
Index 102-620

Multilane, Divided, Temporary Diversion Connection

ORIGINATION

Date: May 26, 2020

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COMMENTARY

Sheet 1: Updated Notes; Deleted Scheme Applications and Conditions; Added "Temporary Diversion for Divided Roadways with Work Zone Speeds >50 MPH" Detail (Moved from Sheet 2); Renamed Index.

Sheet 2: Revised and Renamed 'Scheme 1' to 'Temporary Diversion for Divided Roadways with Work Zone Speeds >50 MPH' and Moved to Sheet 1; Revised and Renamed 'Scheme 2' to 'Temporary Diversion for Divided Roadways with Work Zone Speeds <45 MPH'; Deleted 'Scheme 3' and 'Buffer Length' Table; Renamed Index.

Sheet 3: Added Index 102-621 as New Sheet 3; Revised Detail; Consolidated Notes and Moved to Sheet 1; Deleted 'Table II Taper Length - Merge' and Conditions; Renamed Index.

COMMENTS AND RESPONSES

BLACK = Internal Review Comments **RED** = Standard Plans Response

Name: Edgar Munoz

Date: August 17, 2020

COMMENTS:

1. 102-620 (1,2/3): Why is the length of the two adjacent lanes at the taper heading to the left not have the same length? Both should be parallel and cover the "L" distance.

RESPONSE: *Agreed. The proportionality of the shifts needs to be revised. However, the carryover of the full "L" taper length was in error. This is a shifting taper and should be "1/2 L".*

Change Made: *The details will be updated to correct the proportionality and revised to use a taper length of "1/2 L".*

2. 102-620 (1,2/3): Why only half of the taper length distance is used for the realignment of the traffic at the left end of the diversion? The vehicles will be driving at the same speed and is not like we are opening a new lane.

RESPONSE: *In accordance with the MUTCD, Merging Tapers use the full "L" value, shifting tapers use "1/2 L", and Shoulder Tapers "1/3 L".*

No Change

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3. 102-620 (1,2/3): Why are there no channelizing devices or barriers between the traffic and the work area at the tangent section? The work zone area is not protected. The WZ area could be within the clear zone and this index allows not using barriers or devices. Also, not Channelizing Devices are used along the inside edge of the curvature section.

RESPONSE: *The details shown throughout the 102 Series TTC Standard Applications (i.e., Indexes 102-601 thru 102-680) are rudimentary typically applications and do not represent all possible scenarios. Project specific TTC Plans would almost always be needed for projects with diversions. Additionally, the requirements of Specification 102 and Index 102-600 apply to all Indexes in the series. Therefore, if the work area is within the clear zone, channelizing devices or temporary barrier would be required.*

Channelizing devices on the inside curves are not warranted.

No Change

4. 102-620: In the old standard the approach advisory started 1 mile away from the work area. In here the advance advisory signs start less than 1/2 mile away. At speeds of 50 MPH or higher this comes fast. We need signing to alert the drivers with significant anticipation since they can miss one or two signs.

RESPONSE: *The previous standards covering multilane diversions provided typical applications with merging tapers, lane reductions and speed reductions. The new Index provides the same number of lanes thru the work zones, which would ideally not reduce speeds. Therefore, the number of signs and distance from work zone would be affected.*

No Change

5. 102-620 (3/3): The length of the second transition is shown as "1/2L Min.". This is a taper dependent on the speed of the road and the full L based on the adequate equation should be provided.

RESPONSE: *In accordance with the MUTCD, Merging Tapers use the full "L" value, shifting tapers use "1/2 L", and Shoulder Tapers "1/3 L".*

No Change

6. 102-620 (3/3): No taper length is provided for the traffic heading to the right at the right end.

RESPONSE: *Agreed. The "Temporary Diversion For Undivided Roadways" will be updated to better detail the minimum requirement for downstream shift back to the roadway typical.*

Change Made: *For consistency with the MUTCD and other Indexes, the downstream taper was revised to "1/2 L" length. Also, the draft details show the merging taper (L) overlapping the shoulder taper (1/3 L), this was corrected as well.*

Date: 8/20/2020

Name: Saud Khan

Date: August 19, 2020

COMMENT: DRAFT Std Plans 102-620. Sheet 3/3 – Consider including the Duration Note of 102-622 Sheet 1/1- This sheet appears to replace old 102-622 for multilane diversion 35 mph or less. However, the Duration Note in 622. Sht. 1/1 was omitted. This typical is very often used by Utilities for diversion of one lane not exceeding one work period and not requiring temporary pavement markings. They are most often used for one night operations in low speed urban environment.

