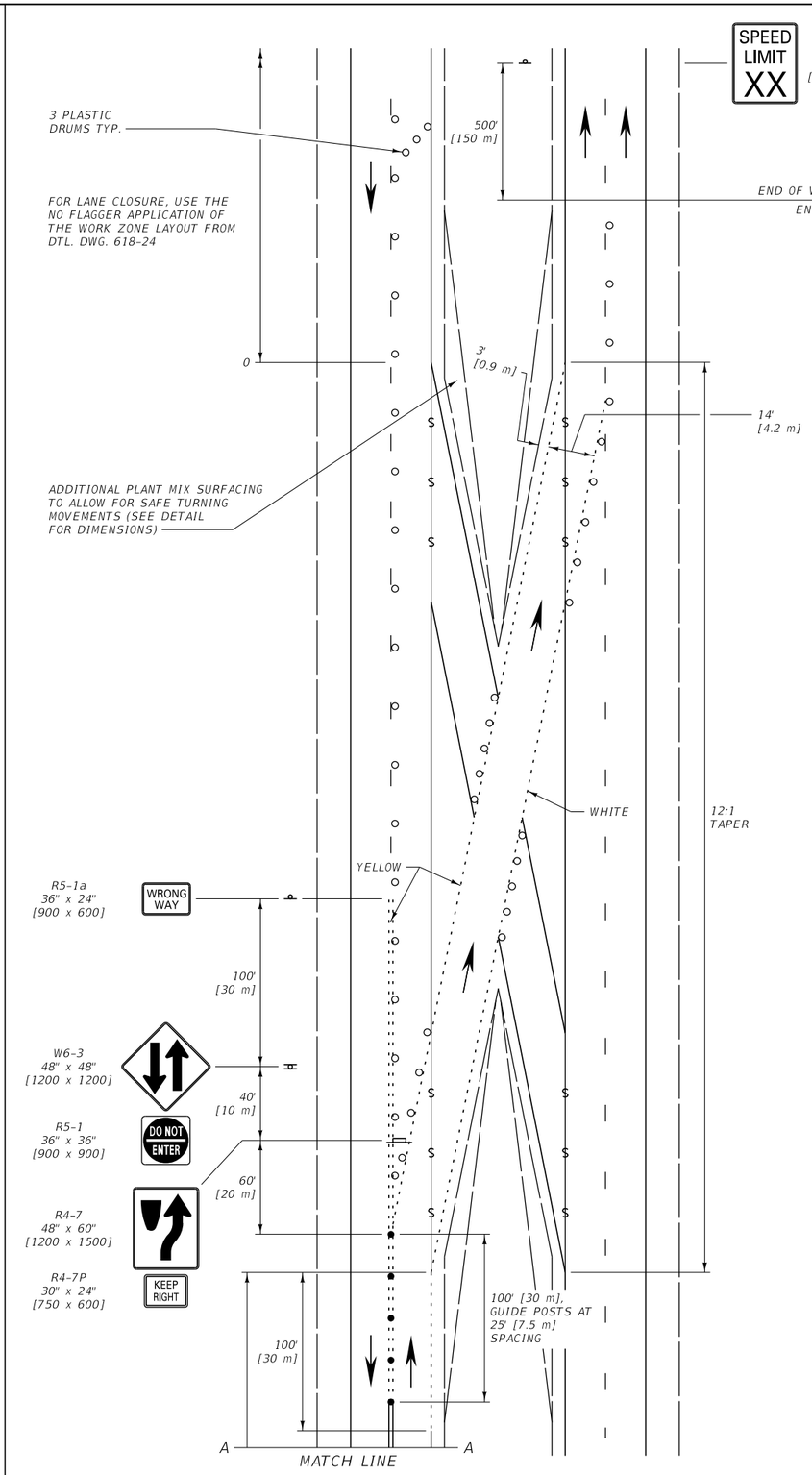
REFERENCE
STANDARD SPEC.
SECTION 618

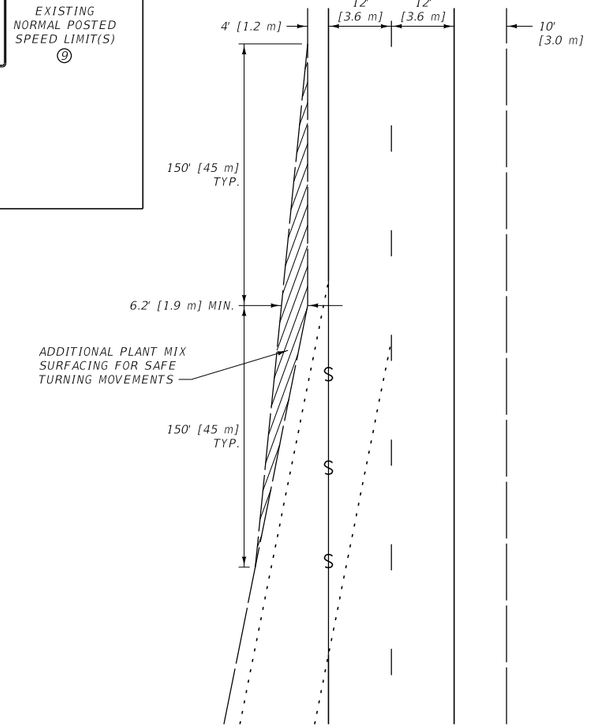
DWG. NO.
618-30

TEMPORARY FOUR-LANE TO TWO-LANE MEDIAN CROSSOVER

MDT MONTANA DEPARTMENT OF TRANSPORTATION







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. THE WORK ZONE REFERS TO THE AREA WITHIN THE CONSTRUCTION PROJECT WHERE WORK IS ACTUALLY TAKING PLACE.
3. XX = SPEED DETERMINED BY THE MEDIAN CROSSOVER DESIGN SPEED OR THE PROJECT MANAGER.
4. SEE DTL. DWG. 618-30 FOR TYPICAL CROSSOVER SECTION DIMENSIONS.
5. INDICATED SPACINGS ARE INTENDED TO BE A MAXIMUM AND 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.

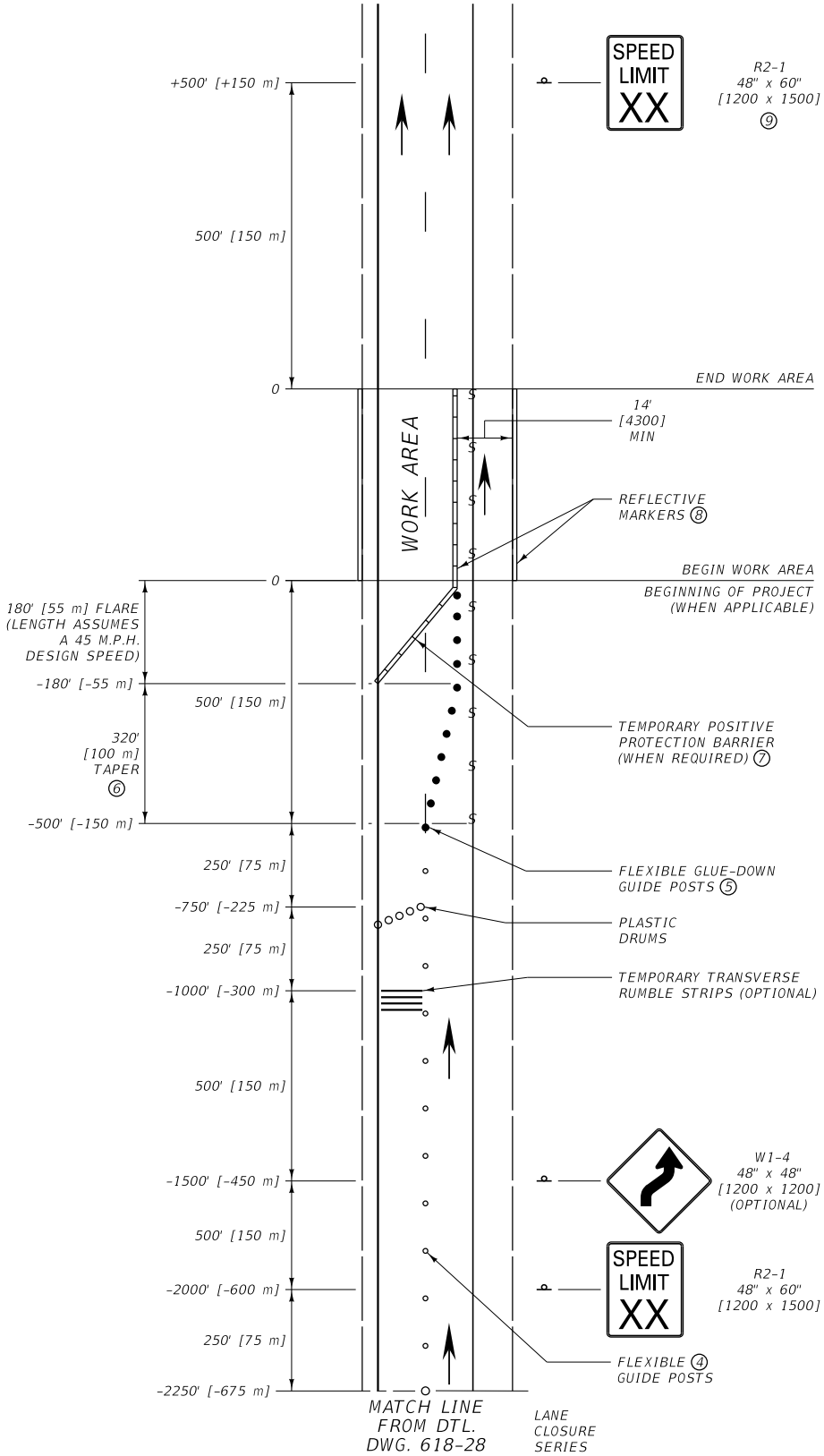
DETAILED DRAWING

REFERENCE STANDARD SPEC. SECTION 618

DWG. NO. 618-32

TEMPORARY TWO-LANE TO FOUR-LANE MEDIAN CROSSOVER

MDT MONTANA DEPARTMENT OF TRANSPORTATION



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 [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 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.

