

**Ohio Department of Transportation
Office of Traffic Engineering
July 20, 2007**

To Holders of the OTE Plan Insert Sheets (PISs):

As of July 20, 2007 four new or revised OTE Plan Insert Sheets (PISs) have been issued.

The updated publications and the separate PIS revision package are available from the links below, the ODOT Design Reference Resource Center (<http://www.dot.state.oh.us/drrc/>), or from the Office of Traffic Engineering's Home Page (<http://www.dot.state.oh.us/traffic/>), using the Publications/Documents link. The revision package includes a detailed Revision Log.

Per ODOT policy, paper copies of the publications are no longer distributed to all holders. Revisions will only be available via the web pages noted above.

For questions, comments, or concerns please contact either:

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OTE PIS sheets	What's New Page	Traffic Home Page
July 20, 2007 Revision Package for the PISs, includes Revision Log		

OTE Plan Insert Sheet Revision Log July 20, 2007 Revision

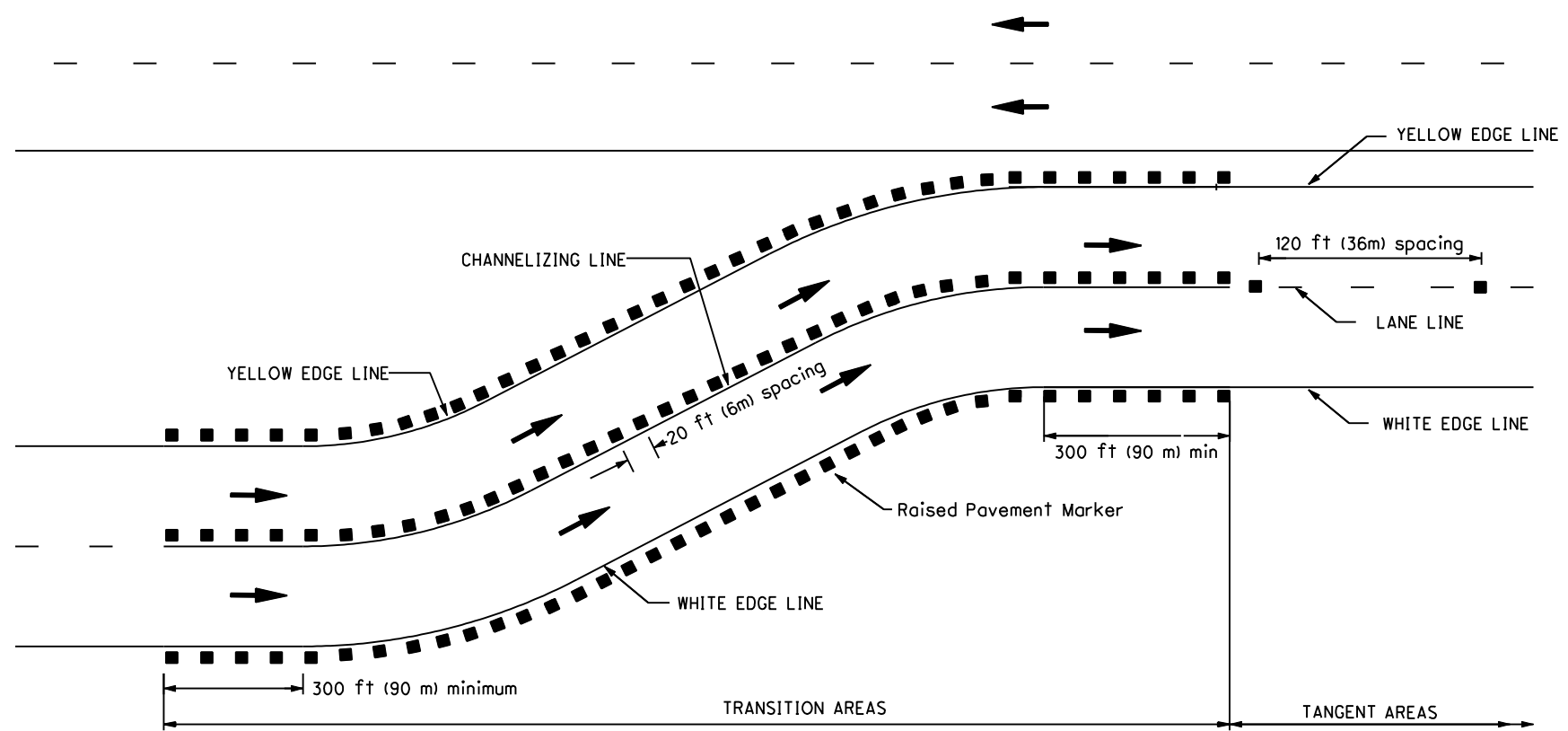
The following is a detailed list of the changes made to the OTE Plan Insert Sheets (PIS) as of July 20, 2007. For your convenience in using the electronic version of this list, links (blue, bold and underlined) have been provided in the following menu.