RESPONSE: *The details on Sheet 3 were not specifically meant to replace Index 102-622, multilane diversions with intersecting roadways become very complex and should have Project Specific TTC Plans. However, the comment is noted, and it is agreed that for work operations less than 24 hours pavement markings can be omitted.*

Change Made: *For consistency with other Indexes, note added to allow omitting temporary pavement markings for operations less than 3 days.*

Date: 8/20/2020

Name: K. C. Jones

Date: August 21, 2020

COMMENTS:

1. Sheets 1 & 2: Need the offset distance from 6" yellow stripe to work area to be notated; Should this be clear zone distance?

RESPONSE: *The details shown throughout the 102 Series TTC Standard Applications (i.e., Indexes 102-601 thru 102-680) are rudimentary typically applications and do not represent all possible scenarios. Project specific TTC Plans would almost always be needed for projects with diversions. Additionally, the requirements of Specification 102 and Index 102-600 apply to all Indexes in the series. Therefore, if the work area is within the clear zone, channelizing devices or temporary barrier would be required.*

No Change

2. Sheet 3: Need Advance warning Arrow board on both directions.

RESPONSE: *Agreed.*

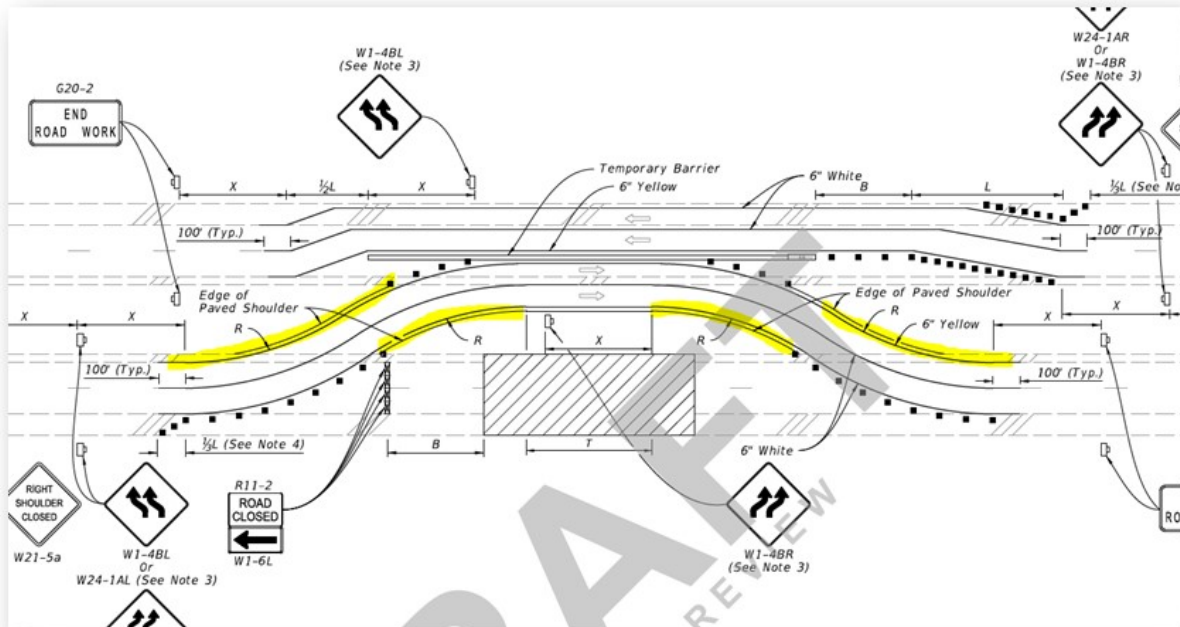
Change Made: *Arrow Board added for both directions of travel.*

Date: 8/22/2020

Name: Alfredo Rodriguez

Date: 8/21/2020

COMMENT: If barrier wall is placed in the area highlighted below sight distance must be accounted for around the inside of the curve. We have several projects where we have implemented diversions and due to the limited space available barrier wall had to be placed on both sides of the diversion and stopping sight distance must be taken into consideration. Adding a note to alert the contractors and EOR would be beneficial.