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

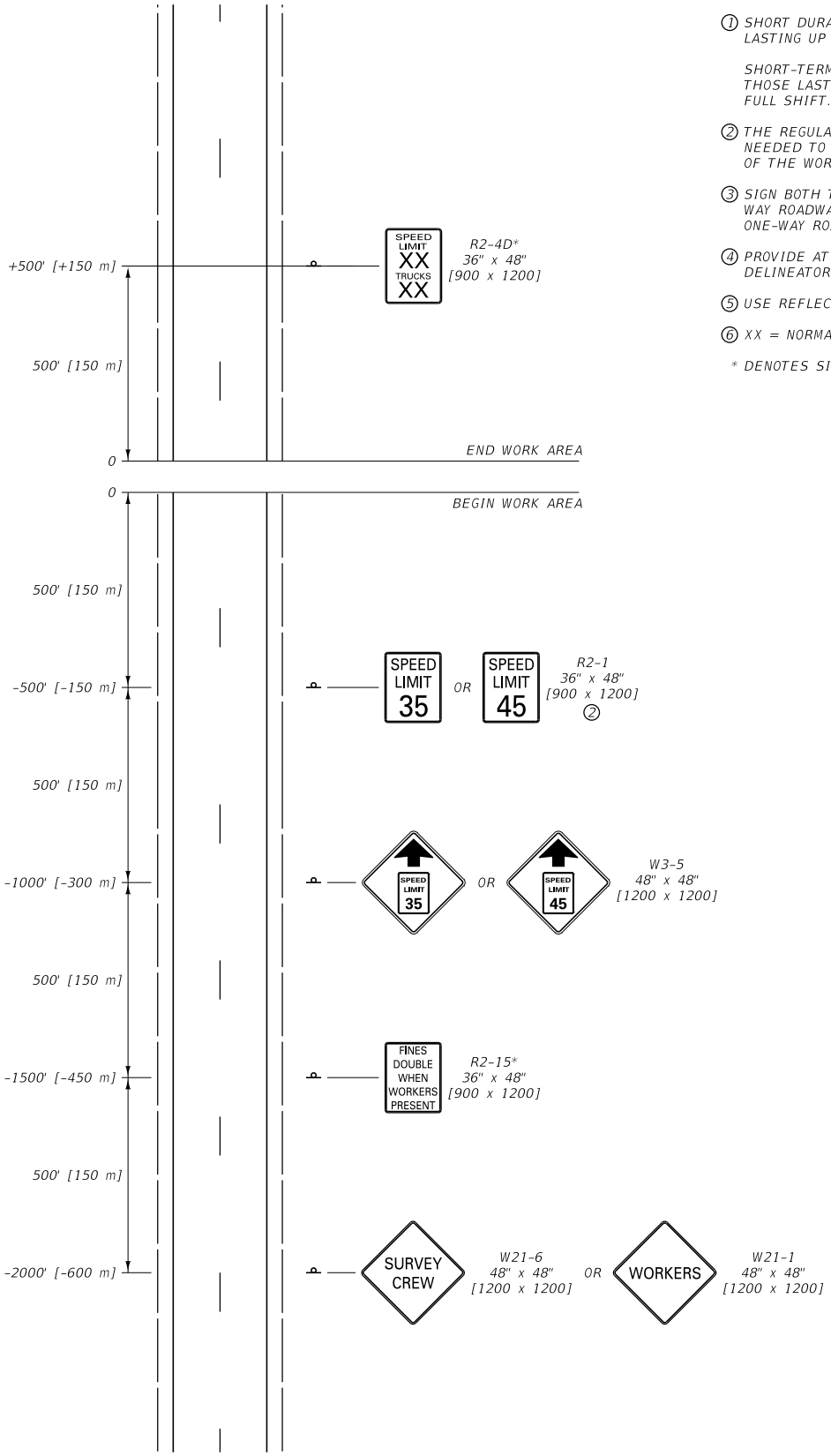
DETAILED DRAWING

REFERENCE
STANDARD SPEC.
SECTION 618

DWG. NO.
618-33

DIVIDED FOUR-LANE
SINGLE LANE CLOSURE
LANE SHIFT

MDT MONTANA DEPARTMENT OF TRANSPORTATION



NOTES:

① SHORT DURATION ACTIVITIES ARE DEFINED AS THOSE LASTING UP TO ONE HOUR.

SHORT-TERM STATIONARY ACTIVITIES ARE DEFINED AS THOSE LASTING GREATER THAN ONE HOUR, UP TO A FULL SHIFT.

② THE 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 THAT ARE UNIQUE TO MONTANA.

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

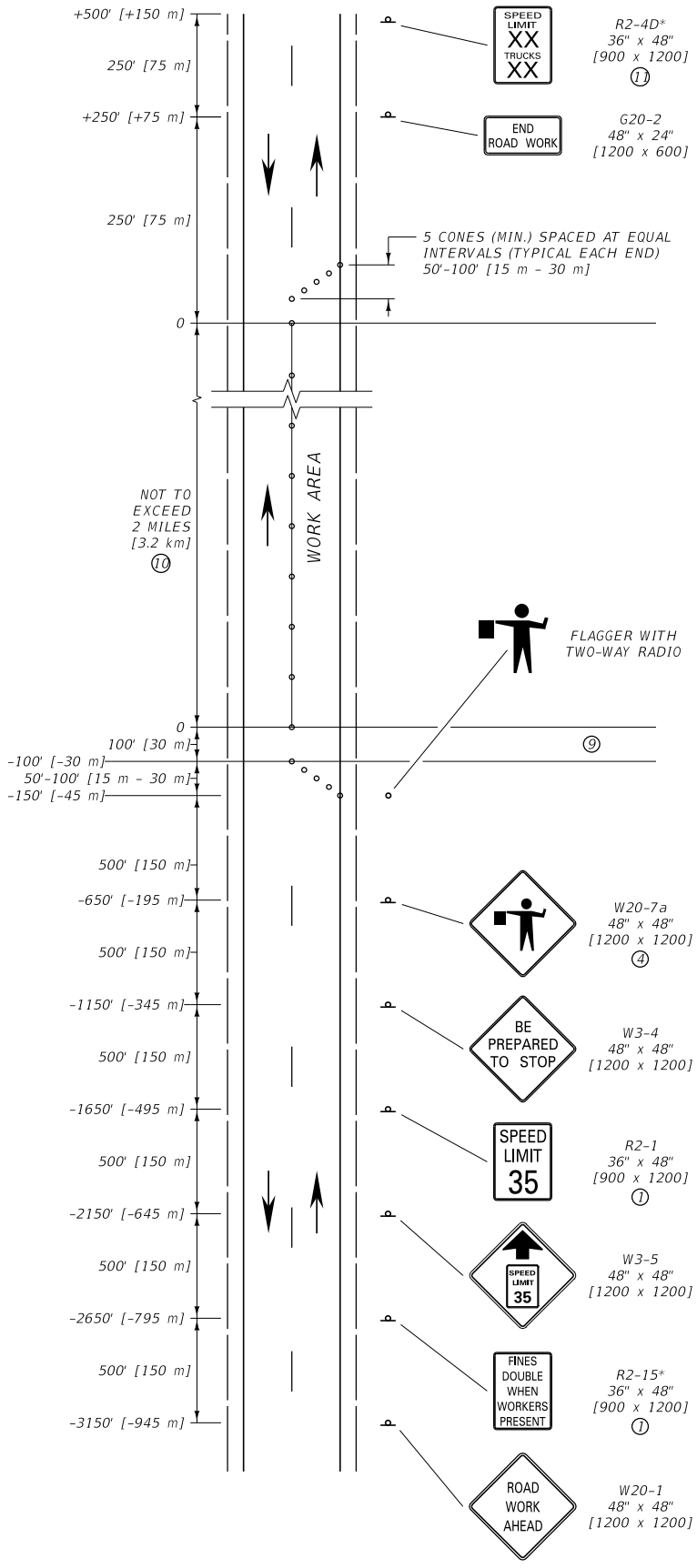
DETAILED DRAWING

REFERENCE
STANDARD SPEC.
SECTION 618

DWG. NO.
618-34

SHORT DURATION OR SHORT-TERM STATIONARY CREW SIGNING

MONTANA DEPARTMENT OF TRANSPORTATION



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 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.

(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.

(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.

FOR USE BY MDT FORCES

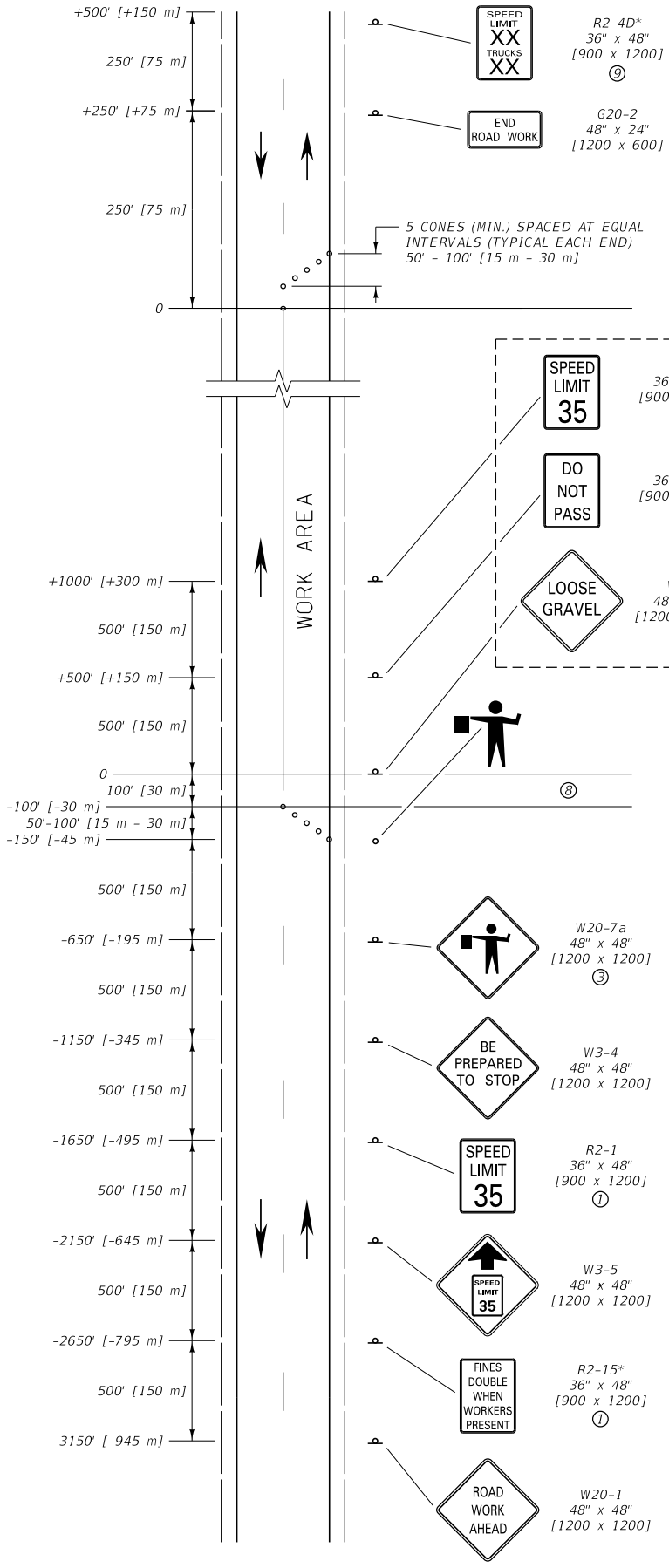
DETAILED DRAWING

REFERENCE STANDARD SPEC. SECTION 618

DWG. NO. 618-M1

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

MDT MONTANA DEPARTMENT OF TRANSPORTATION



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.

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

FOR USE BY MDT FORCES

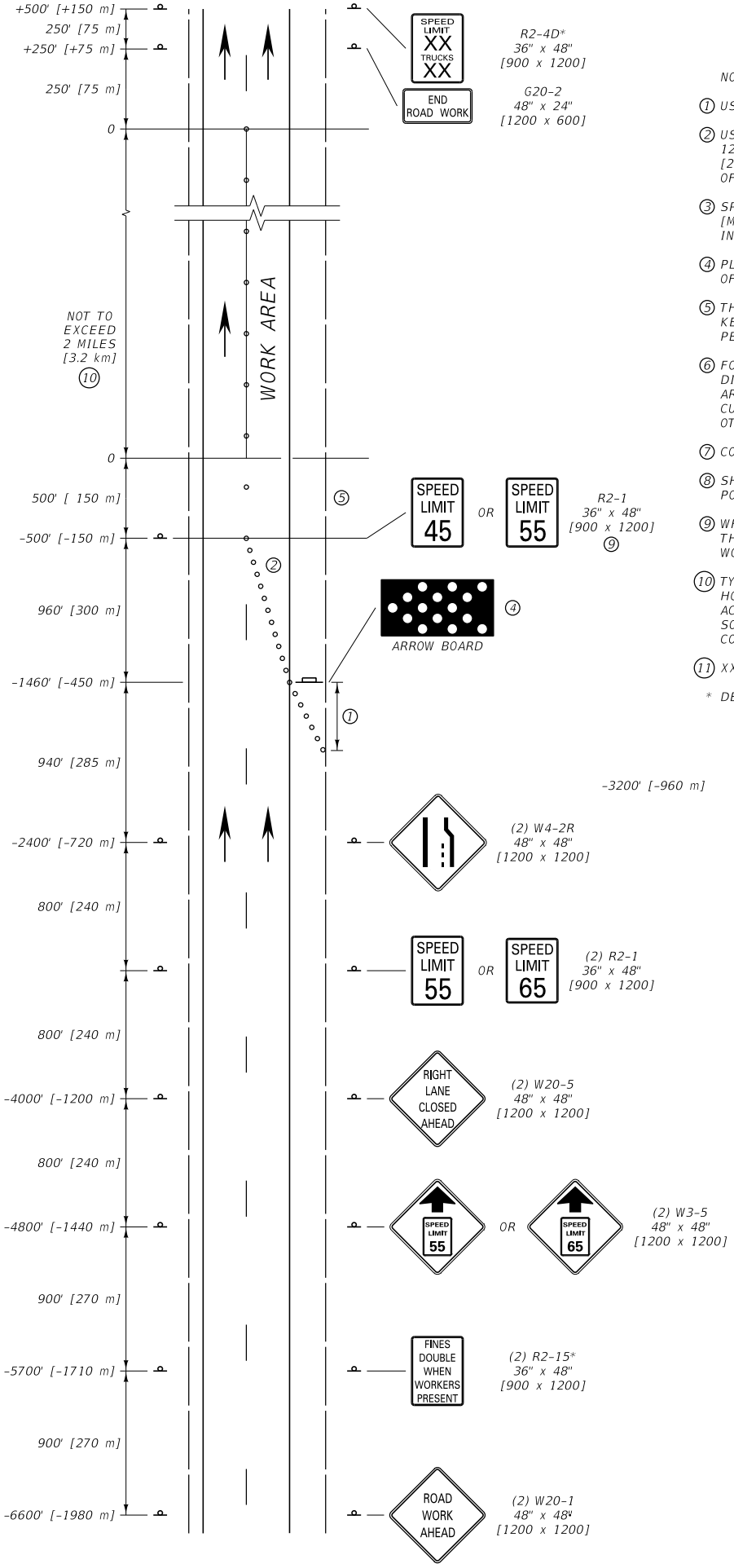
DETAILED DRAWING

REFERENCE
STANDARD SPEC. SECTION 618

DWG. NO. 618-M2

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

MDT MONTANA DEPARTMENT OF TRANSPORTATION



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].) ASSURE THAT THE TAPER IS A MINIMUM LENGTH OF 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) 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 ZONE, 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.