"What's New" Page	Traffic Home Page
PIS drawings	

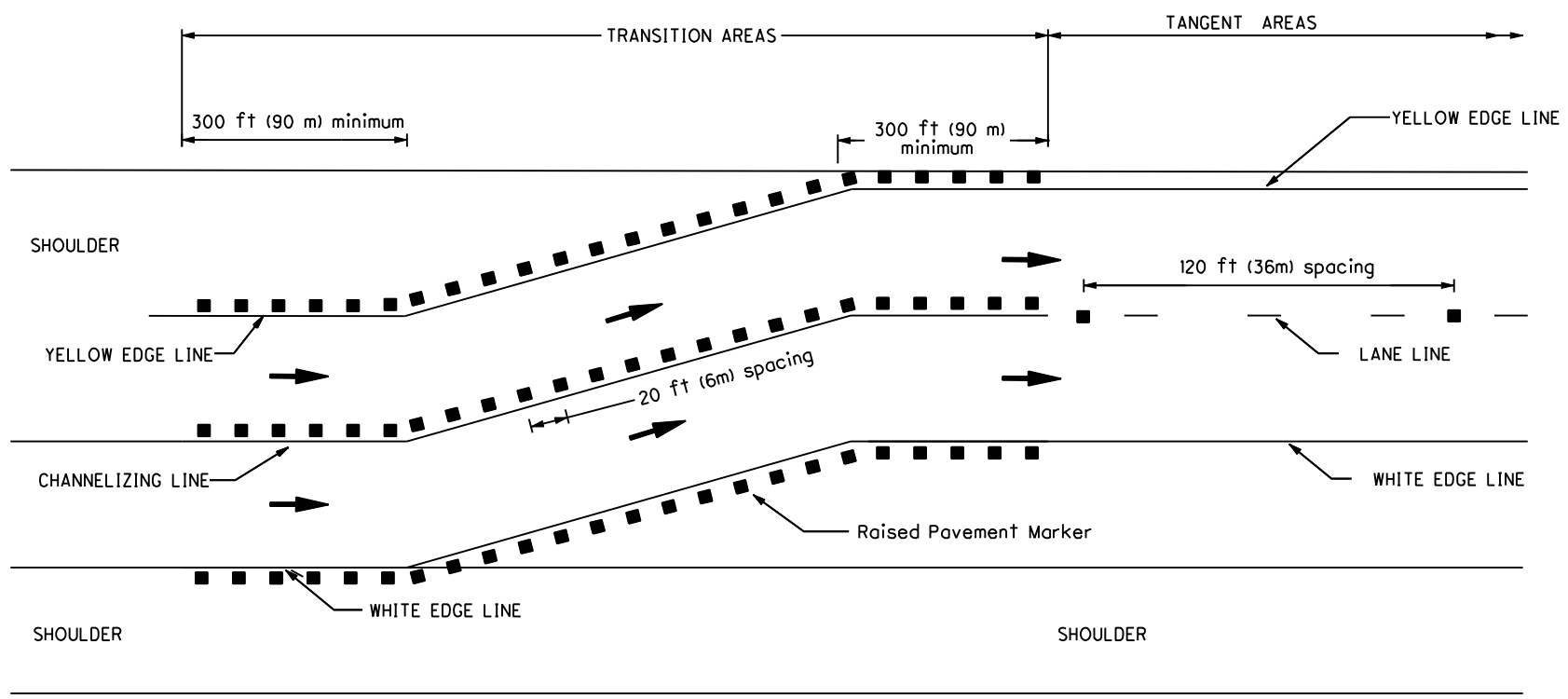
Revision Involves:		Revision Type *	Revision Description
Drawing Number	Title		
<p>*Change - adding new information or revising existing information, more than an editorial change; New - adding a new drawing; Deletion - deleting a drawing; Editorial - revising text to provide clarification, updating references, correcting a typing or drawing mistake, simple editorial changes such as rephrasing a statement or making a format change.</p>			
<p>Plan Insert Sheets [top of page] .</p>			
209930	Work Zone Delineation on Concrete Surfaces	Change	Correction made to Note 3. Changed Qualified Products List to Prequalified List
209931	Work Zone Delineation on Concrete Surfaces	Change	Correction made to Note 3. Changed Qualified Products List to Prequalified List
2010180	Longitudinal Channelizer Detail	Change	Changes were made to the notes describing the Channelizer details. Also made several editorial changes.

