

FOR DRIVEWAY, BUSINESS ACCESS, AND INTERSECTING ROADWAY DETAILS SEE TC344, SHEET 3.

WAIT-TIME DISPLAY VMS		
GREEN	YELLOW	RED
25 MPH ZONE	(Blank)	WAIT #:##

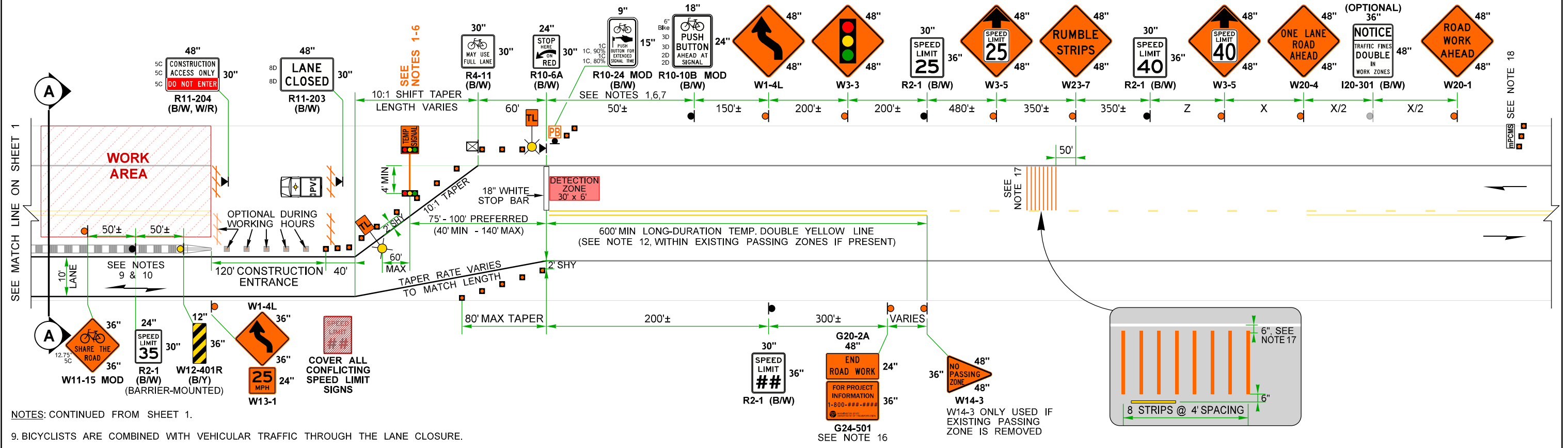
#:## = MINUTES:SECONDS UNTIL GREEN. LOCATE VMS ON TEMP SIGNAL MAST ARM.

MAXIMUM CHANNELIZATION DEVICE SPACING (feet)	
TAPER	TANGENT
10'	20'

SPEED REDUCTION AHEAD SIGN SPACING = Z					
EXISTING SPEED LIMIT (MPH)	45	50	55	60	65
SPACING (feet)	230	470	740	1030	1340

FIELD LOCATE 1± MILE PRIOR TO TEMP. SIGNAL OR UPSTREAM OF EXPECTED MAXIMUM TRAFFIC QUEUE PER STD. SPEC. 1-10.3(3)C.

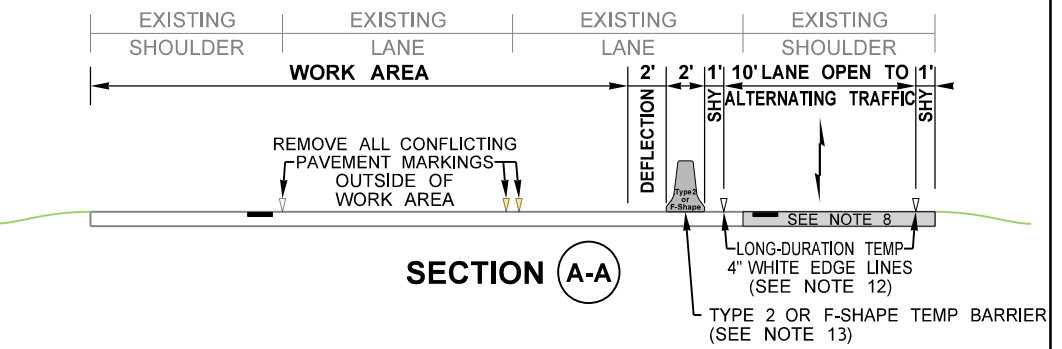
mPCMS		
1	2	3
TRAFFIC SIGNAL 1 MILE	WATCH 4 STOPPED TRAFFIC	ROADWAY NARROWS 12' WIDE
1.5 SEC	1.5 SEC	1.5 SEC



NOTES: CONTINUED FROM SHEET 1.