FOR USE BY MDT FORCES

DETAILED DRAWING

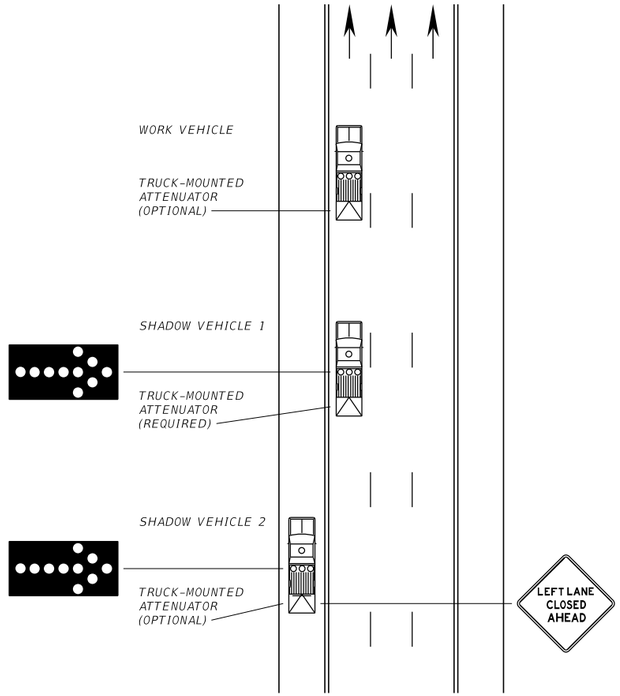
REFERENCE
STANDARD SPEC.
SECTION 618

DWG. NO.
618-M3

MAINTENANCE GUIDELINE FOR SHORT-TERM LANE CLOSURE ON INTERSTATE

MDT MONTANA DEPARTMENT OF TRANSPORTATION

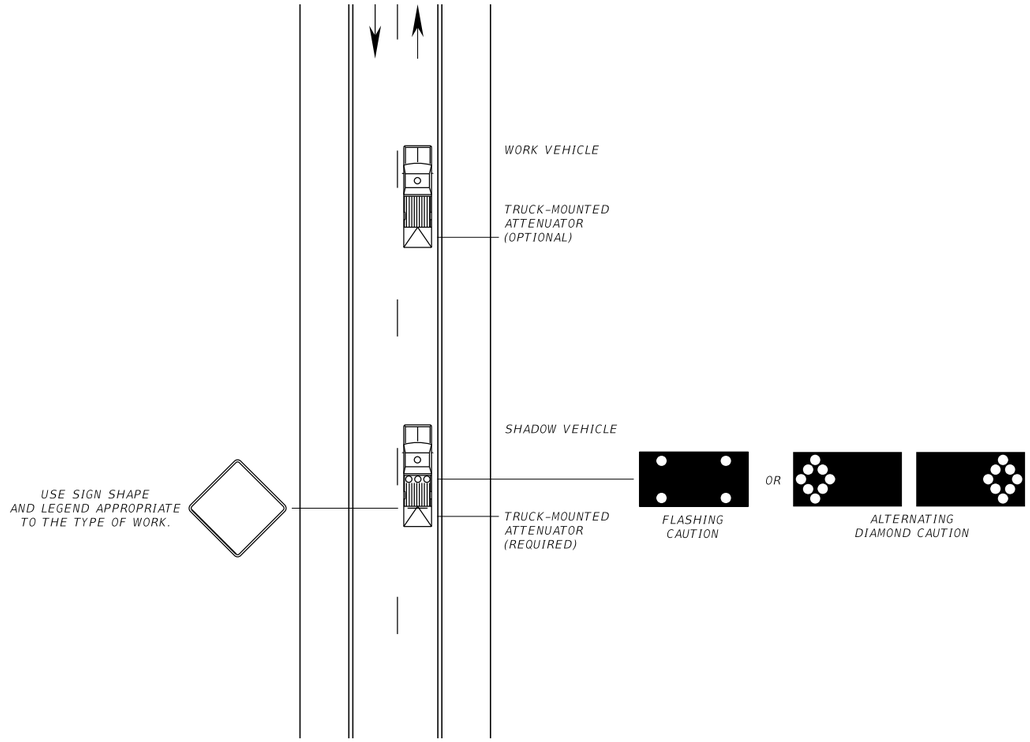
MOBILE OPERATIONS ON MULTILANE ROAD



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 IN A MANNER 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 DOWN THE SHADOW VEHICLE IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

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

DETAILED DRAWING

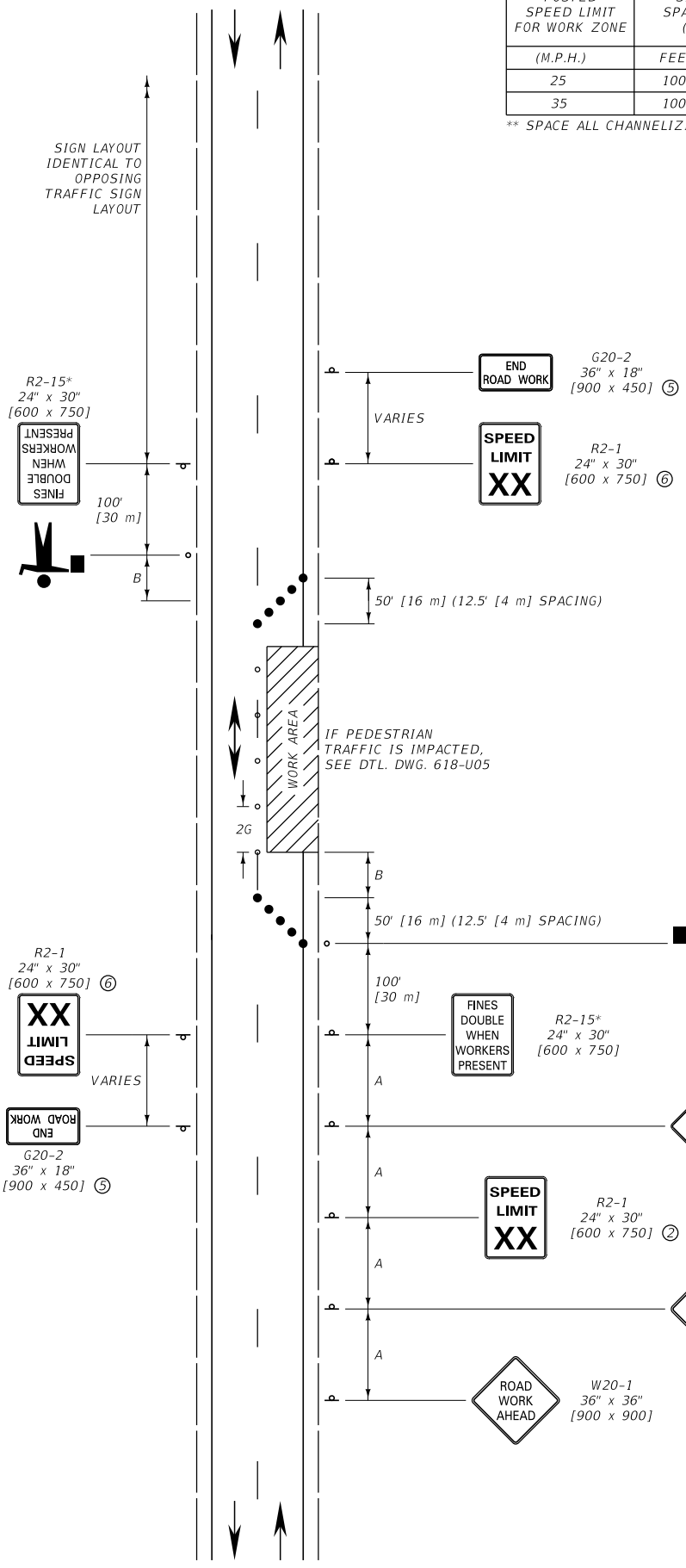
REFERENCE	DWG. NO.
STANDARD SPEC. SECTION 618	618-M4

MOBILE OPERATIONS

MDT MONTANA DEPARTMENT OF TRANSPORTATION

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 [8]	50 [15]
35	100 [30]	35 [12]	100 [30]

** 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 THAT AFFECT 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 ENSURE THE AMBER LED FLASHERS MEET REQUIREMENTS OF SECTION 715 AND DTL. DWG. 618-01.

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 OTHER UNITS ARE SHOWN.

DETAILED DRAWING

REFERENCE STANDARD SPEC. SECTION 618

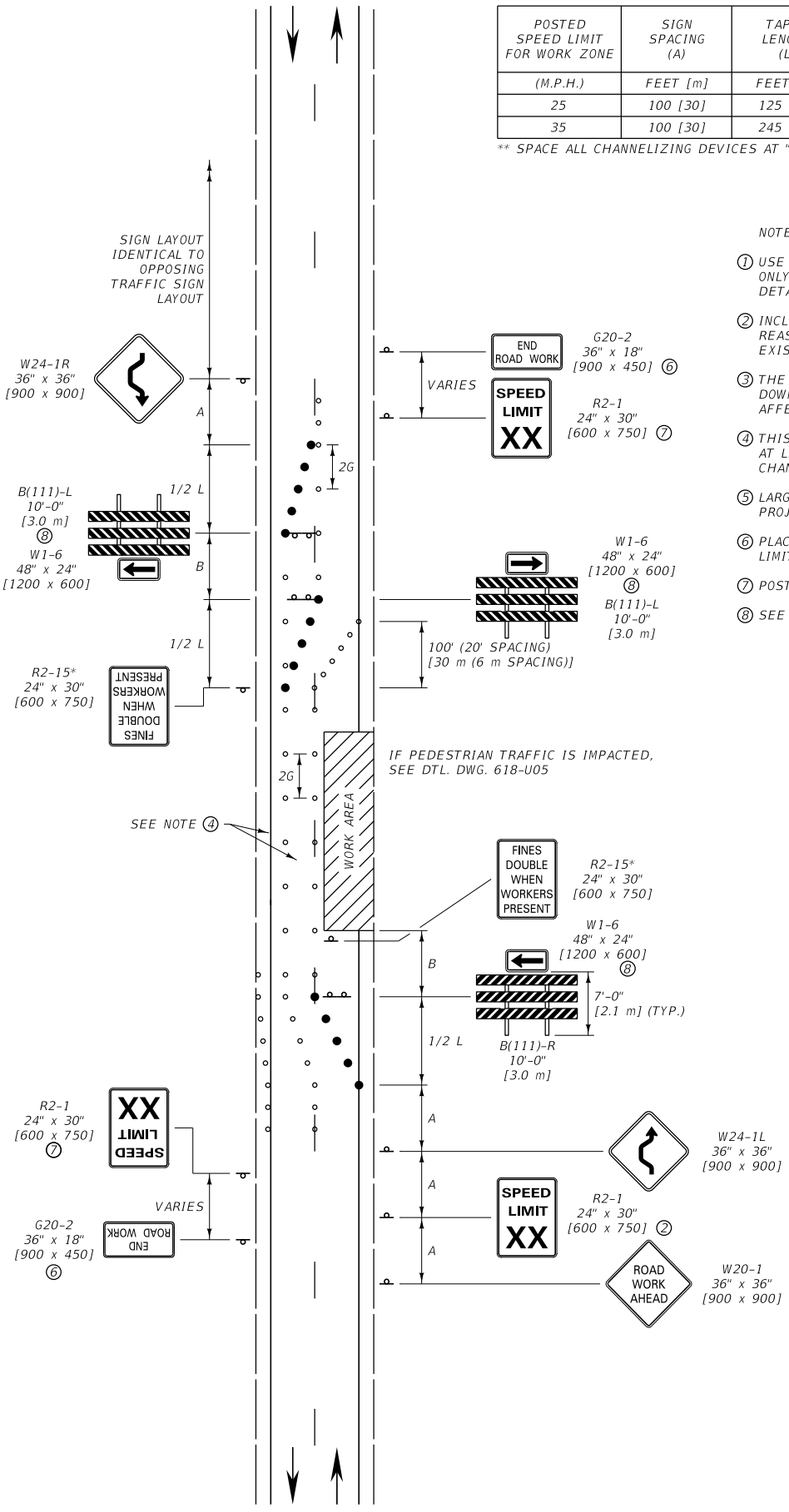
DWG. NO. 618-U01

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

MDT MONTANA DEPARTMENT OF TRANSPORTATION

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 [8]	50 [15]
35	100 [30]	245 [84]	35 [12]	100 [30]

** 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 THAT AFFECT 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 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 OTHER UNITS ARE SHOWN.