NOTES

1. This drawing presents delineation procedures for freeways and expressways on asphalt surfaces. Procedures are provided for transition areas and for tangent areas. The procedures for transition areas apply to crossovers and to lane shifts of 4 feet (1.2 m) or greater. Delineation of transition areas for shifts of less than 4 feet (1.2 m) shall be as per the tangent area delineation.
2. Raised Pavement Markers shall meet the following seasonal specifications:
 - a) Raised Pavement Markers in place during the normal construction season may be either 621 Raised Pavement Markers or 614 Work Zone Raised Pavement Markers (WZRPMs). The normal construction season with regard to use of WZRPMs shall be the period from April 1 through October 15.
 - b) At locations where it is intended that Raised Pavement Markers will winter over, 621 Raised Pavement Markers shall be provided.
 - c) At locations where it is intended that work will continue beyond October 15 but will be completed prior to the beginning of snow-plowing season, 614 WZRPMs may remain in place until such time. Snow-plowing season shall be as specified in the plans. If snow-plowing season is not specified in the plans, it shall be assumed that snow-plowing season runs from October 16 through March 31. If project delays, not the fault of ODOT, cause work to extend into the snow-plowing season, the contractor shall be responsible for replacing WZRPMs with 621 Raised Pavement Markers, as determined by the Engineer, at the contractor's expense.
3. All material furnished shall be listed on the Department's Prequalified Lists.
4. The geometrics of the crossover shall be as shown in the plans. Additional details are provided in Standard Construction Drawing MT-95.70.
5. See Standard Construction Drawings MT-102.10 and MT-102.20 for more details concerning lane shifts.
6. Spacing of raised pavement markers (RPMs) shall be at 20 feet (6 m) center-to-center for all long-line marking within transition areas. Within tangent areas RPMs shall be provided only along the lane lines, spaced at 120 foot (36 m) center-to-center.
7. The RPMs shall be 1-way, facing oncoming traffic, and shall be white or yellow to match the color of the associated line marking.
8. Along the edge lines, the RPMs shall be offset a maximum of 4 inches (100 mm) to the outside of the lines. Along the channelizing lines, the RPMs shall be offset to the left of the lines by no more than 1 inch (25 mm). Along the lane lines the RPMs shall be centered between dashes.
9. The RPMs shall be removed when they are no longer appropriate.
10. Holes resulting from removal of 621 RPMs shall be filled as per 202.10. If removal of the 621 RPMs does not take place immediately after the highlighted alignment becomes invalid, the reflectors within the 621 RPMs shall be removed.
11. Following removal of 621 RPMs resurfacing of the transition shall be performed. The resurfacing shall be performed at the time the surface course is being applied. In preparation for resurfacing, the existing pavement shall be removed to a depth necessary to match the level of the intermediate course of the proposed pavement.