RESPONSE: This recommendation is acknowledged; however, sight distance should be a consideration for all TTC devices; as such, considerations are addressed in the FDM and on Index 102-600.

No Change

Date: 8/22/2020

Name: D5

Date: August 21, 2020

COMMENTS:

1. Sheet 2: Personal Opinion? Figures are the same except for lane separator type. Could these be combined and descriptive notes on which one is to be used in which condition? Or is it preferred to show the difference between low- and high-speed separation configurations?

RESPONSE: Agreed. Consideration will be giving to consolidating the details.

Change Made: Details consolidated onto Sheet 1

2. Sheet 3: Need callout for temporary lane separator

RESPONSE: *Agreed.*

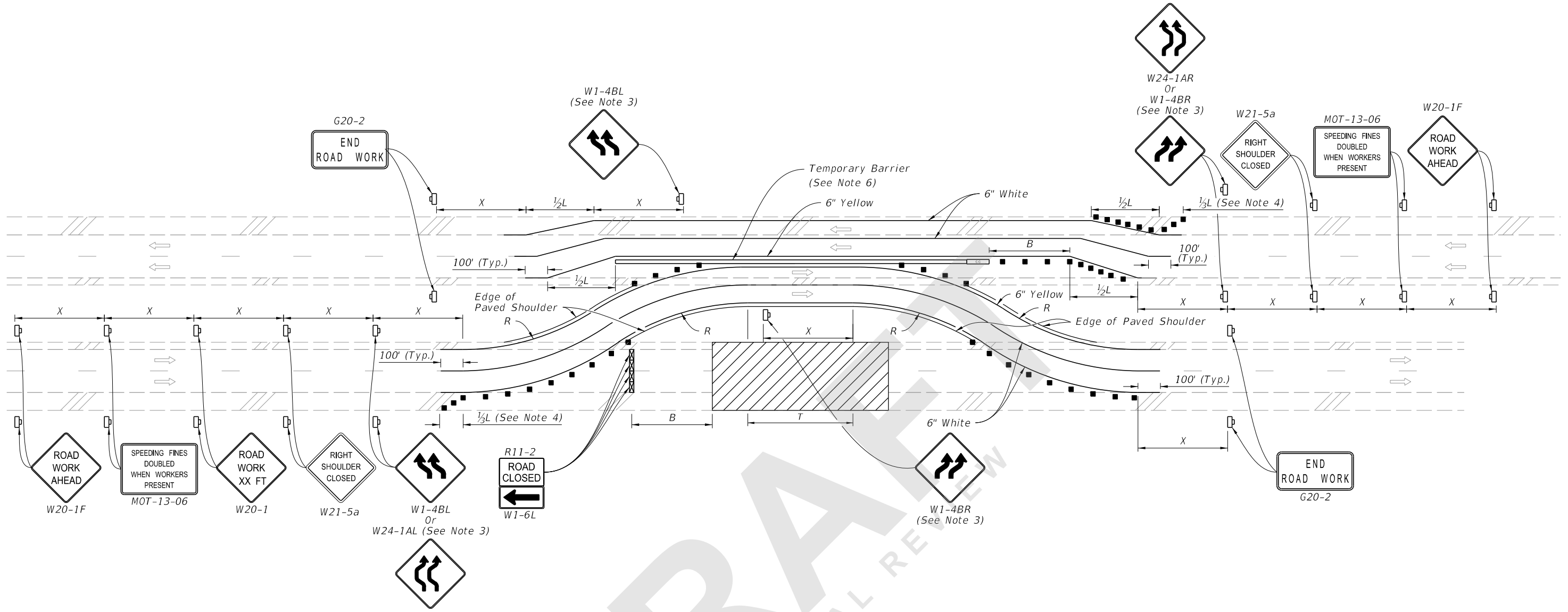
Change Made: *See Response Above for Sheet 2.*

3. Sheet 3: Consider dimension (per plans or min. length) for exit of diversion

RESPONSE: *Agreed*

Change Made: *For consistency with the MUTCD and other Indexes, the downstream taper was revised to "1/2 L" length. Also, the draft details show the merging taper (L) overlapping the shoulder taper (1/3 L), this was corrected as well.*