DETAILED DRAWING

REFERENCE STANDARD SPEC. SECTION 618

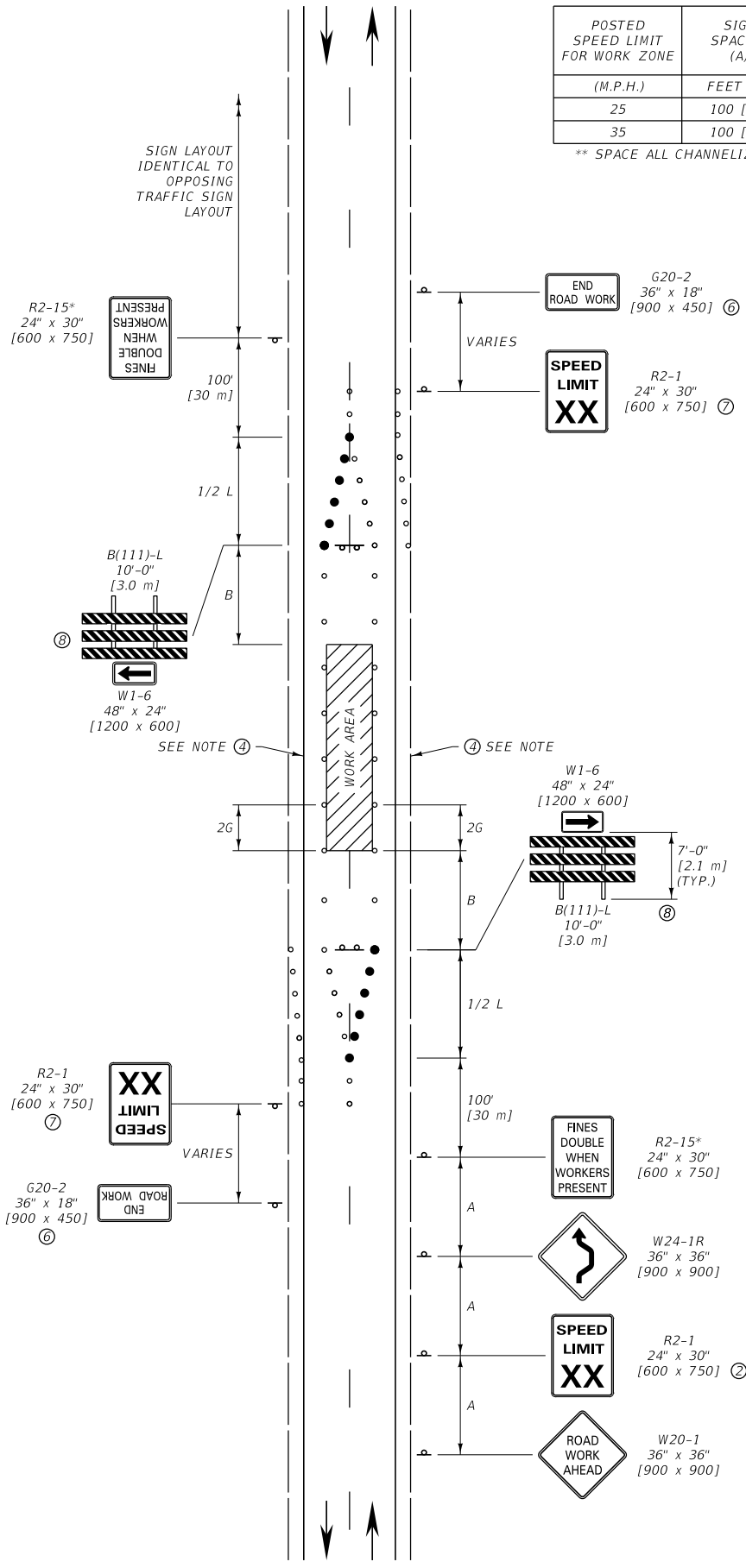
DWG. NO. 618-U02

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

MDT MONTANA DEPARTMENT OF TRANSPORTATION

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 [8]	50 [15]
35	100 [30]	245 [84]	35 [12]	100 [30]

** 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 THAT AFFECT STOPPING DISTANCE.

④ THIS LAYOUT SHOULD ONLY BE USED WHEN THERE IS AT LEAST 10' [3 m] IN WIDTH 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 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 OTHER UNITS ARE SHOWN.

DETAILED DRAWING

REFERENCE STANDARD SPEC. SECTION 618

DWG. NO. 618-U03

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

MDT 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.

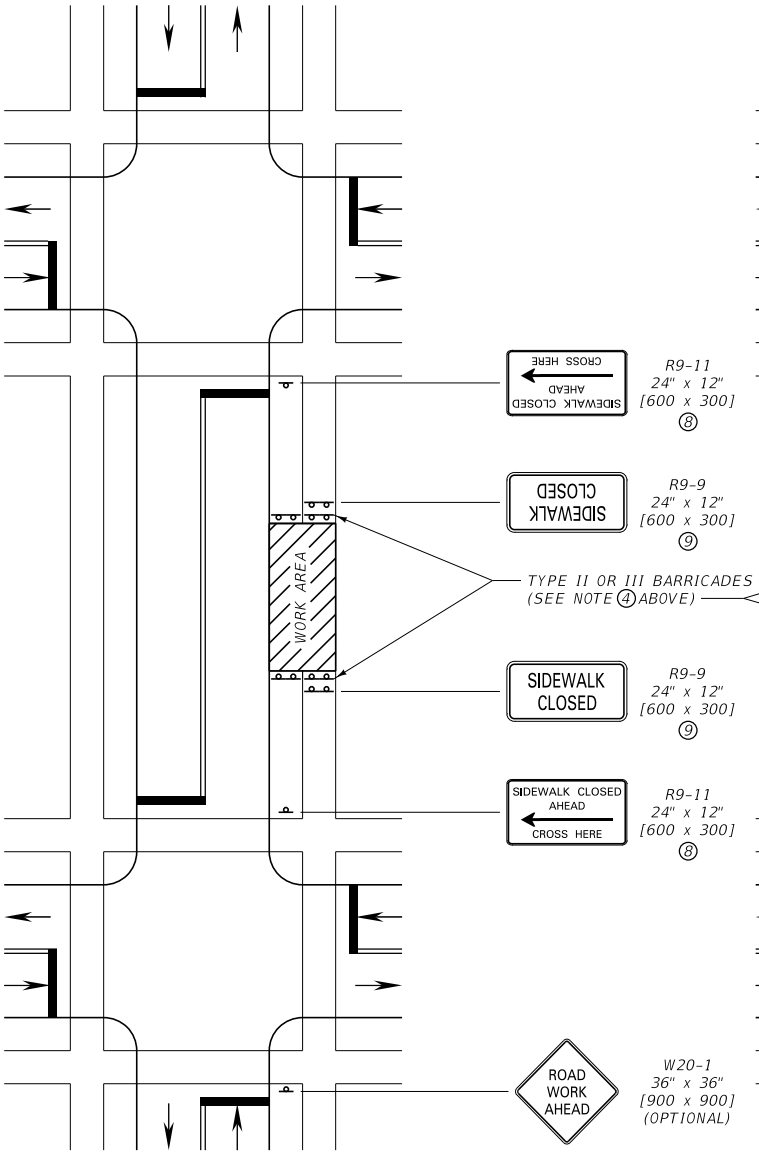
6. ENSURE THAT ENTIRE WALKWAY MEETS ADA REQUIREMENTS. PROVIDE A MINIMUM WALKWAY WIDTH OF 5 FEET [1525 mm] AND A FIRM, STABLE, SLIP RESISTANT WALKING SURFACE ALONG ENTIRE WALKWAY.

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.

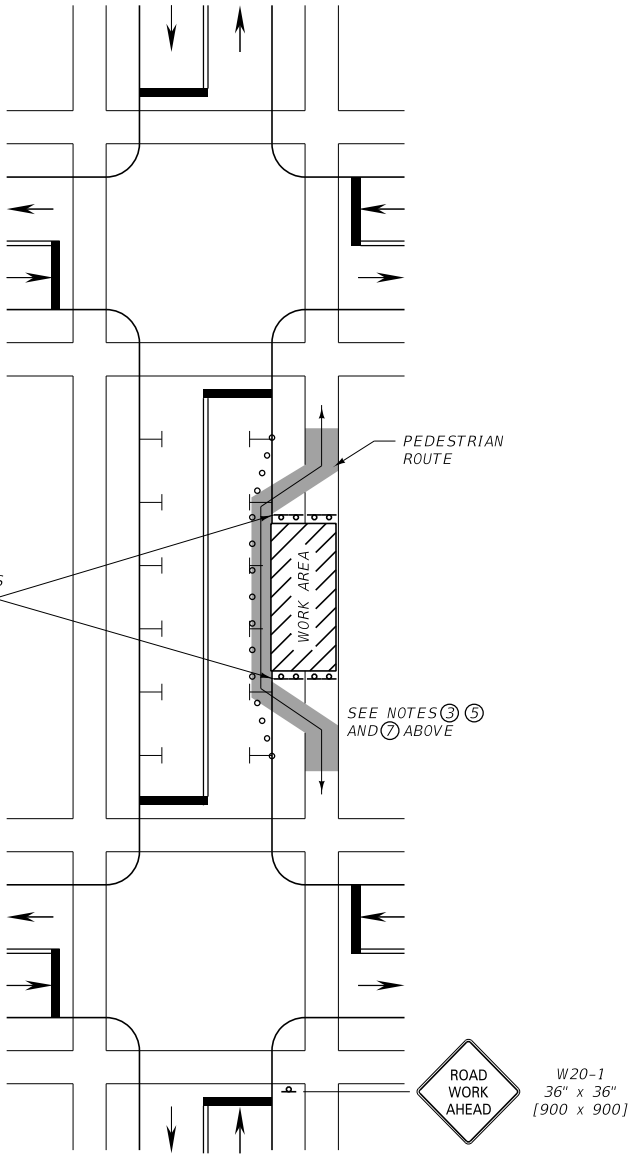
8. PLACE R9-11 ON SIGN POSTS (AS SHOWN BELOW) IF BUSINESS ACCESS IS REQUIRED. PLACE TYPE I BARRICADE ON SIDEWALK WITH R9-11 SIGN IF BUSINESS ACCESS IS NOT REQUIRED.