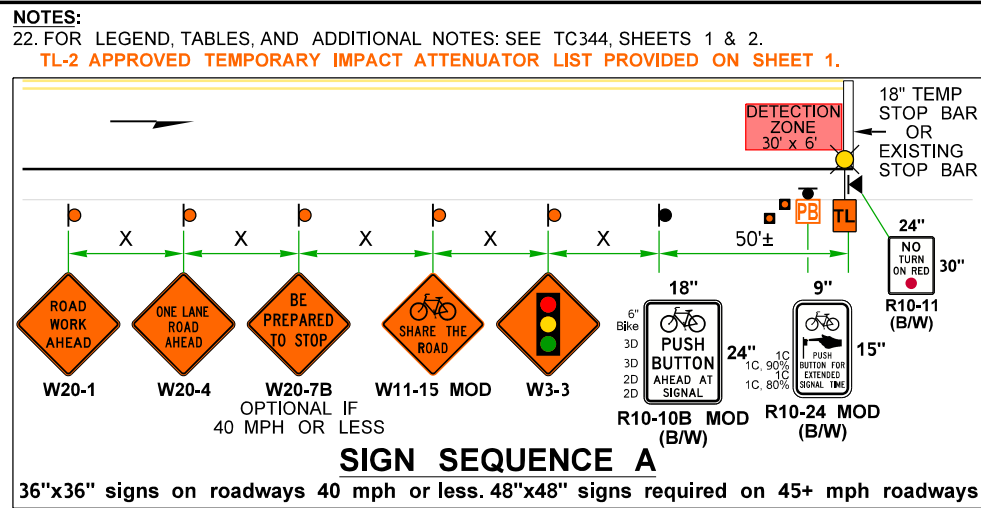
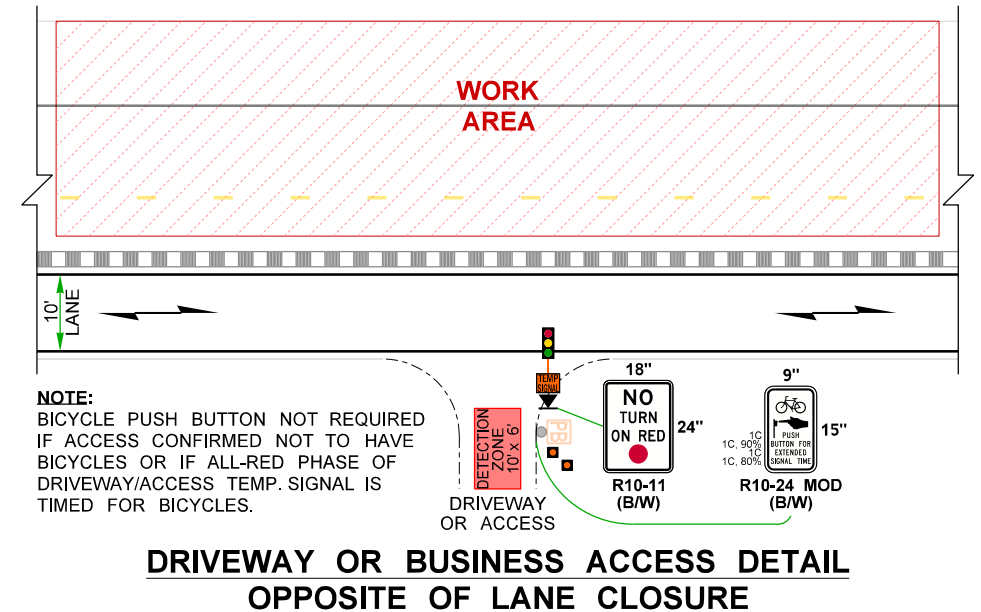
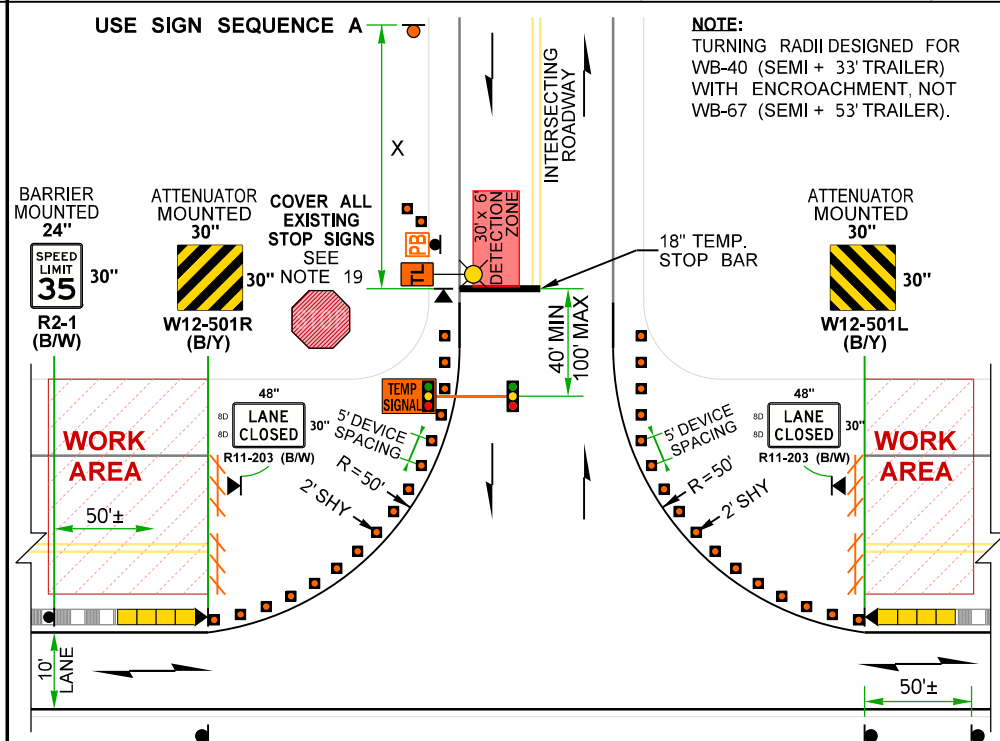
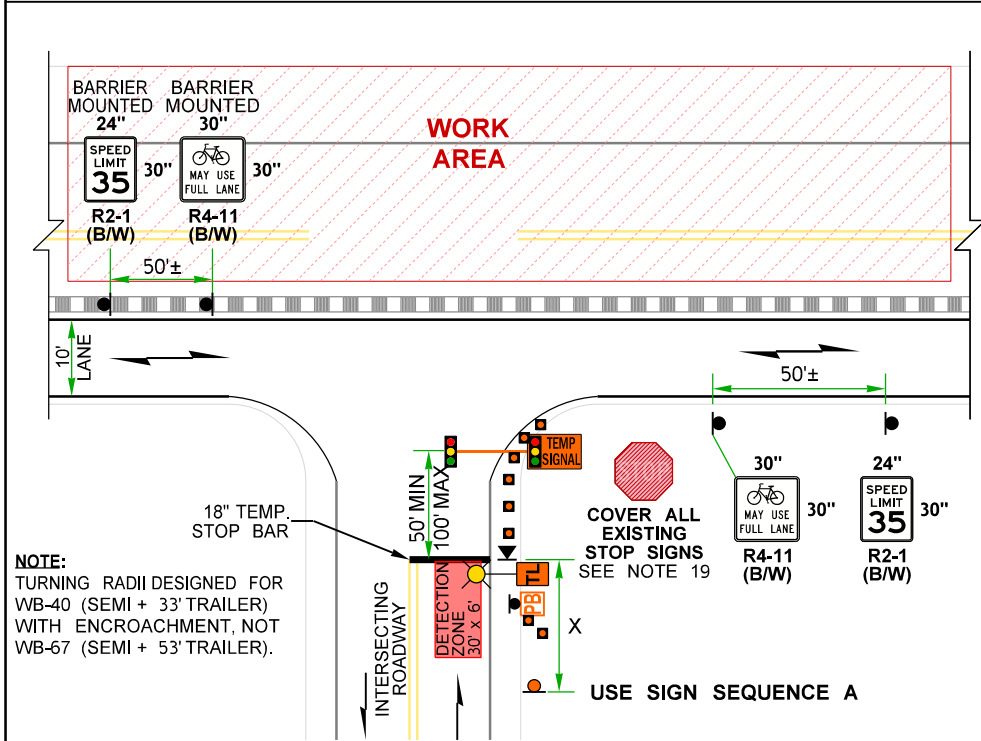
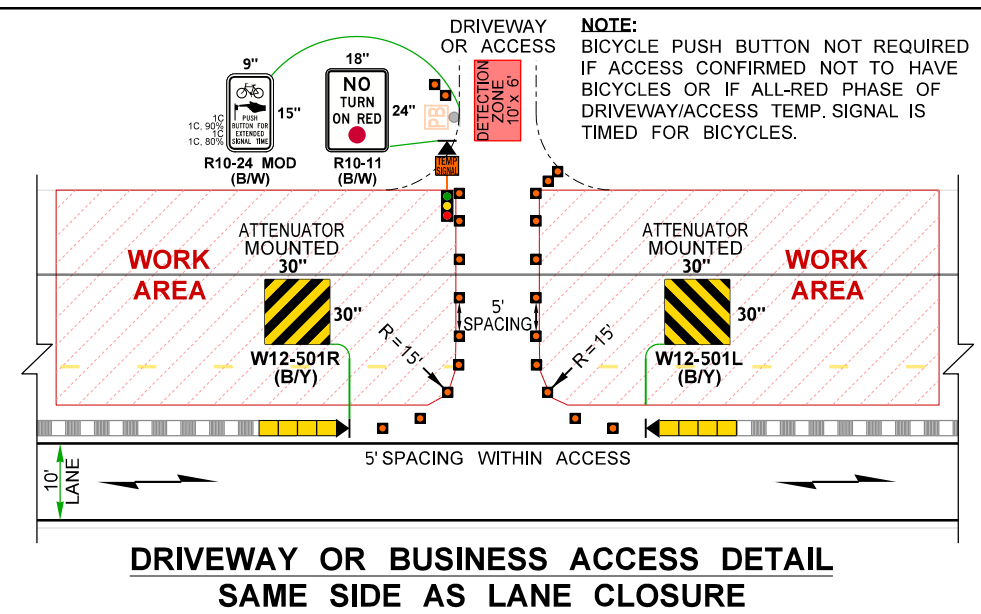
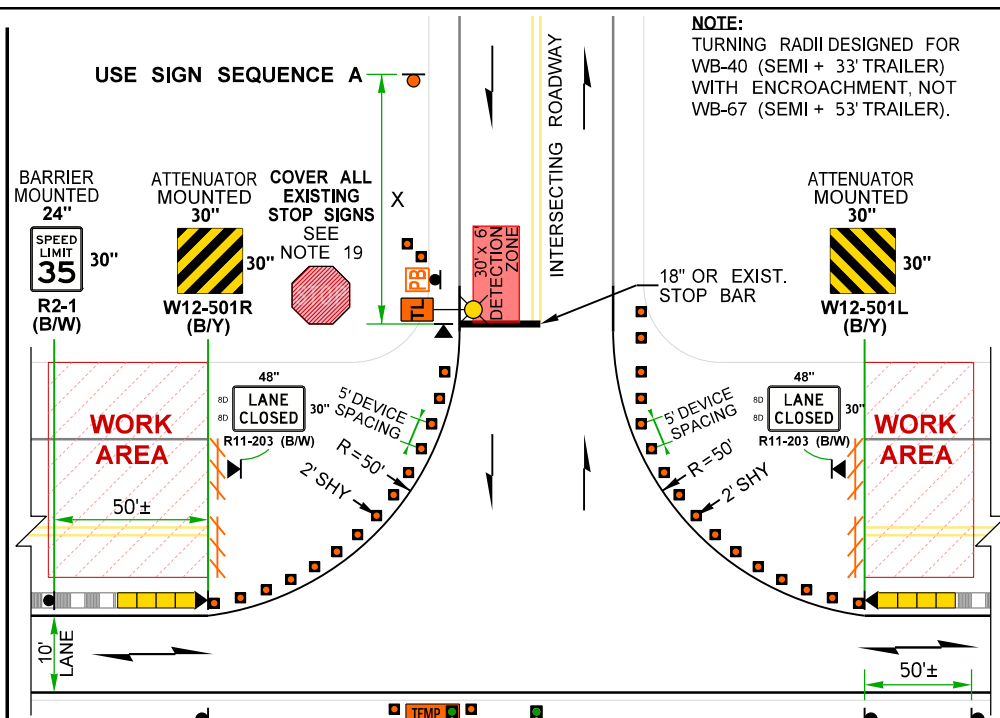
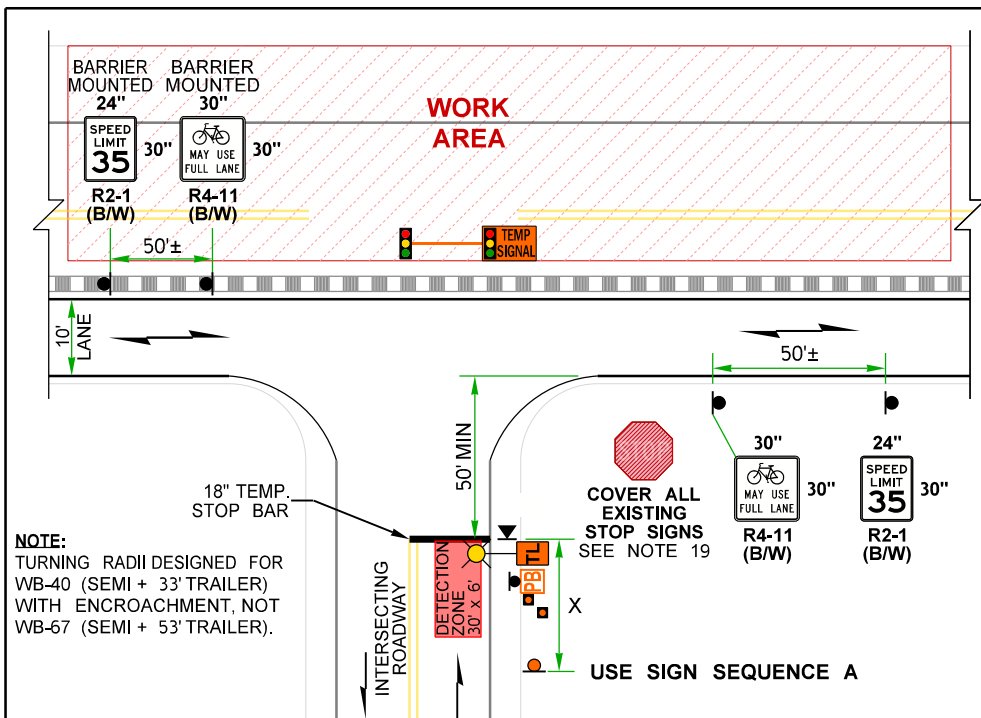
- 9. BICYCLISTS ARE COMBINED WITH VEHICULAR TRAFFIC THROUGH THE LANE CLOSURE.
- 10. ACCOMMODATE PEDESTRIANS VIA SHUTTLE THROUGH LANE CLOSURE OR ANOTHER METHOD THE ENGINEER ACCEPTS.
- 11. 36" TRAFFIC CONES, 42" TALL CHANNELIZATION DEVICES, OR TRAFFIC SAFETY DRUMS OK.
- 12. EXISTING CENTERLINE PAVEMENT MARKINGS MAY VARY. IF PASSING ZONE PRESENT WITHIN 600' OF TEMPORARY STOP BAR, REMOVE EXISTING CENTERLINE MARKING, OR COVER WITH BLACK TEMP. TAPE, AND INSTALL LONG-DURATION TEMP. DOUBLE YELLOW LINE (MAY BE SUPPLEMENTED WITH SURFACE-MOUNTED TYPE 2YY RPMs @ 40' SPACING). ALL OTHER CONFLICTING PAVEMENT MARKINGS SHALL BE REMOVED OR COVERED WITH BLACK TEMP. TAPE (THOSE WITHIN THE WORK AREA MAY REMAIN AS SHOWN).
- 13. TYPE 2 OR F-SHAPE TEMPORARY BARRIER PERMITTED. SLOPED CONCRETE TERMINAL ALLOWED FOR REGULATORY WORK ZONE SPEED LIMITS 25 MPH OR LESS BUT TL-2 IMPACT ATTENUATOR REQUIRED FOR 35 MPH. TYPE 2 TEMPORARY BARRIER AND SLOPED CONCRETE TERMINAL PER STANDARD PLAN K.80-32 BUT CONTRACTOR SHALL SELECT ATTENUATOR FROM APPROVED TL-2 TEMPORARY IMPACT ATTENUATOR LIST. F-SHAPE TEMPORARY BARRIER PER STANDARD PLAN C-60.10 (C-60.15 IF SCUPPERS USED FOR DRAINAGE) AND STANDARD PLAN C-60.80 FOR F-SHAPE CONCRETE BARRIER TERMINAL.
- 14. SEE STANDARD SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS:
 - 1-10.3(3)K PORTABLE TEMPORARY TRAFFIC CONTROL SIGNAL
 - 6-10.3(5) TEMPORARY BARRIER
 - 8-23.3(4)B TEMPORARY PAVEMENT MARKINGS - LONG DURATION
 - 9-35.14 PORTABLE TEMPORARY TRAFFIC CONTROL SIGNAL

- 15. FOR PROJECT-SPECIFIC REQUIREMENTS, SEE SPECIAL PROVISIONS.
- 16. WSDOT PROJECT ENGINEERING OFFICE WILL PROVIDE PHONE NUMBER.
- 17. SECURE TEMPORARY RUMBLE STRIPS TO PAVEMENT VIA ADHESIVE (DO NOT USE PRIMER). FOR ROADWAYS WITH SHOULDERS LESS THAN 4 FEET, PROVIDE A 4-FOOT CLEAR PATH FOR BICYCLES MEASURED FROM EDGE OF PAVED SHOULDER. AVOID PLACING THEM WITHIN HORIZONTAL CURVES, ADJUST SIGN SPACING IF NEEDED. USE THE FOLLOWING:
 - * Advanced Traffic Marking (ATM) Self-Adhesive Rumble Strips (1/4" x 4", Orange)
 - * Stop-Painting (1/4" x 4", Orange)
 - * Seton (1/4" x 4", Orange)
- 18. FULL-SIZE PCMS MAY BE USED IN LIEU OF mPCMS WHERE SPACE ALLOWS.
- 19. REMOVE OR COVER ALL CONFLICTING SIGNAGE PER STD. SPEC. 1-10.3(3)A. BLACK 1/8" ABS OR 1/4" PLAYWOOD TEMP. SIGN COVER PERMITTED.
- 20. SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE INDICATED.
- 21. CONTACT WSDOT COMMERCIAL VEHICLE SERVICES AT LEAST 7 DAYS IN ADVANCE OF ROADWAY WIDTH RESTRICTIONS. 30 DAY NOTICE REQUIRED ON MAJOR FREIGHT CORRIDORS.