WORK ZONE DELINEATION FOR CROSSOVERS



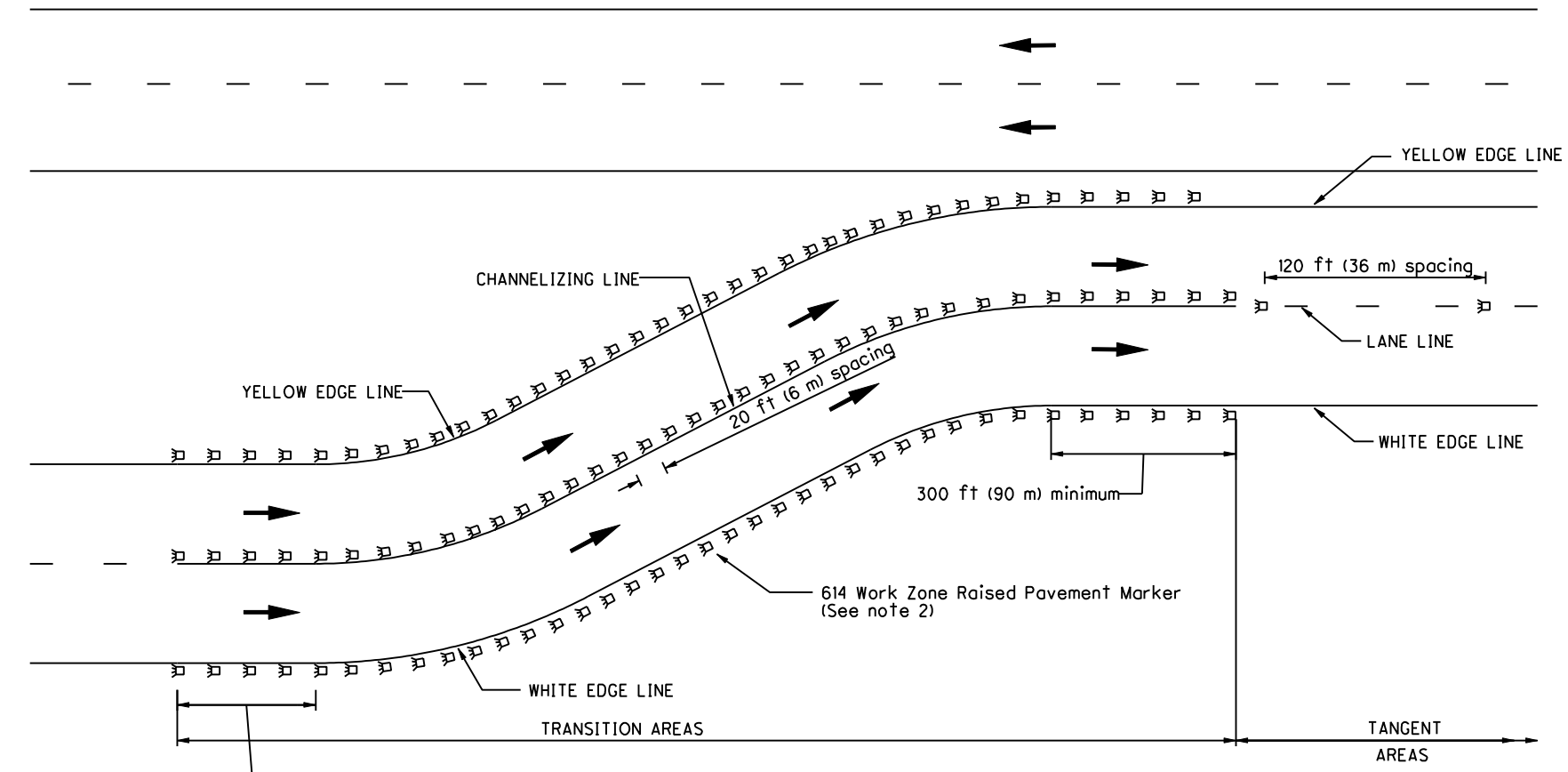
WORK ZONE DELINEATION FOR LANE SHIFTS

LEGEND

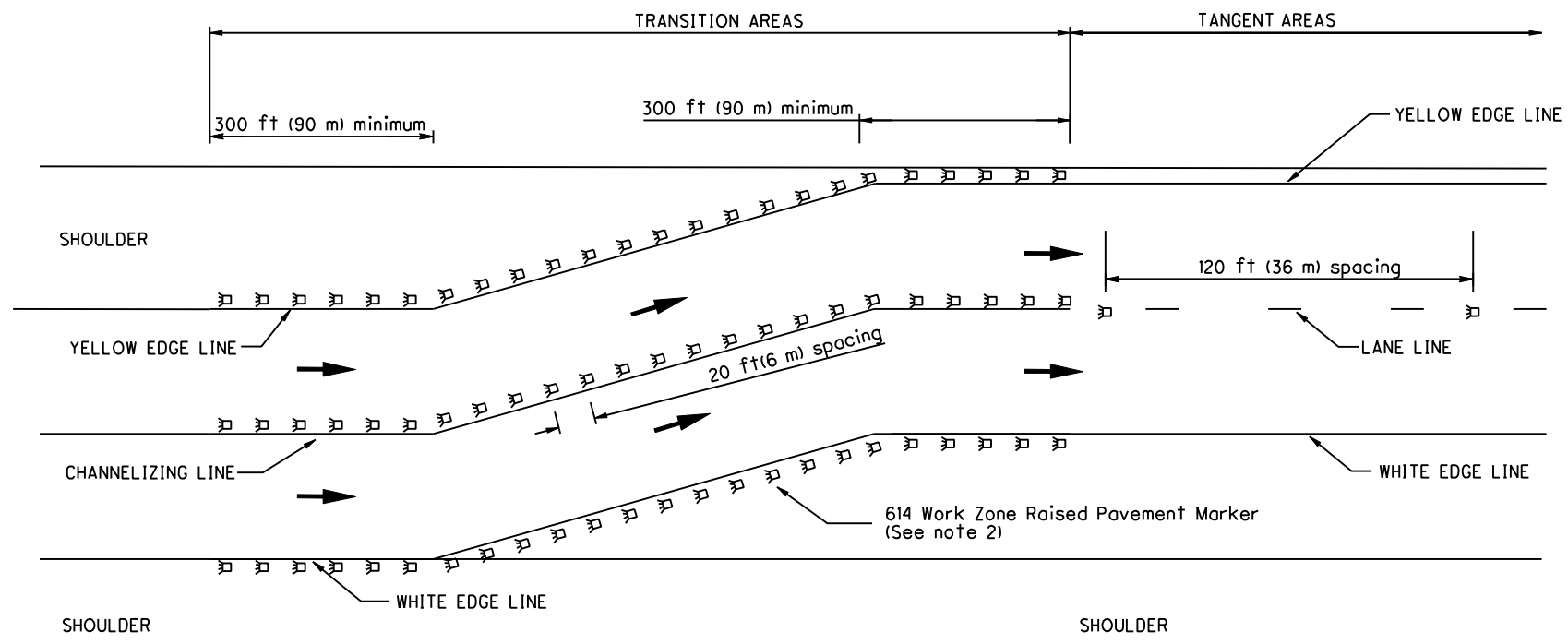
- RPM
- ➔ DIRECTION OF TRAVEL

NOTES

1. This drawing presents delineation procedures for freeways and expressways on concrete surfaces. Procedures are provided for transition areas and for tangent areas. The procedures for transition areas apply to crossovers and to lane shifts of 4 feet (1.2 m) or greater. Delineation of transition areas for shifts of less than 4 feet (1.2 m) shall be as per the tangent area delineation.
2. The Work Zone Raised Pavement Markers (WZRPMS) shown on this drawing are intended for use only during the non-snow-plowing season. WZRPMS shall not be provided during the snow-plowing season. The snow-plowing season shall be from October 16 through March 31 or as otherwise specified in the plans. Where a temporary alignment will remain in use through the winter, the WZRPMS shall be removed prior the beginning of snow-plowing season and replaced approximately April 1, or as otherwise determined by the Engineer
3. All material furnished shall be listed on the Department's Prequalified Lists.
4. The geometrics of the crossover shall be as shown in the plans. Additional details are provided in Standard Construction Drawing MT-95.70.
5. See Standard Construction Drawings MT-102.10 and MT-102.20 for more details concerning lane shifts.
6. Spacing of WZRPMS shall be at 20 feet (6 m) center-to-center for all long-line marking within transition areas. Within tangent areas WZRPMS shall be provided only along the lane lines, spaced at 120 feet (36 m) center-to-center.
7. The WZRPMS shall be 1-way, facing oncoming traffic, and shall be white or yellow to match the color of the associated line marking.
8. Along the edge lines, the WZRPMS shall be offset a maximum of 4 inches (100 mm) to the outside of the lines. Along the channelizing lines, the WZRPMS shall be offset to the left of the lines by no more than 1 inch (25 mm). Along the lane lines the WZRPMS shall be centered between dashes.
9. The WZRPMS shall be removed when they are no longer appropriate.