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 DRAWING

REFERENCE
STANDARD SPEC.
SECTION 618

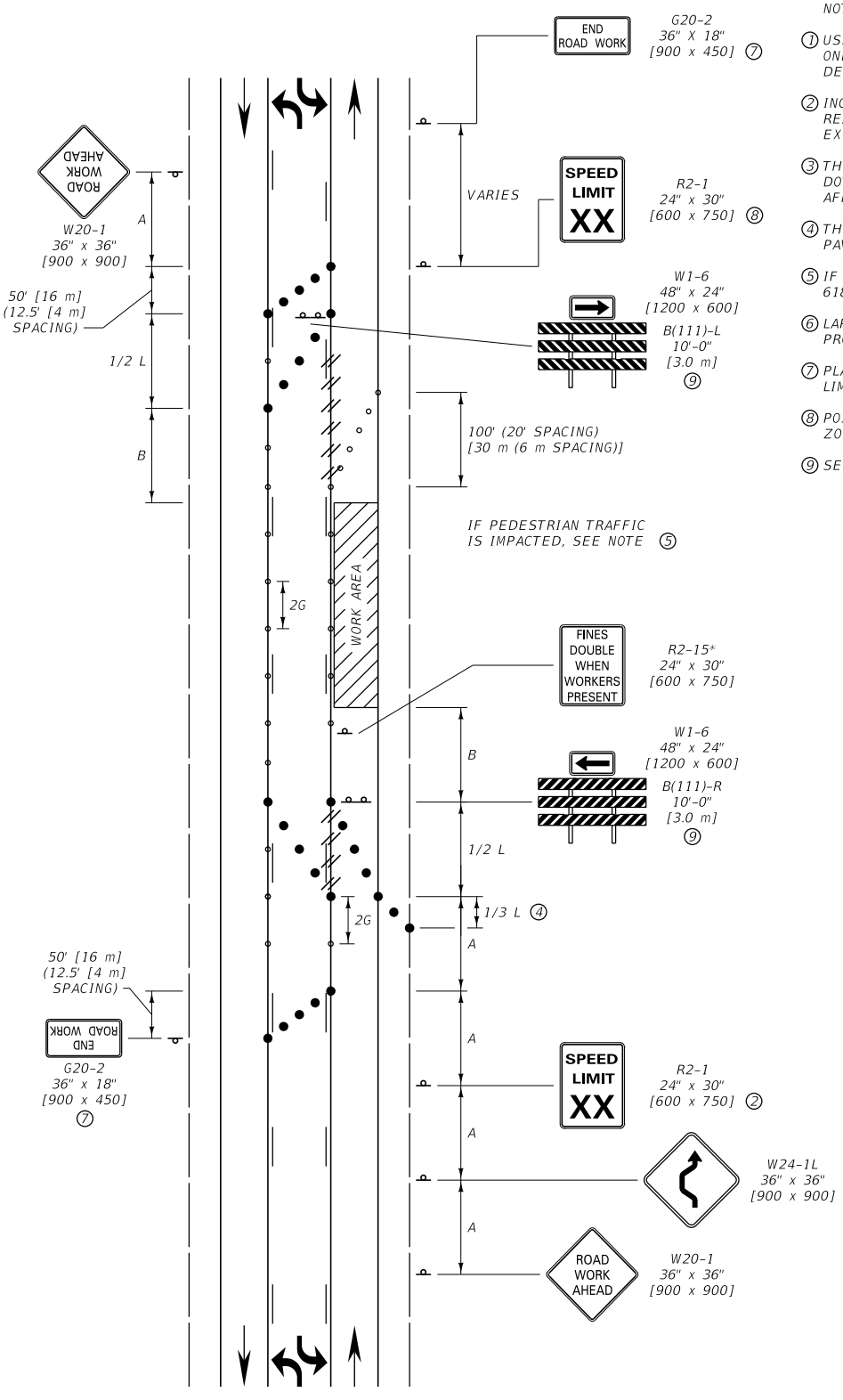
DWG. NO.
618-U05

SIDEWALK CLOSURES AND BYPASS WALKWAY

MDT MONTANA DEPARTMENT OF TRANSPORTATION

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 [8]	50 [15]
35	100 [30]	245 [84]	35 [12]	100 [30]

** 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. DWG. 618-U05.

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. 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 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 STANDARD SPEC. SECTION 618

DWG. NO. 618-U15

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

MDT MONTANA DEPARTMENT OF TRANSPORTATION

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 [8]	50 [15]
35	100 [30]	245 [84]	35 [12]	100 [30]

** 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.

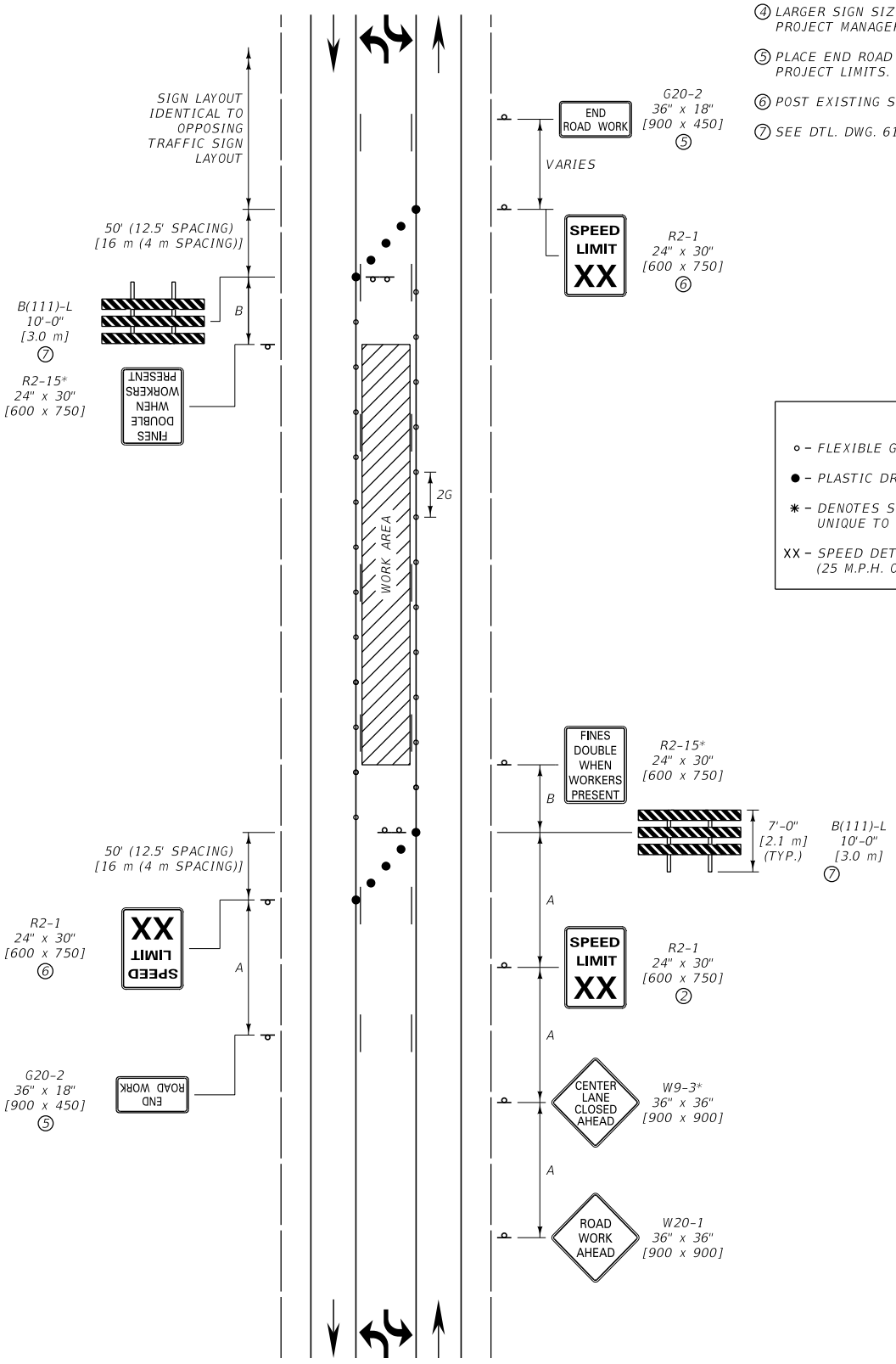
③ THE BUFFER SPACE MAY BE INCREASED FOR DOWNGRADES AND OTHER CONDITIONS THAT AFFECT STOPPING DISTANCE.

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. 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.)

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

DETAILED DRAWING

REFERENCE STANDARD SPEC. SECTION 618

DWG. NO. 618-U16

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

MDT MONTANA DEPARTMENT OF TRANSPORTATION

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 [8]	50 [15]
35	100 [30]	245 [84]	35 [12]	100 [30]

** 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.

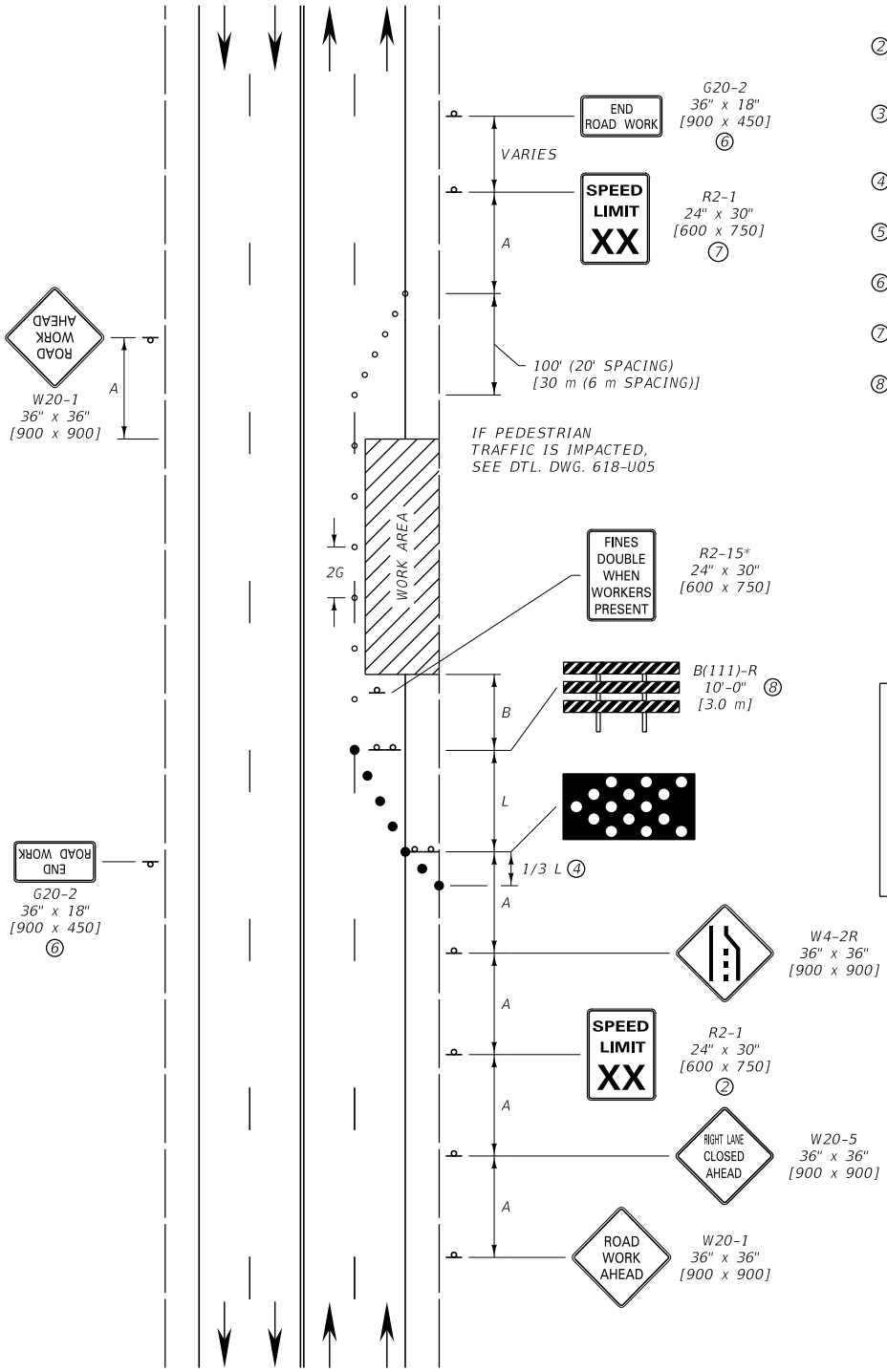
④ THE SHOULDER TAPER MAY BE OMMITTED WHEN PAVED SHOULDER IS LESS THAN 8' [2.4 m] IN WIDTH.

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.)

