

NOTES:

1. THIS SMART WORK ZONE SYSTEM USED IN CONJUNCTION WITH A 2-LANE FREEWAY SINGLE RIGHT LANE CLOSURE TRAFFIC CONTROL PLAN. **DELETE ANY PCMS SHOWN PRIOR TO LANE CLOSURE TAPER SHOWN ON THAT PLAN.**
2. SYSTEM TO BE OPERATED AND CONTROLLED BY A SMART WORK ZONE SYSTEM TECHNICIAN INDEPENDENTLY BUT IN COLLABORATION WITH THE TRAFFIC CONTROL SUPERVISOR.
3. PLACE SYSTEM COMPONENTS AND PROGRAM ALL PCMS MESSAGES AS SHOWN UNLESS MODIFICATIONS ARE ACCEPTED BY THE ENGINEER.
4. TRANVERSE DRUMS NOT REQUIRED PRIOR TO SMART WORK ZONE SYSTEM COMPONENTS WHEN PLACED BEHIND BARRIER, BEHIND GUARDRAIL, OR WITHIN A CLOSED LANE.
5. ADJUST AS NEEDED TO AVOID CONFLICTS WITH LANE CLOSURE SEQUENTIAL ARROW BOARD AND CHANNELIZATION DEVICES.
6. LOCATE PCMS PER WSDOT STANDARD SPECIFICATION 1-10.3(3)C.
7. ALL COMPONENTS MAY NOT BE NEEDED DEPENDING ON ACTUAL TRAFFIC QUEUES. MODIFICATIONS TO BE ACCEPTED BY ENGINEER.
8. QUEUE LENGTH IS CALCULATED FROM THE BEGINNING OF THE FIRST LANE CLOSURE TAPER.
9. IN THE EVENT OF A SYSTEM FAILURE, SEE SPECIAL PROVISIONS "SMART WORK ZONE SYSTEM FAILURE PROTOCOL".

LEGEND

- Ⓚ TEMPORARY SIGN LOCATION
- ⊗ TRAFFIC SAFETY DRUM
- Ⓜ TRAFFIC SENSOR
- TTR# PORTABLE TRAVEL TIME READER
- ⇨⇨⇨ SEQUENTIAL ARROW SIGN
- PCMS PORTABLE CHANGEABLE MESSAGE SIGN

SYMBOL	TRIGGER SPEED (mph)	TRAFFIC CONDITION
FF	35+	Free Flow
SL	<35	Slowed

QUEUE LENGTH (miles)	TRAFFIC SENSORS			PCMS 4		PCMS 3		PCMS 2		PCMS 1	
	C	B	A	1	2	1	2	1	2	1	2
	TRAFFIC CONDITION			2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC
None	FF	FF	FF	(Blank)	(Blank)	(Blank)	(Blank)	RIGHT LANE CLOSED	1 MILE AHEAD	(Blank)	(Blank)
0.01 TO 0.9	FF	FF	SL	(Blank)	(Blank)	1 LANE CLOSED AHEAD	TRAFFIC BACKUPS PRESENT	SLOW OR STOPPED TRAFFIC	NEXT 1 MILE	(Blank)	(Blank)
0.91 TO 1.9	FF	SL	SL	1 LANE CLOSED AHEAD	TRAFFIC BACKUPS PRESENT	SLOW OR STOPPED TRAFFIC	NEXT 2 MILES	ZIPPER MERGE AHEAD	USE ALL OPEN LANES	MINIMIZE DELAYS FOR ALL	TAKE TURNS AT MERGE
> 1.91	SL	SL	SL	SLOW OR STOPPED TRAFFIC	NEXT 3 MILES	2 MILE BACKUP	## MINUTE DELAY	ZIPPER MERGE AHEAD	USE ALL OPEN LANES	MINIMIZE DELAYS FOR ALL	TAKE TURNS AT MERGE

