

Stationary Work

- Typical Center Lane Closure (SV-TC-101)
- Typical Road Closure - Local Access (SV-TC-102)
- Typical Lane Shift - Two Lane Roadway with Center Turn Lane (SV-TC-105)
- Typical One-Lane, Two-Way Traffic Control with Flaggers (WSDOT TC 1)
- Typical Single Lane Closure for Multi-Lane Roadways (SV-TC-106)
- Typical Double Lane Closure for Multi-Lane Roadways (WSDOT TC 4)
- Typical Shoulder Closure - Low Speed (40 mph or less) (WSDOT TC 5)
- Typical Shoulder Closure - High Speed (45 mph or higher) (WSDOT TC 6)
- Typical Lane Shift - Three Lane Roadways (WSDOT TCP12)
- Typical Intersection Lane Closure - Three Lane Roadway (WSDOT TC14)
- Typical Roundabout Flagging Operation (WSDOT TC18)

Short Duration and Very Short Duration

- Typical Short Duration Lane Closure - 2 Lane Operation (WSDOT TCP 14)
- Typical Short Duration Lane Closure - Multi-Lane Operation (WSDOT TCP 15)
- Typical Short Duration Shoulder Work - Multi-Lane Operation (WSDOT TCP 16)
- Typical Short Duration Work Operation - Intersection Location (WSDOT TCP 17)
- Typical Very Short Duration Work Operation - Outside Traveled Way -Two Lane or Multi-lane Highway (WSDOT TCP 18)
- Typical Very Short Duration Work Operation- Multi-Lane Approach, Low Speed (40 mph or lower) (WSDOT TCP 19)

Intersection Operations

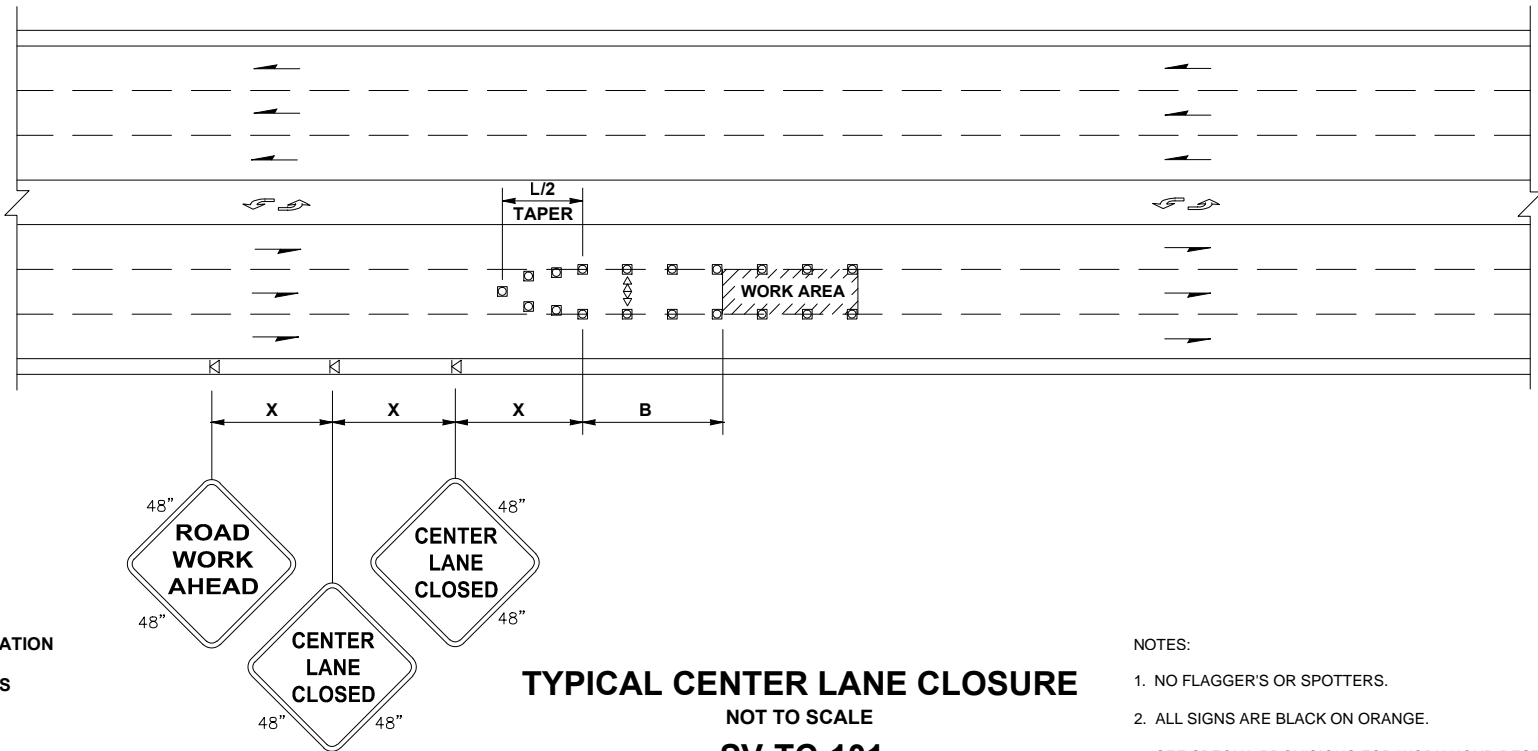
- Typical Intersection - Pedestrian Traffic Control (WSDOT TC16)
- Typical Intersection Lane Closure - Three Lane Roadway (WSDOT TC 27)

BUFFER DATA									
LONGITUDINAL BUFFER SPACE = B									
SPEED (MPH)	25	30	35	40	45	50	55	60	
LENGTH (feet)	155	200	250	305	360	425	-	-	
BUFFER VEHICLE ROLL AHEAD DISTANCE = R									
TRANSPORTABLE ATTENUATOR MINIMUM HOST VEHICLE WEIGHT 15,000 LBS. THE MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATION.							30 FEET MIN. TO 100 FEET MAX.		
PROTECTIVE VEHICLE MAY BE A WORK VEHICLE STRATEGICALLY LOCATED TO SHIELD THE WORK AREA.							NO SPECIFIED DISTANCE REQUIRED		

SIGN SPACING = X (1)		
RURAL ROADS	45 / 55 MPH	500'
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350'
RURAL ROADS & URBAN ARTERIALS RESIDENTIAL & BUSINESS DISTRICTS	25 / 30 MPH	200' (2)
URBAN STREETS	25 MPH OR LESS	100' (2)
(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMP, AT-GRADE INTERSECTIONS AND DRIVEWAYS.		
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.		

MINIMUM TAPER LENGTH = L (feet)								
LANE WIDTH (feet)	Posted Speed (mph)							
	25	30	35	40	45	50	55	60
10	105	150	205	270	450	500	-	-
11	115	165	225	295	495	550	-	-
12	125	180	245	320	540	600	-	-

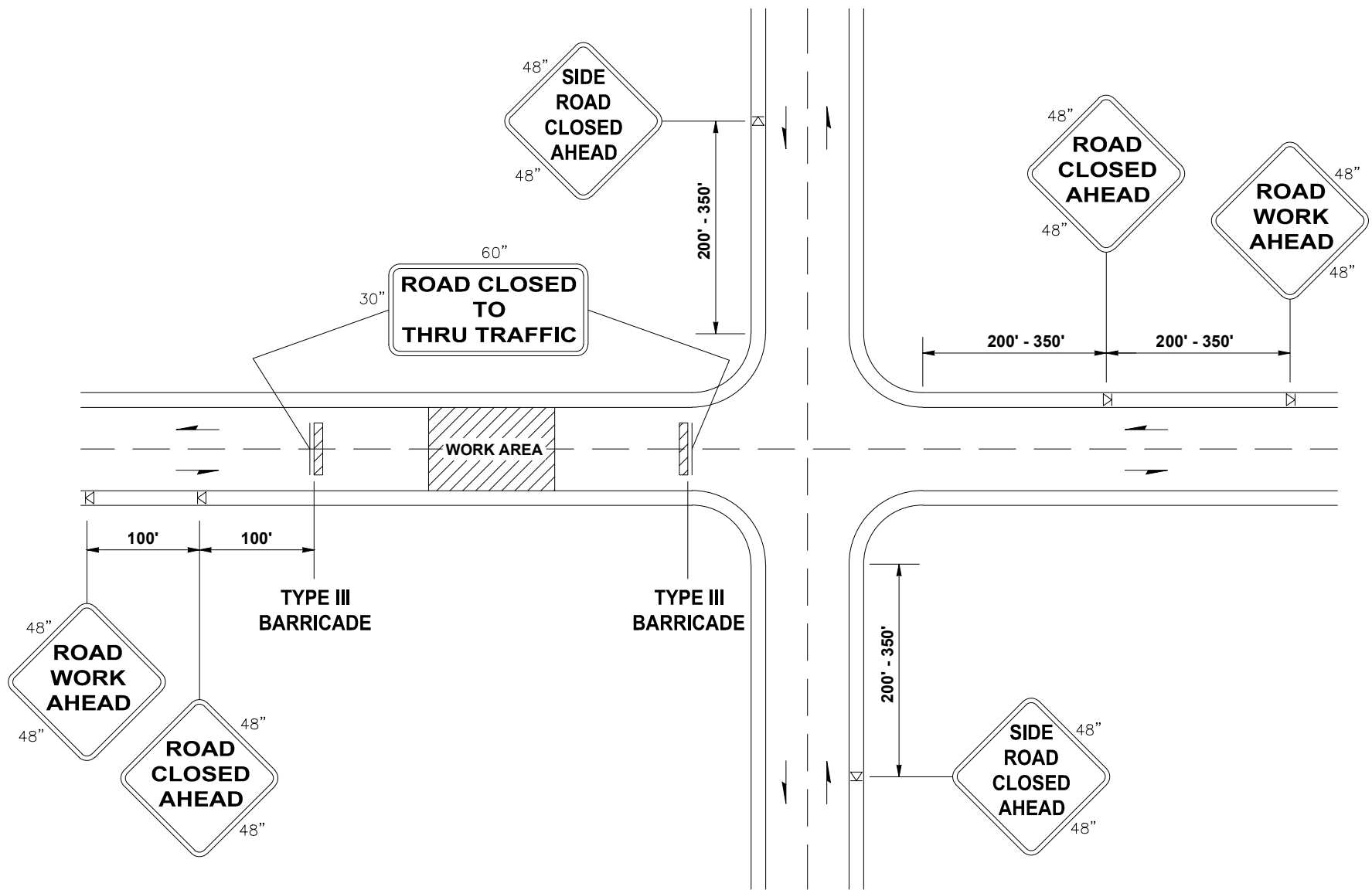
CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
50	40	80
35/45	30	60
25/30	20	40



- LEGEND**
- ⊠ TEMPORARY SIGN LOCATION
 - ⊠ CHANNELIZING DEVICES
 - ⇄ ARROW BOARD

TYPICAL CENTER LANE CLOSURE
NOT TO SCALE
SV-TC-101

- NOTES:**
1. NO FLAGGER'S OR SPOTTERS.
 2. ALL SIGNS ARE BLACK ON ORANGE.
 3. SEE SPECIAL PROVISIONS FOR WORK HOUR RESTRICTIONS.



LEGEND

⊓ TEMPORARY SIGN LOCATION

TYPICAL ROAD CLOSURE - LOCAL ACCESS

NOT TO SCALE

SV-TC-102

NOTES:

1. NO FLAGGER'S OR SPOTTERS.
2. ALL SIGNS ARE BLACK ON ORANGE.

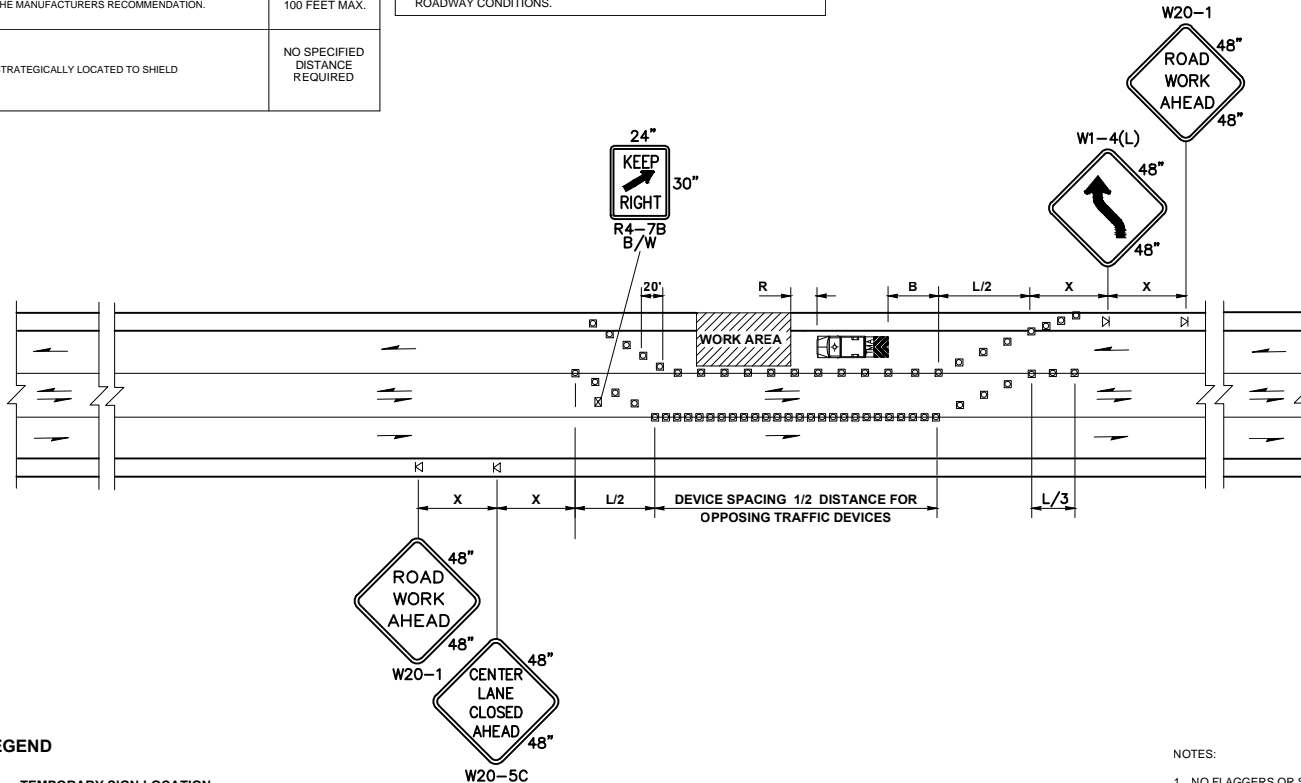
BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	155	200	250	305	360	425	495	570	645	-
BUFFER VEHICLE ROLL AHEAD DISTANCE = R										
TRANSPORTABLE ATTENUATOR MINIMUM HOST VEHICLE WEIGHT 15,000 LBS. THE MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATION.										30 FEET MIN. TO 100 FEET MAX.
PROTECTIVE VEHICLE MAY BE A WORK VEHICLE STRATEGICALLY LOCATED TO SHIELD THE WORK AREA.										NO SPECIFIED DISTANCE REQUIRED