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

DETAILED DRAWING

REFERENCE STANDARD SPEC. SECTION 618

DWG. NO. 618-U20

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

MDT MONTANA DEPARTMENT OF TRANSPORTATION

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 [8]	50 [15]
35	100 [30]	245 [84]	35 [12]	100 [30]

** 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.

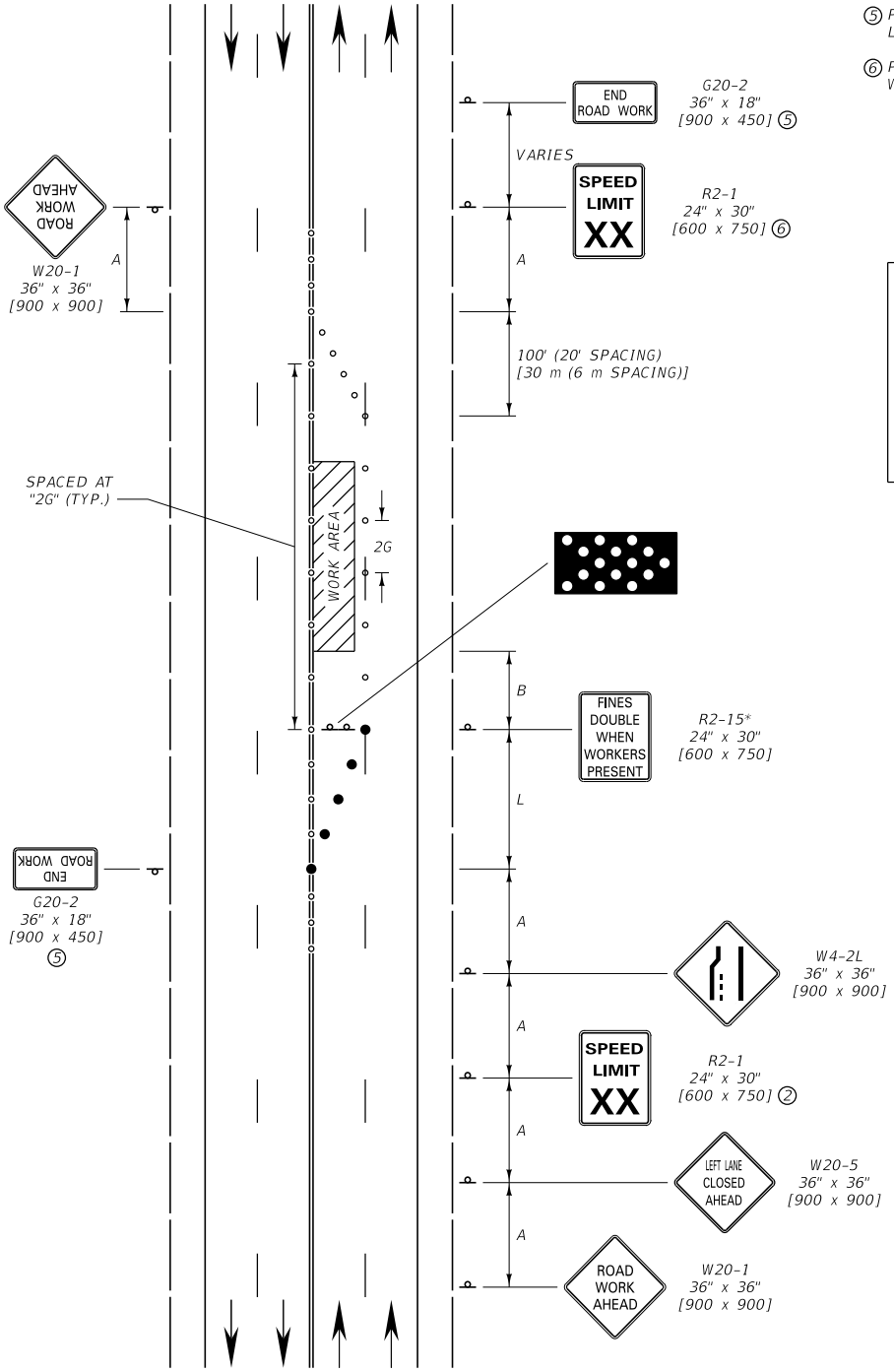
② INCLUDE SPEED LIMIT SIGNS ONLY IF THERE IS A REASON TO RESTRICT SPEED. COVER OR REMOVE CONFLICTING EXISTING SPEED LIMIT SIGNS.

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 OTHER UNITS ARE SHOWN.

DETAILED DRAWING

REFERENCE STANDARD SPEC. SECTION 618

DWG. NO. 618-U25

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

MDT MONTANA DEPARTMENT OF TRANSPORTATION

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 [8]	50 [15]
35	100 [30]	245 [84]	35 [12]	100 [30]

** 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.

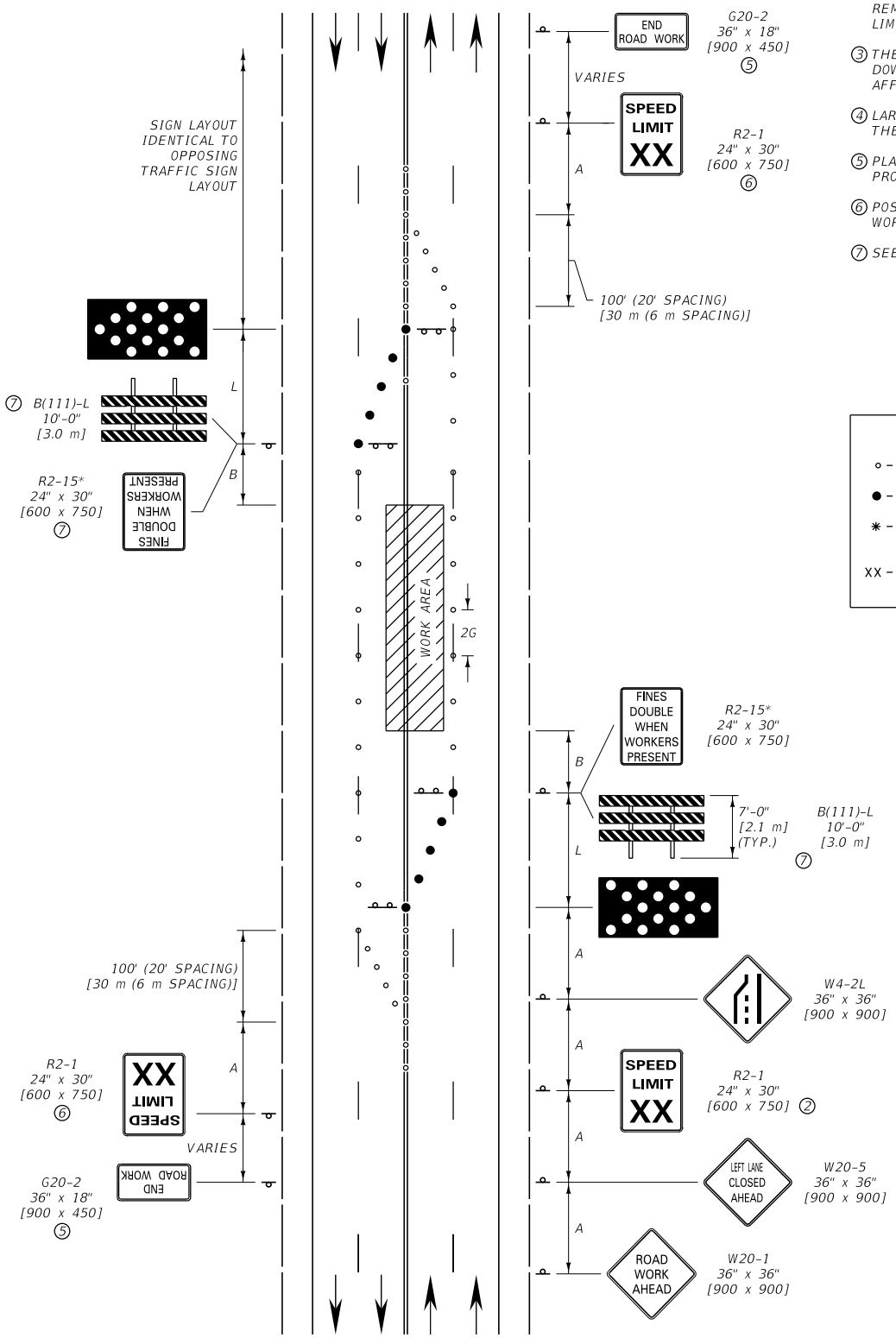
③ THE BUFFER SPACE MAY BE INCREASED FOR DOWNGRADES AND OTHER CONDITIONS THAT AFFECT STOPPING DISTANCE.

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. 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.)

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

DETAILED DRAWING

REFERENCE STANDARD SPEC. SECTION 618

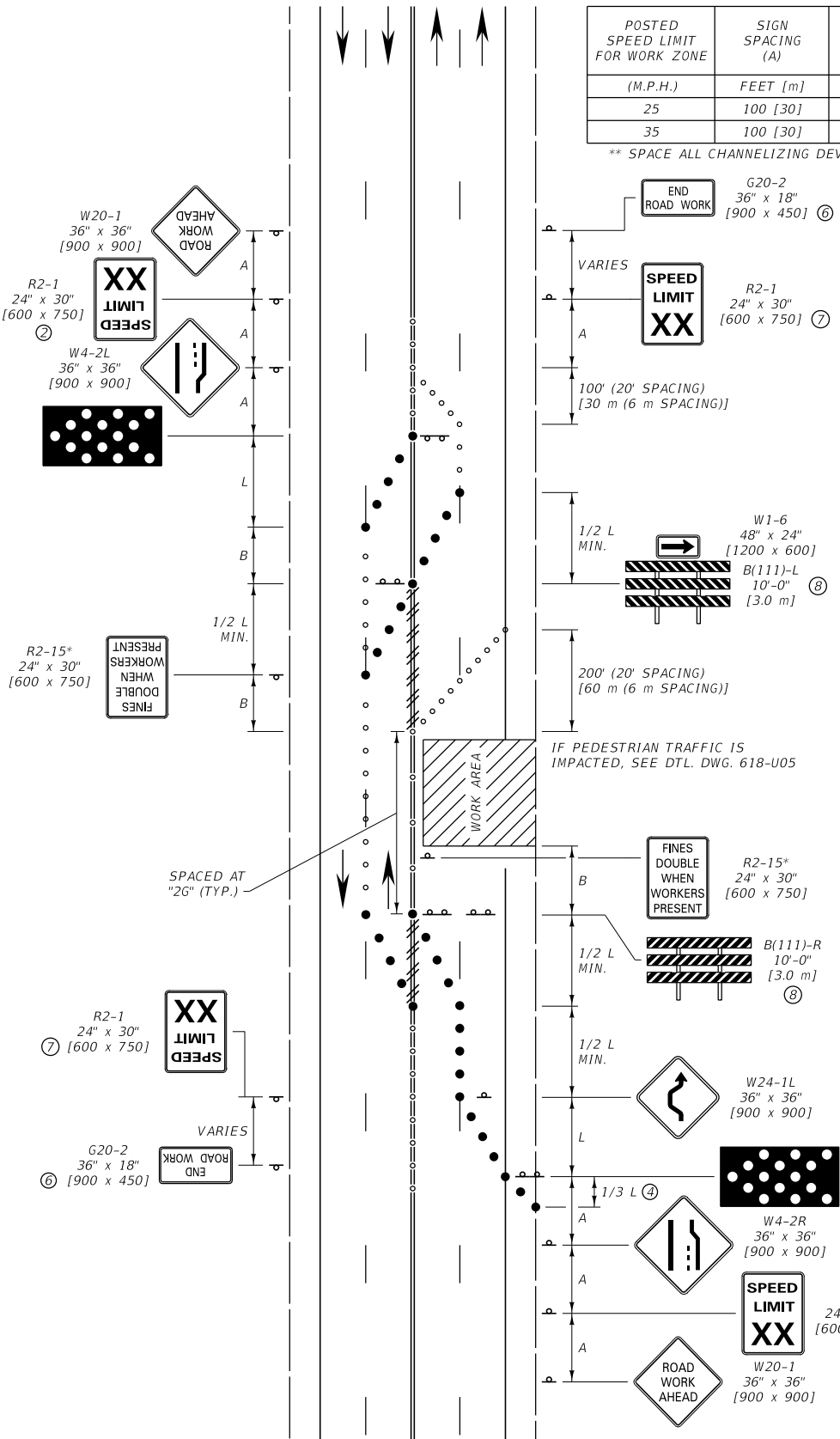
DWG. NO. 618-U30

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

MDT MONTANA DEPARTMENT OF TRANSPORTATION

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 [8]	50 [15]
35	100 [30]	245 [84]	35 [12]	100 [30]

