



Department of Public Works – Right-of-Way Management Services

17500 Midvale Avenue North, Shoreline, WA 98133-4905

Telephone (206) 801-2400 ♦ Fax (206) 801-2785

TRAFFIC CONTROL STANDARDS

1. All traffic control applications and devices are to be pursuant to the Manual on Uniform Traffic Control Devices (MUTCD), current edition.
2. All traffic control signs are to be 36" x 36" with orange background and black lettering (30" x 30" okay on streets classified as "Local").
3. A minimum of three traffic control signs is required in all directions on residential streets adjacent to, or around the corner from, the job site. A minimum of four traffic control signs is required in all directions on arterial streets and state routes adjacent to, or around the corner from, the job site. The City of Shoreline reserves the right to require additional signage depending on the scope of work and the location of the project.
4. In all instances, cones must be orange in color, 28 inches tall, and have two (2) retroreflective bands.
5. Distance between signs is per MUTCD Table 6C-1.
6. The City of Shoreline reserves the right to adjust approved traffic control plans as needed during the project.



Department of Public Works – Right-of-Way Management Services

17500 Midvale Avenue North, Shoreline, WA 98133-4905

Telephone (206) 801-2400 ♦ Fax (206) 801-2785

Typical Elements for Traffic Control Plan Submittals

The following is a list of typical elements that should be included in traffic control plans submitted for review. Incorporating these elements into the plan will help reduce delay in the review process and reduce the need for possible re-submittal of the plans.

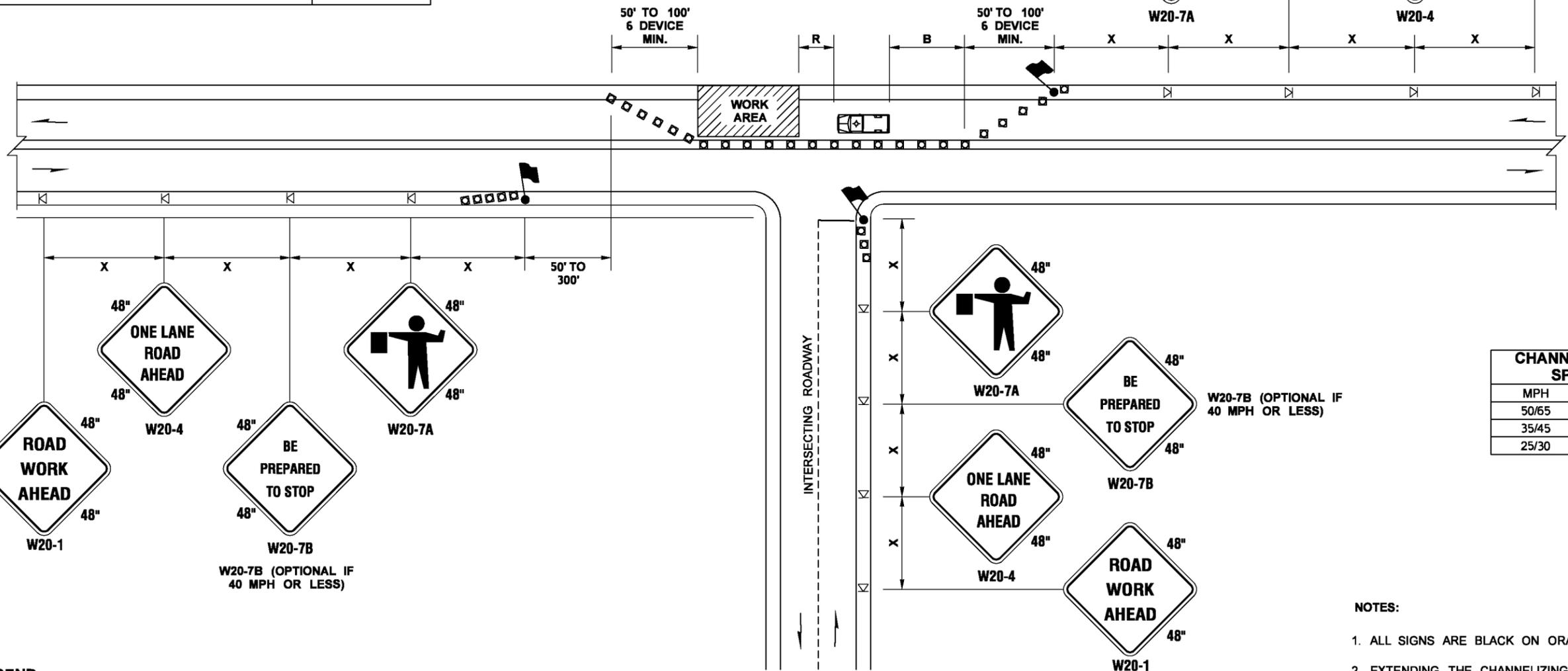
Traffic Control Plans should contain the following information:

- A clear and accurate plan view representation of the streets and the intersection where the temporary traffic control plan will be implemented. Should include the following:
 - A. Street names
 - B. Lane configurations
 - C. Existing channelization devices (include pavement markings such as crosswalks)
 - D. Traffic signals
- Clearly indicate the active work area and the proposed temporary channelization device set up.
- Include a legend indicating symbols used to represent various traffic control device elements.
- Clearly indicate the temporary signing to be used. Label sign by appropriate signs code as per MUTCD, and include size and color of signs. (Size and color can be referenced in the general notes shown on the plan.) Using both a sign image and sign code will help clarify the appropriate sign intended.
- Clearly indicate sign spacing on plan, may reference a sign spacing chart on shown on plan.
- Include channelization device spacing chart.
- Label all transition / taper lengths. Show lengths or reference lengths to a table included on plan.
- Label buffer lengths on plan. Indicate length or reference lengths to a table included on plan.
- As per RCW 47.36.200, include special warning signs for motorcycles (W21-1701 – “Motorcycles Use Extreme Caution”) if any of the following conditions exist at the work zone:
 - A. Grooved Pavement
 - B. Abrupt land edge
 - C. Steel Plates
 - D. Loosed material (such as gravel or dirt) on roadway
- Indicate approved work hours. Typical work hours are 9 am to 3pm unless otherwise approved.
- Include in general notes that a minimum of 11’ lanes will be maintained.

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

LEGEND

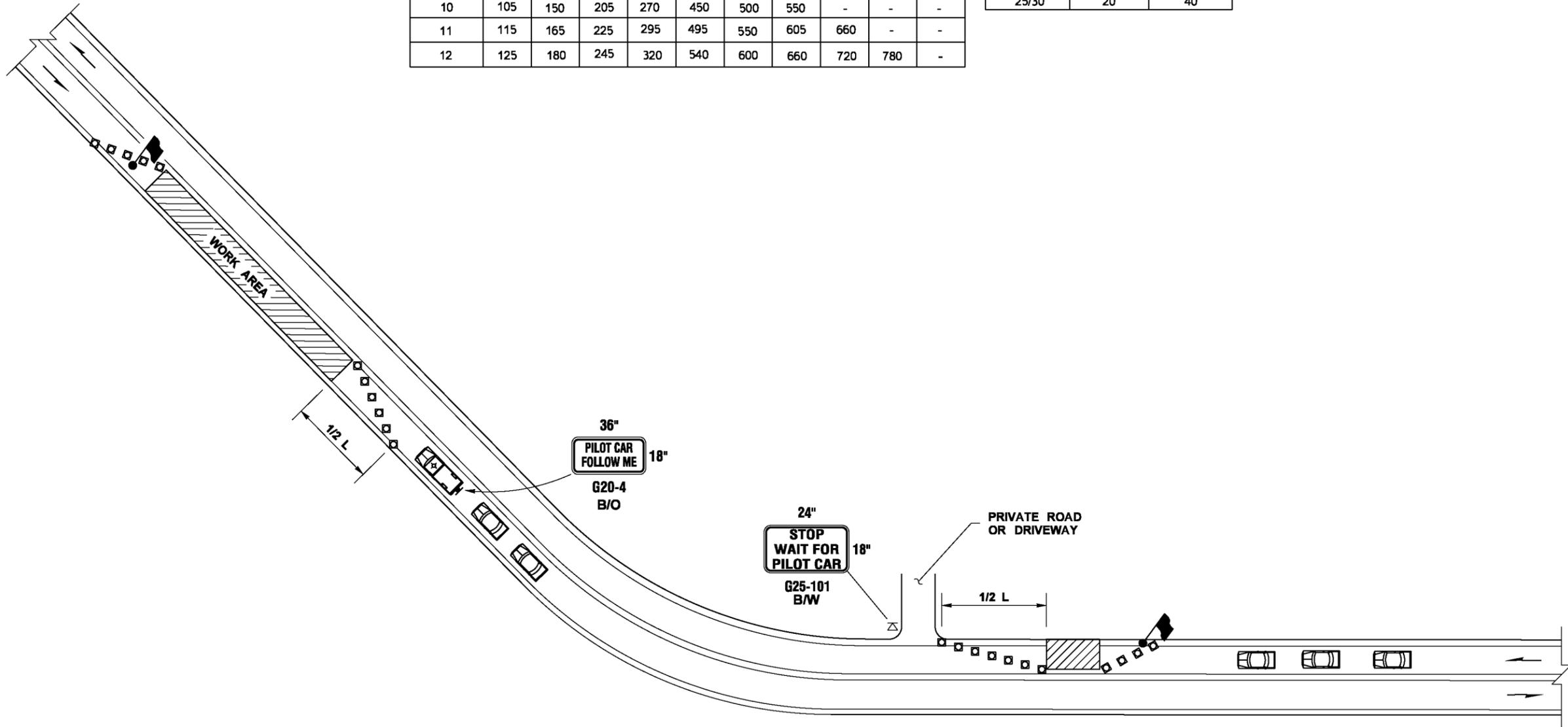
- FLAGGING STATION
- TEMPORARY SIGN LOCATION
- CHANNELIZING DEVICES
- PROTECTIVE VEHICLE

FILE NAME: S:\Design R P& S\4-Standards\2-Plan Sheet Library\01-Published PSL(TC) Work Zone Traffic Control\W(TC-1) One Lane, Two Way Traffic Control with Flaggers\TC-1.dgn				REGION NO.		STATE		FED.AID PROJ.NO.		DATE		DATE		PLOT 1	
TIME: 1:16:53 PM				WASH										PLAN REF NO	
DATE: 9/18/2014														TC1	
PLOTTED BY: FletcCo														SHEET	
DESIGNED BY:														OF	
ENTERED BY:														SHEETS	
CHECKED BY:															
PROJ. ENGR.:															
REGIONAL ADM.:				REVISION		DATE		BY		DATE		DATE		TRAFFIC CONTROL PLAN	



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	-

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



- LEGEND**
- FLAGGING STATION
 - TEMPORARY SIGN LOCATION
 - CHANNELIZING DEVICES
 - PILOT VEHICLE
 - MOTORIST VEHICLE

PILOT CAR OPERATION

NOT TO SCALE

NOTES:

- REFER TO SHEET TC1 FOR ADDITIONAL SIGNING AND FLAGGING DETAILS NOT SHOWN.
- CHANNELIZING DEVICES ARE RECOMMENDED ALONG CENTERLINE TO SEPARATE TRAFFIC FROM WORK OPERATION. DEVICES ARE REQUIRED AT TAPERS TO SHIFT TRAFFIC MOVEMENT BETWEEN LANES AND TO PROTECT FLAGGING STATIONS.
- SIGN G25-101 IS RECOMMENDED FOR NON-STOP SIGN CONTROLLED APPROACHES SUCH AS PRIVATE ROADS AND DRIVEWAYS. THIS SIGN IS NOT REQUIRED TO BE ALUMINUM SUBSTRATE AND CAN BE MADE OF ALTERNATIVE MATERIALS.