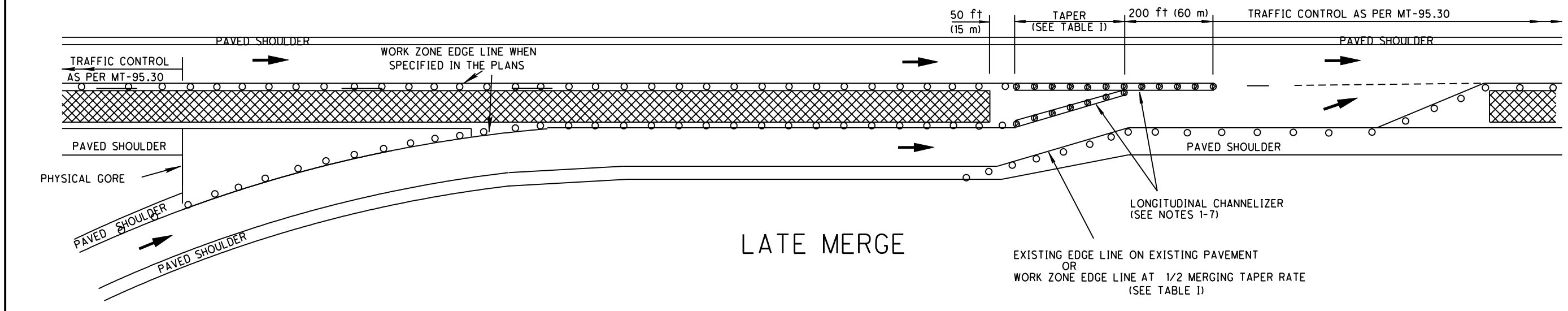
WORK ZONE DELINEATION FOR CROSSOVERS



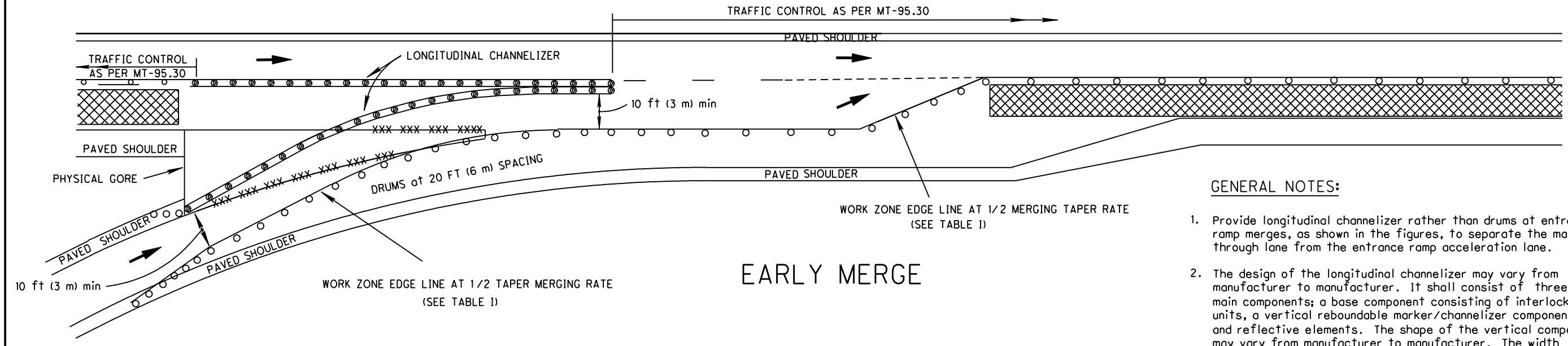
WORK ZONE DELINEATION FOR LANE SHIFTS

LEGEND

- ⊞ WORK ZONE RPM, TYPE A
- ➔ DIRECTION OF TRAVEL



LATE MERGE



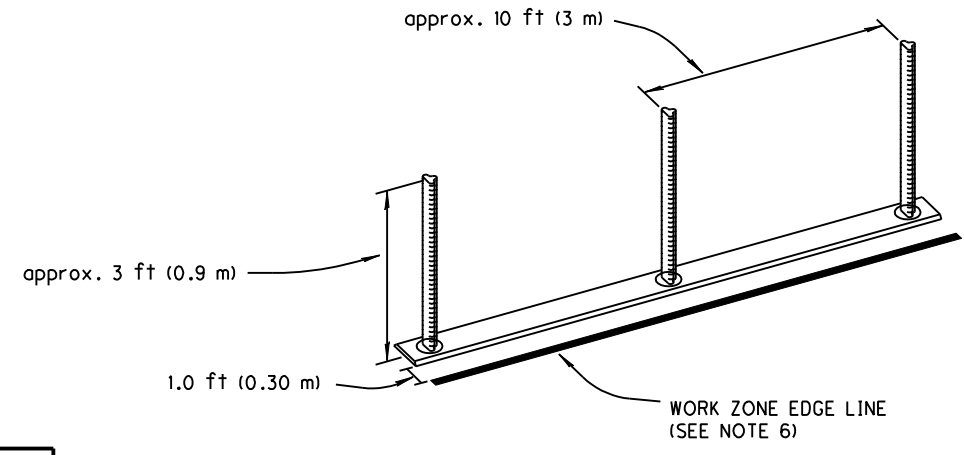
EARLY MERGE

GENERAL NOTES:

1. Provide longitudinal channelizer rather than drums at entrance ramp merges, as shown in the figures, to separate the mainline through lane from the entrance ramp acceleration lane.
2. The design of the longitudinal channelizer may vary from manufacturer to manufacturer. It shall consist of three main components; a base component consisting of interlocking units, a vertical reboundable marker/channelizer component and reflective elements. The shape of the vertical component may vary from manufacturer to manufacturer. The width shall be approximately 8 to 9 inches (200 to 225 mm) for elliptical designs and 4 to 6 inches (100 to 150 mm) for round designs. The height of the vertical component should be approximately 38 inches (1.0 m) to 44 inches (1.1 m) but shall not be less than 28 inches (700 mm).
3. The longitudinal channelizer shall be NCHRP 350 compliant.