SIGN SPACING = X (1)		
RURAL HIGHWAYS	60 / 65 MPH	800'
RURAL ROADS	45 / 55 MPH	500'
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350'
RURAL ROADS & URBAN ARTERIALS	25 / 30 MPH	200' (2)
RESIDENTIAL & BUSINESS DISTRICTS		
URBAN STREETS	25 MPH OR LESS	100' (2)

(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMP, AT-GRADE INTERSECTIONS AND DRIVEWAYS.
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.

MINIMUM TAPER LENGTH = L (feet)										
LANE WIDTH (feet)	Posted Speed (mph)									
	25	30	35	40	45	50	55	60	65	70
10	105	150	205	270	450	500	550	-	-	-
11	115	165	225	295	495	550	605	660	-	-
12	125	180	245	320	540	600	660	720	780	-

CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
50/60	40	80
35/45	30	60
25/30	20	40



LEGEND

- ⊠ TEMPORARY SIGN LOCATION
- CHANNELIZING DEVICES
- ▣ TRANSPORTABLE ATTENUATOR
- ⊞ TEMPORARY SIGN LOCATION (5' MOUNTING HEIGHT)

NOTES:

1. NO FLAGGERS OR SPOTTERS.
2. RECOMMENDED EXTENDING DEVICE TAPER (L/3) ACROSS SHOULDER.
3. ALL SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE DESIGNATED.
4. SEE SPECIAL PROVISIONS FOR WORK HOUR RESTRICTIONS.

TYPICAL LANE SHIFT - TWO LANE ROADWAY WITH CENTER TURN LANE

NOT TO SCALE

SV-TC-105

MINIMUM LANE CLOSURE TAPER LENGTH = L (feet)										
LANE WIDTH (feet)	Posted Speed (mph)									
	25	30	35	40	45	50	55	60	65	70
10	105	150	205	270	450	500	550	-	-	-
11	115	165	225	295	495	550	605	660	-	-
12	125	180	245	320	540	600	660	720	780	840

MINIMUM SHOULDER TAPER LENGTH = L/3 (feet)										
SHOULDER WIDTH (feet)	Posted Speed (mph)									
	25	30	35	40	45	50	55	60	65	70
8'	40	40	60	90	120	130	150	160	170	190
10'	40	60	90	90	150	170	190	200	220	240

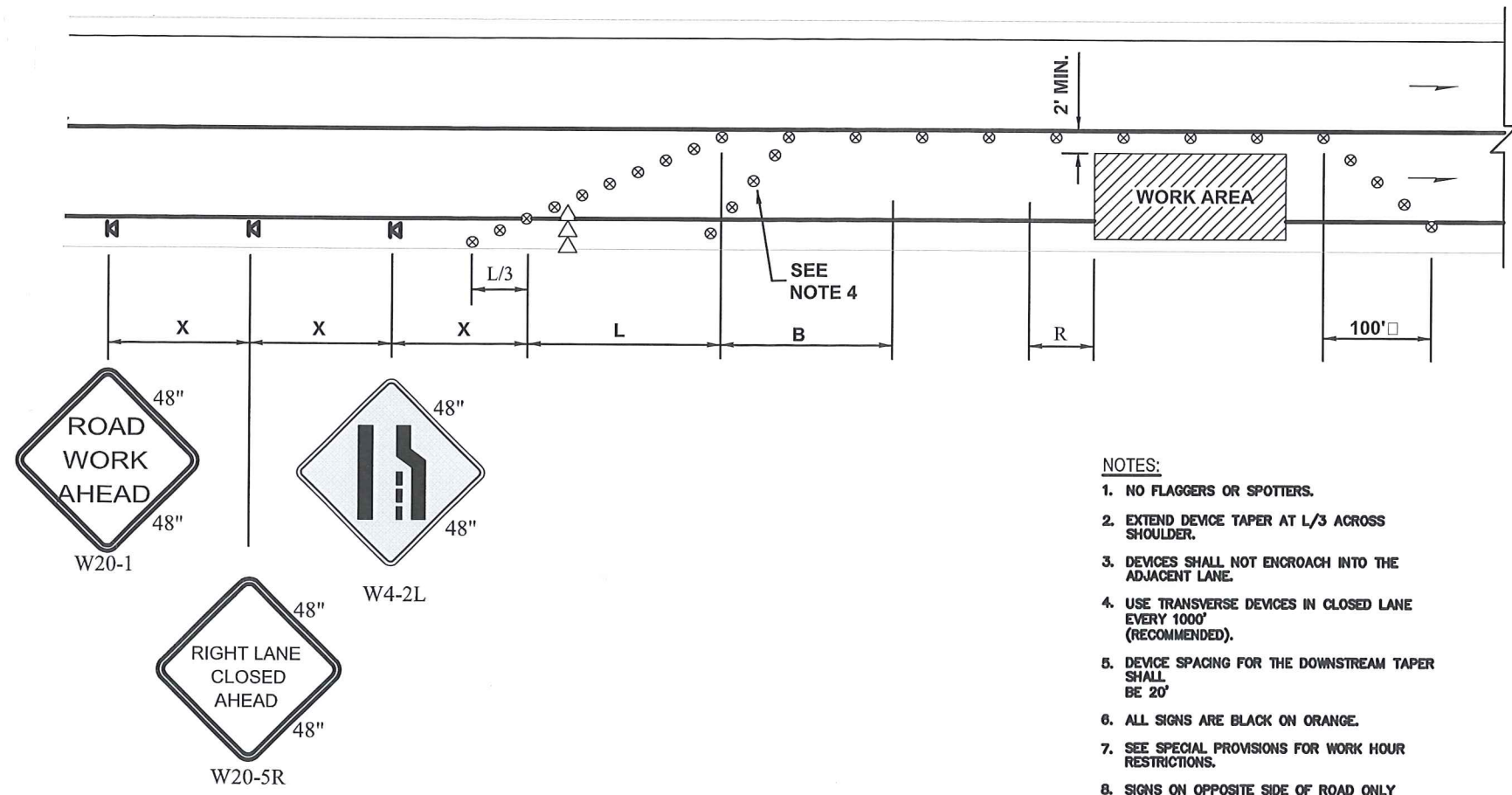
USE A MINIMUM 3 DEVICES TAPER FOR SHOULDER LESS THEN 8'.

SIGN SPACING = X (1)		
FREEWAYS & EXPRESSWAYS	55 / 70 MPH	1500' +/-
RURAL HIGHWAYS	60 / 65 MPH	800' +/-
RURAL ROADS	45 / 55 MPH	500' +/-
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350' +/-
RURAL ROADS & URBAN ARTERIALS	25 / 30 MPH	200' +/- (2)
RESIDENTIAL & BUSINESS DISTRICTS		
URBAN STREETS	25 MPH OR LESS	100' +/- (2)

(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMP, AT-GRADE INTERSECTIONS AND DRIVEWAYS.
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.

CANALIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
50/70	40	80
35/45	30	60
25/30	20	40

BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	155	200	250	305	360	425	495	570	645	730
BUFFER VEHICLE ROLL AHEAD DISTANCE = R										
TRANSPORTABLE ATTENUATOR MINIMUM HOST VEHICLE WEIGHT 15,000 LBS. THE MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATION.										30 FEET MIN. TO 100 FEET MAX.



- LEGEND**
- DI TEMPORARY SIGN LOCATION
 - ⊗ TRAFFIC SAFETY DRUM
 - ⇨⇨ SEQUENTIAL ARROW SIGN

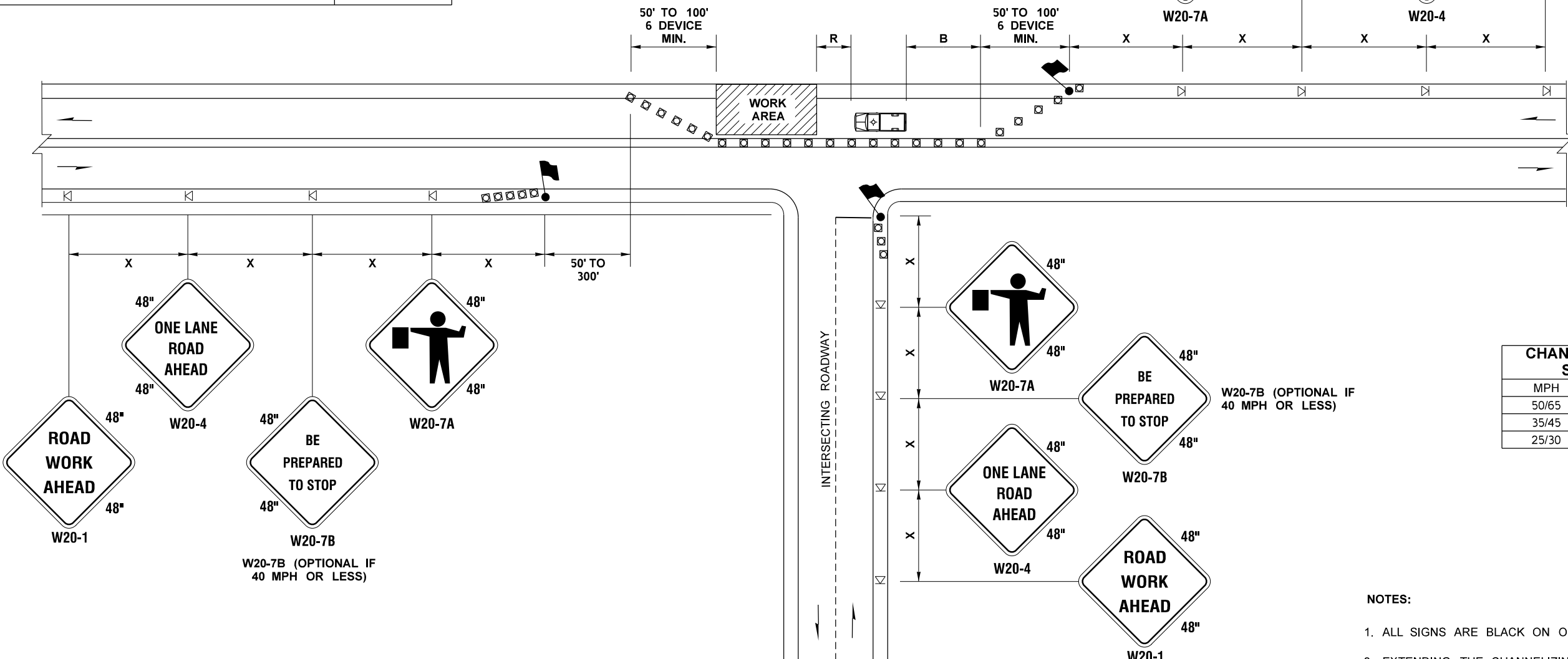
SINGLE-LANE CLOSURE FOR MULTI-LANE ROADWAYS
NOT TO SCALE

SV-TC-106

BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (FEET)	155	200	250	305	360	425	495	570	645	-
BUFFER VEHICLE ROLL AHEAD DISTANCE = R										
TRANSPORTABLE ATTENUATOR							30 FEET MIN. TO 100 FEET MAX.			
MINIMUM HOST VEHICLE WEIGHT 15,000 LBS. THE MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATION.										
PROTECTIVE VEHICLE							NO SPECIFIED DISTANCE REQUIRED			
MAY BE A WORK VEHICLE STRATEGICALLY LOCATED TO SHIELD THE WORK AREA.										

SIGN SPACING = X (1)		
RURAL HIGHWAYS	60 / 65 MPH	800'±
RURAL ROADS	45 / 55 MPH	500'±
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350'±
RURAL ROADS, URBAN ARTERIALS, RESIDENTIAL & BUSINESS DISTRICTS	25 / 30 MPH	200'± (2)
URBAN STREETS	25 MPH OR LESS	100'± (2)

(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERSECTIONS AND DRIVEWAYS.
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.