ADVANCED TEMPORARY SIGNAL-CONTROLLED ALTERNATING 1-LANE, 2-WAY TRAFFIC 35 WZSL + TEMP BARRIER + RUMBLE STRIPS (45+ MPH HIGHWAYS, 8+ DAYS) NOT TO SCALE

FILE NAME	C:\Users\LintzF\OneDrive - Washington State Department of Transportation\Desktop\Work Zone TCPS\344Hwy45+AltTrafficAdvTempSignalRS35WZSLSharedLn.dgn				REGION NO.	STATE	FED.AID PROJ.NO.	DATE	DATE	P.E. STAMP BOX	P.E. STAMP BOX	Plot 2	PLAN REF NO TC344
TIME	1:03:25 PM												
DATE	8/1/2024				JOB NUMBER							SHEET 2 OF 6 SHEETS	
PLOTTED BY	LintzF				CONTRACT NO.		LOCATION NO.						
DESIGNED BY												TYPICAL TRAFFIC CONTROL PLANS	
ENTERED BY													
CHECKED BY													
PROJ. ENGR.													
REGIONAL ADM.					REVISION		DATE	BY					



**ADVANCED TEMPORARY SIGNAL-CONTROLLED ALTERNATING 1-LANE, 2-WAY TRAFFIC
35 WZSL + TEMP BARRIER + RUMBLE STRIPS (45+ MPH HIGHWAYS, 8+ DAYS)
NOT TO SCALE**

FILE NAME	C:\Users\LintzF\OneDrive - Washington State Department of Transportation\Desktop\Work Zone TCPs\344Hwy45+AltTrafficAdvTempSignalRS35WZSLSharedLn.dgn			REGION NO.	10	STATE	WASH	FED.AID PROJ.NO.		Washington State Department of Transportation	Plot 3
TIME	1:03:25 PM			JOB NUMBER							PLAN REF NO
DATE	8/1/2024			CONTRACT NO.		LOCATION NO.					SHEET
PLOTTED BY	LintzF										3
DESIGNED BY											OF
ENTERED BY											6
CHECKED BY											SHEETS
PROJ. ENGR.											
REGIONAL ADM.	REVISION	DATE	BY					P.E. STAMP BOX	DATE		

FOR DRIVEWAY, BUSINESS ACCESS, AND INTERSECTING ROADWAY DETAILS SEE TC344, SHEET 6.

WAIT-TIME DISPLAY VMS		
GREEN	YELLOW	RED
25 MPH ZONE	(Blank)	WAIT ###

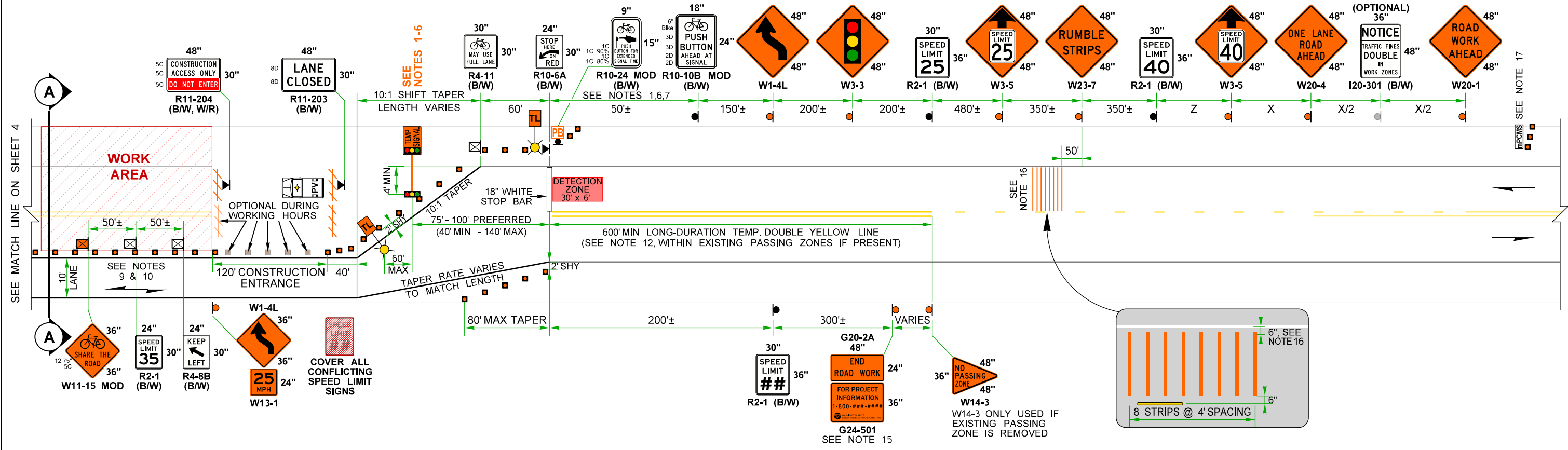
= MINUTES:SECONDS UNTIL GREEN. LOCATE VMS ON TEMP SIGNAL MAST ARM.

MAXIMUM CHANNELIZATION DEVICE SPACING (feet)	
TAPER	TANGENT
10'	20'

SPEED REDUCTION AHEAD SIGN SPACING = Z					
EXISTING SPEED LIMIT (MPH)	45	50	55	60	65
SPACING (feet)	230	470	740	1030	1340

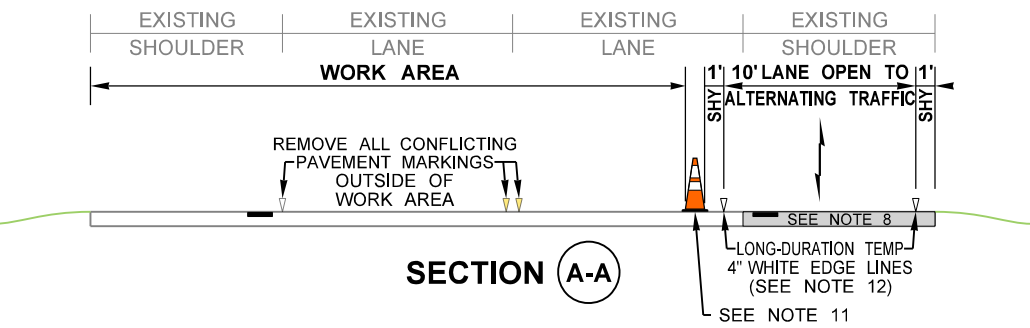
FIELD LOCATE 1± MILE PRIOR TO TEMP. SIGNAL OR UPSTREAM OF EXPECTED MAXIMUM TRAFFIC QUEUE PER STD. SPEC. 1-10.3(3)C.

mPCMS		
1	2	3
TRAFFIC SIGNAL 1 MILE	WATCH 4 STOPPED TRAFFIC	ROADWAY NARROWS 12' WIDE
1.5 SEC	1.5 SEC	1.5 SEC



- NOTES: CONTINUED FROM SHEET 4.
- BICYCLISTS ARE COMBINED WITH VEHICULAR TRAFFIC THROUGH THE LANE CLOSURE.
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 - 36" TRAFFIC CONES, 42" TALL CHANNELIZATION DEVICES, OR TRAFFIC SAFETY DRUMS OK.
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 - SEE STANDARD SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS:
 - 1-10.3(3)K PORTABLE TEMPORARY TRAFFIC CONTROL SIGNAL
 - 6-10.3(5) TEMPORARY BARRIER
 - 8-23.3(4)B TEMPORARY PAVEMENT MARKINGS - LONG DURATION
 - 9-35.14 PORTABLE TEMPORARY TRAFFIC CONTROL SIGNAL
 - FOR PROJECT-SPECIFIC REQUIREMENTS, SEE SPECIAL PROVISIONS.

- WSDOT PROJECT ENGINEERING OFFICE WILL PROVIDE PHONE NUMBER.
- SECURE TEMPORARY RUMBLE STRIPS TO PAVEMENT VIA ADHESIVE (DO NOT USE PRIMER). FOR ROADWAYS WITH SHOULDERS LESS THAN 4 FEET, PROVIDE A 4-FOOT CLEAR PATH FOR BICYCLES MEASURED FROM EDGE OF PAVED SHOULDER. AVOID PLACING THEM WITHIN HORIZONTAL CURVES, ADJUST SIGN SPACING IF NEEDED. USE THE FOLLOWING:
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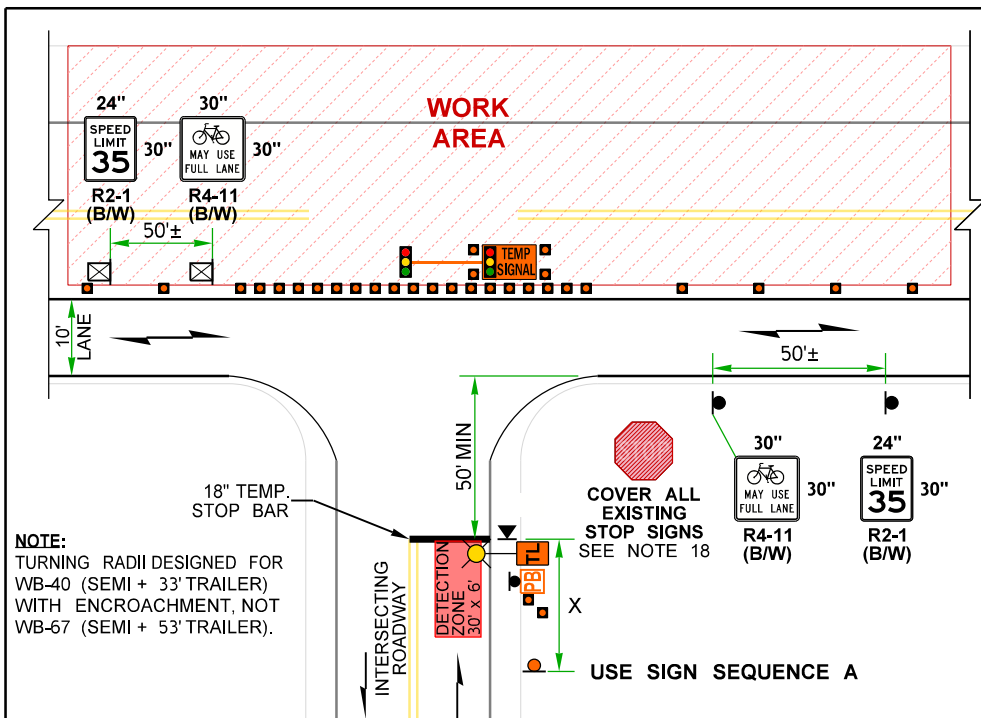
ADVANCED TEMPORARY SIGNAL-CONTROLLED ALTERNATING 1-LANE, 2-WAY TRAFFIC 35 WZSL + CHANNELIZING DEVICES + RUMBLE STRIPS (45+ MPH HIGHWAYS, 8+ DAYS) NOT TO SCALE

FILE NAME	C:\Users\LintzF\OneDrive - Washington State Department of Transportation\Desktop\Work Zone TCPS\344Hwy45+AltTrafficAdvTempSignalRS35WZSLSharedLn.dgn				Plot 5
TIME	1:03:27 PM				PLAN REF NO
DATE	8/1/2024				TC344
PLOTTED BY	LintzF	REGION NO.	10	STATE	WASH
DESIGNED BY		JOB NUMBER			
ENTERED BY		CONTRACT NO.		LOCATION NO.	
CHECKED BY					
PROJ. ENGR.					
REGIONAL ADM.		REVISION		DATE	BY

