## GENERAL NOTES

- 1. Work operations shall be confined to either one lane, or lane combinations as follows:
- a. Outside travel lane;
- b. Outside auxiliary lane;
- c. Outside travel lane and adjoining auxiliary lane;
- d. Inside travel lane  $\triangle$ ;
- e. Inside auxiliary lane  $\triangle$ ;
- f. Inside travel lane and adjoining auxiliary lane  $\triangle$
- △ See Sheet 3

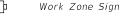
If the work area is confined to an auxiliary lane the work area shall be barricaded and the RIGHT (LEFT) LANE CLOSED AHEAD signs replaced by ROAD WORK AHEAD signs, and the merge symbol signs eliminated.

- 2. When vehicles in a parking zone block the line of sight to TCZ signs, the signs shall be post mounted and located in accordance with Index No. 17302.
- 3. If the work space extends across a crosswalk, the crosswalk should be closed using the information in Index No. 660.
- 4. Signs are required on the median side for divided highways.
- 5. The two channelizing devices directly in front and directly at the end of the work area may be omitted provided vehicles in the work area have high-intensity rotating, flashing, oscillating, or strobe lights operating.
- 6. For general TCZ requirements and additional information, refer to Index No. 600.

## SYMBOLS



Work Area



Advance Warning Arrow Board

Type III Barricade

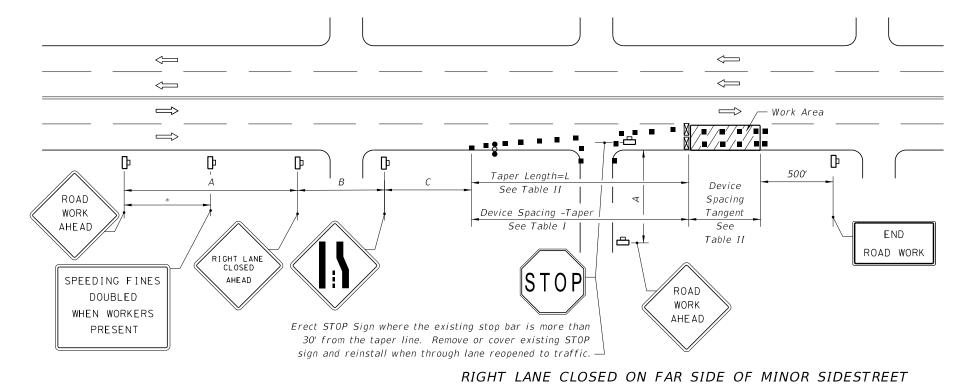
DESCRIPTION:

Channelizing Device (See Index No. 600)

Lane Identification + Direction of Traffic

## **DURATION NOTES**

- 1. For work operations up to approximately 15 minutes, signs, channelizing devices, and arrow board may be omitted if all of the following conditions are met:
- a. Speed limit is 45 mph or less.
- b. No sight obstructions to vehicles approaching the work area for a distance equal to twice the taper length.
- c. Volume and complexity of the roadway has been considered.
- d. The closed lane is occupied by a class 5 or larger, medium duty truck(s) with a minimum gross weight vehicle rating (GWVR) of 16,001 lb with high-intensity, rotating, flashing, oscillating, or strobe lights mounted above the cab height and operating.
- 2. For work operations up to 60 minutes, the arrow board may be omitted if conditions a, b, and c in DURATION NOTE 1 are met, and vehicles in the work area have high-intensity, rotating, flashing, oscillating, or strobe lights operating.



DISTANCE BET	WEE	N SI	GNS
Sneed	Spacing (ft.)		
Speed	Α	В	С
40 mph or less	200	200	200
45 mph	350	350	350
	Speed 40 mph or less	Speed	Speed         A         B           40 mph or less         200         200

\* 500' beyond the ROAD WORK AHEAD sign or midway between signs whichever is less.

Table I				
	Device Spacing			
	Max. Distance Between Devices (ft.)			rices (ft.)
Speed (mph)	Cones or Tubular Markers Taper Tangent		Type I or Type II  Barricades or Vertical  Panels or Drums	
			Taper	Tangent
25	25	50	25	50
30 to 45	25	50	30	50

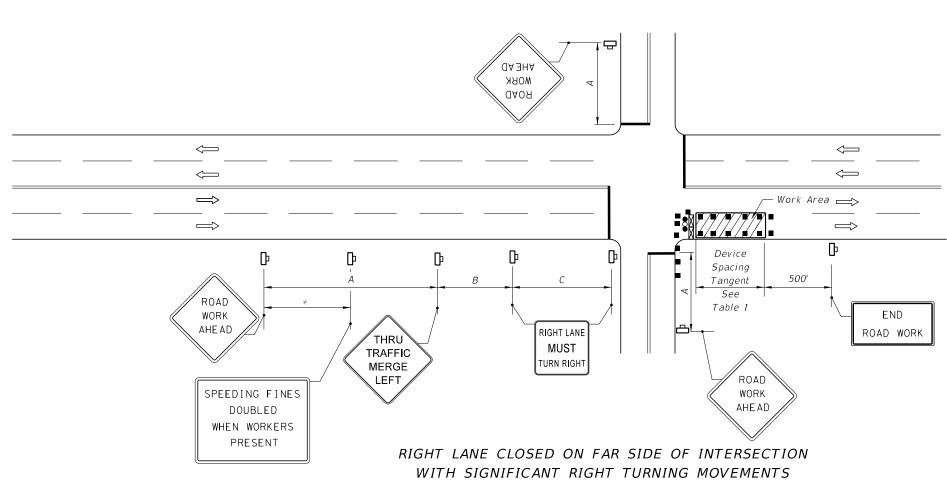


Table II Taper Length - Merge (12' Lateral Transition)			
Speed (mph)	L (ft)	Notes (Merge)	
25	125		
30	180	$I = \frac{WS^2}{}$	
35	245	$L = \frac{1}{60}$	
40	320		
45	540	L=WS	