CHANNELIZATION DEVICE SPACING (FEET)		
MPH	TAPER	TANGENT
50/65	10 TO 20	80
35/45	10 TO 20	60
25/30	10 TO 20	40

- NOTES:
1. ALL SIGNS ARE BLACK ON ORANGE.
 2. EXTENDING THE CHANNELIZING DEVICE TAPER ACROSS SHOULDER IS RECOMMENDED.
 3. NIGHT WORK REQUIRES ADDITIONAL ROADWAY LIGHTING AT FLAGGING STATIONS. SEE THE STANDARD SPECIFICATIONS FOR ADDITIONAL DETAILS.
 4. SEE SPECIAL PROVISIONS FOR WORK HOUR RESTRICTIONS.

ONE-LANE, TWO-WAY TRAFFIC CONTROL WITH FLAGGERS

NOT TO SCALE

FILE NAME S:\Desgn R P& S\4-Standards\2-Plan Sheet Library\01-Publshed PSL(TC) Work Zone Traffic Control\W(TC-1) One Lane, Two Way Traffic Control with Flaggers\TC-1.dgn										Plot 1
TIME 1:16:53 PM		DATE 9/18/2014		REGION NO.		STATE WASH		FED.AID PROJ.NO.		PLAN REF NO TC1
PLOTTED BY FletcCo		DESIGNED BY		JOB NUMBER		CONTRACT NO.		LOCATION NO.		SHEET OF SHEETS
ENTERED BY		CHECKED BY		PROJ. ENGR.		REGIONAL ADM.		REVISION		DATE BY
DATE		DATE		DATE		DATE		DATE		DATE
P.E. STAMP BOX		P.E. STAMP BOX		P.E. STAMP BOX		P.E. STAMP BOX		P.E. STAMP BOX		P.E. STAMP BOX
<p style="text-align: center;">Washington State Department of Transportation</p>										TRAFFIC CONTROL PLAN

MINIMUM LANE CLOSURE TAPER LENGTH = L (feet)										
LANE WIDTH (feet)	Posted Speed (mph)									
	25	30	35	40	45	50	55	60	65	70
10	105	150	205	270	450	500	550	-	-	-
11	115	165	225	295	495	550	605	660	-	-
12	125	180	245	320	540	600	660	720	780	840

MINIMUM SHOULDER TAPER LENGTH = L/3 (feet)										
SHOULDER WIDTH (feet)	Posted Speed (mph)									
	25	30	35	40	45	50	55	60	65	70
8'	40	40	60	90	120	130	150	160	170	190
10'	40	60	90	90	150	170	190	200	220	240

USE A MINIMUM 3 DEVICES TAPER FOR SHOULDER LESS THEN 8'.

SIGN SPACING = X (1)		
FREEWAYS & EXPRESSWAYS	55 / 70 MPH	1500' ±
RURAL HIGHWAYS	60 / 65 MPH	800' ±
RURAL ROADS	45 / 55 MPH	500' ±
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350' ±
RURAL ROADS & URBAN ARTERIALS RESIDENTIAL & BUSINESS DISTRICTS	25 / 30 MPH	200' ± (2)
URBAN STREETS	25 MPH OR LESS	100' ± (2)

(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMP, AT-GRADE INTERSECTIONS AND DRIVEWAYS.
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.

CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
50/70	40	80
35/45	30	60
25/30	20	40

BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	155	200	250	305	360	425	495	570	645	730

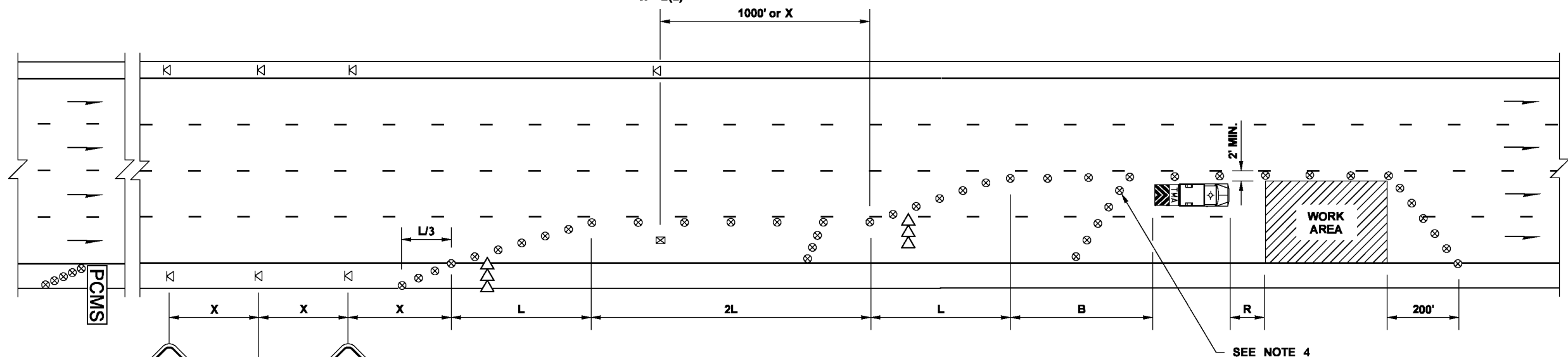
BUFFER VEHICLE ROLL AHEAD DISTANCE = R	
TRANSPORTABLE ATTENUATOR	30 FEET MIN. TO 100 FEET MAX.
MINIMUM HOST VEHICLE WEIGHT 15,000 LBS. THE MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATION.	

PCMS	
1	2
2 LANES CLOSED AHEAD	WATCH FOR SLOW TRAFFIC
2.0 SEC	2.0 SEC

FIELD LOCATE 1 MILE ± IN ADVANCE OF LANE CLOSURE SIGNING.

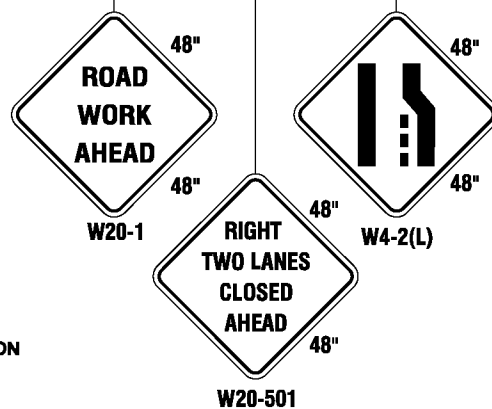


W4-2(L)



LEGEND

- ⊗ TRAFFIC SAFETY DRUM
- ⊗ TEMPORARY SIGN LOCATION
- ↔ SEQUENTIAL ARROW SIGN
- TRANSPORTABLE ATTENUATOR
- PORTABLE CHANGEABLE MESSAGE SIGN
- ⊗ TEMPORARY SIGN LOCATION (5' (FT) MOUNTING HEIGHT)



DOUBLE-LANE CLOSURE FOR MULTI-LANE ROADWAYS

NOT TO SCALE

NOTES:

1. SEE SPECIAL PROVISIONS FOR WORK HOUR RESTRICTIONS.
2. EXTEND DEVICE TAPER AT L/3 ACROSS SHOULDER.
3. DEVICES SHALL NOT ENCR OACH INTO THE ADJACENT LANES.
4. USE TRANSVERSE DEVICES IN CLOSED LANE EVERY 1000' (FT) (RECOMMENDED).
5. DEVICE SPACING FOR THE DOWNSTREAM TAPER SHALL BE 20' (FT).
6. ALL SIGNS ARE BLACK ON ORANGE.

FILE NAME	S:\Design R P& S4-Standards\2-Plan Sheet Library\01-Published PSL\TC) Work Zone Traffic Control(TC-4) Double-Lan Closure for Multi-Lane Roadways\TC-4.dgn				
TIME	3:28:32 PM				
DATE	1/15/2015				
PLOTTED BY	berensb				
DESIGNED BY					
ENTERED BY					
CHECKED BY					
PROJ. ENGR.					
REGIONAL ADM.					
REVISION	DATE	BY	REGION NO.	STATE	FED.AID PROJ.NO.
				WASH	
			JOB NUMBER		
			CONTRACT NO.		LOCATION NO.

P.E. STAMP BOX DATE



Plot 1
PLAN REF NO
TC4
SHEET
OF
SHEETS
TRAFFIC CONTROL PLAN

SIGN SPACING = X (1)		
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350' ±
RURAL ROADS, URBAN ARTERIALS, RESIDENTIAL & BUSINESS DISTRICTS	25 / 30 MPH	200' ± (2)
URBAN STREETS	25 MPH OR LESS	100' ± (2)

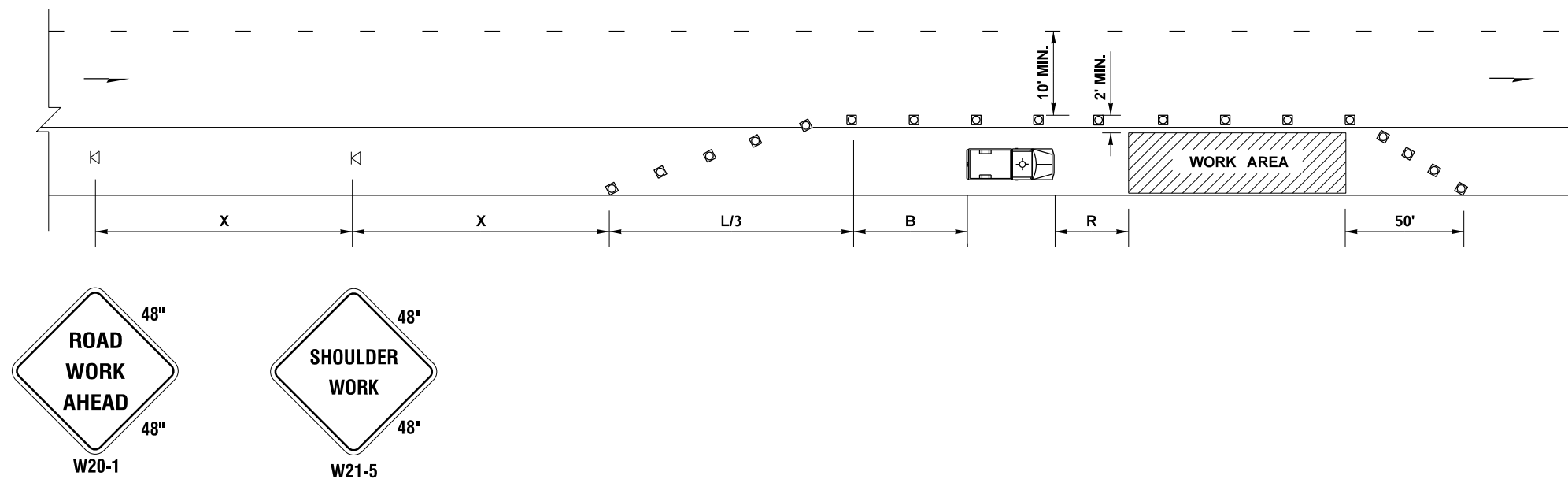
(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERSECTIONS AND DRIVEWAYS.
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.

MINIMUM SHOULDER TAPER LENGTH = L/3 (feet)										
SHOULDER WIDTH (feet)	Posted Speed (mph)									
	25	30	35	40	45	50	55	60	65	70
8'	40	40	60	90	-	-	-	-	-	-
10'	40	60	90	90	-	-	-	-	-	-

USE A 3 DEVICES TAPER FOR SHOULDERS LESS THEN 8'

CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
35/40	30	60
25/30	20	40

BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	155	200	250	305						
BUFFER VEHICLE ROLL AHEAD DISTANCE = R										
TRANSPORTABLE ATTENUATOR MINIMUM HOST VEHICLE WEIGHT 15,000 LBS. THE MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATION.									30 FEET MIN. TO 100 FEET MAX.	
PROTECTIVE VEHICLE MAY BE A WORK VEHICLE STRATEGICALLY LOCATED TO SHIELD THE WORK AREA.									NO SPECIFIED DISTANCE REQUIRED	



- LEGEND**
- ⊠ TEMPORARY SIGN LOCATION
 - CHANNELIZING DEVICES
 - 🚗 PROTECTIVE VEHICLE

SHOULDER CLOSURE - LOW SPEED (40 MPH OR LESS)

NOT TO SCALE

- NOTES:**
1. DEVICE SPACING FOR THE DOWNSTREAM TAPER SHALL BE 20'(FT).
 2. ALL SIGNS ARE BLACK ON ORANGE.