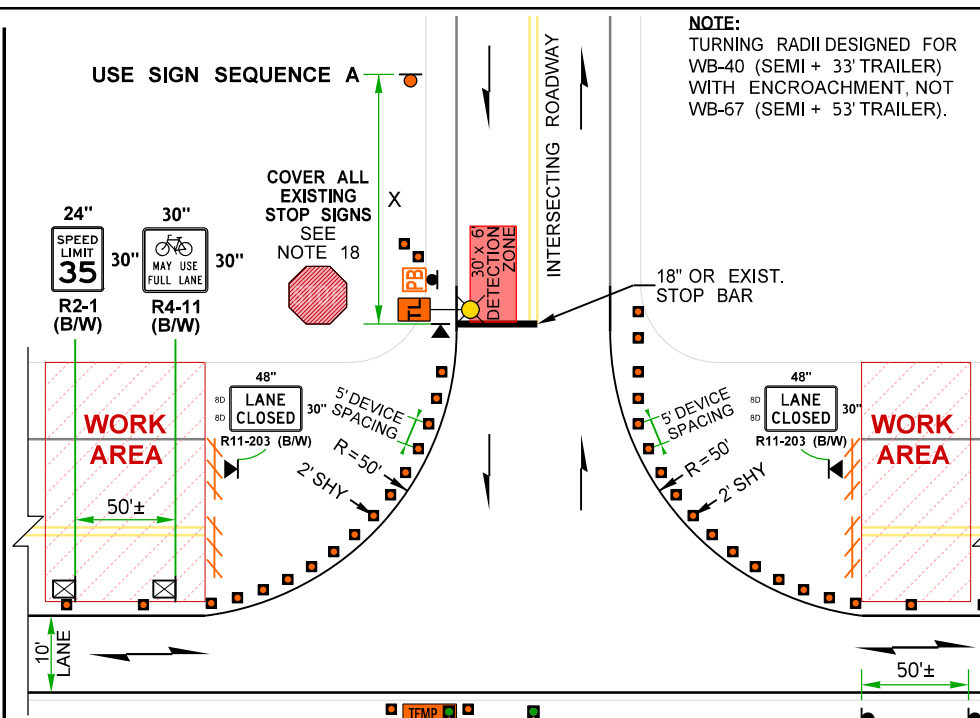
Washington State
Department of Transportation

TYPICAL TRAFFIC CONTROL PLANS

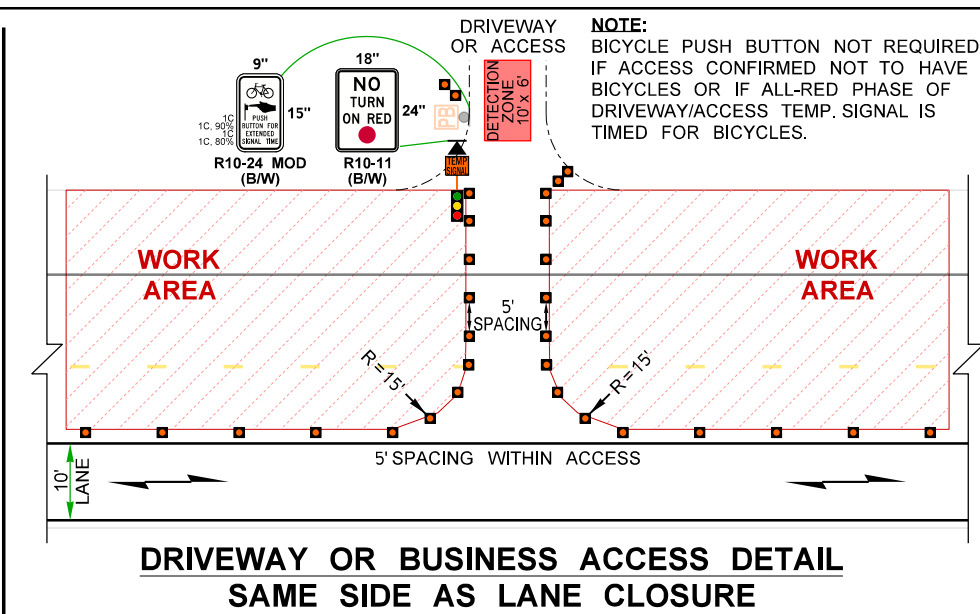
SHEET 5 OF 6 SHEETS



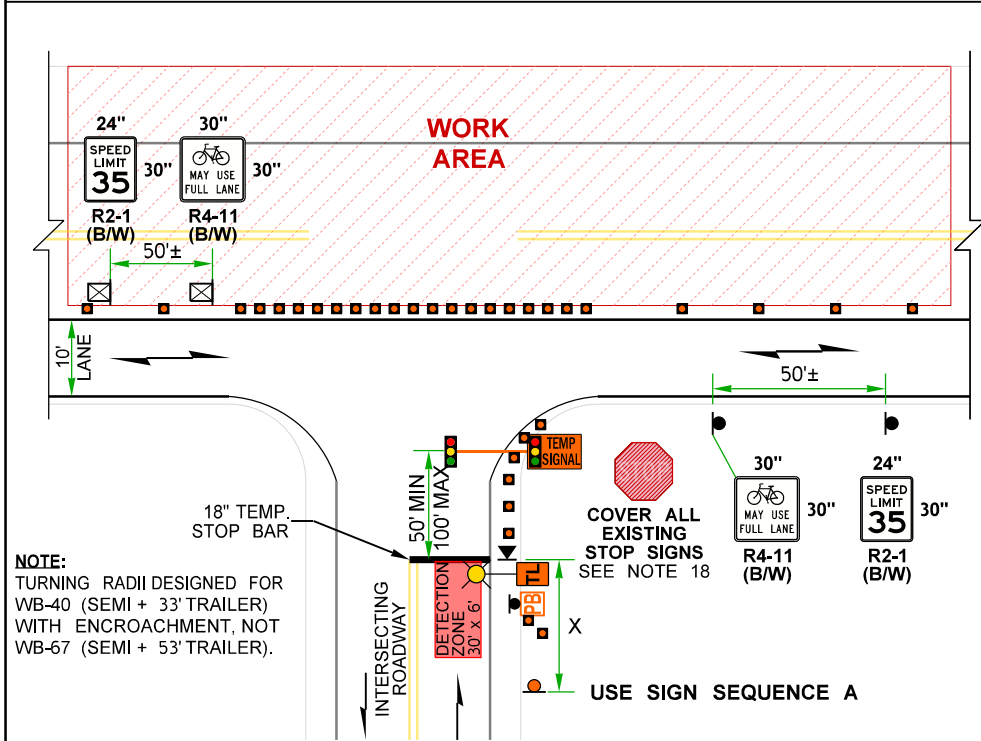
**UNSIGNALIZED INTERSECTING ROADWAY DETAIL
OPPOSITE OF LANE CLOSURE (SIGNAL FAR-SIDE)**



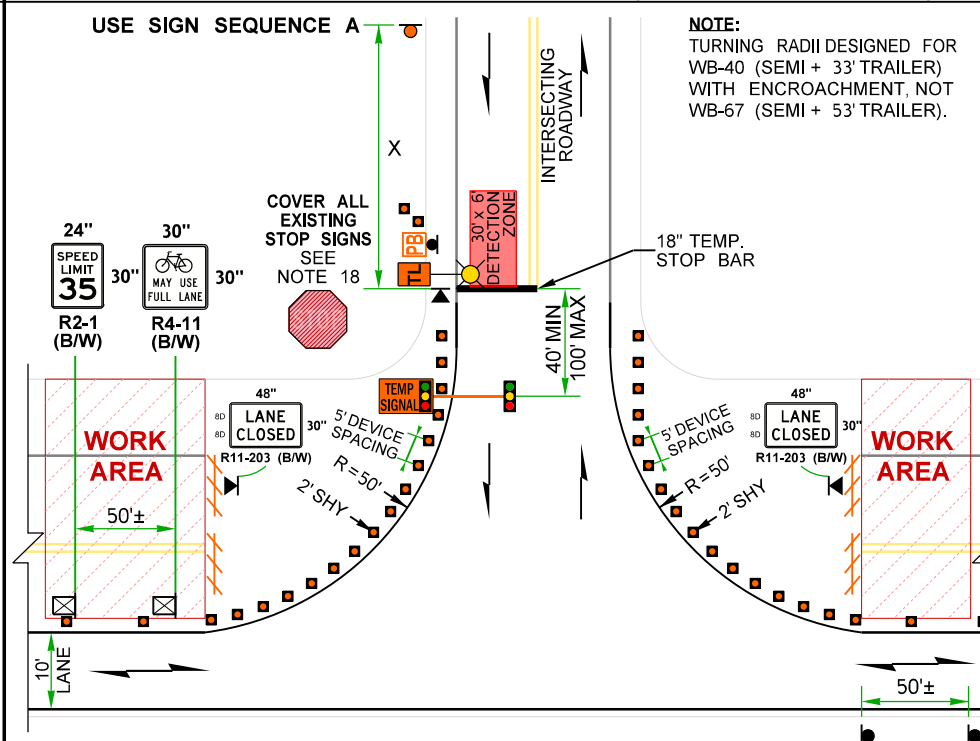
**UNSIGNALIZED INTERSECTING ROADWAY DETAIL
SAME SIDE AS LANE CLOSURE (SIGNAL FAR-SIDE)**



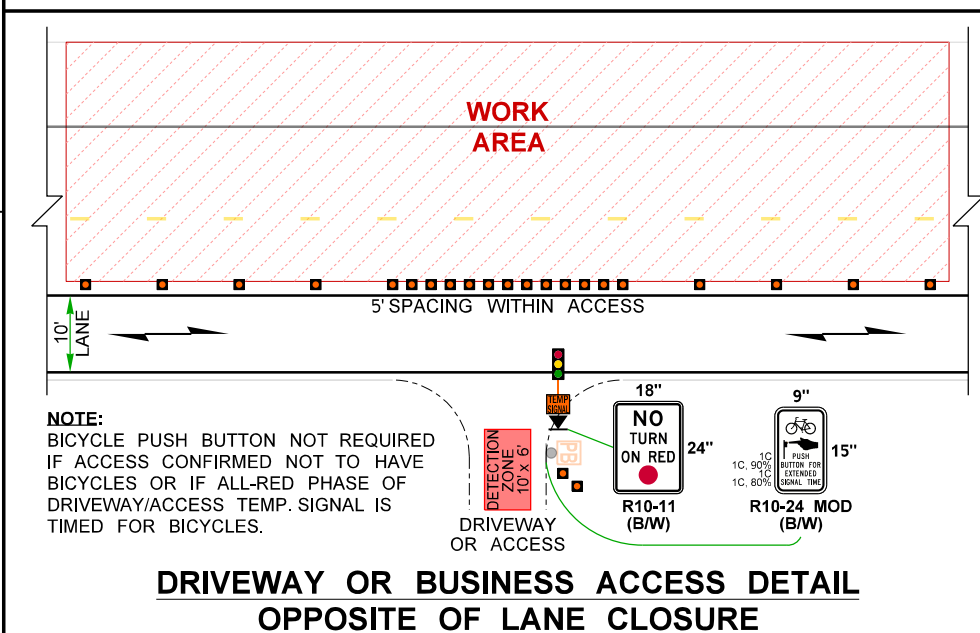
**DRIVEWAY OR BUSINESS ACCESS DETAIL
SAME SIDE AS LANE CLOSURE**



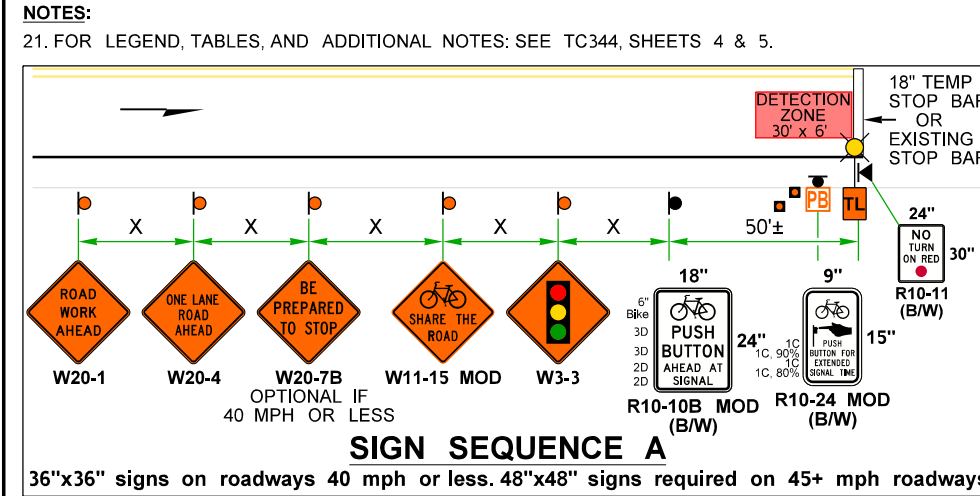
**UNSIGNALIZED INTERSECTING ROADWAY DETAIL
OPPOSITE OF LANE CLOSURE (SIGNAL NEAR-SIDE)**