** 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 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 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
STANDARD SPEC.
SECTION 618

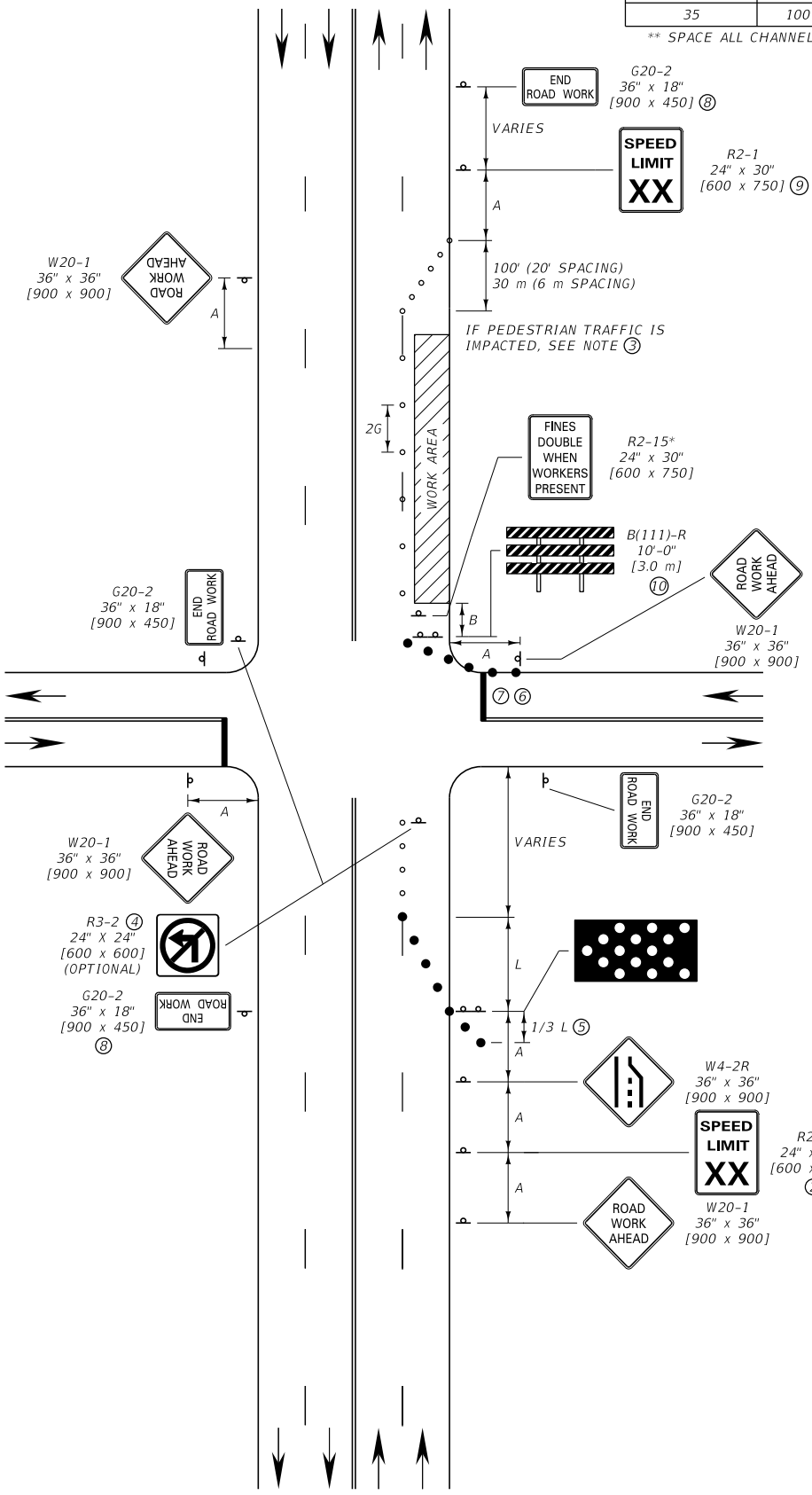
DWG. NO.
618-U35

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

MDT MONTANA DEPARTMENT OF TRANSPORTATION

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 [8]	50 [15]
35	100 [30]	245 [84]	35 [12]	100 [30]

** 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) 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 ROAD WORK SIGNS AT END OF PROJECT LIMITS.

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

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

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

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 OTHER UNITS ARE SHOWN.

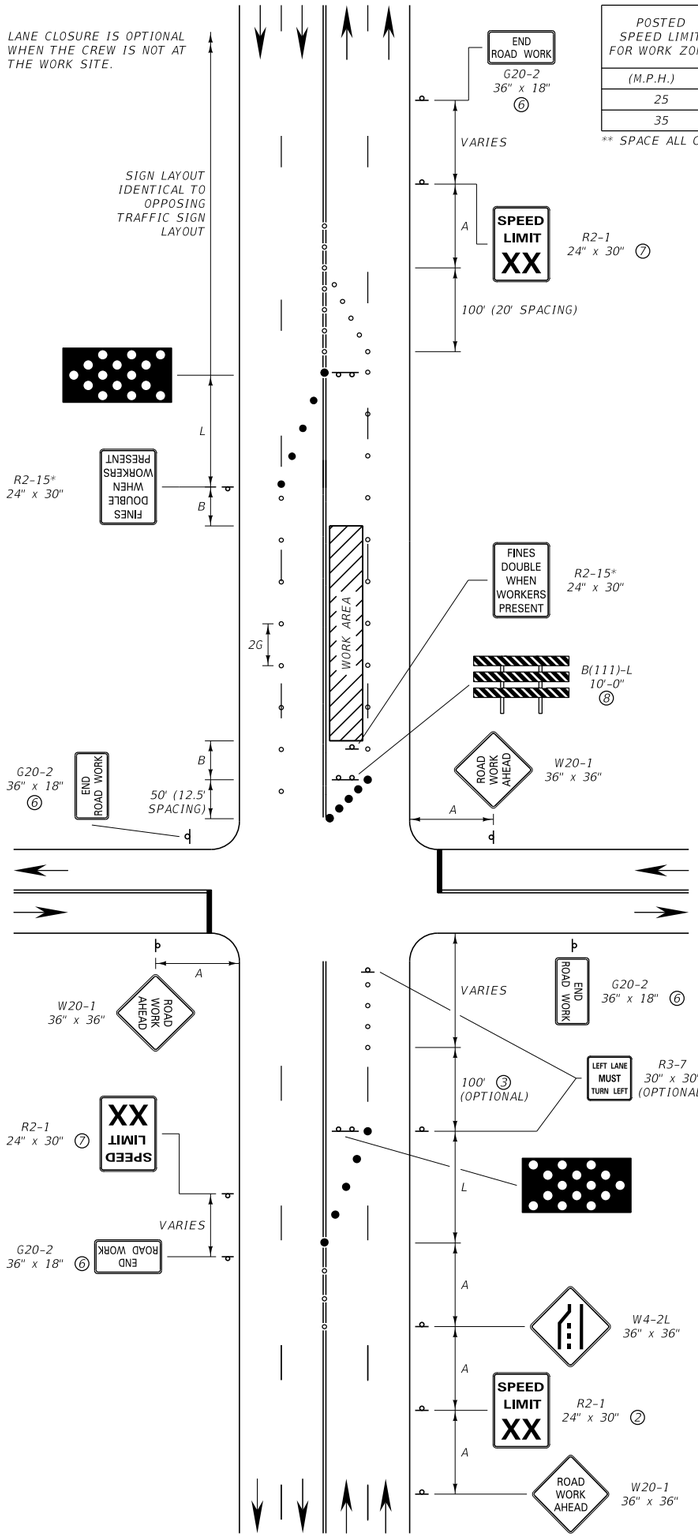
DETAILED DRAWING

REFERENCE STANDARD SPEC. SECTION 618

DWG. NO. 618-U40

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

MDT MONTANA DEPARTMENT OF TRANSPORTATION



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	50
35	100	245	35	100

** 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.

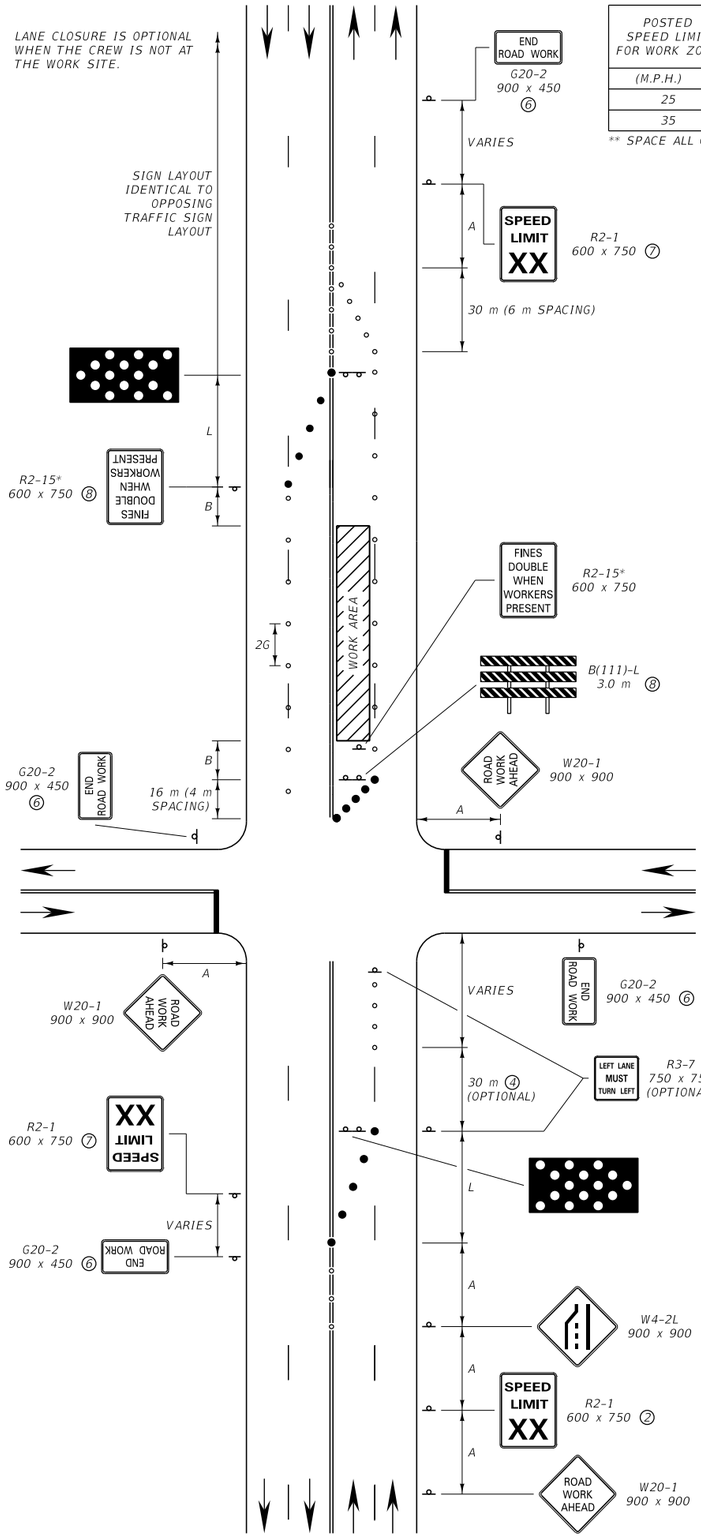
LEGEND

- ◦ – FLEXIBLE GUIDE POSTS
- ● – PLASTIC DRUMS
- * – DENOTES SIGNS THAT ARE UNIQUE TO MONTANA.