FILE NAME S:\Design R P& S\4-Standards\2-Plan Sheet Library\01-Published PSL(TC) Work Zone Traffic Control\W(TC-5) Shoulder Closure - Low Speed (40 MPH or Less)\TC-5.dgn										Plot 1	
TIME 1:20:14 PM		DATE 9/18/2014		REGION NO.		STATE WASH		FED.AID PROJ.NO.		PLAN REF NO TC5	
PLOTTED BY FletcCo		DESIGNED BY		JOB NUMBER		CONTRACT NO.		LOCATION NO.		SHEET OF	
ENTERED BY		CHECKED BY		PROJ. ENGR.		REGIONAL ADM.		REVISION		DATE BY	
DATE		DATE		DATE		DATE		DATE		P.E. STAMP BOX	
 Washington State Department of Transportation										TRAFFIC CONTROL PLAN	

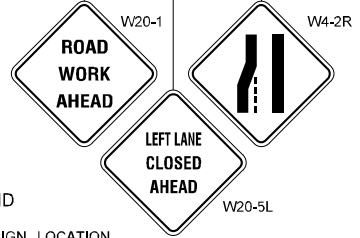
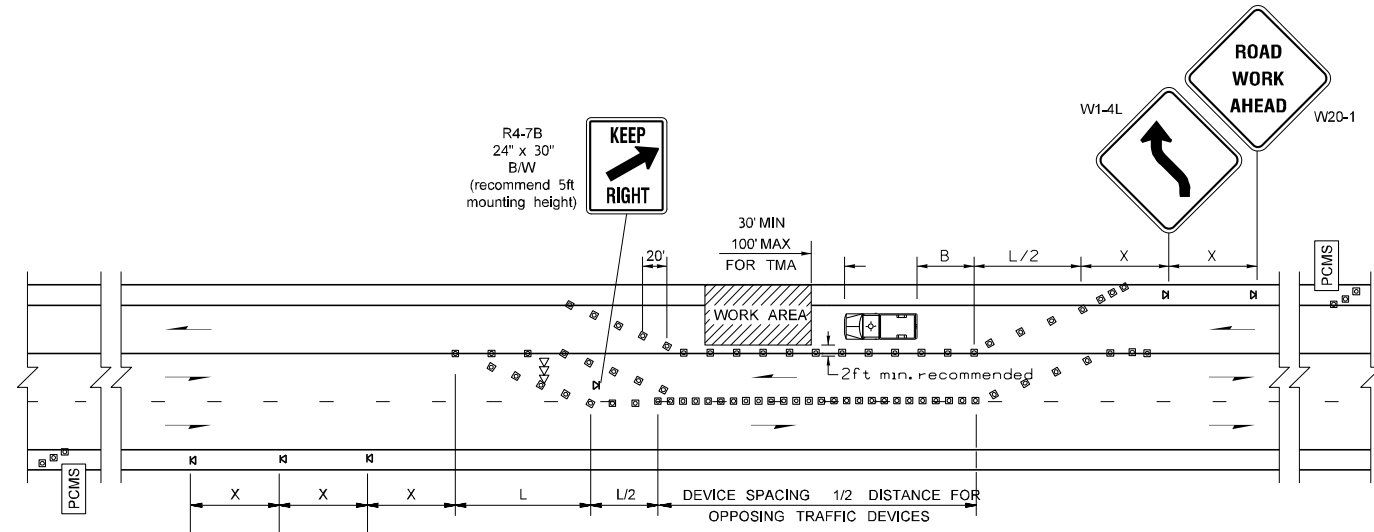
BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	155	200	250	305	360	425	495	570	-	-

CHANNELIZING DEVICE SPACING (FEET)		
MPH	TAPER	TANGENT
50 / 60	40	80
35 / 45	30	60
25 / 30	20	40

Lane Width (feet)	MINIMUM TAPER LENGTH = L (feet)									
	Posted Speed (mph)									
10	105	150	205	270	450	500	550	-	-	-
11	115	165	225	295	495	550	605	660	-	-
12	125	180	245	320	540	600	660	720	-	-

SIGN SPACING = X (FEET) (1)		
RURAL HIGHWAYS	60/65 MPH	800'±
RURAL ROADS	45/55 MPH	500'±
RURAL ROADS & URBAN ARTERIALS	35/40 MPH	350'±
RURAL ROADS, URBAN ARTERIALS RESIDENTIAL & BUSINESS DISTRICTS	25/30 MPH	200'± (2)
URBAN STREETS	25 MPH OR LESS	100'± (2)

- (1) All spacing may be adjusted to accommodate interchange ramps, at-grade intersections, and driveways.
- (2) This spacing may be reduced in urban areas to fit roadway conditions.



(SAMPLE MESSAGE)

PCMS	
1	2
LANE CLOSED	1 MILE AHEAD
2.0 SEC	2.0 SEC

FIELD LOCATE 1 MILE ± IN ADVANCE OF LANE CLOSURE TAPER.

NOTES

- For long term projects, conflicting pavement markings no longer applicable must be removed or obliterated as soon as practicable. Temporary markings shall be used as necessary and signs shall be post mounted.
- For speed limits of 30mph or less, use sign W1-3 in lieu of sign W1-4.
- Extend device taper across shoulder when 8ft or wider.
- PCMS recommended.
- Traffic safety drums recommended in tapers. Refer to appendix 2-2 for additional device information.
- Protective vehicle recommended, may be a work vehicle placed strategically to shield work area.

TYPICAL LANE SHIFT - THREE LANE ROADWAY
TCP 12

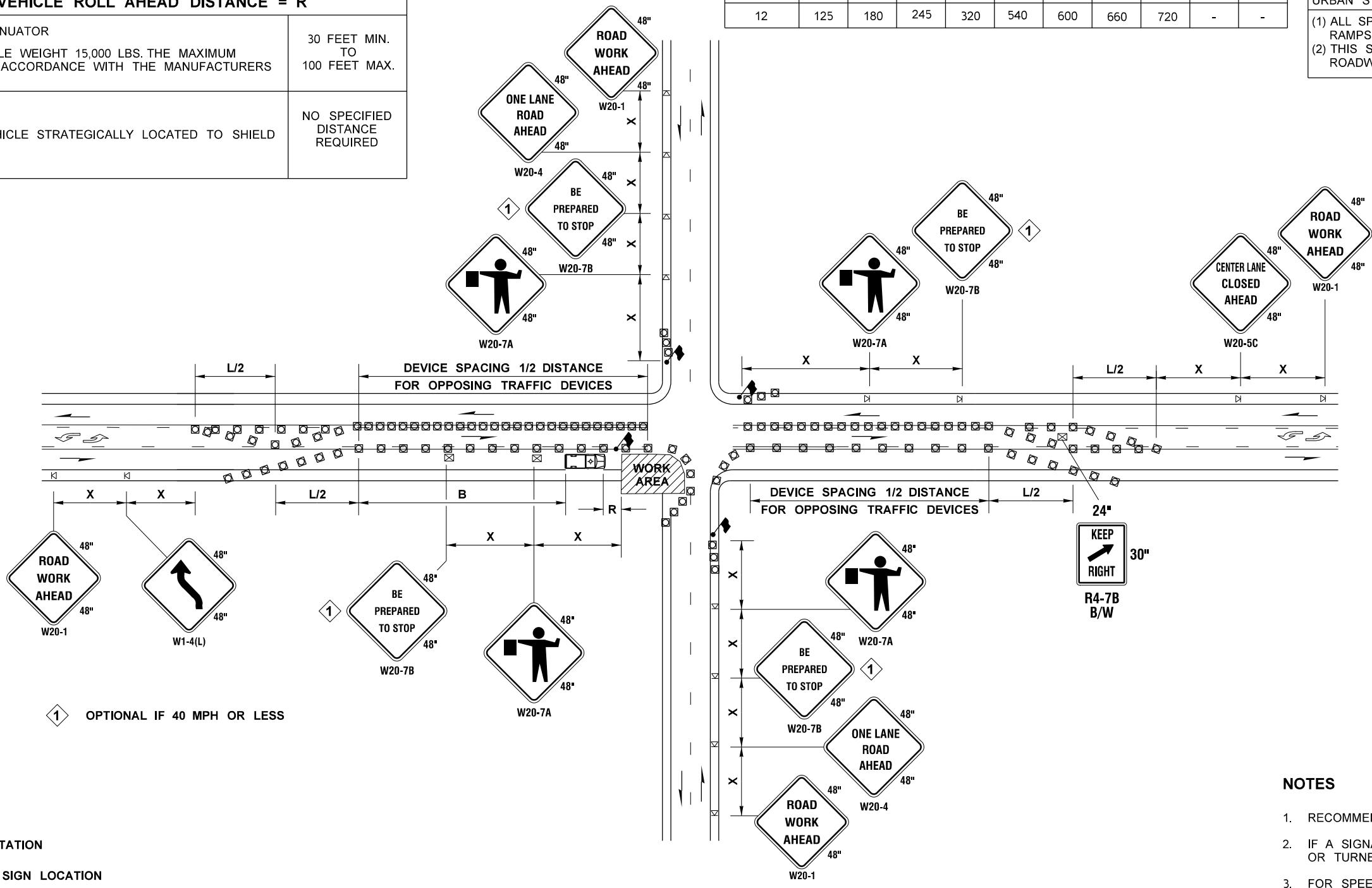
BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	155	200	250	305	360	425	495	570	645	-
BUFFER VEHICLE ROLL AHEAD DISTANCE = R										
TRANSPORTABLE ATTENUATOR MINIMUM HOST VEHICLE WEIGHT 15,000 LBS. THE MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATION.								30 FEET MIN. TO 100 FEET MAX.		
PROTECTIVE VEHICLE MAY BE A WORK VEHICLE STRATEGICALLY LOCATED TO SHIELD THE WORK AREA.								NO SPECIFIED DISTANCE REQUIRED		

LANE WIDTH (feet)	MINIMUM TAPER LENGTH = L (feet)									
	Posted Speed (mph)									
	25	30	35	40	45	50	55	60	65	70
10	105	150	205	270	450	500	550	-	-	-
11	115	165	225	295	495	550	605	660	-	-
12	125	180	245	320	540	600	660	720	-	-

SIGN SPACING = X (1)		
RURAL HIGHWAYS	60 / 65 MPH	800' ±
RURAL ROADS	45 / 55 MPH	500' ±
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350' ±
RURAL ROADS & URBAN ARTERIALS	25 / 30 MPH	200' ± (2)
RESIDENTIAL & BUSINESS DISTRICTS		
URBAN STREETS	25 MPH OR LESS	100' ± (2)

(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMP, AT-GRADE INTERSECTIONS AND DRIVEWAYS.
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.

CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
50/70	40	80
35/45	30	60
25/30	20	40



1 OPTIONAL IF 40 MPH OR LESS

- LEGEND**
- FLAGGING STATION
 - TEMPORARY SIGN LOCATION
 - CHANNELIZING DEVICES
 - PROTECTIVE VEHICLE - RECOMMENDED
 - TEMPORARY SIGN LOCATION (5' MOUNTING HEIGHT)

INTERSECTION LANE CLOSURE ~ THREE LANE ROADWAY

- NOTES**
- RECOMMEND EXTENDING DEVICE TAPER (L/3) ACROSS SHOULDER.
 - IF A SIGNAL IS PRESENT, IT SHALL BE SET TO "RED FLASH MODE" OR TURNED OFF DURING FLAGGING OPERATIONS.
 - FOR SPEED LIMIT OF 30 MPH OR LESS USE SIGN W1-3 IN LIEU OF SIGN W1-4.
 - MAINTAIN A MINIMUM OF ONE ACCESS POINT FOR EACH BUSINESS WITHIN WORK AREA LIMITS.
 - ALL SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE DESIGNATED.

NOT TO SCALE

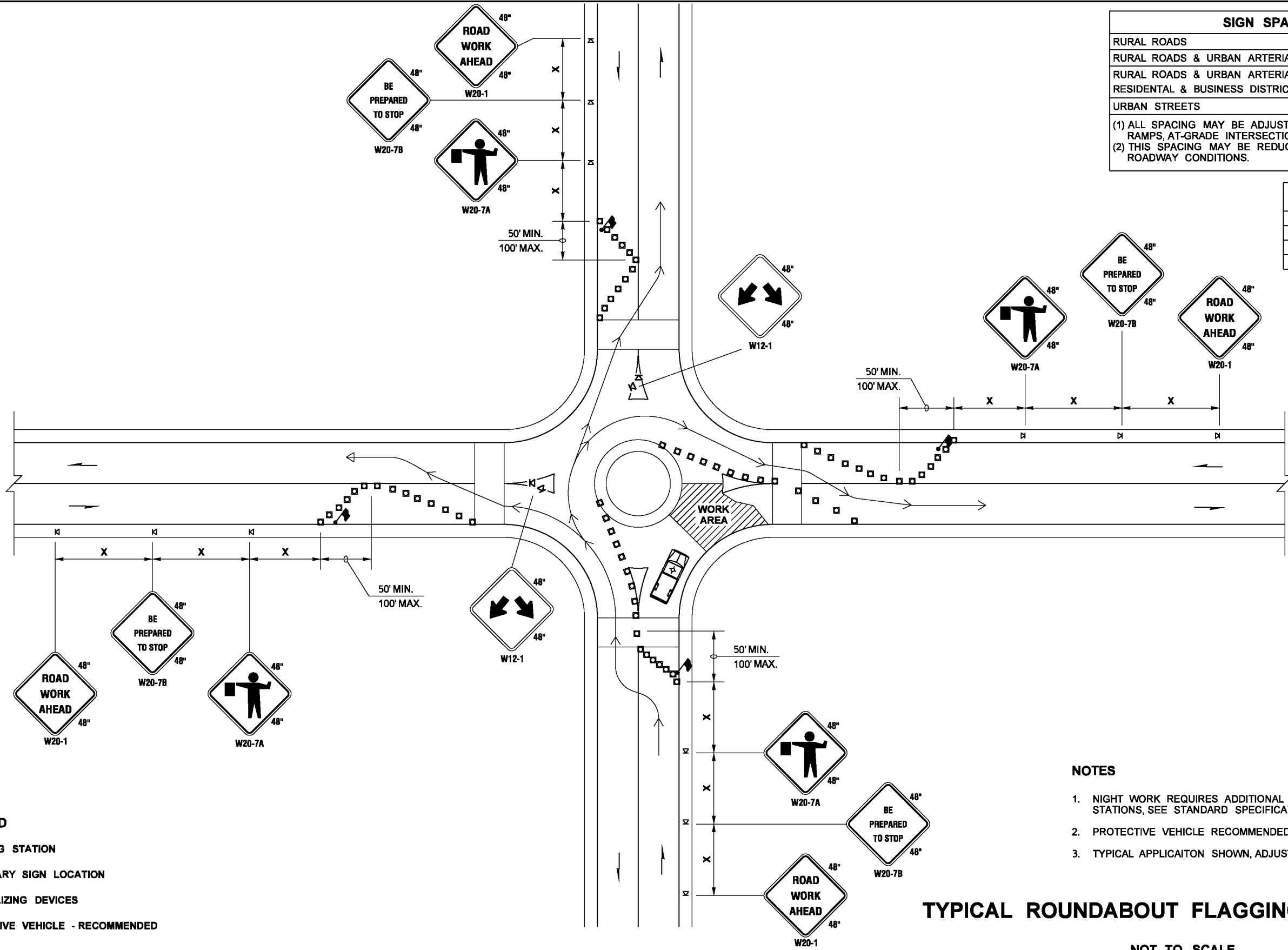
FILE NAME	S:\Design R P& S\4-Standards\2-Plan Sheet Library\01-Published PSL(TC) Work Zone Traffic Control\W(TC-14) Intersection Lane Closure - Three Lane Roadway\TC-14.dgn										Plot 1
TIME	1:27:17 PM										PLAN REF NO
DATE	9/18/2014										TC14
PLOTTED BY	FletcCo										SHEET
DESIGNED BY											OF
ENTERED BY											SHEETS
CHECKED BY											
PROJ. ENGR.											
REGIONAL ADM.	REVISION	DATE	BY	REGION NO.	STATE	FED.AID PROJ.NO.	LOCATION NO.	DATE	DATE		
					WASH						