FILE NAME	S:\Design R P& S\4-Standards\2-Plan Sheet Library\01-Published PSL(TC) Work Zone Traffic Control\W(TC-2) Pilot Car Operation\TC-2.dgn				REGION NO.	STATE	FED.AID PROJ.NO.	Washington State Department of Transportation	Plot 1
TIME	1:17:34 PM				WASH				PLAN REF NO TC2
DATE	9/18/2014				JOB NUMBER			SHEET OF	
PLOTTED BY	FletcCo				CONTRACT NO.	LOCATION NO.			
DESIGNED BY								TRAFFIC CONTROL PLAN	
ENTERED BY									
CHECKED BY								SHEETS	
PROJ. ENGR.									
REGIONAL ADM.	REVISION	DATE	BY						

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)

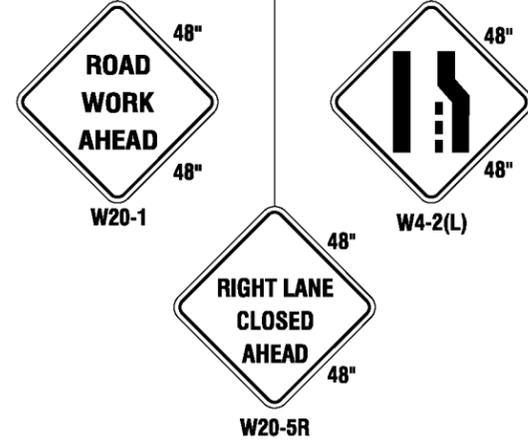
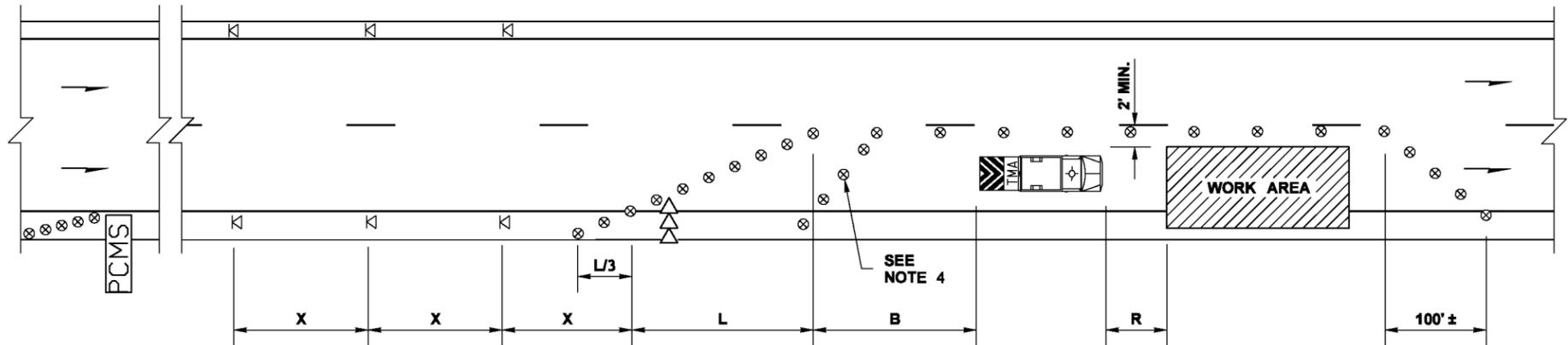
(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMP, AT-GRADE INTERSECTIONS AND DRIVEWAYS.
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.

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										
	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
RIGHT LANE CLOSURE	1 MILE AHEAD
2.0 SEC	2.0 SEC

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

- NOTES:**
- SEE SPECIAL PROVISIONS FOR WORK HOUR RESTRICTIONS.
 - EXTEND DEVICE TAPER AT L/3 ACROSS SHOULDER.
 - DEVICES SHALL NOT ENCROACH INTO THE ADJACENT LANE.
 - USE TRANSVERSE DEVICES IN CLOSED LANE EVERY 1000' (FT) (RECOMMENDED).
 - DEVICE SPACING FOR THE DOWNSTREAM TAPER SHALL BE 20' (FT).
 - ALL SIGNS ARE BLACK ON ORANGE.

SINGLE-LANE CLOSURE FOR MULTI-LANE ROADWAYS

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-3) Single-Lane Closure for Multi-Lane Roadways\TC-3.dgn										Plot 1
TIME	1:18:08 PM										PLAN REF NO
DATE	9/18/2014										TC3
PLOTTED BY	FletcCo										SHEET
DESIGNED BY											OF
ENTERED BY											SHEETS
CHECKED BY											
PROJ. ENGR.											
REGIONAL ADM.											
REVISION											
DATE											
BY											
REGION NO.											
STATE	WASH										
JOB NUMBER											
CONTRACT NO.											
LOCATION NO.											
FED.AID PROJ.NO.											
DATE											
P.E. STAMP BOX											
DATE											
P.E. STAMP BOX											
Washington State Department of Transportation											
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)

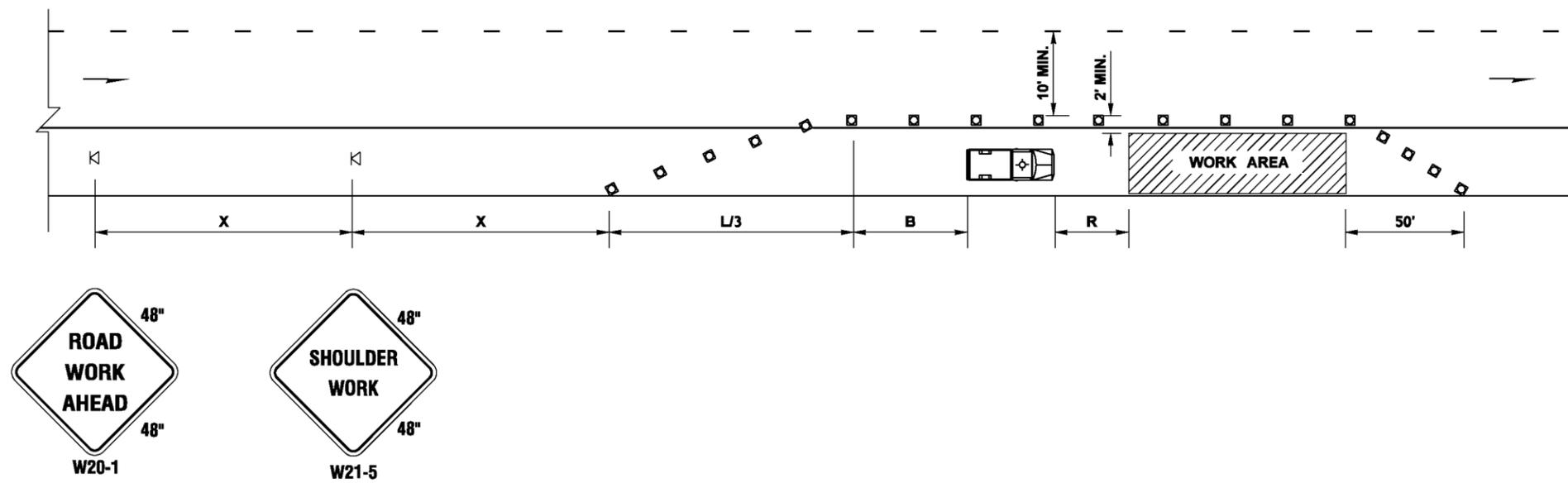
(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERSECTIONS AND DRIVEWAYS.
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.

MINIMUM SHOULDER TAPER LENGTH = L/3 (feet)										
SHOULDER WIDTH (feet)	Posted Speed (mph)									
		25	30	35	40	45	50	55	60	65
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				REGION NO.		STATE		FED.AID PROJ.NO.		DATE		DATE		PLOT 1	
TIME 1:20:14 PM				WASH										PLAN REF NO	
DATE 9/18/2014														TC5	
PLOTTED BY FletcCo				JOB NUMBER										SHEET	
DESIGNED BY				CONTRACT NO.		LOCATION NO.								OF	
ENTERED BY														SHEETS	
CHECKED BY														TRAFFIC CONTROL PLAN	
PROJ. ENGR.															
REGIONAL ADM.				REVISION		DATE		BY		P.E. STAMP BOX		P.E. STAMP BOX			



SIGN SPACING = X (1)		
FREEWAYS & EXPRESSWAYS	55 / 70 MPH	1500' ±
RURAL HIGHWAYS	60 / 65 MPH	800' ±
RURAL ROADS	45 / 55 MPH	500' ±

(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMPS, AT-GRADE INTERSECTIONS AND DRIVEWAYS.

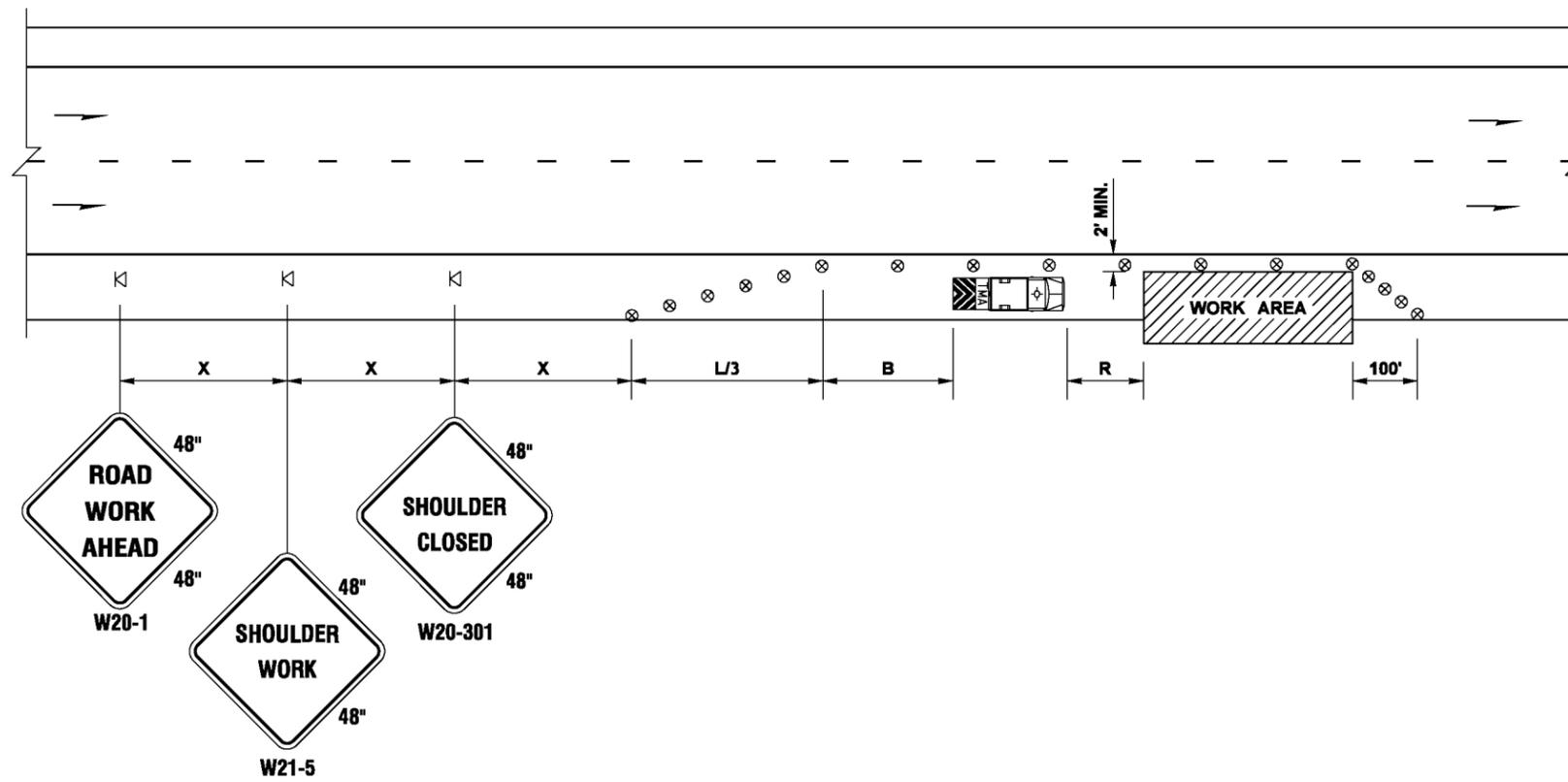
MINIMUM SHOULDER TAPER LENGTH = L/3 (feet)										
SHOULDER WIDTH (feet)	Posted Speed (mph)									
	25	30	35	40	45	50	55	60	65	70
8'	-	-	-	-	120	130	150	160	170	190
10'	-	-	-	-	150	170	190	200	220	240

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

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

BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	-	-	-	-	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.	