**UNSIGNALIZED INTERSECTING ROADWAY DETAIL
SAME SIDE AS LANE CLOSURE (SIGNAL NEAR-SIDE)**



**DRIVEWAY OR BUSINESS ACCESS DETAIL
OPPOSITE OF LANE CLOSURE**



NOTES:
21. FOR LEGEND, TABLES, AND ADDITIONAL NOTES: SEE TC344, SHEETS 4 & 5.

**ADVANCED TEMPORARY SIGNAL-CONTROLLED ALTERNATING 1-LANE, 2-WAY TRAFFIC
35 WZSL + CHANNELIZING DEVICES + RUMBLE STRIPS (45+ MPH HIGHWAYS, 8+ DAYS)
NOT TO SCALE**

FILE NAME	C:\Users\LintzF\OneDrive - Washington State Department of Transportation\Desktop\Work Zone TCPs\344Hwy45+AltTrafficAdvTempSignalRS35WZSLSharedLn.dgn			REGION NO.	10	STATE	WASH	FED.AID PROJ.NO.	
TIME	1:03:27 PM			JOB NUMBER		CONTRACT NO.		LOCATION NO.	
DATE	8/1/2024			DATE		DATE			
PLOTTED BY	LintzF								
DESIGNED BY									
ENTERED BY									
CHECKED BY									
PROJ. ENGR.									
REGIONAL ADM.				REVISION		DATE		BY	



FOR DRIVEWAY, BUSINESS ACCESS, AND INTERSECTING ROADWAY DETAILS SEE TC344, SHEET 3.

WAIT-TIME DISPLAY VMS		
GREEN	YELLOW	RED
25 MPH ZONE	(Blank)	WAIT ###

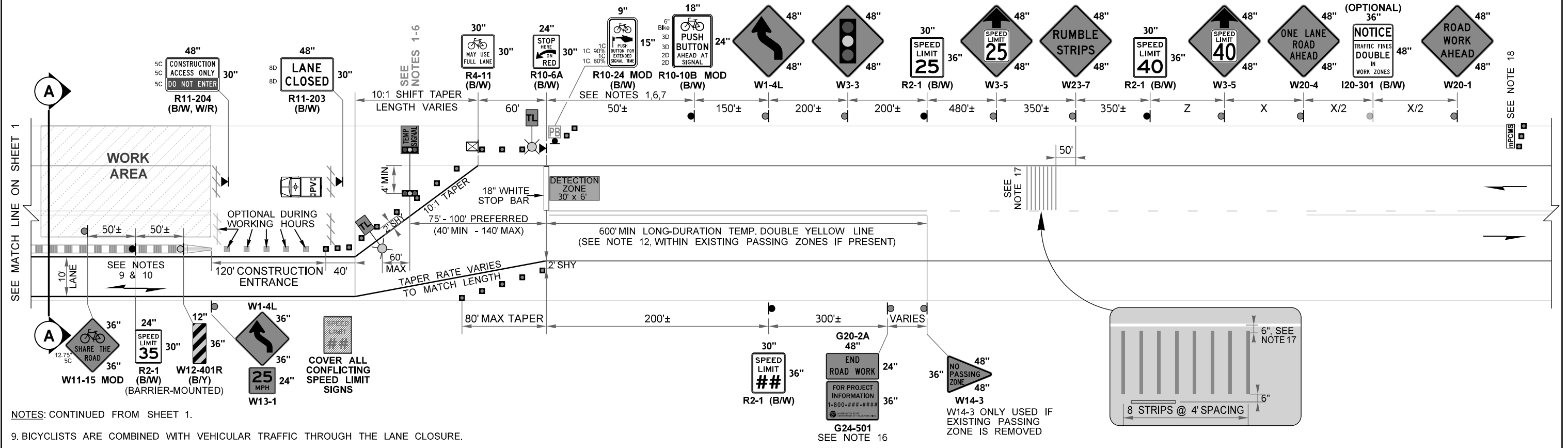
= MINUTES:SECONDS UNTIL GREEN. LOCATE VMS ON TEMP SIGNAL MAST ARM.

MAXIMUM CHANNELIZATION DEVICE SPACING (feet)	
TAPER	TANGENT
10'	20'

SPEED REDUCTION AHEAD SIGN SPACING = Z					
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SPACING (feet)	230	470	740	1030	1340

FIELD LOCATE 1± MILE PRIOR TO TEMP. SIGNAL OR UPSTREAM OF EXPECTED MAXIMUM TRAFFIC QUEUE PER STD. SPEC. 1-10.3(3)C.

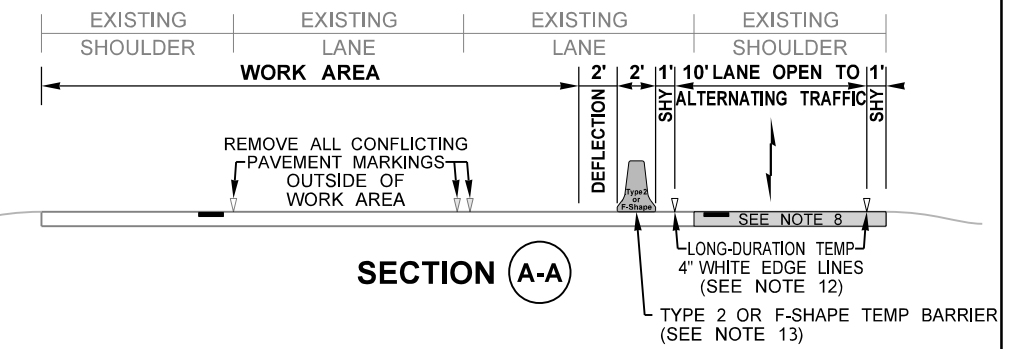
mPCMS		
1	2	3
TRAFFIC SIGNAL 1 MILE	WATCH 4 STOPPED TRAFFIC	ROADWAY NARROWS 12' WIDE
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NOTES: CONTINUED FROM SHEET 1.