SIGN SPACING = X (1)		
RURAL ROADS	45 / 55 MPH	500' ±
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350' ±
RURAL ROADS & URBAN ARTERIALS RESIDENTIAL & BUSINESS DISTRICTS	25 / 30 MPH	200' ± (2)
URBAN STREETS	25 MPH OR LESS	100' ± (2)

(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMPS, AT-GRADE INTERSECTIONS AND DRIVEWAYS.
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.

CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
50/55	40	80
35/45	30	60
25/30	20	40



- NOTES**
1. NIGHT WORK REQUIRES ADDITIONAL ROADWAY LIGHTING AT FLAGGING STATIONS, SEE STANDARD SPECIFICATIONS FOR ADDITIONAL DETAILS.
 2. PROTECTIVE VEHICLE RECOMMENDED - MAY BE A WORK VEHICLE.
 3. TYPICAL APPLICATION SHOWN, ADJUST FOR SITE CONDITIONS.

TYPICAL ROUNDABOUT FLAGGING OPERATION

NOT TO SCALE

FILE NAME	S:\Design R P& S4-Standards\2-Plan Sheet Library\01-Published PSL\TC) Work Zone Traffic Control(TC-18) Typical Roundabout Flagging Operation TC-18.dgn										Plot 1		
TIME	3:47:03 PM										PLAN REF NO		
DATE	1/15/2015										TC18		
PLOTTED BY	berensb										SHEET		
DESIGNED BY											OF		
ENTERED BY											SHEETS		
CHECKED BY													
PROJ. ENGR.													
REGIONAL ADM.	REVISION	DATE	BY	REGION NO.	STATE	FED.AID PROJ.NO.	LOCATION NO.	DATE	P.E. STAMP BOX	DATE	P.E. STAMP BOX	WASHINGTON STATE Department of Transportation	TRAFFIC CONTROL PLAN

SIGHT DISTANCE DATA										
MINIMUM STOPPING SIGHT DISTANCE = S										
SPEED LIMIT MPH	25	30	35	40	45	50	55	60	65	70
DISTANCE FEET	155	200	250	305	360	425	495	570	645	730

DISTANCES SHOWN ARE MINIMUMS, USE ADDITIONAL DISTANCE WHEN POSSIBLE.

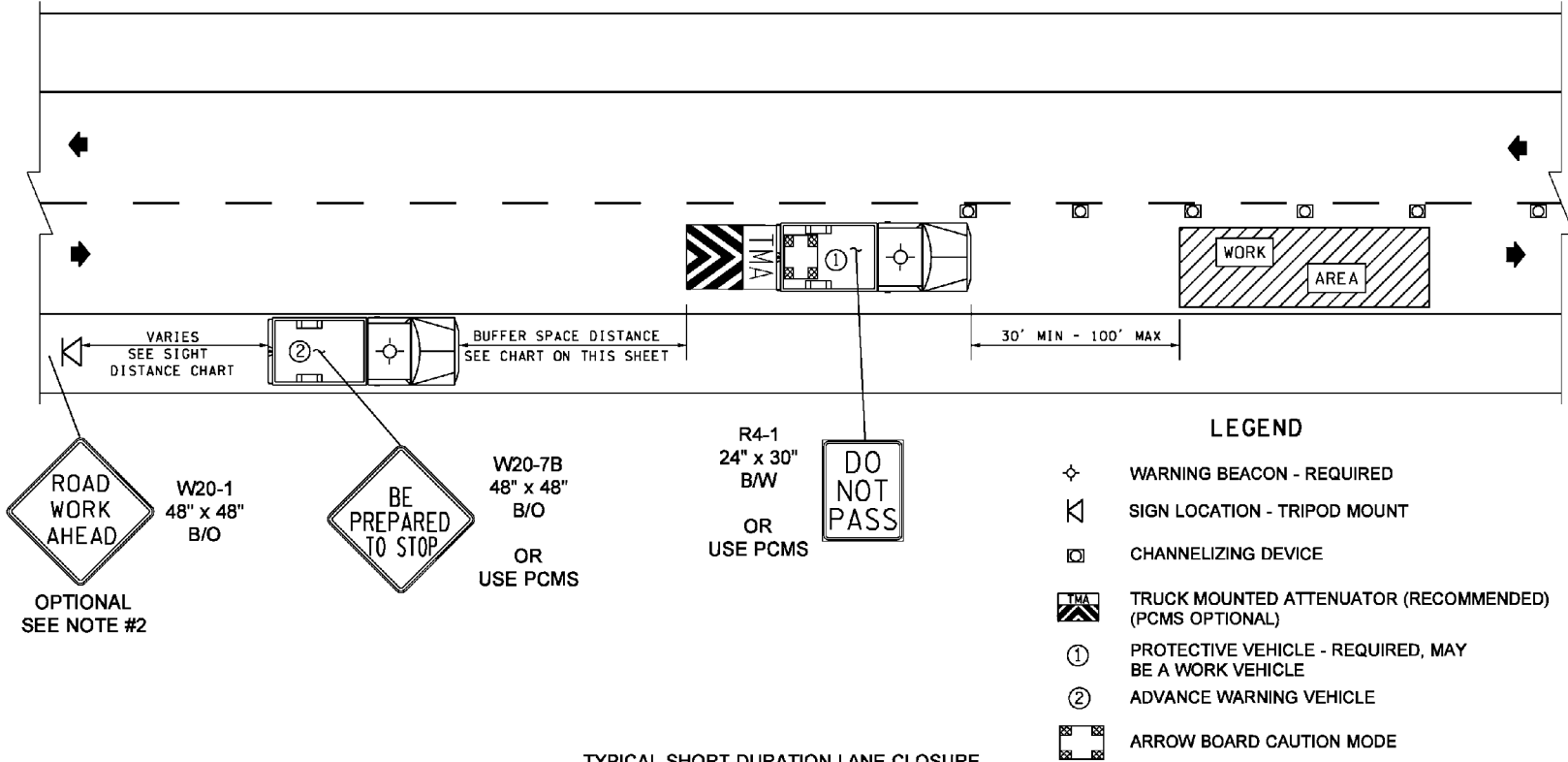
BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	155	200	250	305	360	425	495	570	645	730

WORK ZONE CONDITION (SEE CONDITION GUIDANCE)

- A - ALLOWED, VEHICLE #1 REQUIRED, ALL OTHER DEVICES OPTIONAL.
- B - ALLOWED, VEHICLE #1 AND #2 REQUIRED, CONSIDER USE OF SPOTTER, DEVICES AND LOW VOLUME WORK HOURS.
- C - NOT RECOMMENDED CONSIDER MOBILE OR STATIONARY TCP'S.

NOTES:

1. STOPPING TRAFFIC FOR UP TO 20 MINUTES MAY ALSO BE ALLOWED. (CONTACT & COORDINATE WITH REGION TRAFFIC OFFICE)
2. IF NO TMA IS AVAILABLE, A WORK VEHICLE MAY STRATEGICALLY LOCATED TO SHIELD WORK AREA.



TYPICAL SHORT DURATION LANE CLOSURE
2 LANE OPERATION
TCP 14

TCP 14 – Typical Short Duration Lane Closure (Two-Lane, Two-Way Highway Application)

TCP 15 – Typical Short Duration Lane Closure (Multi-Lane Freeway and Highway Application)

WORK ZONE CONDITION (SEE CONDITION GUIDANCE)

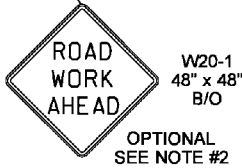
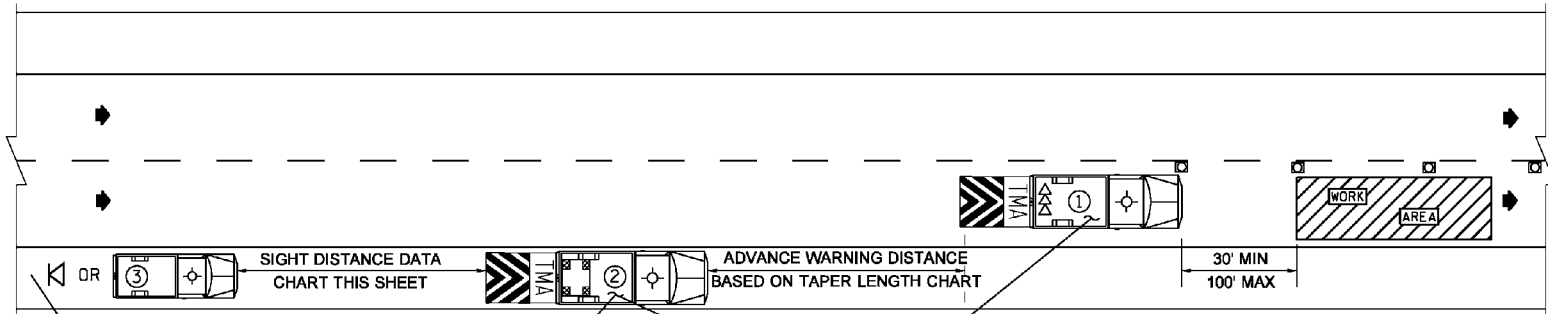
- A - ALLOWED, VEHICLE #1 REQUIRED, ALL OTHER DEVICES OPTIONAL.
- B - ALLOWED, VEHICLE #1 AND #2 REQUIRED, CONSIDER USE OF SPOTTER, DEVICES.
- C - NOT RECOMMENDED, CONSIDER MOBILE OR STATIONARY TCP'S.

NOTES:

1. VEHICLE #3 MAY BE NEEDED BASED ON TRAFFIC VOLUMES.
2. RESTRICTED SIGHT DISTANCE REQUIRES ADDITIONAL ADVANCE WARNING DEVICES OR SIGNS, SEE SIGHT DISTANCE CHART.
3. REFER TO BUFFER DATA CHART FOR ADDITIONAL INFORMATION.

SIGHT DISTANCE DATA MINIMUM STOPPING SIGHT DISTANCE = S										
SPEED LIMIT MPH	25	30	35	40	45	50	55	60	65	70
DISTANCE FEET	155	200	250	305	360	425	495	570	645	730

DISTANCES SHOWN ARE MINIMUMS, USE ADDITIONAL DISTANCE WHEN POSSIBLE.



PCMS	
1	2
LANE CLOSED	MERGE LEFT
2.0 SEC	2.0 SEC

TRUCK MOUNTED PCMS

Lane Width (feet)	MINIMUM TAPER LENGTH = L (feet)									
	Posted Speed (mph)									
	25	30	35	40	45	50	55	60	65	70
10	105	150	205	270	450	500	550	-	-	-
11	115	165	225	295	495	550	605	660	-	-
12	125	180	245	320	540	600	660	720	780	840

LEGEND

- ⬠ WARNING BEACON - REQUIRED
- ⚠ SIGN LOCATION - TRIPOD MOUNT
- ⊠ CHANNELIZING DEVICE
- TMA TRUCK MOUNTED ATTENUATOR (REQUIRED FOR 45 MPH OR HIGHER). RECOMMENDED FOR 40 MPH OR LESS
- ① PROTECTIVE VEHICLE - REQUIRED
- ② SHADOW VEHICLE
- ③ ADVANCE WARNING VEHICLE
- ➡ ARROW BOARD REQUIRED
- ⊠ ARROW BOARD CAUTION MODE (RECOMMENDED) ON VEHICLE # 2

BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	155	200	250	305	360	425	495	570	645	730

TYPICAL SHORT DURATION LANE CLOSURE
MULTI-LANE OPERATION
TCP 15

SIGHT DISTANCE DATA										
MINIMUM STOPPING SIGHT DISTANCE = S										
SPEED LIMIT MPH	25	30	35	40	45	50	55	60	65	70
DISTANCE FEET	155	200	250	305	360	425	495	570	645	730

DISTANCES SHOWN ARE MINIMUMS. USE ADDITIONAL DISTANCE WHEN POSSIBLE.