SHOULDER CLOSURE - HIGH SPEED

NOT TO SCALE

NOTES:

1. NO ENCROACHMENT IN TRAVELED LANE. IF ENCROACHMENT IS NECESSARY, LANE SHALL BE CLOSED.
2. DEVICE SPACING FOR THE DOWNSTREAM TAPER SHALL BE 20' (FT) O.C.
3. 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-6) Shoulder Closure - High Speed\TC-6.dgn										Plot 1		
TIME	1:21:04 PM										PLAN REF NO		
DATE	9/18/2014										TC6		
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.	CONTRACT NO.	LOCATION NO.	P.E. STAMP BOX	DATE	DATE	Washington State Department of Transportation	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	-	-	-	-	450	500	550	-	-	-
11	-	-	-	-	495	550	605	660	-	-
12	-	-	-	-	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'	-	-	-	-	120	130	150	160	170	190
10'	-	-	-	-	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' ±

(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMP, AT-GRADE INTERSECTIONS AND DRIVEWAYS.

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

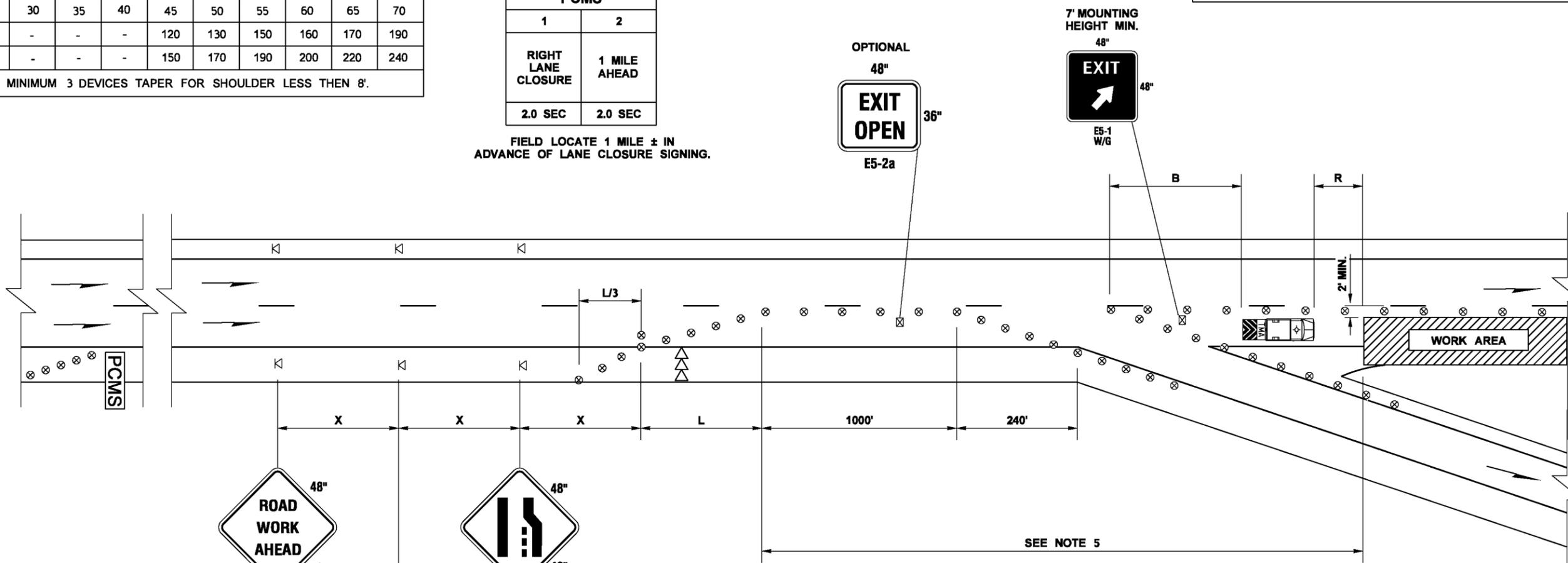
BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	-	-	-	-	360	425	495	570	645	730

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
RIGHT LANE CLOSED	1 MILE AHEAD
2.0 SEC	2.0 SEC

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



TEMPORARY OFF-RAMP FOR MULTI-LANE ROADWAYS

NOT TO SCALE

NOTES:

1. SEE SPECIAL PROVISIONS FOR CLOSURE HOUR RESTRICTIONS.
2. USE A DOWNSTREAM TAPER TO END THE LANE CLOSURE WITH 20'(FT) DEVICE SPACING.
3. DEVICES SHALL NOT ENCROACH INTO ADJACENT LANES.
4. USE TRANSVERSE DEVICES IN CLOSED LANES EVERY 1000'(FT) ± (RECOMMENDED).
5. SEE SHEET TCXX FOR A SHORT TERM OFF-RAMP CLOSURE WHEN THE WORK AREA LOCATION RESTRICTS RAMP ACCESS.
6. ALL SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE DESIGNATED.

- LEGEND**
- ⊏ TEMPORARY SIGN LOCATION
 - ⊗ TRAFFIC SAFETY DRUM
 - ⇨⇨⇨ SEQUENTIAL ARROW SIGN
 - TRANSPORTABLE ATTENUATOR
 - PORTABLE CHANGEABLE MESSAGE SIGN
 - ⊠ TEMPORARY SIGN LOCATION (5' MOUNTING HEIGHT)

FILE NAME	S:\Design R P& S\4-Standards\2-Plan Sheet Library\01-Published PSL(TC) Work Zone Traffic Control\W(TC-7) Temporary Off-Ramp for Multi-Lane Roadways\TC-7.dgn				
TIME	1:22:32 PM				
DATE	9/18/2014				
PLOTTED BY	FletcCo				
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.



TRAFFIC CONTROL PLAN

Plot 1
PLAN REF NO
TC7
SHEET
OF
SHEETS

MINIMUM LANE CLOSURE TAPER LENGTH = L (feet)										
LANE WIDTH (feet)	Posted Speed (mph)									
	25	30	35	40	45	50	55	60	65	70
10	-	-	-	-	450	500	550	-	-	-
11	-	-	-	-	495	550	605	660	-	-
12	-	-	-	-	540	600	660	720	780	840

SIGN SPACING = X (1)		
FREEWAYS & EXPRESSWAYS	55 / 70 MPH	1500' ±
RURAL HIGHWAYS	60 / 65 MPH	800' ±
RURAL ROADS	45 / 55 MPH	500' ±

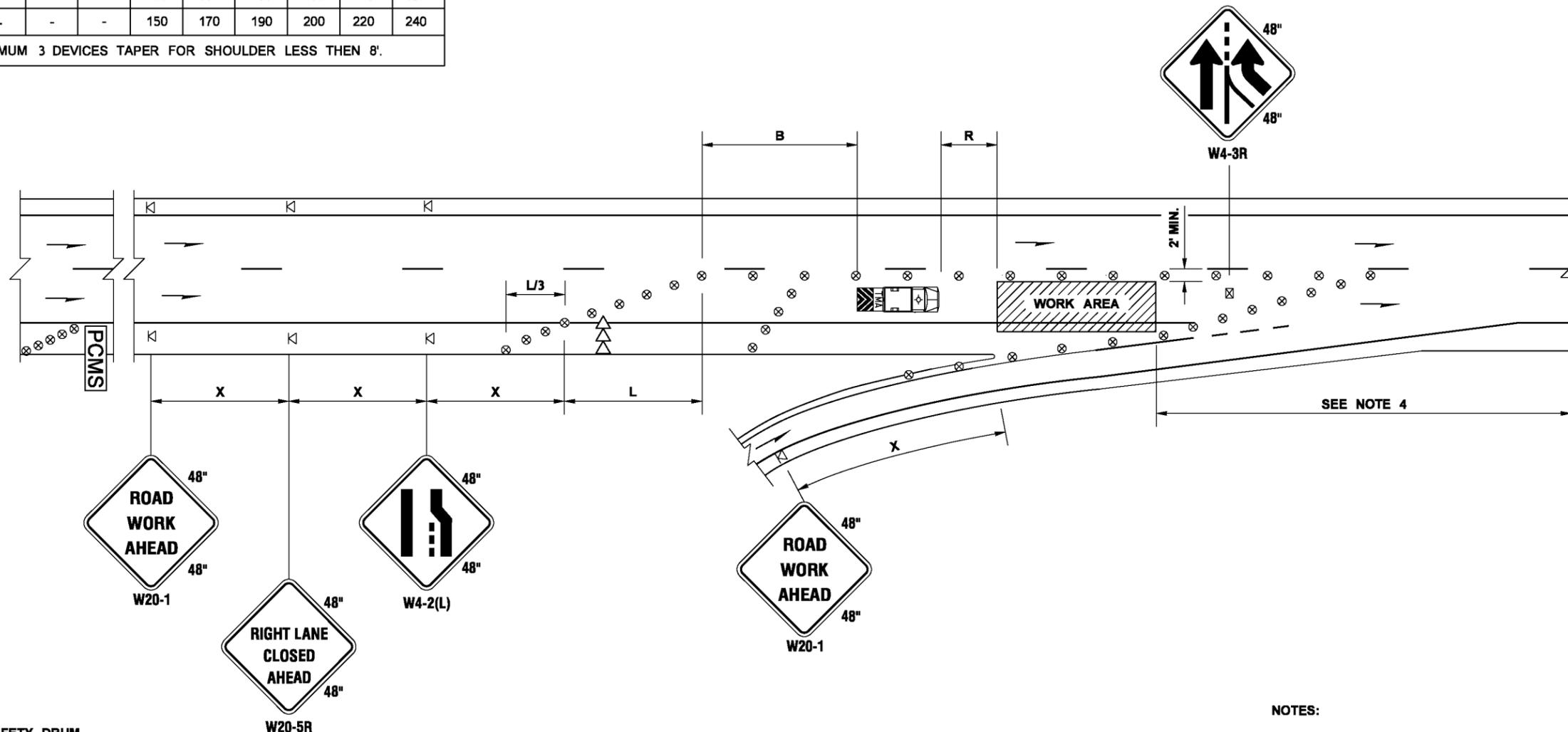
(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMP, AT-GRADE INTERSECTIONS AND DRIVEWAYS.

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

BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	-	-	-	-	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.