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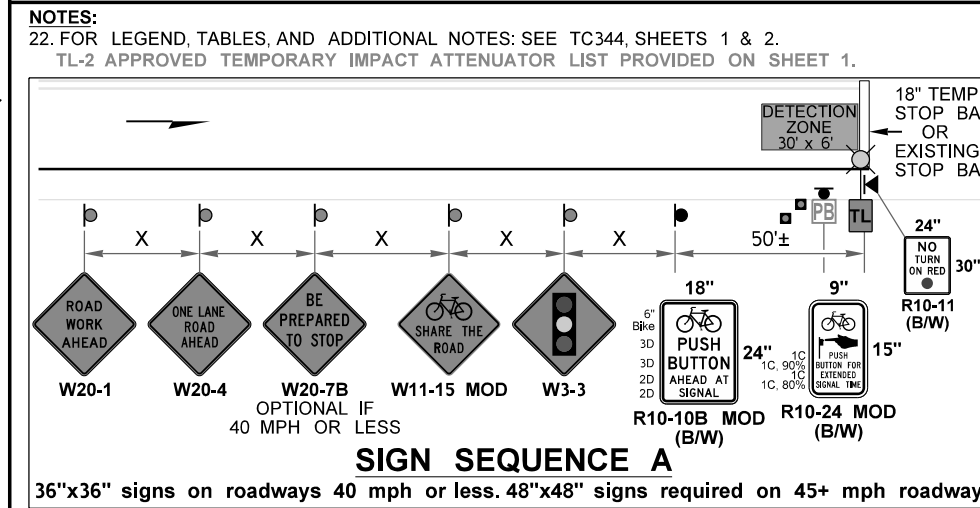
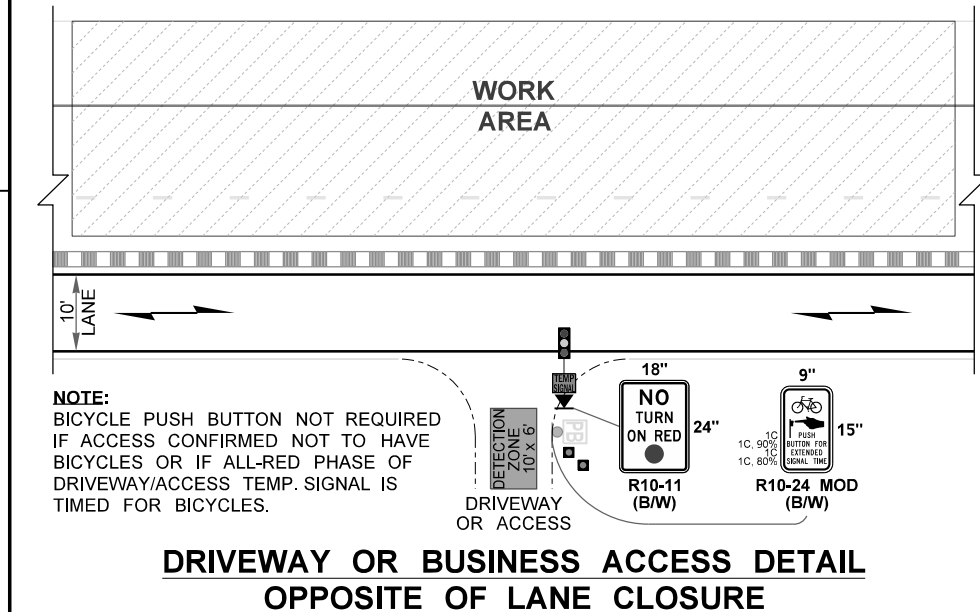
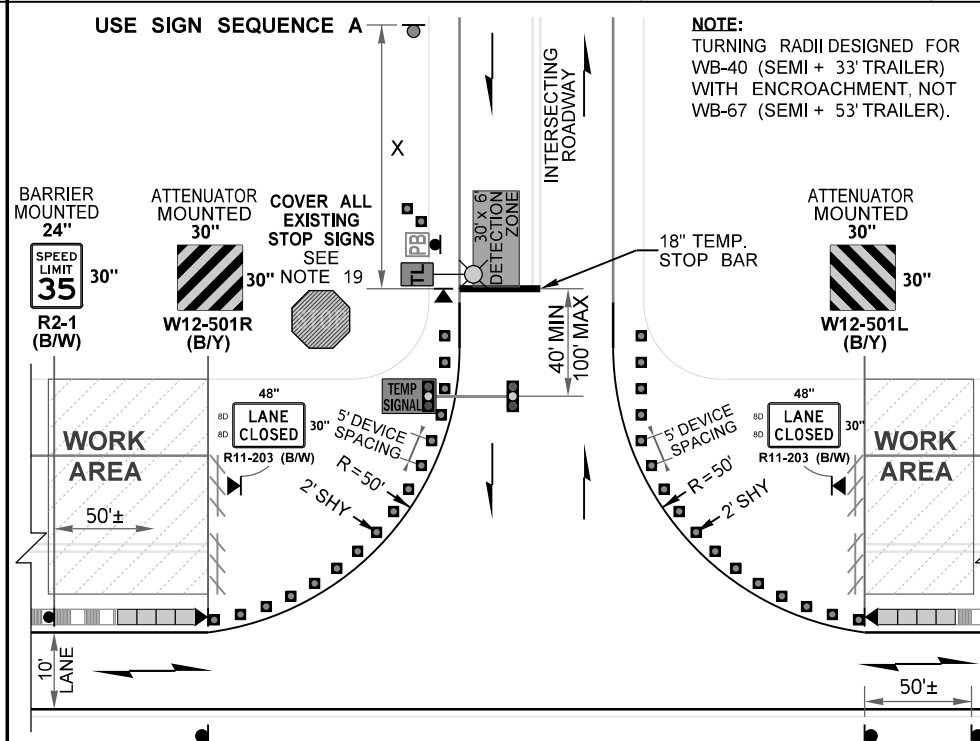
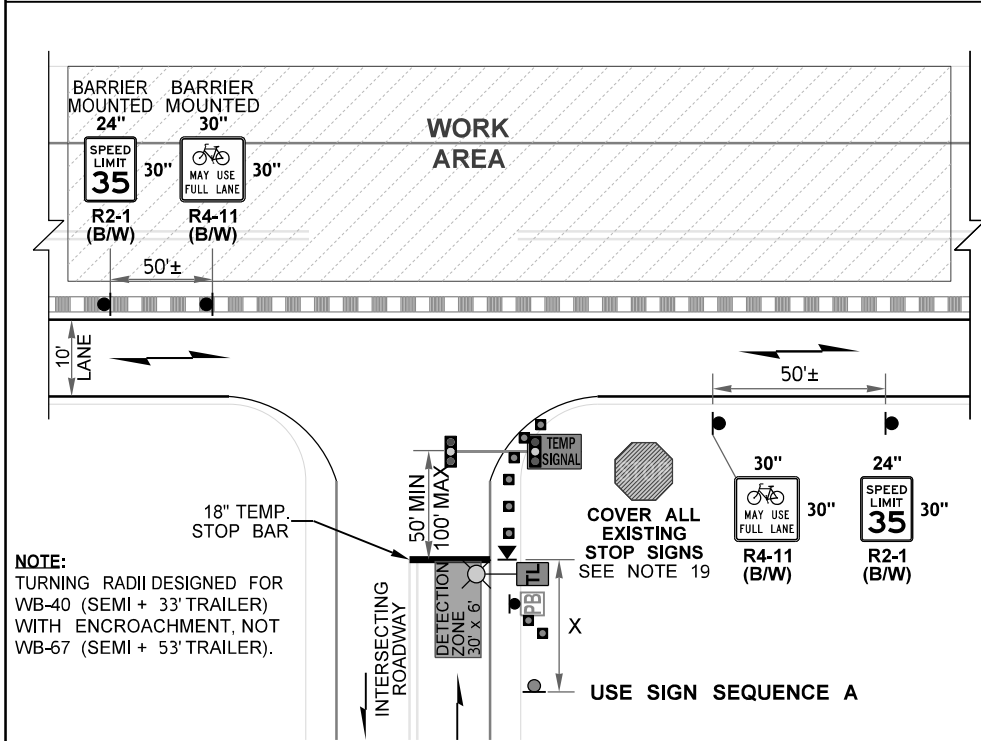
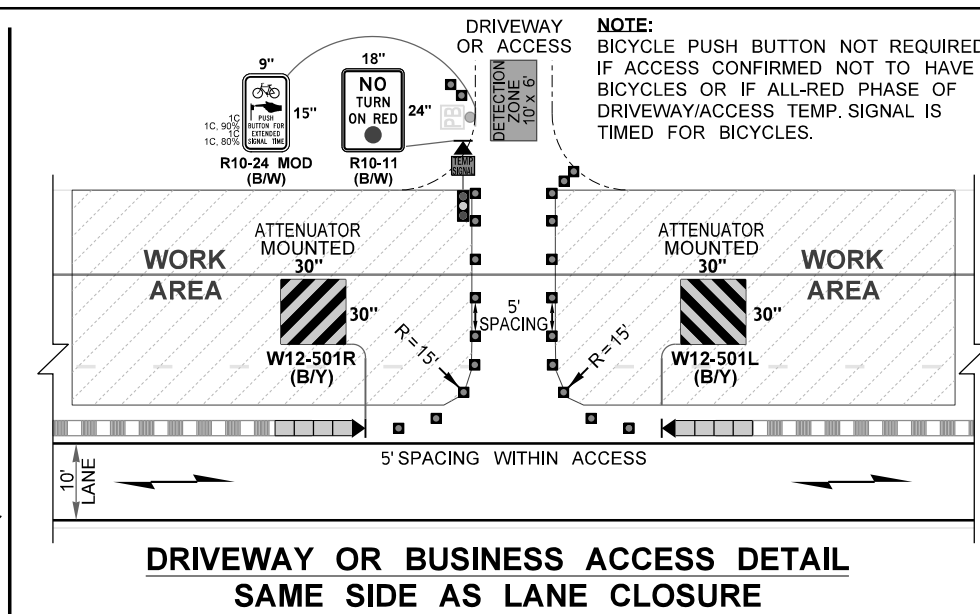
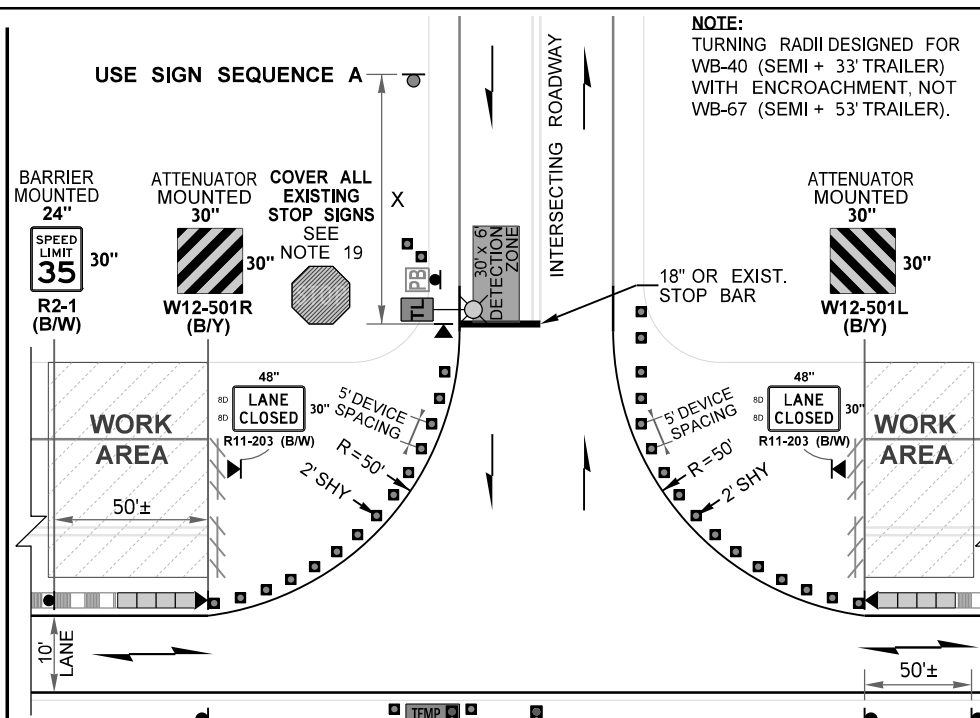
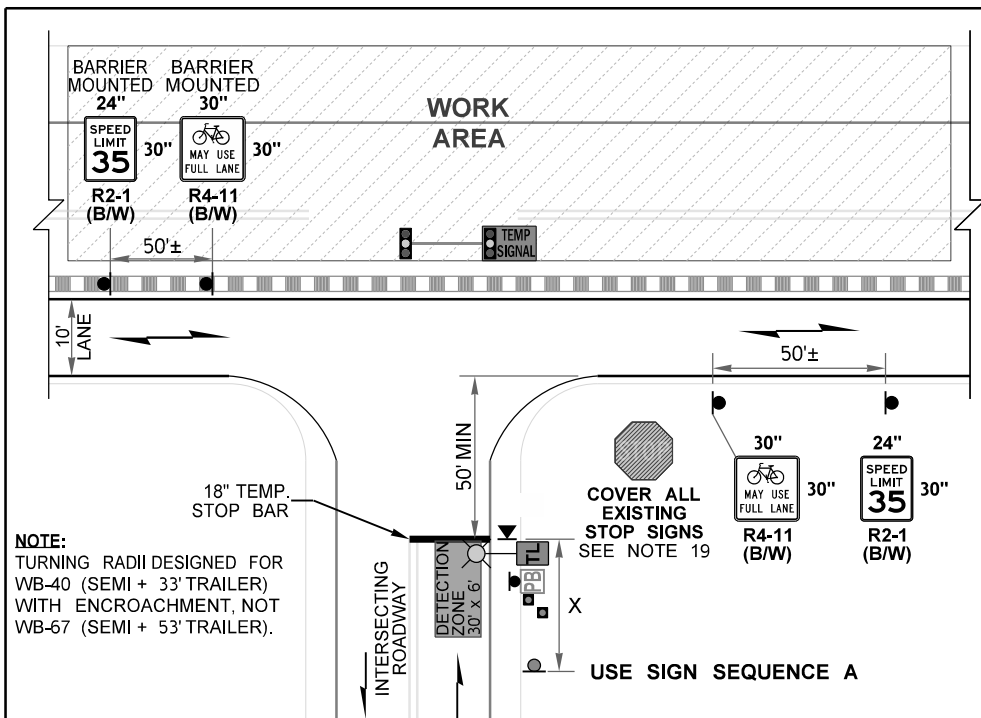


ADVANCED TEMPORARY SIGNAL-CONTROLLED ALTERNATING 1-LANE, 2-WAY TRAFFIC 35 WZSL + TEMP BARRIER + RUMBLE STRIPS (45+ MPH HIGHWAYS, 8+ DAYS)

NOT TO SCALE

FILE NAME	C:\Users\LintzF\OneDrive - Washington State Department of Transportation\Desktop\Work Zone TCPS\344Hwy45+AltTrafficAdvTempSignalRS35WZSLSharedLn.dgn				REGION NO. 10	STATE WASH	FED.AID PROJ.NO.	DATE	DATE	PLOT 2	PLAN REF NO TC344
TIME	1:03:29 PM										
DATE	8/1/2024				JOB NUMBER	LOCATION NO.	DATE	DATE	SHEET 2 OF 6 SHEETS	TYPICAL TRAFFIC CONTROL PLANS	
PLOTTED BY	LintzF										
DESIGNED BY					CONTRACT NO.	LOCATION NO.	DATE	DATE	SHEET 2 OF 6 SHEETS	TYPICAL TRAFFIC CONTROL PLANS	
ENTERED BY											
CHECKED BY					REVISION	DATE	BY	DATE	SHEET 2 OF 6 SHEETS	TYPICAL TRAFFIC CONTROL PLANS	
PROJ. ENGR.											
REGIONAL ADM.					REVISION	DATE	BY	DATE	SHEET 2 OF 6 SHEETS	TYPICAL TRAFFIC CONTROL PLANS	





**ADVANCED TEMPORARY SIGNAL-CONTROLLED ALTERNATING 1-LANE, 2-WAY TRAFFIC
35 WZSL + TEMP BARRIER + RUMBLE STRIPS (45+ MPH HIGHWAYS, 8+ DAYS)
NOT TO SCALE**

FILE NAME	C:\Users\LintzF\OneDrive - Washington State Department of Transportation\Desktop\Work Zone TCPs\344Hwy45+AltTrafficAdvTempSignalRS35WZSLSharedLn.dgn			REGION NO.	STATE	FED.AID PROJ.NO.	Plot 3
TIME	1:03:29 PM			10	WASH		PLAN REF NO TC344
DATE	8/1/2024			JOB NUMBER			SHEET 3
PLOTTED BY	LintzF			CONTRACT NO.	LOCATION NO.		OF 6
DESIGNED BY				DATE	DATE		SHEETS
ENTERED BY				P.E. STAMP BOX	P.E. STAMP BOX		
CHECKED BY							
PROJ. ENGR.							
REGIONAL ADM.							
REVISION							
DATE							
BY							



RECOMMENDED SIGN SPACING = X (1)		
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.