WORK ZONE CONDITION (SEE CONDITION GUIDANCE)

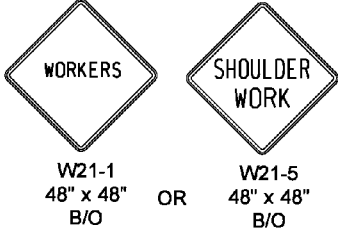
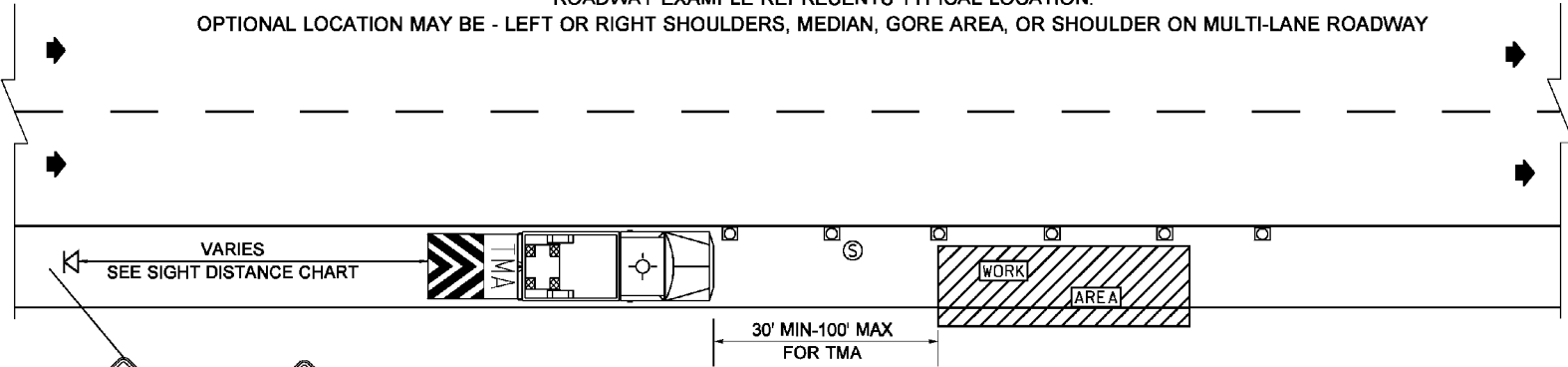
- A - ALLOWED - CONSIDER USING A SPOTTER
- B - ALLOWED - SPOTTER AND/OR CHANNELIZING DEVICES RECOMMENDED, CONSIDER TMA AND/OR PCMS/ARROW CAUTION MODE.
- C - ALLOWED - SPOTTER, CHANNELIZATION DEVICES AND PCMS/ARROW RECOMMENDED, CONSIDER TMA.

NOTES:

1. RESTRICTED SIGHT DISTANCE REQUIRES ADDITIONAL ADVANCE WARNING DEVICES OR SIGNS, SEE SIGHT DISTANCE CHART.
2. NARROW SHOULDERS THAT DO NOT PROVIDE FOR WORK OPERATIONS WITHOUT LANE ENCROACHMENT - 10' LANE MINIMUM, REQUIRES LANE CLOSURE, USE TCP 14 OR 15.
3. REFER TO TAPER AND BUFFER SPACE CHARTS.
4. IF NO TMA IS AVAILABLE THE WORK VEHICLE MAY BE STRATEGICALLY PLACED TO SHIELD WORK AREA.

** ROADWAY EXAMPLE REPRESENTS TYPICAL LOCATION.

OPTIONAL LOCATION MAY BE - LEFT OR RIGHT SHOULDERS, MEDIAN, GORE AREA, OR SHOULDER ON MULTI-LANE ROADWAY



OR OTHER APPROPRIATE ADVANCE WARNING SIGN OR PCMS (OPTIONAL SEE NOTE 1)

- LEGEND**
- WORK VEHICLE W/ WARNING BEACON
 - SIGN LOCATION - (SEE NOTE 1)
 - CHANNELIZING DEVICE
 - SPOTTER
 - ARROW BOARD TYPE "B" (CAUTION MODE)
 - TRUCK MOUNTED ATTENUATOR (REQUIRED) FOR 45 MPH OR HIGHER (RECOMMENDED) FOR 40 MPH OR LESS

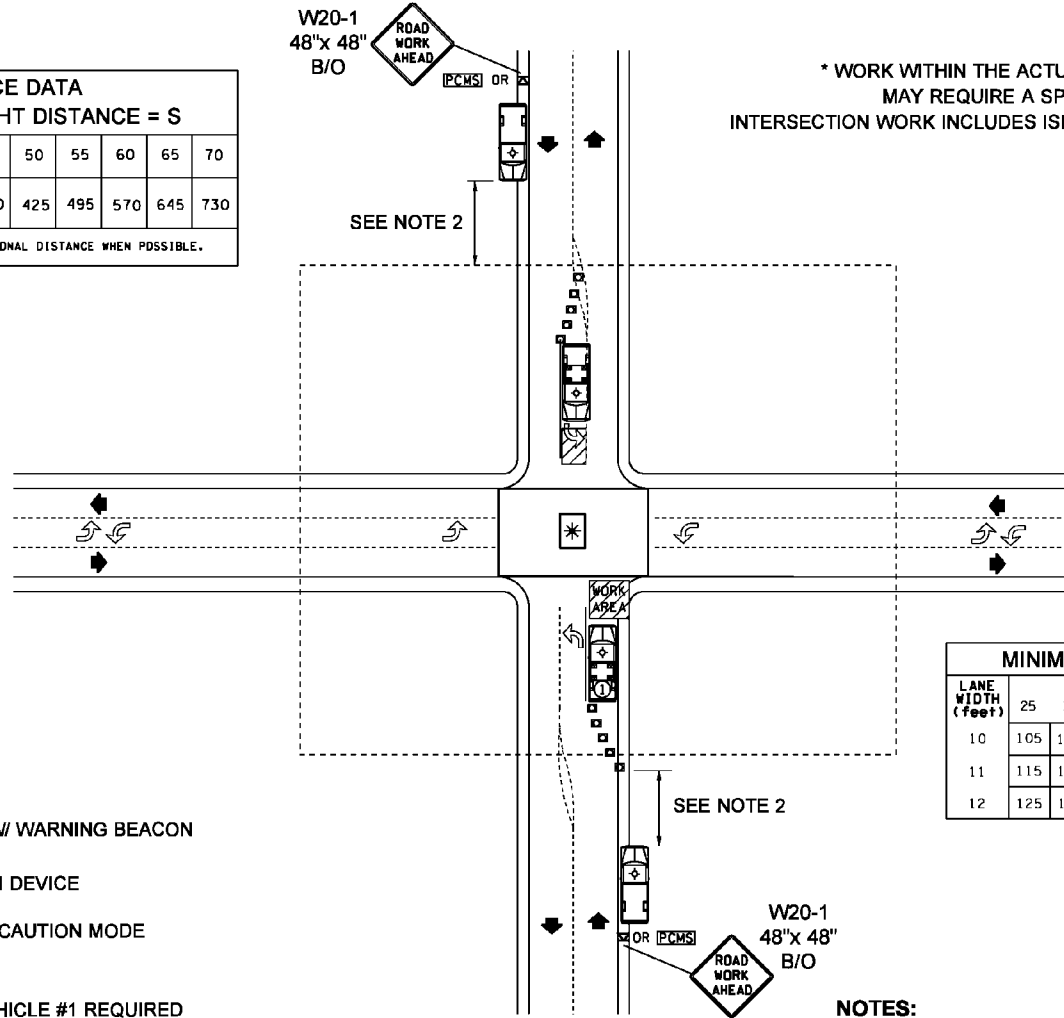
TYPICAL SHORT DURATION SHOULDER WORK MULTI-LANE OPERATION TCP 16

TCP 16 – Typical Short Duration Shoulder Work (Multi-Lane Application)

WORK ZONE CONDITION (SEE CONDITION GUIDANCE)

- A - ALLOWED - CONSIDER USING A SPOTTER, WORK VEHICLE REQUIRED.
- B - ALLOWED - SPOTTER AND/OR CHANNELIZING DEVICES RECOMMENDED, CONSIDER TMA AND/OR PCMS/ARROW CAUTION MODE.
- C - ALLOWED - CHANNELIZATION DEVICES AND PCMS/ARROW (CAUTION MODE), TMA AND SPOTTER RECOMMENDED, VEHICLE #1 REQUIRED.

SIGHT DISTANCE DATA										
MINIMUM STOPPING SIGHT DISTANCE = S										
SPEED LIMIT MPH	25	30	35	40	45	50	55	60	65	70
DISTANCE FEET	155	200	250	305	360	425	495	570	645	730
DISTANCES SHOWN ARE MINIMUMS, USE ADDITIONAL DISTANCE WHEN POSSIBLE.										



* WORK WITHIN THE ACTUAL INTERSECTION MAY REQUIRE A SPECIFIC TCP.
INTERSECTION WORK INCLUDES ISLANDS AND TURN POCKETS.

LEGEND

- WORK VEHICLE W/ WARNING BEACON
- CHANNELIZATION DEVICE
- ARROW BOARD- CAUTION MODE
- SIGN LOCATION
- PROTECTIVE VEHICLE #1 REQUIRED

LANE WIDTH (feet)	MINIMUM TAPER LENGTH = L (feet)									
	Posted Speed (mph)									
	25	30	35	40	45	50	55	60	65	70
10	105	150	205	270	450	500	550	-	-	-
11	115	165	225	295	495	550	605	660	-	-
12	125	180	245	320	540	600	660	720	-	-

NOTES:

1. Work vehicle located in same quadrant as work location.
2. Restricted sight distance requires additional advance warning devices or signs. See Sight Distance Chart.

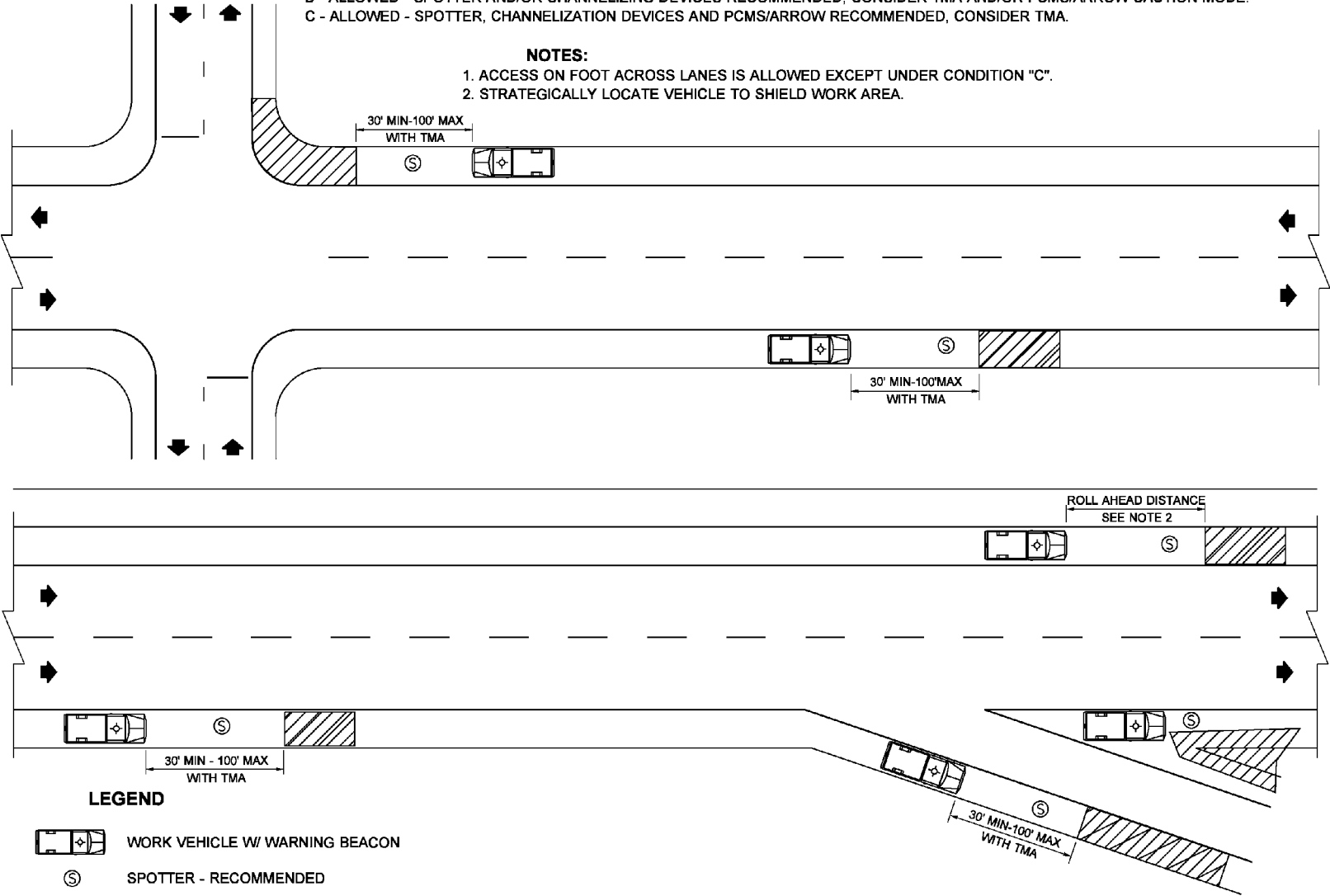
TYPICAL SHORT DURATION WORK OPERATION INTERSECTION LOCATION
(SEE GUIDANCE TEXT FOR ADDITIONAL DIRECTION)
TCP 17

WORK ZONE CONDITION (SEE CONDITION GUIDANCE)




- A - ALLOWED - CONSIDER USING A SPOTTER
- B - ALLOWED - SPOTTER AND/OR CHANNELIZING DEVICES RECOMMENDED, CONSIDER TMA AND/OR PCMS/ARROW CAUTION MODE.
- C - ALLOWED - SPOTTER, CHANNELIZATION DEVICES AND PCMS/ARROW RECOMMENDED, CONSIDER TMA.