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

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



PCMS	
1	2
RIGHT LANE CLOSURE	1 MILE AHEAD
2.0 SEC	2.0 SEC

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

LEGEND

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

TEMPORARY ON-RAMP FOR MULTI-LANE ROADWAYS

NOT TO SCALE

NOTES:

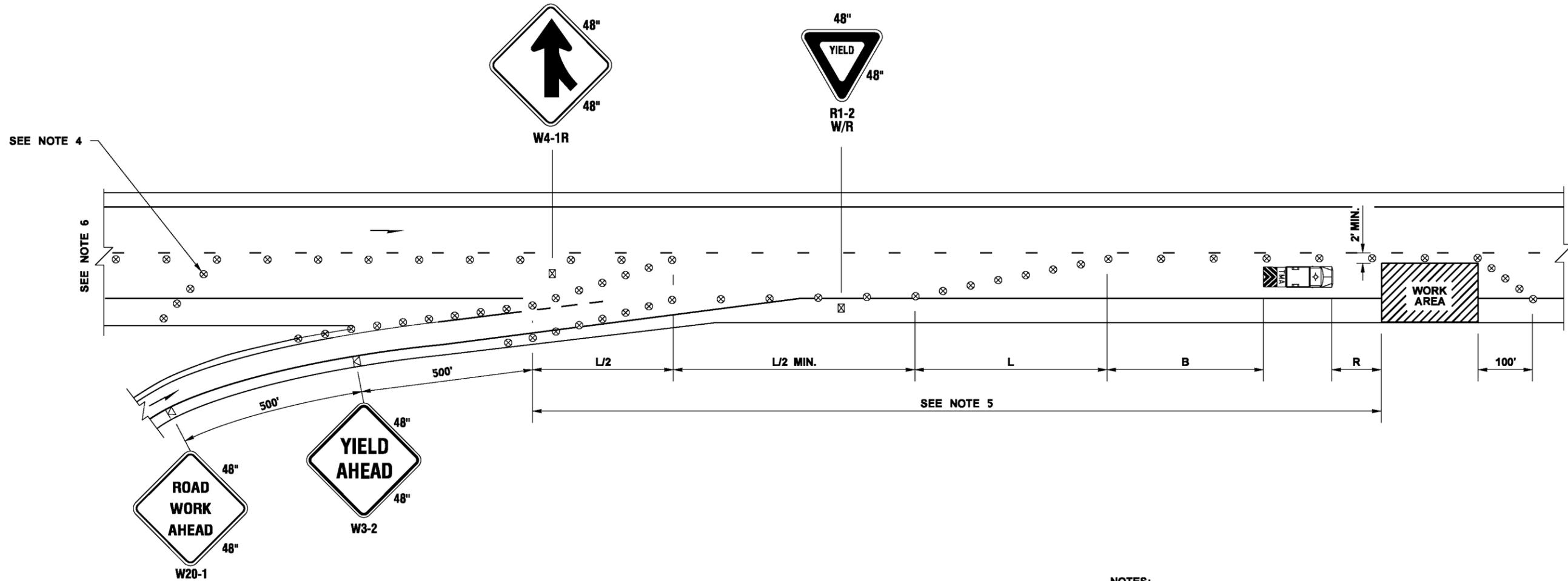
- SEE SPECIAL PROVISIONS FOR CLOSURE HOUR RESTRICTIONS.
- DEVICES SHALL NOT ENCROACH INTO ADJACENT LANES.
- USE TRANSVERSE DEVICES IN CLOSED LANES EVERY 1000' ± (RECOMMENDED).
- SEE SHEET TCXX FOR A SHORT TERM ON-RAMP CLOSURE WHEN THE WORK AREA LOCATION RESTRICTS RAMP ACCESS.
- ALL SIGNS ARE BLACK ON ORANGE.

FILE NAME	S:\Design R P& S\4-Standards\2-Plan Sheet Library\01-Published PSL(TC) Work Zone Traffic Control\W(TC-8) Temporary On-Ramp for Multi-Lane Roadways\TC-8.dgn										
TIME	1:23:26 PM										
DATE	9/18/2014										
PLOTTED BY	FletcCo										
DESIGNED BY											
ENTERED BY											
CHECKED BY											
PROJ. ENGR.											
REGIONAL ADM.											
REVISION	DATE	BY	REGION NO.	STATE	FED.AID PROJ.NO.	CONTRACT NO.	LOCATION NO.	P.E. STAMP BOX	DATE	P.E. STAMP BOX	DATE
				WASH							
<p>Washington State Department of Transportation</p>										Plot 1 PLAN REF NO TC8 SHEET OF SHEETS	
TRAFFIC CONTROL PLAN											

MINIMUM TAPER LENGTH = L (feet)										
LANE WIDTH (feet)	Posted Speed (mph)									
	25	30	35	40	45	50	55	60	65	70
10	-	-	-	-	450	500	550	-	-	-
11	-	-	-	-	495	550	605	660	-	-
12	-	-	-	-	540	600	660	720	780	840

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

BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	-	-	-	-	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.



NOTES:

1. SEE SPECIAL PROVISIONS FOR CLOSURE HOUR RESTRICTIONS.
2. USE A DOWNSTREAM TAPER TO END THE LANE CLOSURE WITH A 20' (FT) DEVICE SPACING.
3. DEVICES SHALL NOT ENCROACH INTO ADJACENT LANES.
4. USE TRANSVERSE DEVICES IN CLOSED LANES EVERY 1000' ± (RECOMMENDED).
5. SEE SHEET TCXX FOR A SHORT TERM ON-RAMP CLOSURE WHEN THE WORK AREA LOCATION RESTRICTS RAMP ACCESS.
6. SEE SHEET TC3 OR TC7 FOR RIGHT LANE CLOSURE.
7. ALL SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE DESINGATED.

TEMPORARY ON-RAMP FOR MULTI-LANE ROADWAYS

NOT TO SCALE

LEGEND

- ⊠ TEMPORARY SIGN LOCATION
- ⊗ TRAFFIC SAFETY DRUM
- ⇨⇨⇨ SEQUENTIAL ARROW SIGN
- ⊠ TRANSPORTABLE ATTENUATOR
- ⊠ TEMPORARY SIGN LOCATION (5' MOUNTING HEIGHT)

FILE NAME	S:\Design R P& S\4-Standards\2-Plan Sheet Library\01-Published PSL(TC) Work Zone Traffic Control\W(TC-9) Temporary On-Ramp for Multi-Lane Roadways\TC-9.dgn										Plot 1
TIME	1:24:21 PM										PLAN REF NO
DATE	9/18/2014										TC9
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.	DATE	P.E. STAMP BOX	DATE	P.E. STAMP BOX	Washington State Department of Transportation	TRAFFIC CONTROL PLAN

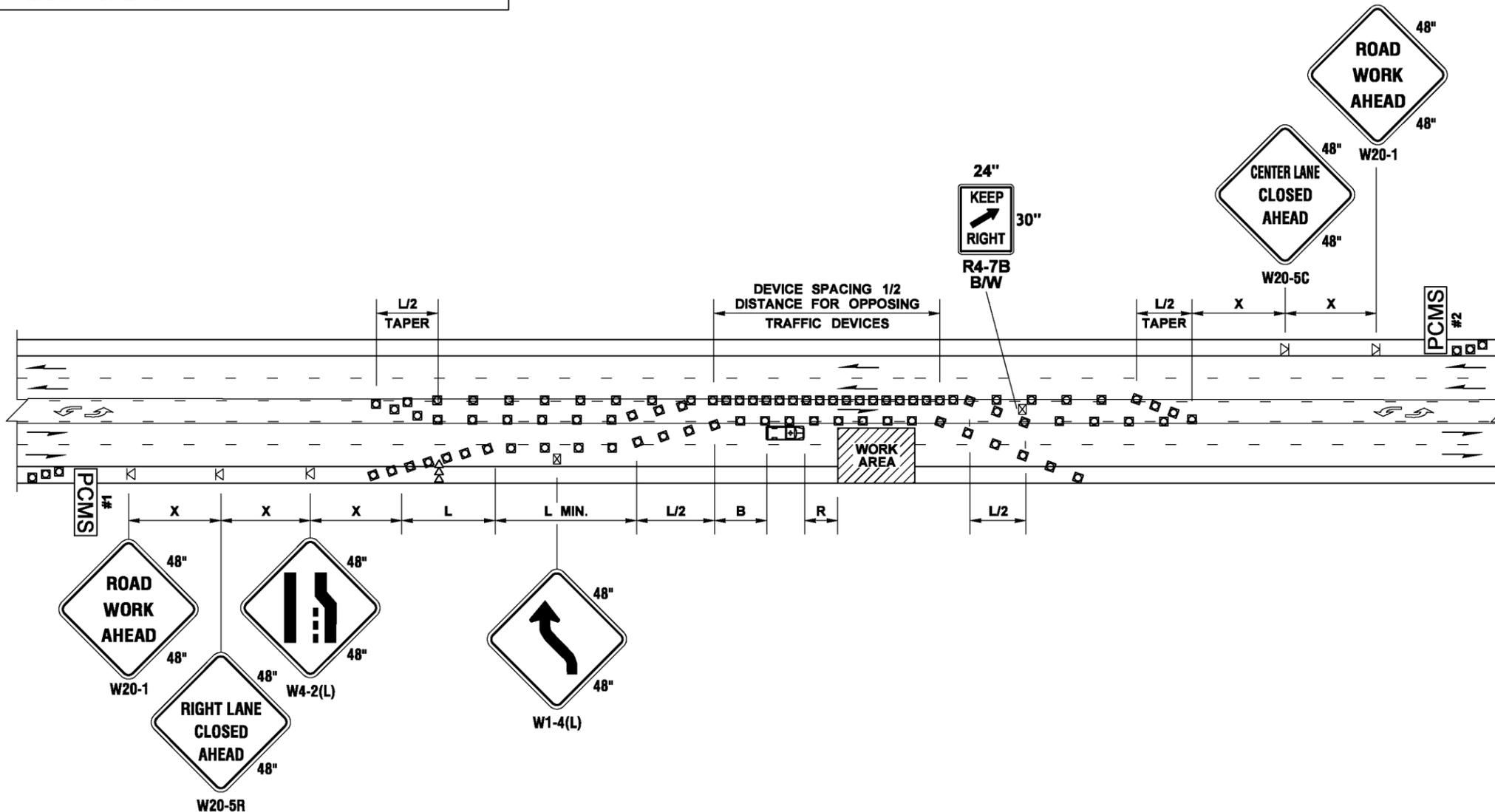
SIGN SPACING = X (1)		
RURAL ROADS	45 / 55 MPH	500' ±
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350' ±
RURAL ROADS & URBAN ARTERIALS	25 / 30 MPH	200' ± (2)
RESIDENTIAL & BUSINESS DISTRICTS		
URBAN STREETS	25 MPH OR LESS	100' ± (2)

(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	-	-	-	-	
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

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	-	-	-	-	
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.											



PCMS #1	
1	2
RIGHT LANE CLOSURE	1 MILE AHEAD
2.0 SEC	2.0 SEC

FIELD LOCATE IN ADVANCE OF TEMPORARY SIGNS.

PCMS #2	
1	2
CENTER LANE CLOSED	NNO LEFT TURNING
2.0 SEC	2.0 SEC

FIELD LOCATE IN ADVANCE OF TEMPORARY SIGNS.

LEGEND

- ⊓ TEMPORARY SIGN LOCATION
- ⊠ CHANNELIZING DEVICES
- ⊞ SEQUENTIAL ARROW SIGN
- ⊞ PROTECTIVE VEHICLE
- PCMS PORTABLE CHANGEABLE MESSAGE SIGN
- ⊓ TEMPORARY SIGN LOCATION (5' MOUNTING HEIGHT)

RIGHT LANE CLOSURE WITH SHIFT - 5 LANE ROADWAY

NOT TO SCALE

NOTES:

- SEE SPECIAL PROVISIONS FOR WORK HOUR RESTRICTIONS.
- RECOMMEND EXTENDING DEVICE TAPER (L/3) ACROSS SHOULDER.
- FOR POSTED SPEED LIMITS OF 30 MPH OR LESS, USE SIGN W1-3 IN LIEU OF SIGN W1-4.
- ALL SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE DESIGNATED.