4. The vertical component shall be equipped with retro-reflective sheeting or with retro-reflective stripes. Where stripes are used, the stripes shall consist of two 3-inch (75 mm) wide bands placed a maximum of 2-inches (50 mm) from the top with a maximum of 6 inches (150 mm) between the bands.
5. The base component shall be equipped with reflectors.
6. Where edge line is provided adjacent to the longitudinal channelizer, the edge line should be located 1 foot (0.30 m) from the longitudinal channelizer. The edge line should be provided if the resulting lane width would be 11 feet (3.3 m) or greater.
7. The color of the base component, including the attached reflectors, and retro-reflective sheeting for the vertical components or bands shall be in conformance with the pavement marking colors established in the OMUTCD.
8. For other information regarding traffic control at entrance ramps, see Standard Construction Drawings MT-98.15 and MT-98.16.

TABLE I

SPEED LIMIT (MPH)	MERGING TAPER RATE MINIMUM	1/2 MERGING TAPER RATE MINIMUM	SHOULDER TAPER RATE MINIMUM
25	11:1	6:1	4:1
30	15:1	8:1	5:1
35	21:1	11:1	7:1
40	27:1	14:1	9:1
45	45:1	23:1	15:1
50	50:1	25:1	17:1
55	55:1	28:1	18:1
60	60:1	30:1	20:1
65	65:1	33:1	22:1



LEGEND

- WORK AREA
- DRUMS
- LONGITUDINAL CHANNELIZER
- REMOVE EXISTING MARKINGS
- DIRECTION OF TRAVEL