MAXIMUM CHANNELIZATION DEVICE SPACING (feet)	
TAPER	TANGENT
10'	20'

SPEED REDUCTION AHEAD SIGN SPACING = Z					
EXISTING SPEED LIMIT (MPH)	45	50	55	60	65
SPACING (feet)	230	470	740	1030	1340

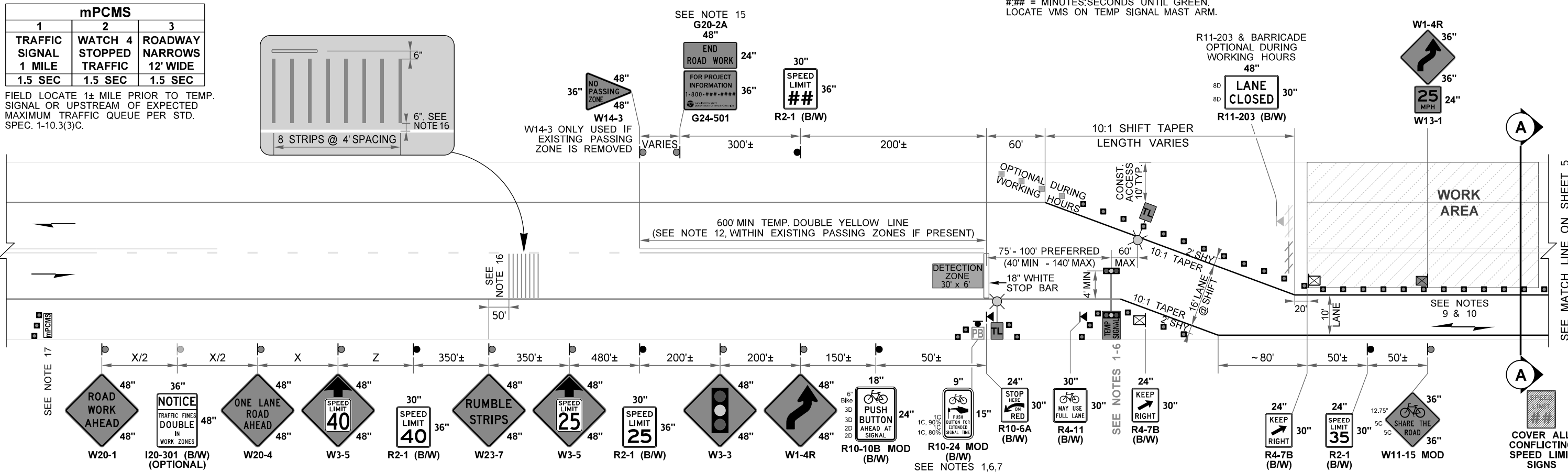
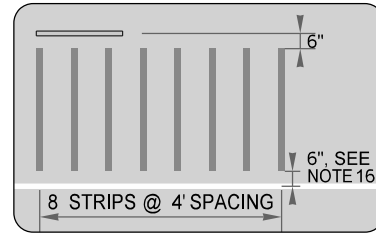
WAIT-TIME DISPLAY VMS		
GREEN	YELLOW	RED
25 MPH ZONE	(Blank)	WAIT #:##

= MINUTES:SECONDS UNTIL GREEN.
LOCATE VMS ON TEMP SIGNAL MAST ARM.

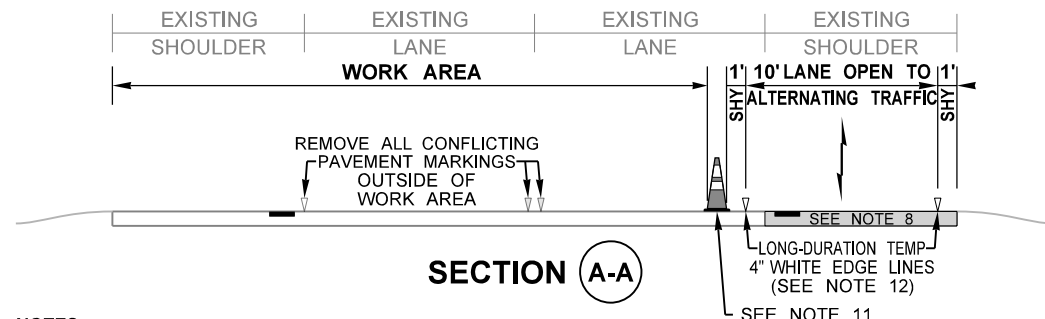
FOR DRIVEWAY, BUSINESS ACCESS, AND INTERSECTING ROADWAY DETAILS SEE TC344, SHEET 6.

mPCMS		
1	2	3
TRAFFIC SIGNAL 1 MILE	WATCH 4 STOPPED TRAFFIC	ROADWAY NARROWS 12' WIDE
1.5 SEC	1.5 SEC	1.5 SEC

FIELD LOCATE 1± MILE PRIOR TO TEMP. SIGNAL OR UPSTREAM OF EXPECTED MAXIMUM TRAFFIC QUEUE PER STD. SPEC. 1-10.3(3)C.



- LEGEND:**
- CLASS A SIGN LOCATION (POST OR BARRIER-MOUNTED)
 - ⊠ CLASS A TRIPOD-MOUNTED SIGN LOCATION (1' MIN HEIGHT)
 - ⊠ CLASS A TRIPOD-MOUNTED SIGN LOCATION (5' MIN HEIGHT)
 - 28" TRAFFIC CONES (SEE NOTE 11)
 - ⚡ TYPE 3 BARRICADE
 - 🚚 PROTECTIVE VEHICLE
 - 🚦 TEMPORARY TRAFFIC SIGNAL (SEE NOTES 1-6)
 - 🚦 COMPACT TEMP. TRAFFIC SIGNAL (SEE NOTES 1-6)
 - 🚲 TEMPORARY BICYCLE PUSH-BUTTON (SEE NOTES 1, 6, & 7)
 - 💡 TEMPORARY LIGHTING (SEE NOTE 6)
 - 📢 ADHESIVE TEMPORARY RUMBLE STRIPS (SEE NOTE 17)
 - 📢 miniPORTABLE CHANGEABLE MESSAGE SIGN (SEE NOTE 18)



- NOTES:**
- ALL TEMPORARY TRAFFIC SIGNAL TIMING PLANS MUST BE APPROVED BY THE ENGINEER. TWO SEPARATE SIGNAL TIMING PLANS NEEDED: (1) DEFAULT TIMING PLAN DESIGNED ONLY FOR VEHICLES. (2) MODIFIED SIGNAL TIMING, ACTIVATED BY THE BICYCLE PUSH-BUTTON, THAT EXTENDS THE ALL-RED CLEARANCE INTERVAL ONCE TO ALLOW BICYCLES TO CLEAR THE LANE CLOSURE FROM THE STOP BAR AT THE END OF THE YELLOW PHASE. AFTERWARDS, DEFAULT SIGNAL TIMING RESUMES.
 - TEMPORARY SIGNALS ARE FULLY ACTUATED CONTROLLED VIA VIDEO AND/OR RADAR DETECTION. WHEN NO VEHICLES DETECTED IN ANY DIRECTION, ALL TRAFFIC SIGNAL REST IN RED DISPLAY UNTIL THE NEXT VEHICLE IS DETECTED WHICH RECEIVES THE IMMEDIATE GREEN DISPLAY TO MINIMIZE DISPLAYS.

- TRAFFIC CONTROL MANAGER, TRAFFIC CONTROL SUPERVISOR (PRIMARY AND ALTERNATE), AND WSDOT ENGINEER SHALL BE NOTIFIED VIA EM, AIL, TEXT, AND/OR PAGE IF ANY TEMPORARY SIGNAL MALFUNCTIONS.
 - AVOID PLACING TEMPORARY SIGNALS WITHIN OR IMMEDIATELY FOLLOWING HORIZONTAL & VERTICAL CURVES BY ADJUSTING LONGITUDINAL BUFFER SPACE OR EXTENDING WORK AREA.
 - TEMPORARY TRAFFIC SIGNALS LOCATED WITHIN 1/4 MILE OF A RAILROAD GRADE CROSSING SHALL BE EVALUATED FOR RAILROAD PREEMPTION. CONTACT REGION TRANSPORTATION OPERATIONS.
 - WHEN PRACTICAL, PROVIDE AT LEAST 4 FEET OF LATERAL CLEARANCE FROM TRAVEL LANE TO TEMP SIGNAL, PUSH-BUTTON, AND TEMPORARY LIGHTING. ACCEPTABLE TO PLACE THESE DEVICES BEHIND EXISTING GUARDRAIL OR BARRIER, BUT VERIFY STRUCTURAL LOADING ON TEMP SIGNAL MAST ARM IS SUFFICIENT. IF A GRAVEL LEVELING PAD IS NEEDED, CONTACT ENGINEER PRIOR TO INSTALLING.
 - BICYCLE PUSH-BUTTON IS A MODIFIED PORTABLE PEDESTRIAN PUSH-BUTTON THAT IS MOUNTED ON A PUSH-CART OR TRAILER BUT ALSO MAY BE MOUNTED ON A 4x4 WOODEN POST WHERE IT REMAINS ACCESSIBLE TO BICYCLES WITHOUT HAVING TO DISMOUNT.
 - EXISTING SHOULDER PAVEMENT MAY NEED TO BE REBUILT TO FULL-DEPTH TO HANDLE TRAFFIC LONG TERM. AT A MINIMUM, REMOVE EXISTING RUMBLE STRIP VIA MILL & HMA FILL. VERIFY EXISTING ITS BOXES AND CATCH BASINS ARE TRAFFIC WORTHY PRIOR TO PLACING TRAFFIC ON SHOULDER LONG-TERM.
- NOTES CONTINUED ON SHEET 5.

ADVANCED TEMPORARY SIGNAL-CONTROLLED ALTERNATING 1-LANE, 2-WAY TRAFFIC 35 WZSL + CHANNELIZING DEVICES + RUMBLE STRIPS (45+ MPH HIGHWAYS, 8+ DAYS) NOT TO SCALE

FILE NAME	C:\Users\LintzF\OneDrive - Washington State Department of Transportation\Desktop\Work Zone TCPs\344Hwy45+AltTrafficAdvTempSignalRS35WZSLSharedLn.dgn				FED.AID PROJ.NO.	Washington State Department of Transportation	Plot 4
TIME	1:03:30 PM						PLAN REF NO
DATE	8/1/2024				10 WASH	SHEET 4 OF 6 SHEETS	TC344
PLOTTED BY	LintzF						
DESIGNED BY					CONTRACT NO.	LOCATION NO.	TYPICAL TRAFFIC CONTROL PLANS
ENTERED BY							
CHECKED BY					DATE	DATE	
PROJ. ENGR.					P.E. STAMP BOX	P.E. STAMP BOX	
REGIONAL ADM.	REVISION	DATE	BY				

FOR DRIVEWAY, BUSINESS ACCESS, AND INTERSECTING ROADWAY DETAILS SEE TC344, SHEET 6.