XX – SPEED DETERMINED BY THE PROJECT MANAGER. (25 M.P.H. OR 35 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	8	15
35	30	84	12	30

** 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 THAT ARE UNIQUE TO MONTANA.

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

REFERENCE STANDARD SPEC. SECTION 618

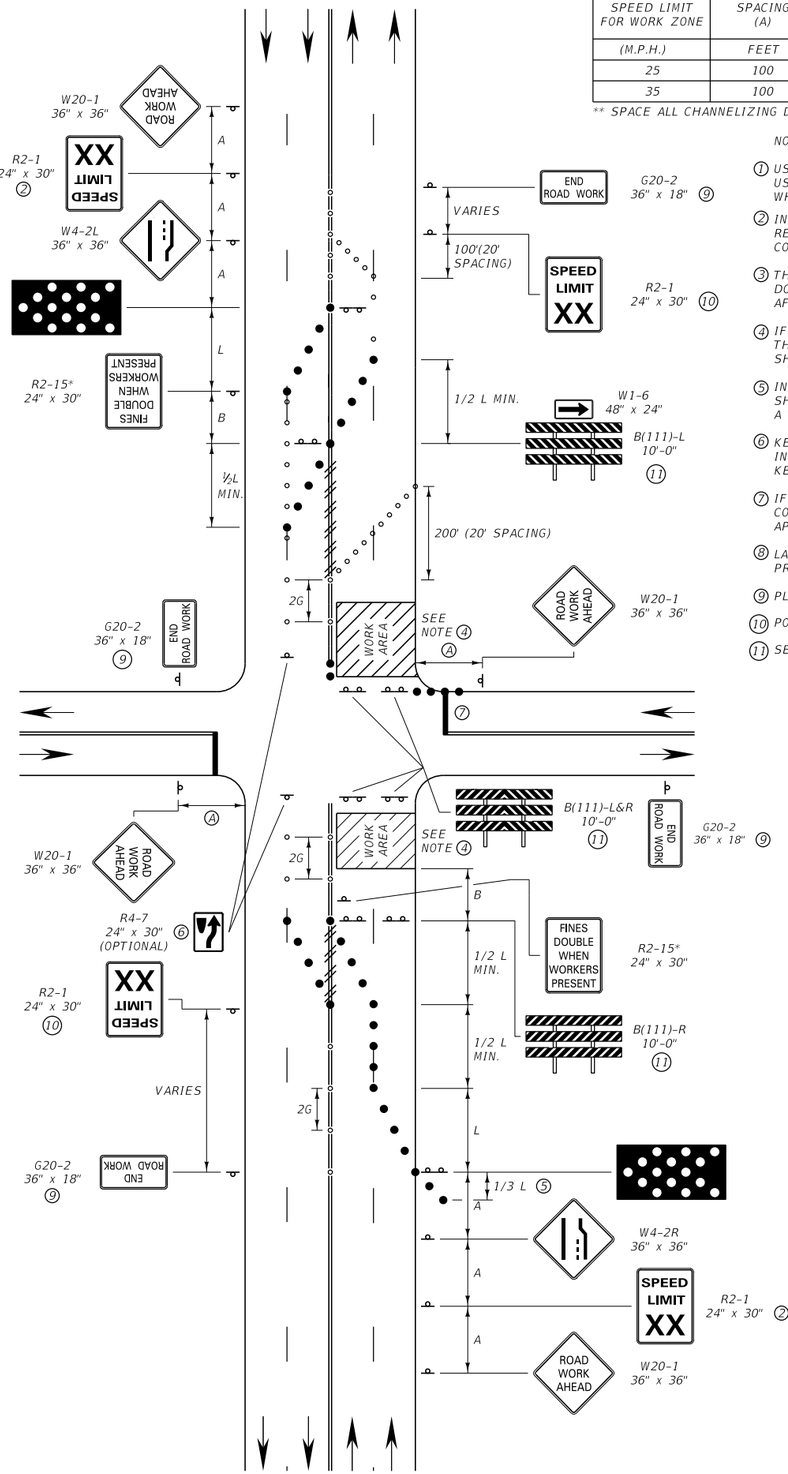
DWG. NO. 618-U45

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

MDT MONTANA DEPARTMENT OF TRANSPORTATION

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	40	25	50
35	100	84	35	100

** 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. 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 ROAD WORK SIGNS AT END OF PROJECT LIMITS.
10. POST EXISTING SPEED LIMIT IF CHANGED BY WORK ZONE.
11. SEE DTL. DWG. 618-03.

LEGEND

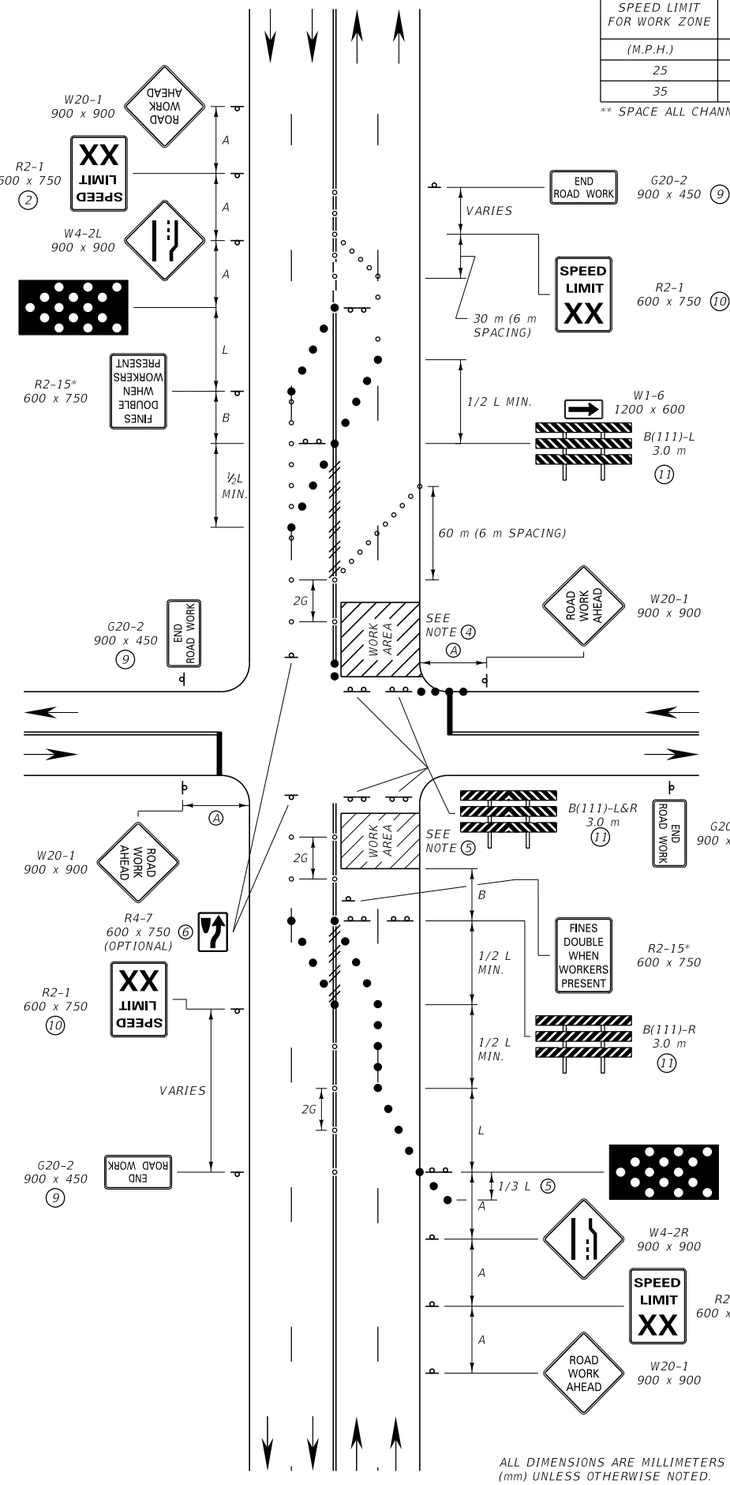
- ○ – FLEXIBLE GUIDE POSTS
- ● – PLASTIC DRUMS
- * – DENOTES SIGNS THAT ARE UNIQUE TO MONTANA.
- XX – SPEED DETERMINED BY THE PROJECT MANAGER. (25 M.P.H. OR 35 M.P.H.)
- // – OBLITERATE CONFLICTING PAVEMENT MARKINGS WHEN WORK OPERATION IS LONGER THAN 3 DAYS. (DO NOT REMOVE THERMOPLASTIC).

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 (3) (B)
(M.P.H.)	m	m	m	m
25	30	40	8	15
35	30	84	12	30

** 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. 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 ROAD WORK 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 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 OPERATION IS LONGER THAN 3 DAYS. (DO NOT REMOVE THERMOPLASTIC).

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 DRAWING

REFERENCE STANDARD SPEC. SECTION 618

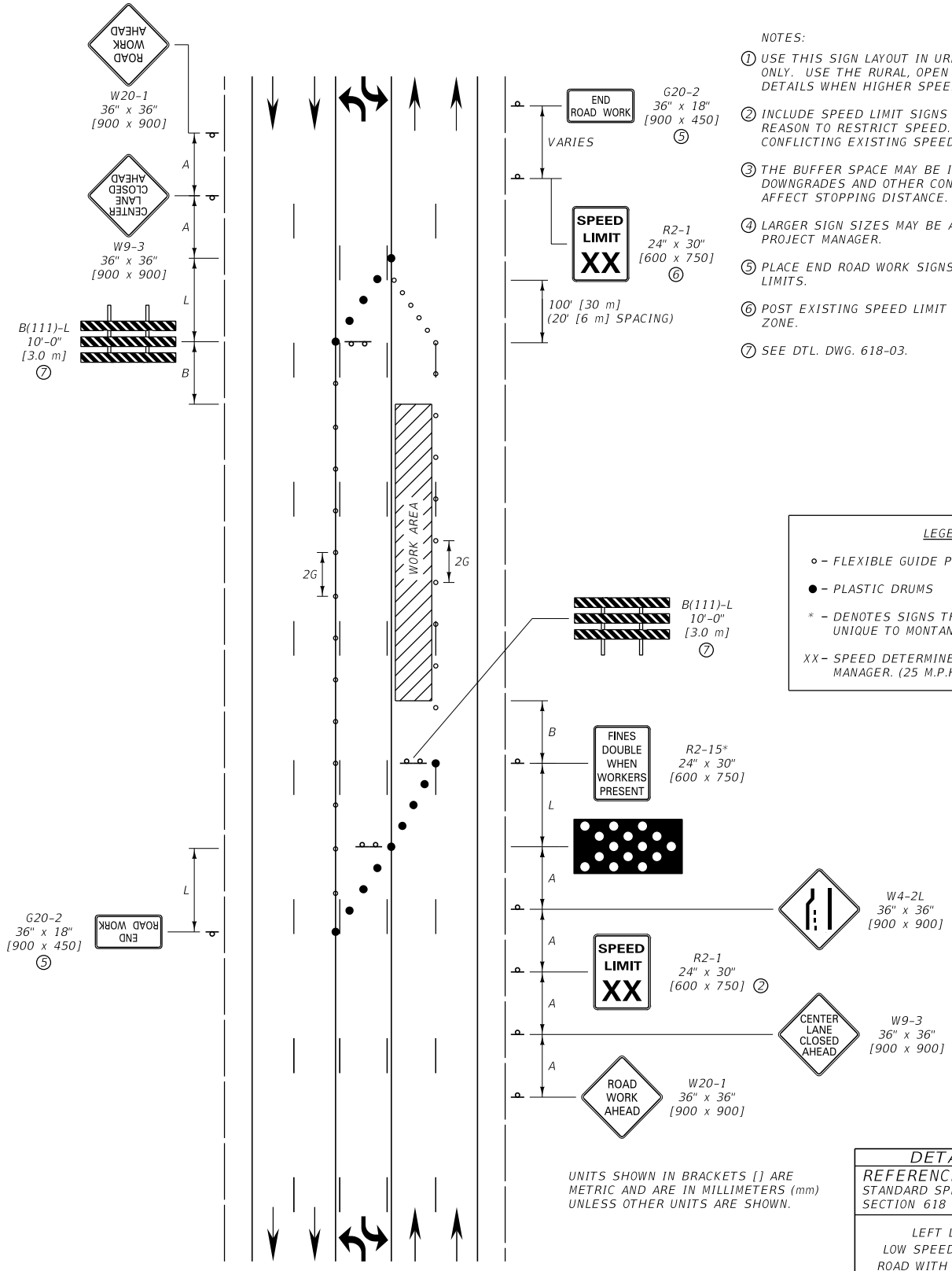
DWG. NO. 618-U50

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

MDT MONTANA DEPARTMENT OF TRANSPORTATION

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 [8]	50 [15]
35	100 [30]	245 [84]	35 [12]	100 [30]

** 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. 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.)

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

DETAILED DRAWING

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)

MDT MONTANA DEPARTMENT OF TRANSPORTATION