FILE NAME	S:\Design R P& S\4-Standards\2-Plan Sheet Library\01-Published PSL(TC) Work Zone Traffic Control\W(TC-10) Right Lane Closure with Shift - 5 Lane Roadway\TC-10.dgn										Plot 1
TIME	1:24:51 PM										PLAN REF NO
DATE	9/18/2014										TC10
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.	CONTRACT NO.	LOCATION NO.	DATE	DATE	
					WASH				P.E. STAMP BOX	P.E. STAMP BOX	



TRAFFIC CONTROL PLAN

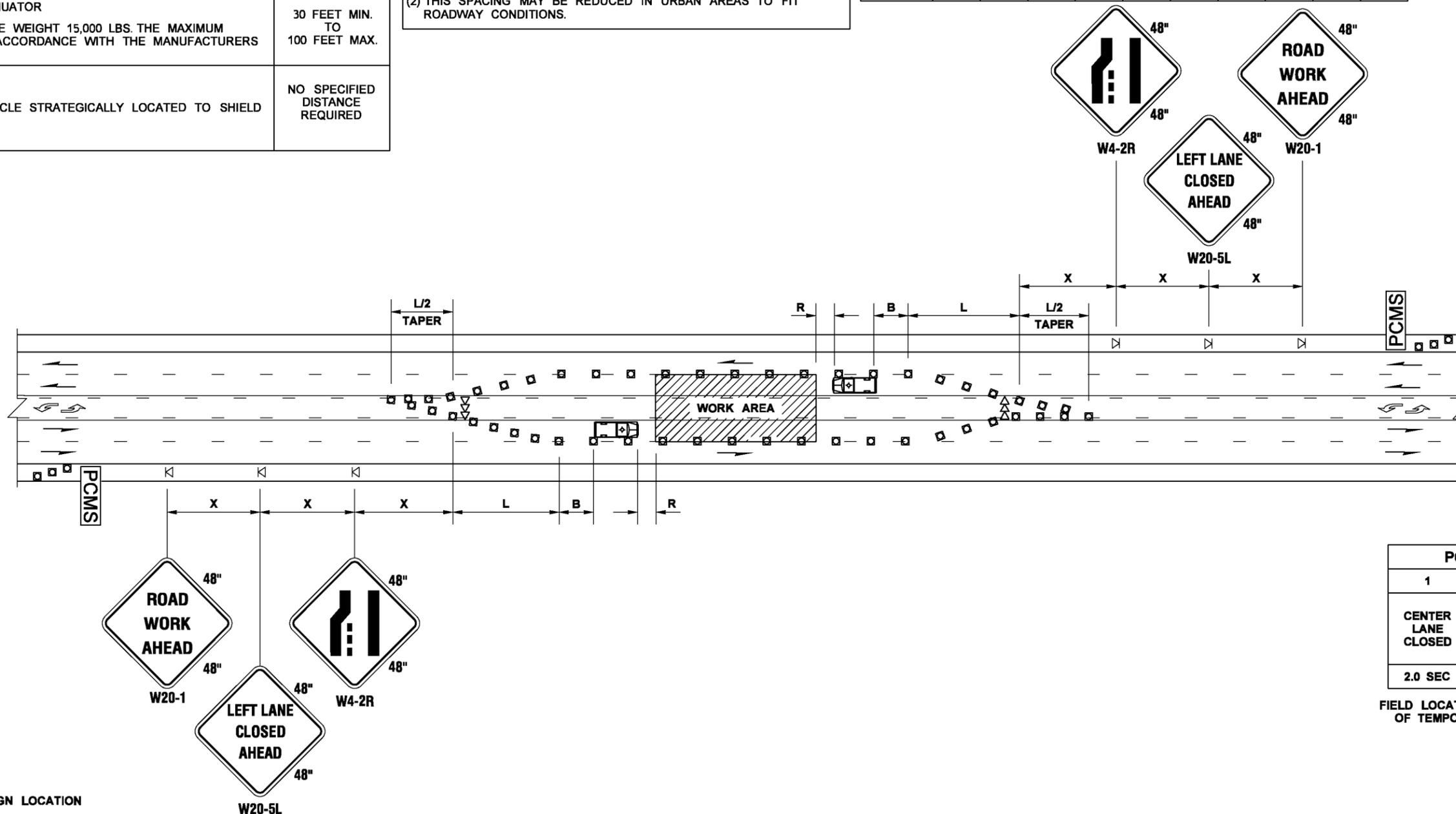
BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	155	200	250	305	360	425	-	-	-	-
BUFFER VEHICLE ROLL AHEAD DISTANCE = R										
TRANSPORTABLE ATTENUATOR MINIMUM HOST VEHICLE WEIGHT 15,000 LBS. THE MAXIMUM WEIGHT SHALL BE IN ACCORDANCE 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	65	70
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



PCMS	
1	2
CENTER LANE CLOSED	NNO LEFT TURNING
2.0 SEC	2.0 SEC

FIELD LOCATE IN ADVANCE OF TEMPORARY SIGNS.

LEFT LANE AND CENTER TURN LANE CLOSURE - 5 LANE ROADWAY

NOT TO SCALE

NOTES

- SEE SPECIAL PROVISIONS FOR WORK HOUR RESTRICTIONS.
- 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-11) Left Lane and Center Turn Lane Closure - Five Lane Roadway\TC-11.dgn				REGION NO.		STATE		FED.AID PROJ.NO.		DATE		DATE		PLOT 1	
TIME: 1:25:25 PM				WASH										PLAN REF NO	
DATE: 9/18/2014														TC11	
PLOTTED BY: FletcCo														SHEET	
DESIGNED BY:														OF	
ENTERED BY:														SHEETS	
CHECKED BY:															
PROJ. ENGR.:															
REGIONAL ADM.:				REVISION		DATE		BY		P.E. STAMP BOX		P.E. STAMP BOX		TRAFFIC CONTROL PLAN	



TRAFFIC CONTROL PLAN

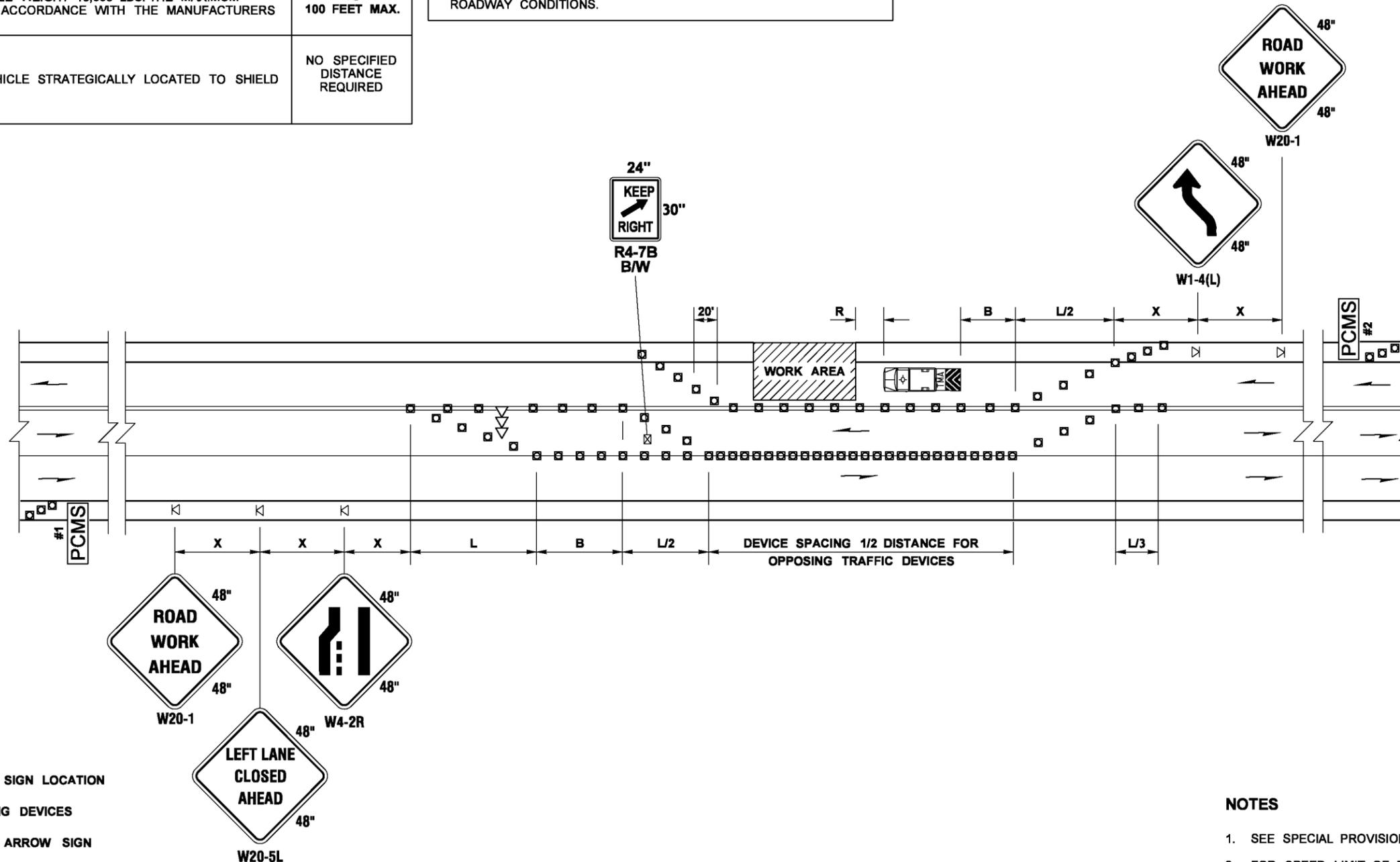
BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	155	200	250	305	360	425	495	570	645	-
BUFFER VEHICLE ROLL AHEAD DISTANCE = R										
TRANSPORTABLE ATTENUATOR MINIMUM HOST VEHICLE WEIGHT 15,000 LBS. THE MAXIMUM WEIGHT SHALL BE IN 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
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



PCMS #1	
1	2
LEFT LANE CLOSURE	1 MILE AHEAD
2.0 SEC	2.0 SEC

FIELD LOCATE IN ADVANCE OF TEMPORARY SIGNS.

PCMS #2	
1	2
LANE SHIFTS LEFT	1 MILE AHEAD
2.0 SEC	2.0 SEC

FIELD LOCATE IN ADVANCE OF TEMPORARY SIGNS.

LANE SHIFT - THREE LANE ROADWAY

NOT TO SCALE

NOTES

- SEE SPECIAL PROVISIONS FOR WORK HOUR RESTRICTIONS.
- FOR SPEED LIMIT OF 30 MPH OR LESS, USE SIGN W1-3 IN LIEU OF SIGN W1-4.
- RECOMMENDED EXTENDING DEVICE TAPER (L/3) ACROSS SHOULDER.
- ALL SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE DESIGNATED.

FILE NAME	S:\Design R P& S\4-Standards\2-Plan Sheet Library\01-Published PSL(TC) Work Zone Traffic Control\W(TC-12) Lane Shift - Three Lane Roadway\TC-12.dgn			
TIME	1:26:06 PM			
DATE	9/18/2014			
PLOTTED BY	FletcCo			
DESIGNED BY				
ENTERED BY				
CHECKED BY				
PROJ. ENGR.				
REGIONAL ADM.				
REVISION	DATE	BY	REGION NO.	STATE
				WASH
			JOB NUMBER	FED.AID PROJ.NO.
			CONTRACT NO.	LOCATION NO.
				DATE
				P.E. STAMP BOX



TRAFFIC CONTROL PLAN

Plot 1
PLAN REF NO
TC12
SHEET
OF
SHEETS

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.