NOTES:

1. ACCESS ON FOOT ACROSS LANES IS ALLOWED EXCEPT UNDER CONDITION "C".
2. STRATEGICALLY LOCATE VEHICLE TO SHIELD WORK AREA.



LEGEND

-  WORK VEHICLE W/ WARNING BEACON
-  SPOTTER - RECOMMENDED
-  WORK AREA

TYPICAL VERY SHORT DURATION WORK OPERATION (OUTSIDE TRAVELED WAY)
(HIGH OR LOW SPEED SHOULDER WORK, MEDIAN, GORE, RAMP SHOULDER, ETC.)

TCP 18

TCP 18 – Typical Very Short Duration Work Operation (Outside Traveled Way) (Two-Lane or Multi-Lane Highways)

SIGHT DISTANCE DATA										
MINIMUM STOPPING SIGHT DISTANCE = S										
SPEED LIMIT MPH	25	30	35	40	45	50	55	60	65	70
DISTANCE FEET	155	200	250	305	360	425	495	570	645	730

DISTANCES SHOWN ARE MINIMUMS, USE ADDITIONAL DISTANCE WHEN POSSIBLE.

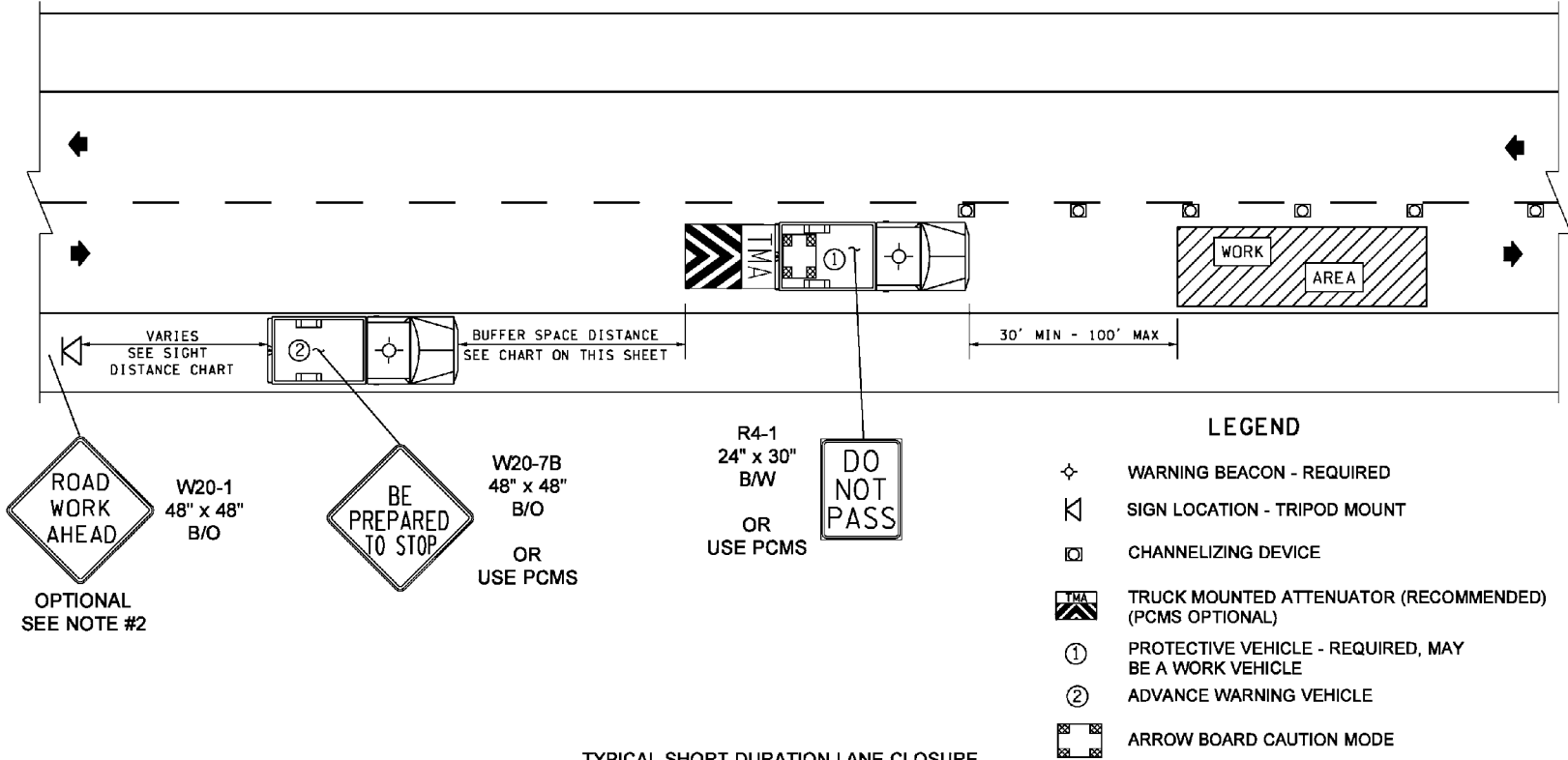
BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	155	200	250	305	360	425	495	570	645	730

WORK ZONE CONDITION (SEE CONDITION GUIDANCE)

- A - ALLOWED, VEHICLE #1 REQUIRED, ALL OTHER DEVICES OPTIONAL.
- B - ALLOWED, VEHICLE #1 AND #2 REQUIRED, CONSIDER USE OF SPOTTER, DEVICES AND LOW VOLUME WORK HOURS.
- C - NOT RECOMMENDED CONSIDER MOBILE OR STATIONARY TCP'S.

NOTES:

1. STOPPING TRAFFIC FOR UP TO 20 MINUTES MAY ALSO BE ALLOWED. (CONTACT & COORDINATE WITH REGION TRAFFIC OFFICE)
2. IF NO TMA IS AVAILABLE, A WORK VEHICLE MAY STRATEGICALLY LOCATED TO SHIELD WORK AREA.

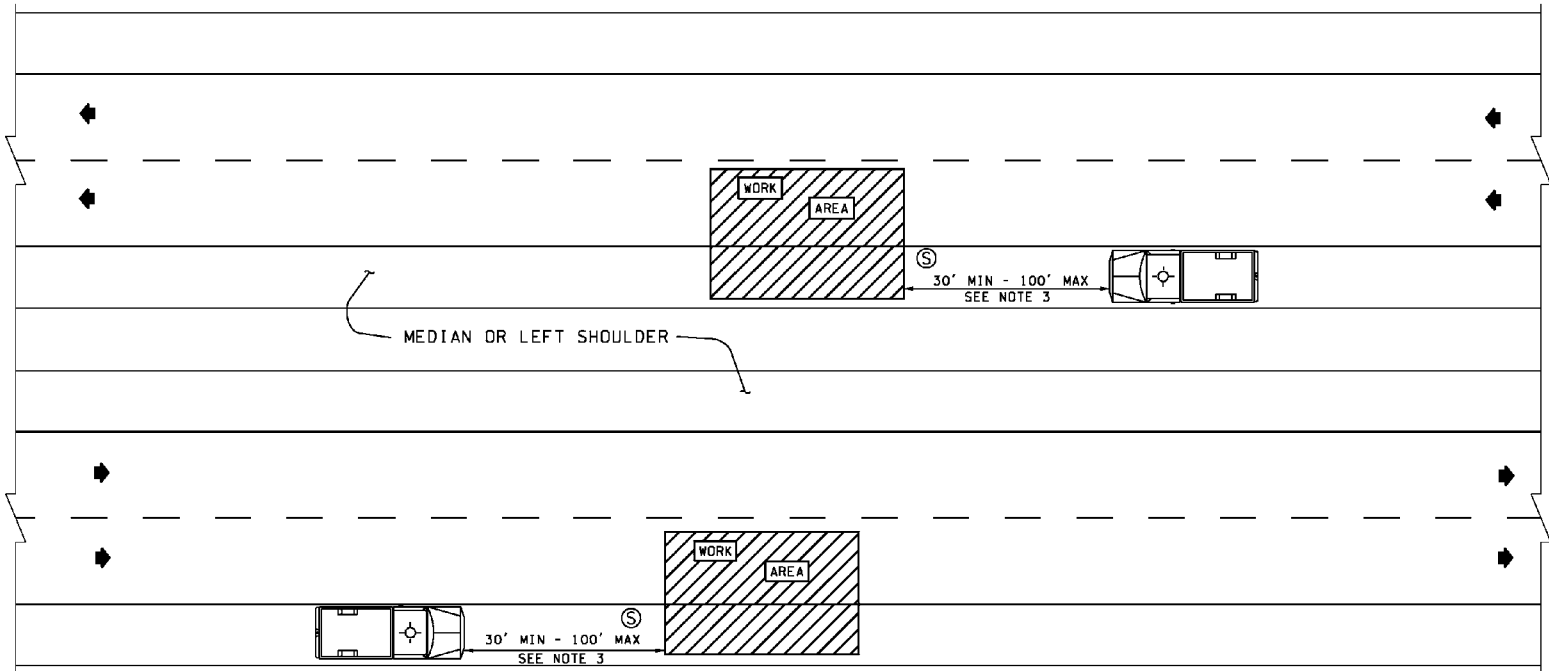


TYPICAL SHORT DURATION LANE CLOSURE
2 LANE OPERATION
TCP 14

TCP 14 – Typical Short Duration Lane Closure (Two-Lane, Two-Way Highway Application)

WORK ZONE CONDITION (SEE CONDITION GUIDANCE)

- A - ALLOWED - CONSIDER USING A SPOTTER
- B - ALLOWED - SPOTTER REQUIRED FOR WORKER ACCESS TO LANE.
- C - NOT RECOMMENDED, SEE TCP 19a FOR WORK ZONE REQUIREMENTS.





SIGHT DISTANCE DATA	
MINIMUM STOPPING SIGHT DISTANCE = S	
SPEED LIMIT MPH	25 30 35 40 45 50 55 60 65 70
DISTANCE FEET	155 200 250 305 360 425 495 570 645 730
DISTANCES SHOWN ARE MINIMUMS. USE ADDITIONAL DISTANCE WHEN POSSIBLE.	

NOTES:

1. SEE GUIDANCE SECTION FOR WORKER(S) IN LANE
2. RESTRICTED SIGHT DISTANCE REQUIRES ADDITIONAL ADVANCE WARNING DEVICES OR SIGNS, SEE SIGHT DISTANCE CHART.
3. STRATEGICALLY LOCATE WORK VEHICLE TO SHIELD WORK AREA.

LEGEND

-  WORK VEHICLE WITH WARNING BEACON
-  SPOTTER

TYPICAL VERY SHORT DURATION WORK OPERATION - LOW SPEED (40 MPH OR LESS)
(SEE GUIDANCE TEXT FOR ADDITIONAL DIRECTION)

TCP 19

TCP 19 – Typical Very Short Duration Work Operation (Multi-Lane Application, Low Speed, 40 mph or Lower)

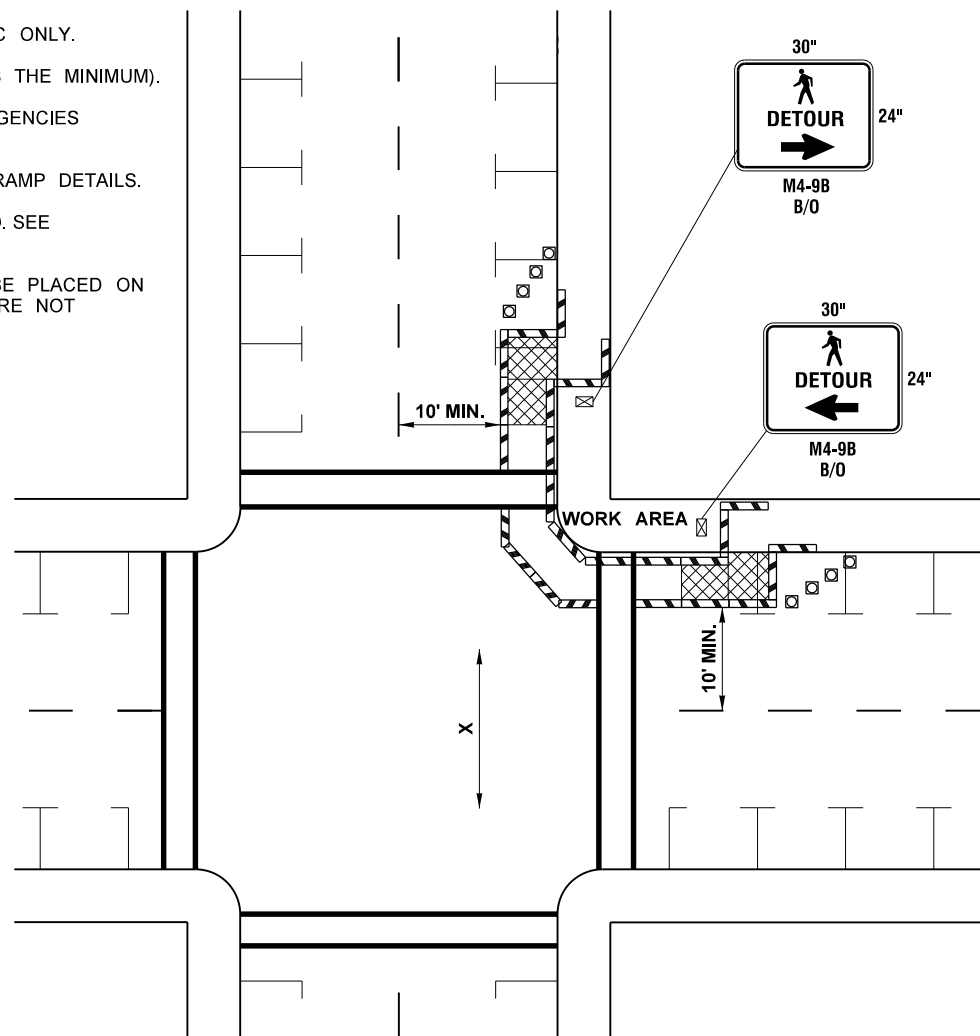


R8-3
24" x 30"
R/W

INSTALL ON TYPE 2 BARRICADES THROUGHOUT THE WORK AREA
24 HOURS PRIOR TO IMPLEMENTING TRAFFIC CONTROL.
PRIOR NOTIFICATION OF LOCAL LAW ENFORCEMENT REQUIRED.