FREEWAY (2 LANES): SMART WORK ZONE SYSTEM FOR SINGLE RIGHT LANE CLOSURE  
(QUEUES UP TO 3 MILES)  
NOT TO SCALE

FILE NAME C:\Users\LintzF\Desktop\Work Zone TCPs\155Fwy3MileSWZS1Rt.dgn				REGION NO. STATE		FED.AID PROJ.NO.				Washington State Department of Transportation		Plot 1
TIME 2:59:06 PM				10	WASH							PLAN REF NO TC155
DATE 6/20/2019				JOB NUMBER								SHEET 1 OF 1 SHEETS
PLOTTED BY LintzF				CONTRACT NO.		LOCATION NO.						
DESIGNED BY HAAPALA & LINTZ												
ENTERED BY F. LINTZ												
CHECKED BY S. HAAPALA												
PROJ. ENGR.												
REGIONAL ADM.	REVISION	DATE	BY							SMART WORK ZONE SYSTEM		

DESIGNER NOTES:

- A. INCLUDE THE "SMART WORK ZONE SYSTEM" GENERAL SPECIAL PROVISION THAT IS NOW AVAILABLE IN THE CONTRACT SPECIAL PROVISIONS.
- B. IF EXPECTED QUEUES EXCEED 3 MILES,SEE MORE COMPLEX SYSTEM ON TC165.
- C. THESE TRAFFIC CONTROL PLANS ARE TYPICAL AND MAY BE MODIFIED FOR SITE SPECIFIC SITUATIONS AND/OR WSDOT REGION TRAFFIC PRACTICES.
- D. TO MATCH THE GENERAL SPECIAL PROVISIONS, TRAFFIC SAFETY DRUMS SHOULD BE USED AS SHOWN IN THE TRAFFIC CONTROL PLAN.
- E. WARNING LIGHTS ON CHANNELIZATION DEVICES ARE OPTIONAL; CONTACT REGION TRAFFIC OFFICES FOR THEIR POLICY.
- F. VERTICAL PANEL CHANNELIZATION DEVICES SHALL NOT BE USED.

MODIFYING SMART WORK ZONE SYSTEM TRAFFIC CONTROL PLANS

IF ACTUAL QUEUES ARE LESS THAN EXPECTED,THIS SMART WORK ZONE SYSTEM CAN BE SIMPLIFIED:

IF QUEUES ARE LESS THAN 2 MILES:

- \* DELETE PCMS 4
- \* DELETE TRAFFIC SENSOR C

IF QUEUES ARE LESS THAN 1 MILE:

- \* SIMPLY USE PCMS 1 & PCMS 2 MESSAGES AS SHOWN IN TYPICAL FREEWAY LANE CLOSURE TRAFFIC CONTROL PLANS (SEE BELOW).

PCMS 1	
1	2
SLOW TRAFFIC AHEAD	NEXT # MILES
2.0 SEC	2.0 SEC

FIELD LOCATE AT LEAST 1/2 +/- MILE IN ADVANCE OF PCMS 2.

RELOCATE AS NEEDED TO REMAIN 1 +/- MILE IN ADVANCE OF QUEUE.

PCMS MAY BE TRUCK MOUNTED; IF SO,THE THREE TRANSVERSE DRUMS ARE OPTIONAL.

REMOVE WHEN QUEUE NO LONGER PRESENT.

# = APPROXIMATE QUEUE LENGTH ROUNDED UP TO NEAREST MILE


LOCATE PCMS PER WSDOT STANDARD SPECIFICATION 1-10.3(3)C.

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

FIELD LOCATE 1/4 +/- MILE IN ADVANCE OF W20-1 SIGN.

LOCATE PCMS PER WSDOT STANDARD SPECIFICATION 1-10.3(3)C.

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FILE NAME C:\Users\LintzF\Desktop\Work Zone TCPs\155Fwy3MileSWZS1Rt.dgn				REGION NO. STATE		FED.AID PROJ.NO.	DATE	P.E. STAMP BOX		Washington State Department of Transportation	Plot 2
TIME 2:59:07 PM				10 WASH	PLAN REF NO						
DATE 6/20/2019					TC155						
PLOTTED BY LintzF				JOB NUMBER							SHEET
DESIGNED BY HAAPALA & LINTZ											OF
ENTERED BY F. LINTZ											
CHECKED BY S. HAAPALA					CONTRACT NO.	LOCATION NO.					
PROJ. ENGR.											
REGIONAL ADM.	REVISION	DATE	BY							DESIGNER GUIDANCE	SHEETS