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

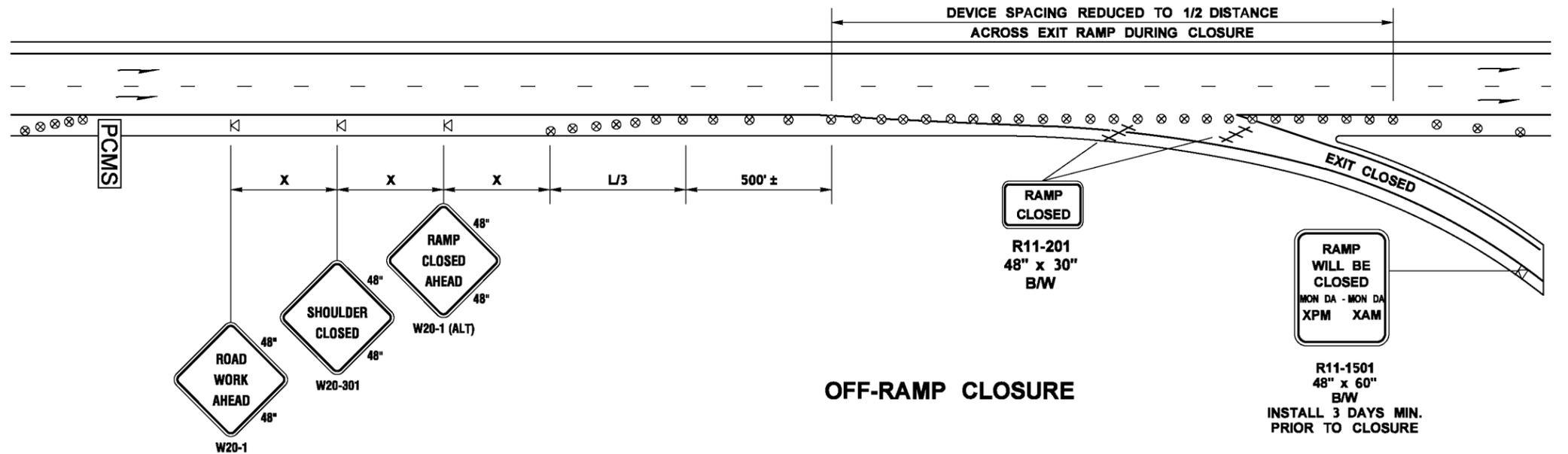
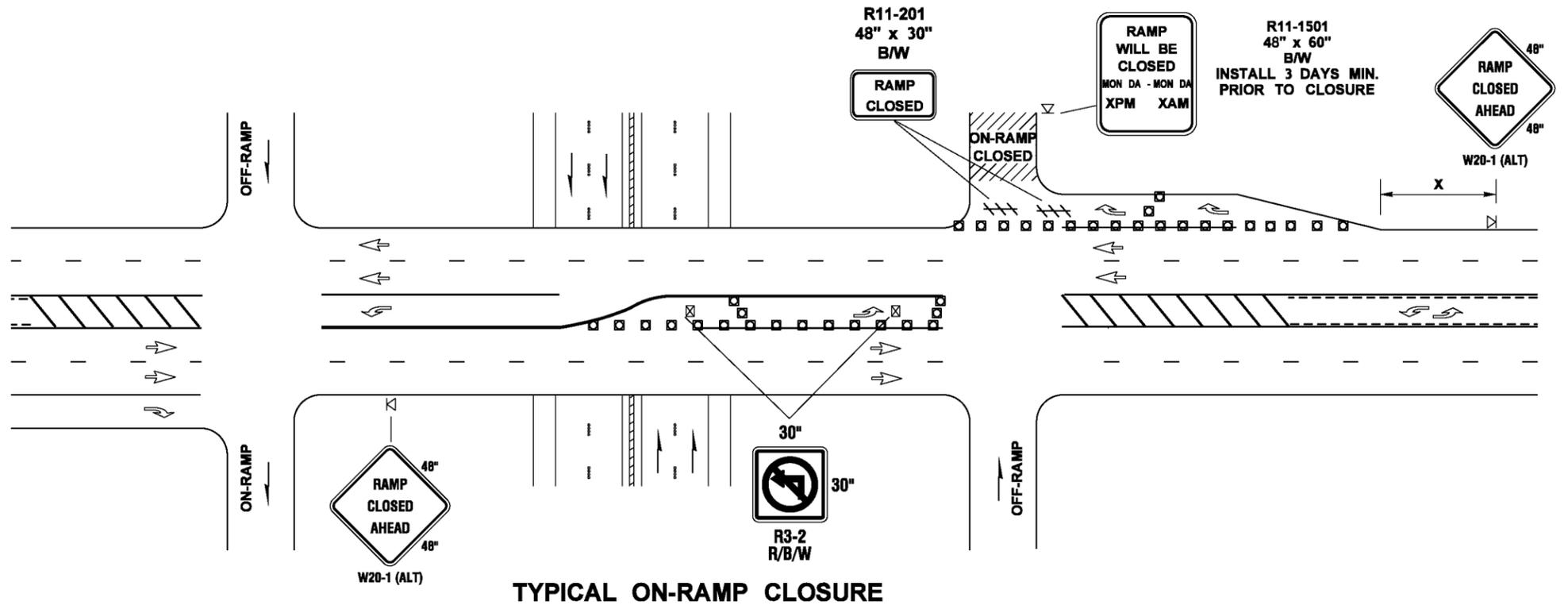
CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
50/70	40	80
35/45	30	60
25/30	20	40

PCMS	
1	2
EXIT XXX CLOSED	USE EXIT XXX
2.0 SEC	2.0 SEC

FIELD LOCATE

LEGEND

- TYPE 3 BARRICADE
- TEMPORARY SIGN LOCATION
- CHANNELIZING DEVICES
- TRAFFIC SAFETY DRUM
- PORTABLE CHANGEABLE MESSAGE SIGN
- TEMPORARY SIGN LOCATION (5' MOUNTING HEIGHT)



SHORT TERM RAMP CLOSURES

NOT TO SCALE

NOTES

1. SEE SPECIAL PROVISIONS FOR CLOSURE HOUR RESTRICTIONS.
2. TYPICAL APPLICATION SHOWN. ADJUST FOR SITE CONDITIONS.
3. ALL SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE DESIGNATED.

FILE NAME	S:\Design R P& S\4-Standards\2-Plan Sheet Library\01-Published PSL(TC) Work Zone Traffic Control\W(TC-13) Short Term Ramp Closure\TC-13.dgn					REGION NO.	STATE	FED.AID PROJ.NO.	Washington State Department of Transportation	Plot 1
TIME	1:26:39 PM					WASH				PLAN REF NO
DATE	9/18/2014					JOB NUMBER			TRAFFIC CONTROL PLAN	SHEET
PLOTTED BY	FletcCo					CONTRACT NO.	LOCATION NO.			OF
DESIGNED BY										SHEETS
ENTERED BY										
CHECKED BY										
PROJ. ENGR.										
REGIONAL ADM.	REVISION	DATE	BY	P.E. STAMP BOX	DATE	P.E. STAMP BOX	DATE			

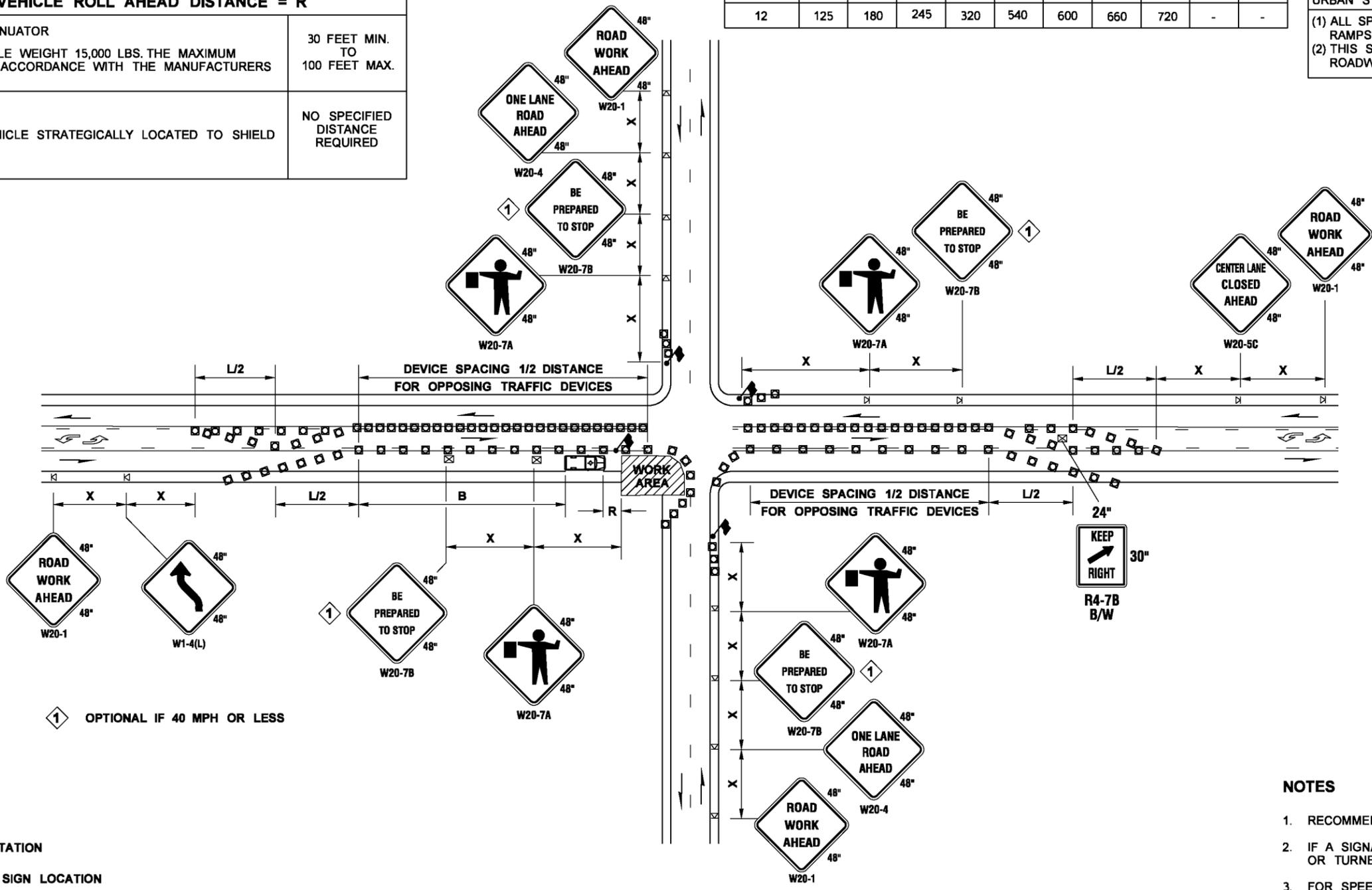
BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	155	200	250	305	360	425	495	570	645	-
BUFFER VEHICLE ROLL AHEAD DISTANCE = R										
TRANSPORTABLE ATTENUATOR MINIMUM HOST VEHICLE WEIGHT 15,000 LBS. THE MAXIMUM WEIGHT SHALL BE IN 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

NOT TO SCALE

NOTES

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

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				REGION NO.	STATE	FED.AID PROJ.NO.	Washington State Department of Transportation	TRAFFIC CONTROL PLAN	Plot 1
TIME: 1:27:17 PM	DATE: 9/18/2014	PLOTTED BY: FletcCo	DESIGNED BY:	WASH					PLAN REF NO: TC14
ENTERED BY:	CHECKED BY:	PROJ. ENGR.	REVISION	DATE	BY	CONTRACT NO.	LOCATION NO.	SHEET OF SHEETS	
REGIONAL ADM.									