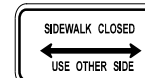
NOTES

1. CONTROLS SHOWN ARE FOR PEDESTRIAN TRAFFIC ONLY.
2. A 60" PATH WIDTH SHOULD BE MAINTAINED (48" IS THE MINIMUM).
3. CONTACT AND COORDINATE IMPACTED TRANSIT AGENCIES PRIOR TO IMPLEMENTING ANY CLOSURES.
4. SEE SHEET TC-52 FOR TEMPORARY PEDESTRIAN RAMP DETAILS.
5. ADA PEDESTRIAN FACILITIES MUST BE MAINTAINED. SEE STANDARD SPECIFICATION 1-10.2(1)B.
6. TEMPORARY PEDESTRIAN PUSH BUTTONS SHALL BE PLACED ON THE DIVERTED PATH WHEN EXISTING BUTTONS ARE NOT ACCESSIBLE TO PEDESTRIANS.



SIDEWALK DIVERSION

R9-10
24" x 12"
B/W

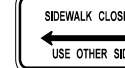


R9-11
24" x 12"
B/W

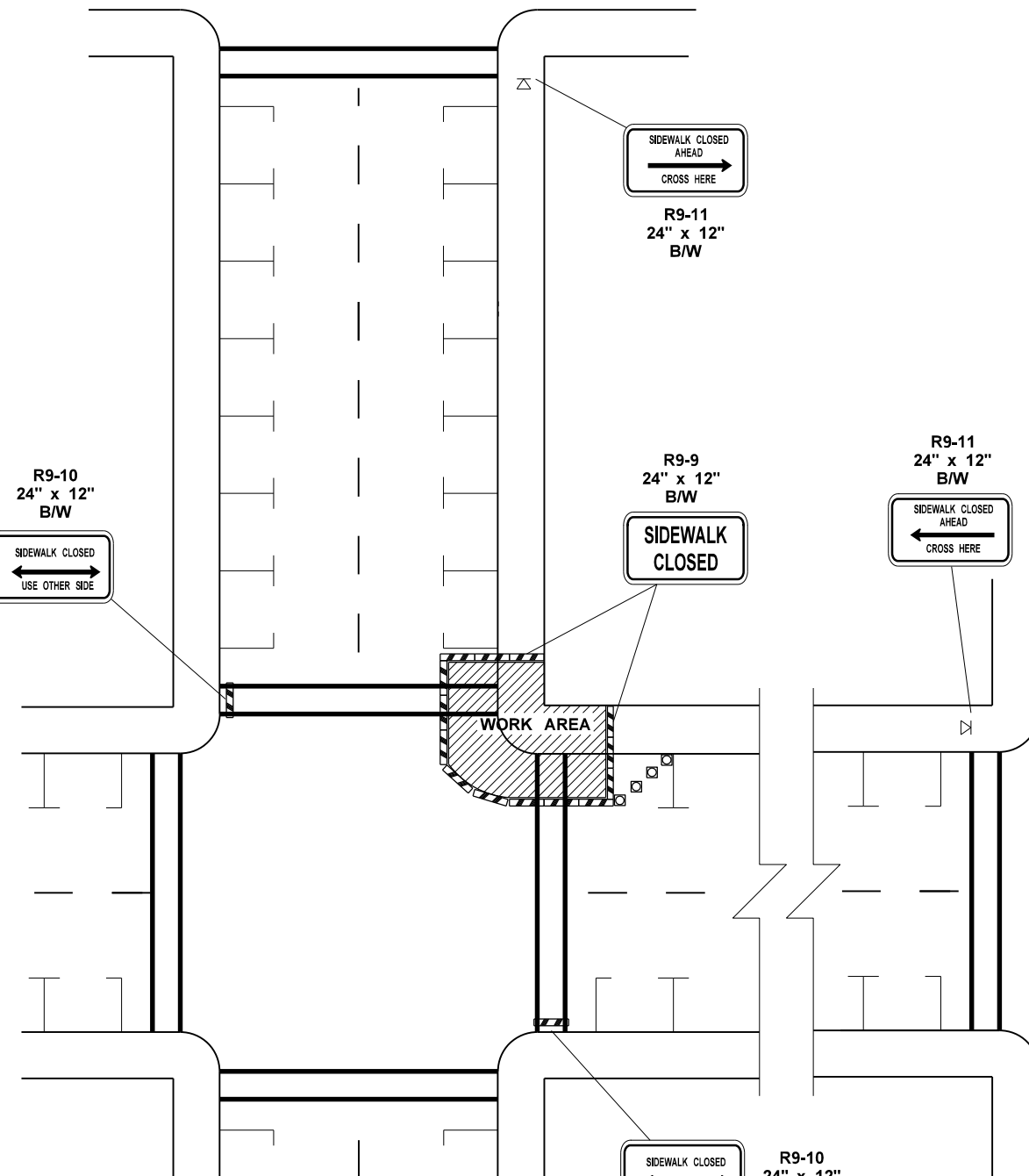
R9-9
24" x 12"
B/W



R9-11
24" x 12"
B/W



R9-10
24" x 12"
B/W



SIDEWALK DETOUR

LEGEND

- ⊠ TEMPORARY SIGN LOCATION
- ⊠ CHANNELIZING DEVICES
- ▨ PEDESTRIAN CHANNELIZING DEVICES
- TEMPORARY PEDESTRIAN RAMP FOR SIDEWALKS

INTERSECTION PEDESTRIAN TRAFFIC CONTROL

NOT TO SCALE

FILE NAME	S:\Desgn R P& S\4-Standards\2-Plan Sheet Library\01-Publshed PSL(TC) Work Zone Traffic Control\W(TC-16) Intersection Pedestrian Traffic Control\TC-16.dgn			
TIME	1:28:42 PM			
DATE	9/18/2014			
PLOTTED BY	FletcCo	REGION NO.	STATE	FED.AID PROJ.NO.
DESIGNED BY			WASH	
ENTERED BY		JOB NUMBER		
CHECKED BY		CONTRACT NO.	LOCATION NO.	
PROJ. ENGR.				
REGIONAL ADM.	REVISION	DATE	BY	P.E. STAMP BOX



Plot 1
PLAN REF NO TC16
SHEET OF SHEETS
PEDESTRIAN CONTROL AND PROTECTION

BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	155	200	250	305	360	425	495	570	645	730

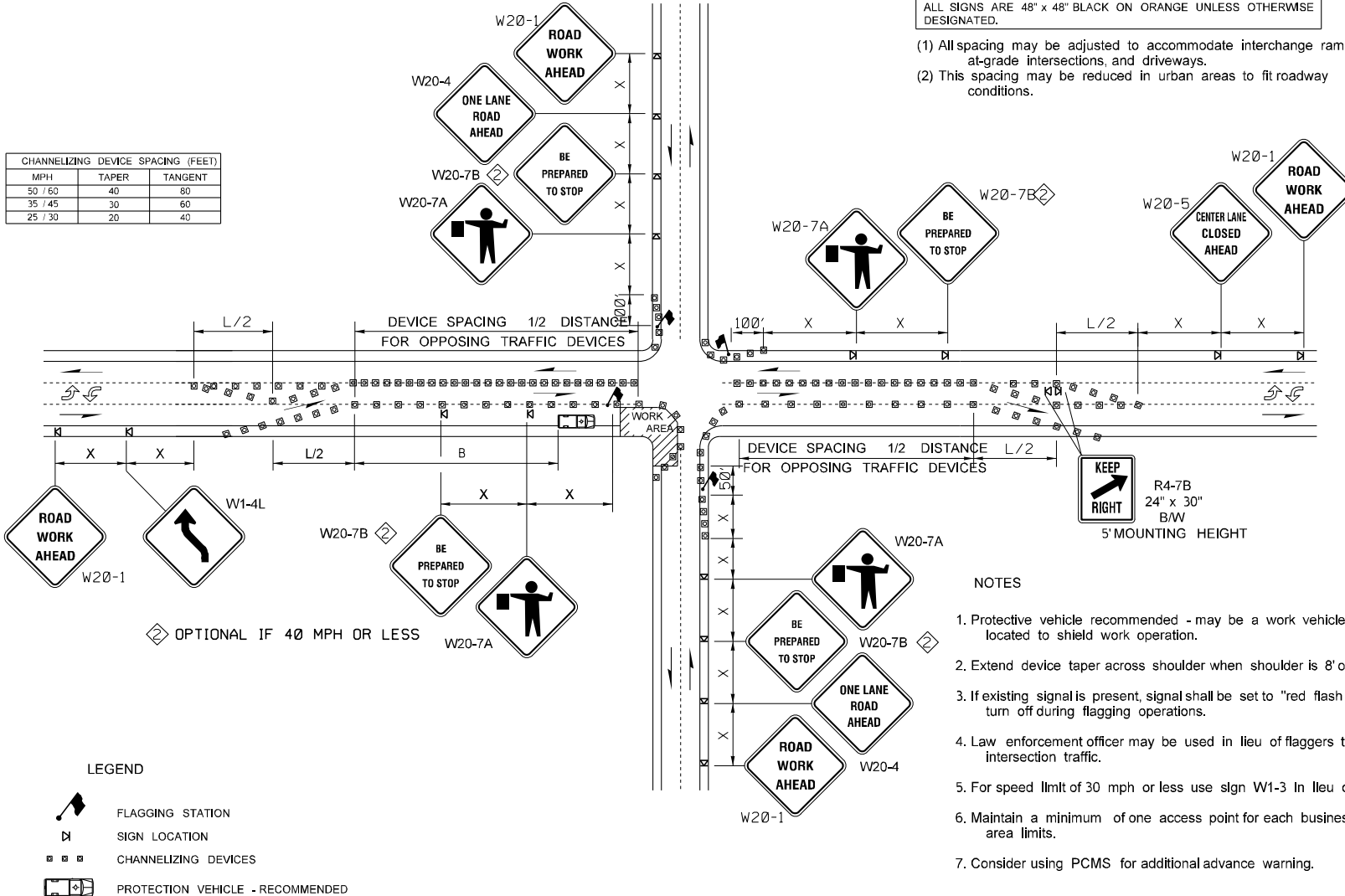
MINIMUM TAPER LENGTH = L (feet)										
Lane Width (feet)	Posted Speed (mph)									
	25	30	35	40	45	50	55	60	65	70
10	105	150	205	270	450	500	550	-	-	-
11	115	165	225	295	495	550	605	660	-	-
12	125	180	245	320	540	600	660	720	-	-

SIGN SPACING = X (FEET) (1)		
RURAL HIGHWAYS	60 / 65 MPH	800±
RURAL ROADS	45 / 55 MPH	500±
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350±
RURAL ROADS, URBAN ARTERIALS RESIDENTIAL & BUSINESS DISTRICTS	25 / 30 MPH	200± (2)
URBAN STREETS	25 MPH OR LESS	100± (2)

ALL SIGNS ARE 48" x 48" BLACK ON ORANGE UNLESS OTHERWISE DESIGNATED.

- (1) All spacing may be adjusted to accommodate interchange ramps, at-grade intersections, and driveways.
- (2) This spacing may be reduced in urban areas to fit roadway conditions.

CHANNELIZING DEVICE SPACING (FEET)		
MPH	TAPER	TANGENT
50 / 60	40	80
35 / 45	30	60
25 / 30	20	40



NOTES

1. Protective vehicle recommended - may be a work vehicle strategically located to shield work operation.
2. Extend device taper across shoulder when shoulder is 8' or wider.
3. If existing signal is present, signal shall be set to "red flash mode" or turn off during flagging operations.
4. Law enforcement officer may be used in lieu of flaggers to control intersection traffic.
5. For speed limit of 30 mph or less use sign W1-3 in lieu of sign W1-4.
6. Maintain a minimum of one access point for each business within work area limits.
7. Consider using PCMS for additional advance warning.

TYPICAL INTERSECTION LANE CLOSURE ~ THREE LANE ROADWAY
TCP 27

LEGEND

- FLAGGING STATION
- SIGN LOCATION
- CHANNELIZING DEVICES
- PROTECTION VEHICLE - RECOMMENDED