Date: 8/22/2020



TEMPORARY DIVERSION FOR DIVIDED ROADWAYS

SYMBOLS:

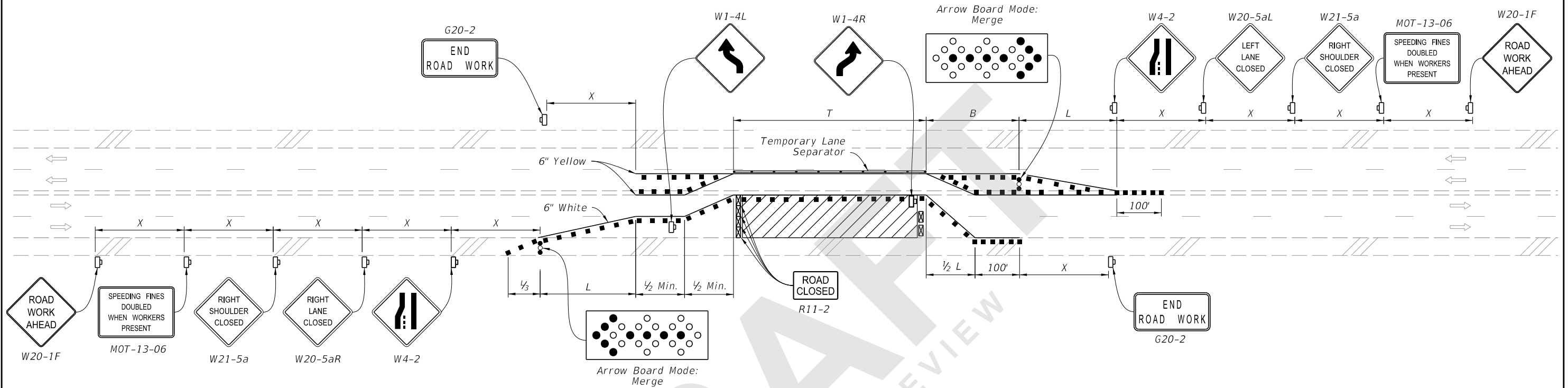
- Work Area
- Channelizing Device (See Index 102-600)
- Work Zone Sign
- Lane Identification and Direction of Traffic
- Crash Cushion
- Type III Barricade

NOTES:

1. This Index applies to multilane roadways, except with undivided roadways with 6 or more lanes, where the work requires the closure of the lanes in one direction and diversion is provided to convert the opposing traffic lanes to temporary two-way travel.
2. L=Taper Length
B=Buffer Length
X=Work Zone Sign Distance
R=Radius of Curve
See Index 102-600 for "L", "B", "X", channelizing device spacing values. See Plans for "R" values.
3. For undivided roadways with a tangent distance "T" less than 600', use "Double Reverse Curve" signs (W24-1A) instead of the first pair of "Reverse Curve" signs (W1-4B) and omit the second pair of "Reverse Curve" signs.
4. If the paved shoulder is less than 4' in width, omit the taper and channelizing devices shown on the paved shoulder.
5. If the work encroaches on a marked bicycle lane or rideable shoulder, maintain a 5' minimum outside paved shoulder through the diversion. If the minimum shoulder width can not be provided, close the lane or shoulder in accordance with the Plans.
6. Temporary Lane Separator may be used in lieu of Temporary Barrier for speed limits of 45 mph or less.







8/27/2020 8:35:55 AM

LAST REVISION 11/01/20	REVISION	DESCRIPTION:		FY 2021-22 STANDARD PLANS	MULTILANE ROADWAY, TEMPORARY DIVERSION	INDEX 102-620	SHEET 1 of 2
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TEMPORARY DIVERSION FOR UNDIVIDED ROADWAYS


SYMBOLS:

-  Work Area
-  Channelizing Device (See Index 102-600)
-  Work Zone Sign
-  Lane Identification and Direction of Traffic
-  Type III Barricade
-  Advance Warning Arrow Board

NOTE:

Temporary pavement markings may be omitted when the work zone is in place for 3 days or less.

8/27/2020 8:36:01 AM

LAST REVISION 11/01/20	REVISION	DESCRIPTION:	 FY 2021-22 STANDARD PLANS	MULTILANE ROADWAY, TEMPORARY DIVERSION	INDEX 102-620	SHEET 2 of 2
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