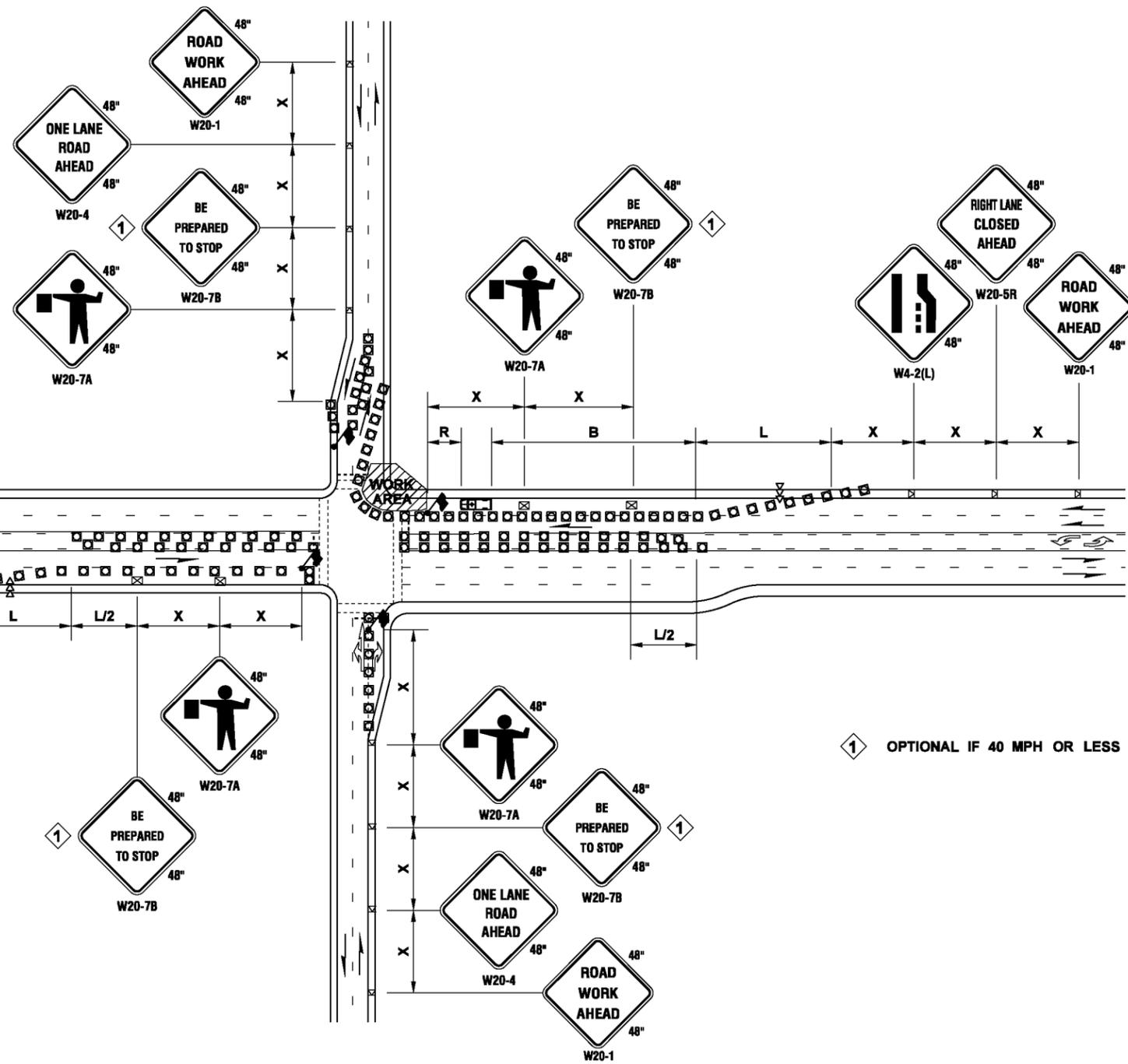
CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
50/70	40	80
35/45	30	60
25/30	20	40

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	-
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	

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 (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.



1 OPTIONAL IF 40 MPH OR LESS

LEGEND

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

INTERSECTION LANE CLOSURE ~ FIVE LANE ROADWAY

NOT TO SCALE

NOTES

1. RECOMMEND EXTENDING DEVICE TAPER (L/3) ACROSS SHOULDER.
2. IF A SIGNAL IS PRESENT, IT SHALL BE SET TO "RED FLASH MODE" OR TURNED OFF DURING FLAGGING OPERATIONS.
3. MAINTAIN A MINIMUM OF ONE ACCESS POINT FOR EACH BUSINESS WITHIN WORK AREA LIMITS.
4. 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-15) Intersection Lane Closure - Five Lane Roadway\TC-15.dgn				Plot 1
TIME	1:27:49 PM	REGION NO.	STATE	FED.AID PROJ.NO.	PLAN REF NO
DATE	9/18/2014		WASH		TC15
PLOTTED BY	FletcCo	JOB NUMBER			SHEET
DESIGNED BY		CONTRACT NO.	LOCATION NO.		OF
ENTERED BY					SHEETS
CHECKED BY					
PROJ. ENGR.					
REGIONAL ADM.		REVISION	DATE	BY	



TRAFFIC CONTROL PLAN

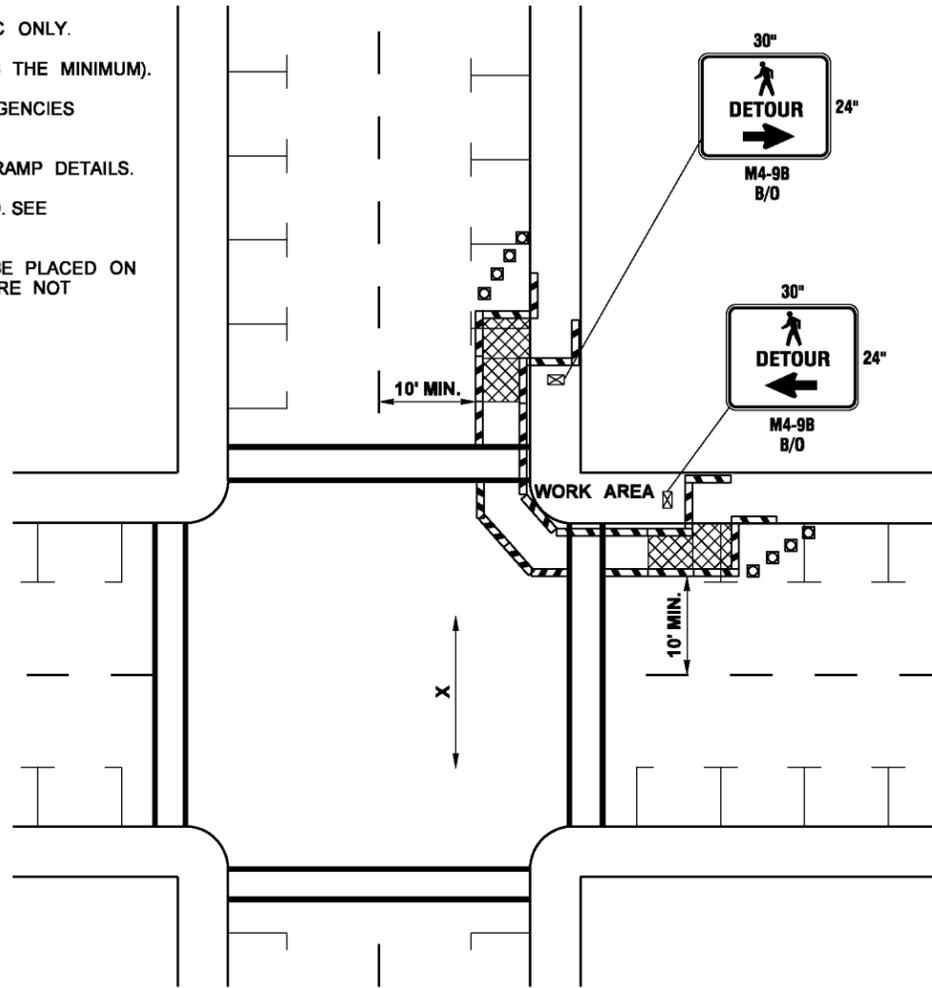


R8-3
24" x 30"
R/W

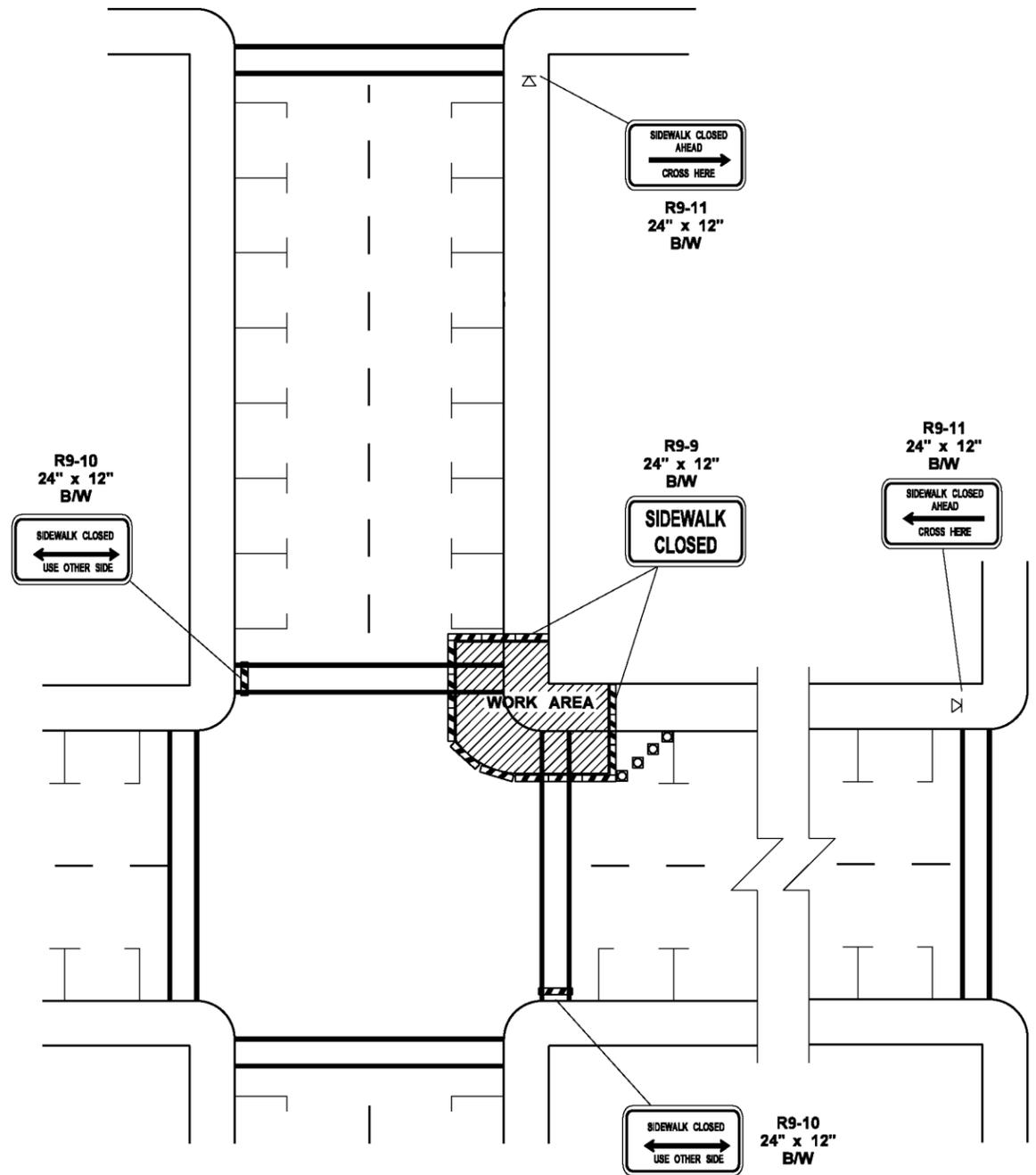
INSTALL ON TYPE 2 BARRICADES THROUGHOUT THE WORK AREA
24 HOURS PRIOR TO IMPLEMENTING TRAFFIC CONTROL.
PRIOR NOTIFICATION OF LOCAL LAW ENFORCEMENT REQUIRED.

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



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



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
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.										