For lateral transitions other than 12', use formula for L shown in the notes column. Where:

- L = Length of taper in feet
- W = Width of lateral transition in feet
- S = Posted speed limit (mph)

1. The normal procedure is to close on the near side of the intersection any lane that is not carried through the intersection. However, when this results in the closure of a right lane having significant right turning movements, then the right lane may be restricted to right turns only as shown in this detail.

2. For intersection approaches reduced to a single lane, left turning movements may be prohibited to maintain capacity for through vehicular traffic.

**REVISION** 07/01/15

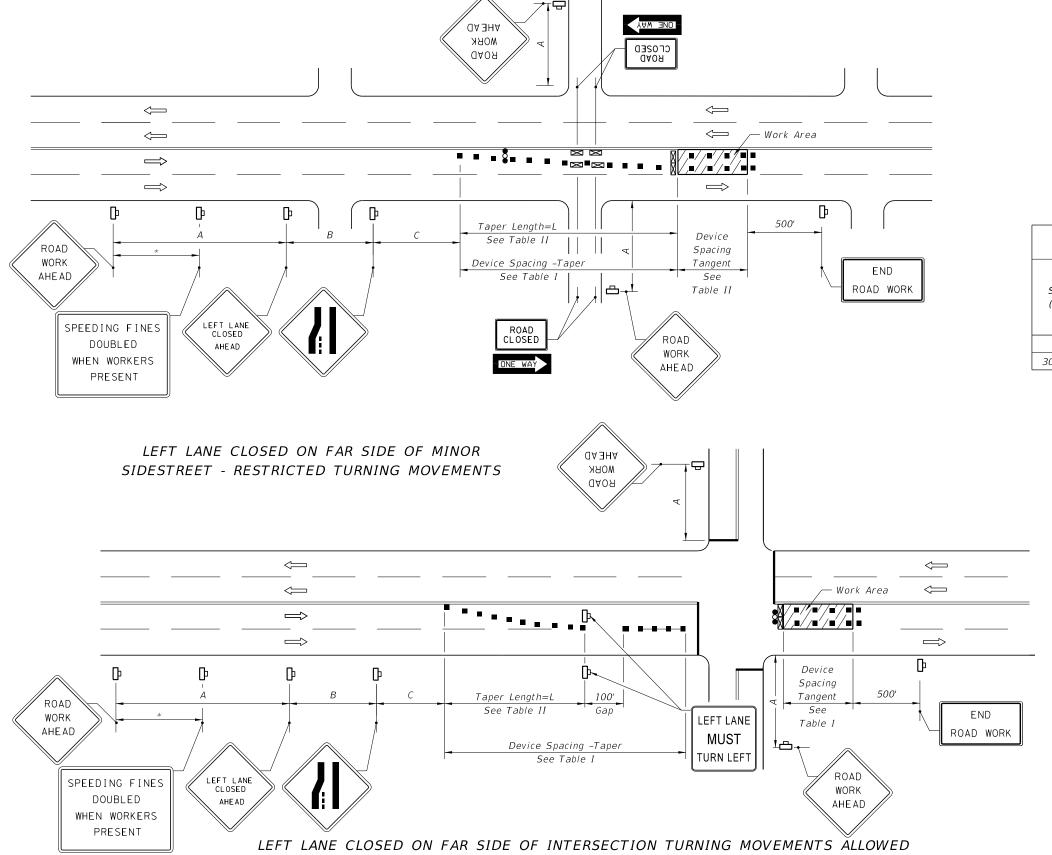
FY 2016-17 DESIGN STANDARDS

MULTILANE, WORK NEAR INTERSECTION

INDEX NO. 616

SHEET NO. 2 of 3

DESCRIPTION:



	DISTANCE BET	WEE	N SI	GNS	
	Speed .		Spacing (ft.)		
			В	С	
	40 mph or less	200	200	200	
	45 mph	350	350	350	

\* 500' beyond the ROAD WORK AHEAD sign or midway between signs whichever is less.

Table I				
Device Spacing				
	Max. Distance Between Devices (ft.)			
Speed (mph)	Cones or Tubular Markers		Type I or Type II Barricades or Vertical Panels or Drums	
	Taper	Tangent	Taper	Tangent
25	25	50	25	50
30 to 45	25	50	30	50

Table II				
Taper Length - Merge				
(12' Lateral Transition)				
Speed	L	Notes		
(mph)	(ft.)	(Merge)		
25	125			
30	180	$L = \frac{WS^2}{60}$		
35	245	L = <u>60</u>		
40	320			
45	540	L = WS		

For lateral transitions other than 12', use formula for L shown in the notes column. Where:

L = Length of taper in feet

W = Width of lateral transition in feet

S = Posted speed limit (mph)

1. The normal procedure is to close on the near side of the intersection any lane that is not carried through the intersection. However, when this results in the closure of a left lane having significant left turning movements, then the left lane may be reopened as a turn bay for left turns only as show in this detail.

**REVISION** 07/01/15

FY 2016-17 DESIGN STANDARDS