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

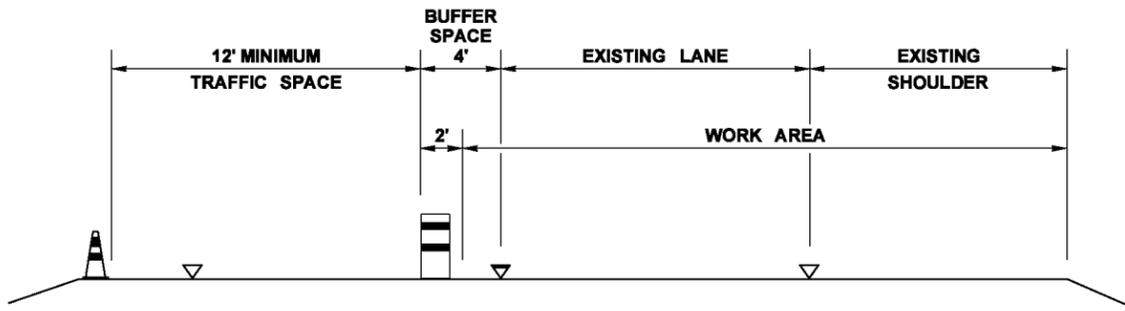
USE A MINIMUM 3 DEVICES TAPER FOR SHOULDER LESS THEN 8'.

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

PCMS	
1	2
RIGHT LANE CLOSURE	1 MILE AHEAD
2.0 SEC	2.0 SEC

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

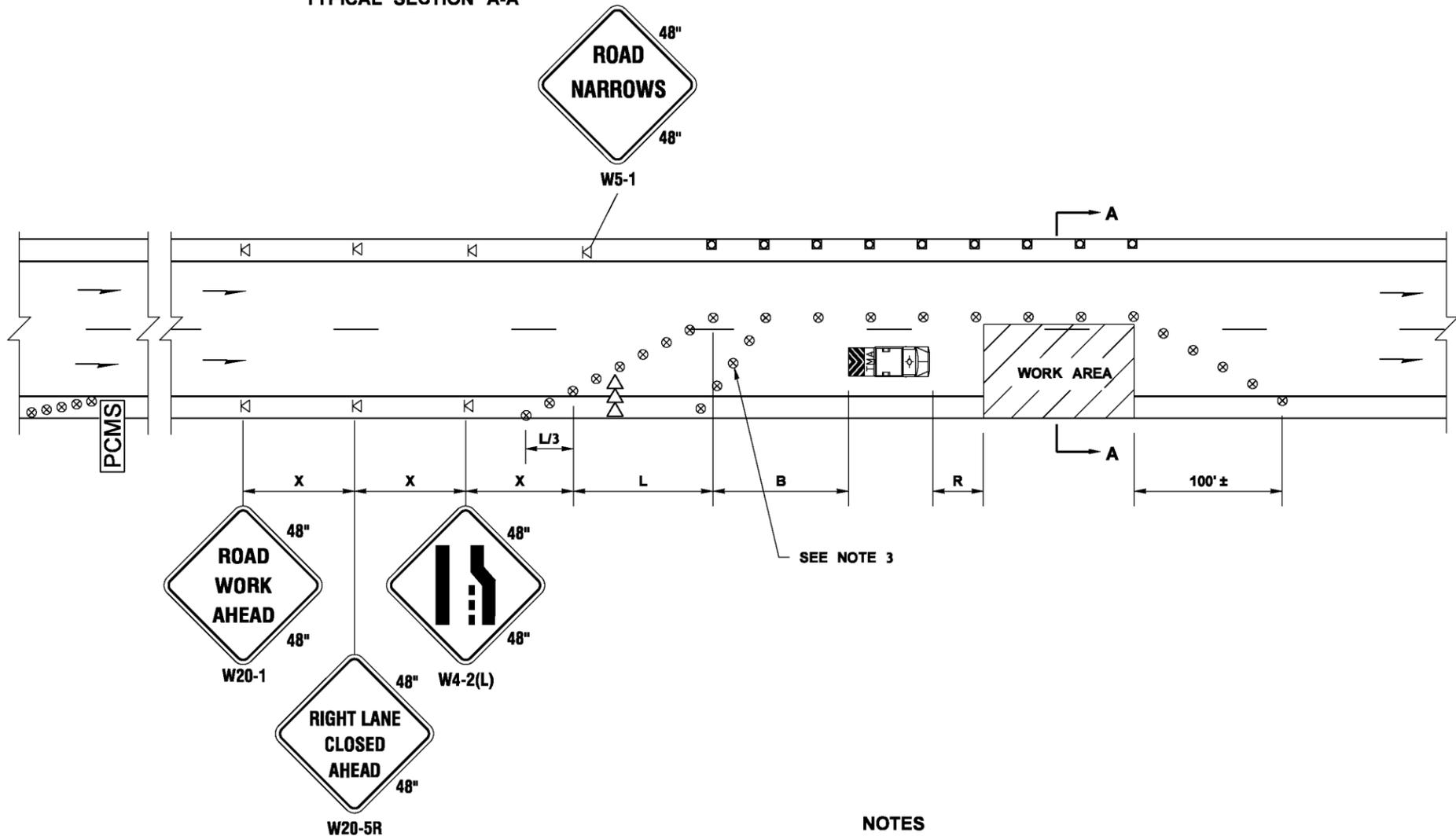
- LEGEND**
- ⊏ TEMPORARY SIGN LOCATION
 - ⊠ CHANNELIZING DEVICES
 - ⊗ TRAFFIC SAFETY DRUM
 - ⇨⇨ SEQUENTIAL ARROW SIGN
 - ⊠ TRANSPORTABLE ATTENUATOR
 - PCMS PORTABLE CHANGEABLE MESSAGE SIGN



TYPICAL SECTION A-A

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.



SINGLE-LANE CLOSURE WITH SHIFT

NOT TO SCALE

NOTES

- SEE SPECIAL PROVISIONS FOR WORK HOUR RESTRICTIONS.
- RECOMMEND EXTENDING DEVICE TAPER (L/3) ACROSS SHOULDER.
- USE TRANSVERSE DEVICES IN CLOSED LANE EVERY 1000' ± (RECOMMENDED).
- ALL SIGNS ARE BLACK ON ORANGE.
- RECOMMEND ADVANCE NOTICE FOR ANY OVER WIDTH LOADS PRIOR TO LANE CLOSURE FOR ALTERNATE ROUTES IF APPLICABLE.

FILE NAME	S:\Design R P& S\4-Standards\2-Plan Sheet Library\01-Published PSL(TC) Work Zone Traffic Control\W(TC-17) Single Lane Closure with Shift\TC-17.dgn									
TIME	1:29:17 PM									
DATE	9/18/2014									
PLOTTED BY	FletcCo									
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.	DATE

P.E. STAMP BOX	DATE	P.E. STAMP BOX	DATE
----------------	------	----------------	------

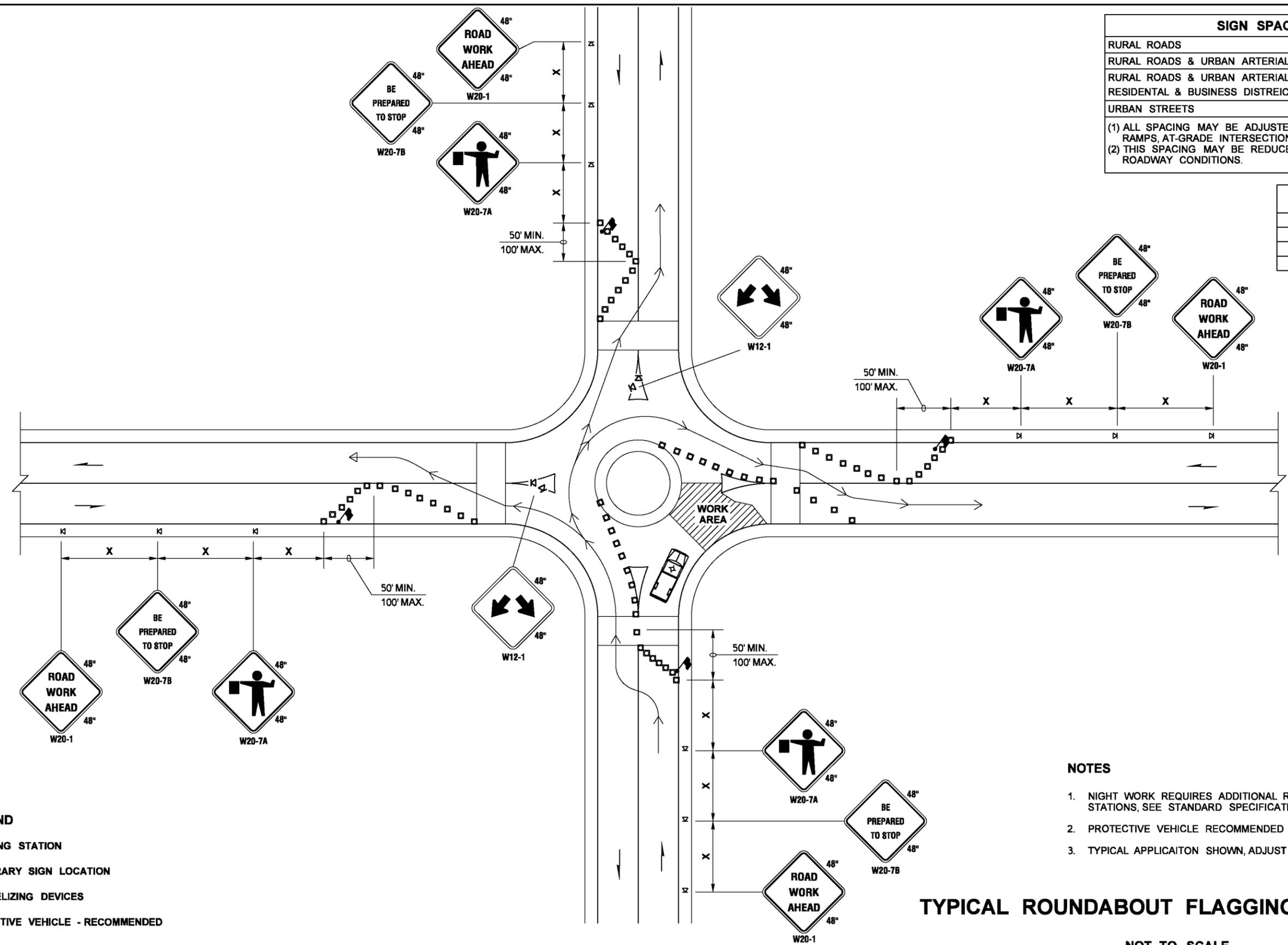
Washington State Department of Transportation

Plot 1
PLAN REF NO
TC17
SHEET
OF
SHEETS
TRAFFIC CONTROL PLAN

SIGN SPACING = X (1)		
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
50/55	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

LEGEND

- FLAGGING STATION
- TEMPORARY SIGN LOCATION
- CHANNELIZING DEVICES
- PROTECTIVE VEHICLE - RECOMMENDED

FILE NAME S:\Design R P& S\4-Standards\2-Plan Sheet Library\01-Published PSL(TC) Work Zone Traffic Control\W(TC-18) Typical Roundabout Flagging Operation\TC-18.dgn										Plot 1	
TIME	1:29:53 PM	REGION NO.		STATE	FED.AID PROJ.NO.		PLAN REF NO		TC18		
DATE	9/18/2014	JOB NUMBER		WASH	LOCATION NO.		SHEET		OF		
PLOTTED BY	FletcCo	CONTRACT NO.					TRAFFIC CONTROL PLAN		SHEETS		
DESIGNED BY		REVISION	DATE	BY	P.E. STAMP BOX	DATE	P.E. STAMP BOX				
ENTERED BY											
CHECKED BY											
PROJ. ENGR.											
REGIONAL ADM.											