WAIT-TIME DISPLAY VMS		
GREEN	YELLOW	RED
25 MPH ZONE	(Blank)	WAIT ###

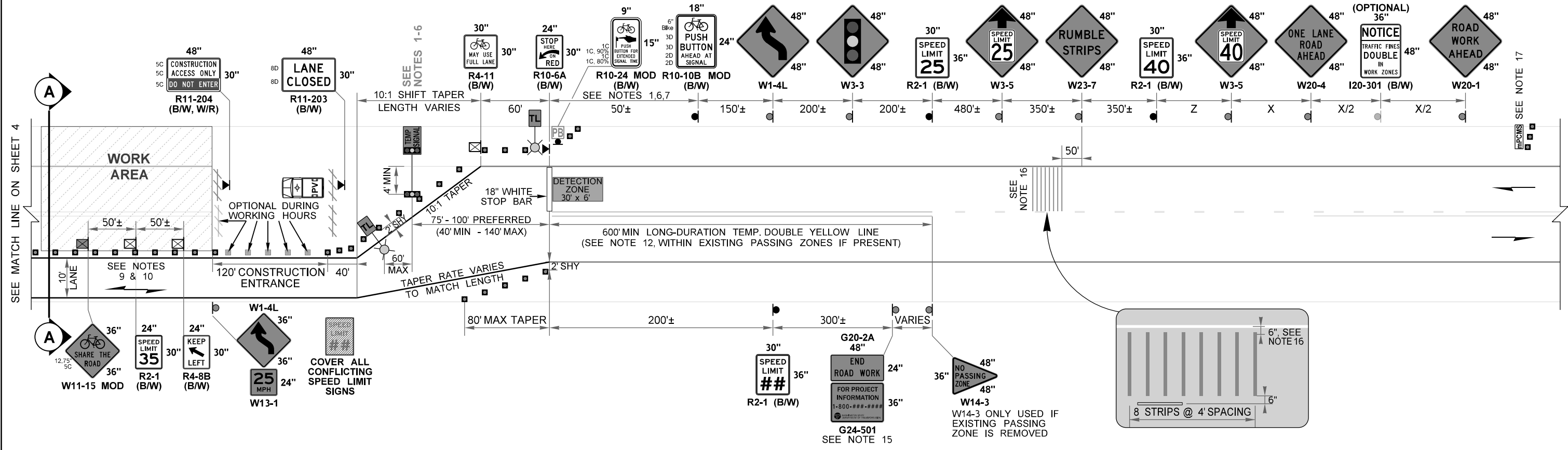
= MINUTES:SECONDS UNTIL GREEN. LOCATE VMS ON TEMP SIGNAL MAST ARM.

MAXIMUM CHANNELIZATION DEVICE SPACING (feet)	
TAPER	TANGENT
10'	20'

SPEED REDUCTION AHEAD SIGN SPACING = Z					
EXISTING SPEED LIMIT (MPH)	45	50	55	60	65
SPACING (feet)	230	470	740	1030	1340

FIELD LOCATE 1± MILE PRIOR TO TEMP. SIGNAL OR UPSTREAM OF EXPECTED MAXIMUM TRAFFIC QUEUE PER STD. SPEC. 1-10.3(3)C.

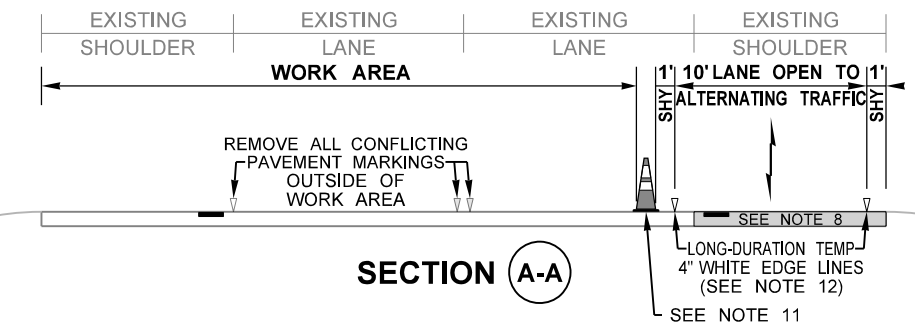
mPCMS		
1	2	3
TRAFFIC SIGNAL 1 MILE	WATCH 4 STOPPED TRAFFIC 1.5 SEC	ROADWAY NARROWS 12' WIDE 1.5 SEC



NOTES: CONTINUED FROM SHEET 4.

- 9. BICYCLISTS ARE COMBINED WITH VEHICULAR TRAFFIC THROUGH THE LANE CLOSURE.
- 10. ACCOMMODATE PEDESTRIANS VIA SHUTTLE THROUGH LANE CLOSURE OR ANOTHER METHOD THE ENGINEER ACCEPTS.
- 11. 36" TRAFFIC CONES, 42" TALL CHANNELIZATION DEVICES, OR TRAFFIC SAFETY DRUMS OK.
- 12. EXISTING CENTERLINE PAVEMENT MARKINGS MAY VARY. IF PASSING ZONE PRESENT WITHIN 600' OF TEMPORARY STOP BAR, REMOVE EXISTING CENTERLINE MARKING, OR COVER WITH BLACK TEMP. TAPE, AND INSTALL LONG-DURATION TEMP. DOUBLE YELLOW LINE (MAY BE SUPPLEMENTED WITH SURFACE-MOUNTED TYPE 2YY RPMs @ 40' SPACING). ALL OTHER CONFLICTING PAVEMENT MARKINGS SHALL BE REMOVED OR COVERED WITH BLACK TEMP. TAPE (THOSE WITHIN THE WORK AREA MAY REMAIN AS SHOWN).
- 13. SEE STANDARD SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS:
 - 1-10.3(3)K PORTABLE TEMPORARY TRAFFIC CONTROL SIGNAL
 - 6-10.3(5) TEMPORARY BARRIER
 - 8-23.3(4)B TEMPORARY PAVEMENT MARKINGS - LONG DURATION
 - 9-35.14 PORTABLE TEMPORARY TRAFFIC CONTROL SIGNAL
- 14. FOR PROJECT-SPECIFIC REQUIREMENTS, SEE SPECIAL PROVISIONS.

- 15. WSDOT PROJECT ENGINEERING OFFICE WILL PROVIDE PHONE NUMBER.
- 16. SECURE TEMPORARY RUMBLE STRIPS TO PAVEMENT VIA ADHESIVE (DO NOT USE PRIMER). FOR ROADWAYS WITH SHOULDERS LESS THAN 4 FEET, PROVIDE A 4-FOOT CLEAR PATH FOR BICYCLES MEASURED FROM EDGE OF PAVED SHOULDER. AVOID PLACING THEM WITHIN HORIZONTAL CURVES, ADJUST SIGN SPACING IF NEEDED. USE THE FOLLOWING:
 - * Advanced Traffic Marking (ATM) Self-Adhesive Rumble Strips (1/4" x 4", Orange)
 - * Stop-Painting (1/4" x 4", Orange)
 - * Seton (1/4" x 4", Orange)
- 17. FULL-SIZE PCMS MAY BE USED IN LIEU OF mPCMS WHERE SPACE ALLOWS.
- 18. REMOVE OR COVER ALL CONFLICTING SIGNAGE PER STD. SPEC. 1-10.3(3)A. BLACK 1/8" ABS OR 1/4" PLAYWOOD TEMP. SIGN COVER PERMITTED.
- 19. SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE INDICATED.
- 20. CONTACT WSDOT COMMERCIAL VEHICLE SERVICES AT LEAST 7 DAYS IN ADVANCE OF ROADWAY WIDTH RESTRICTIONS. 30 DAY NOTICE REQUIRED ON MAJOR FREIGHT CORRIDORS.

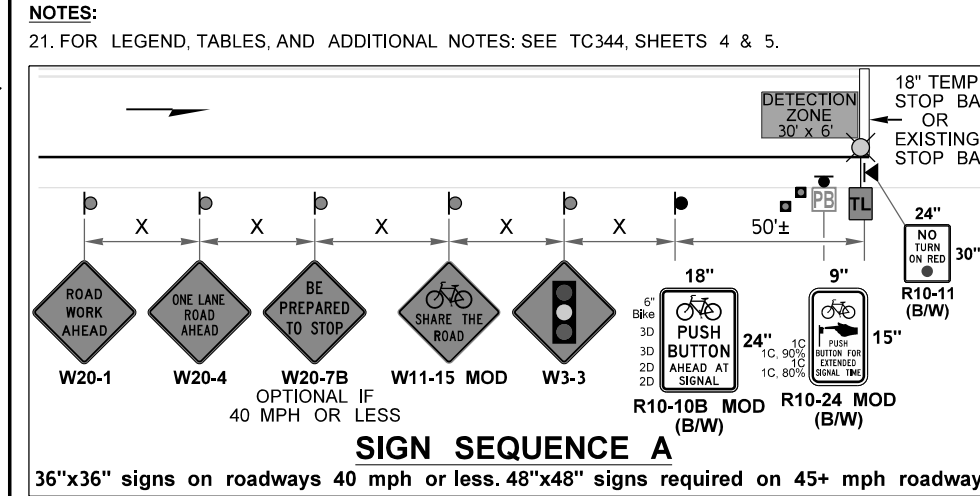
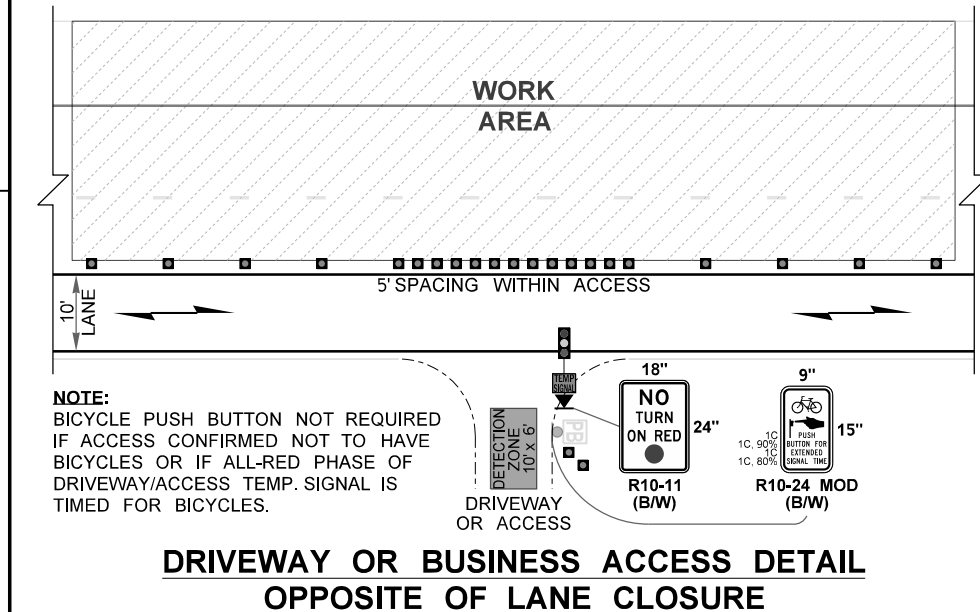
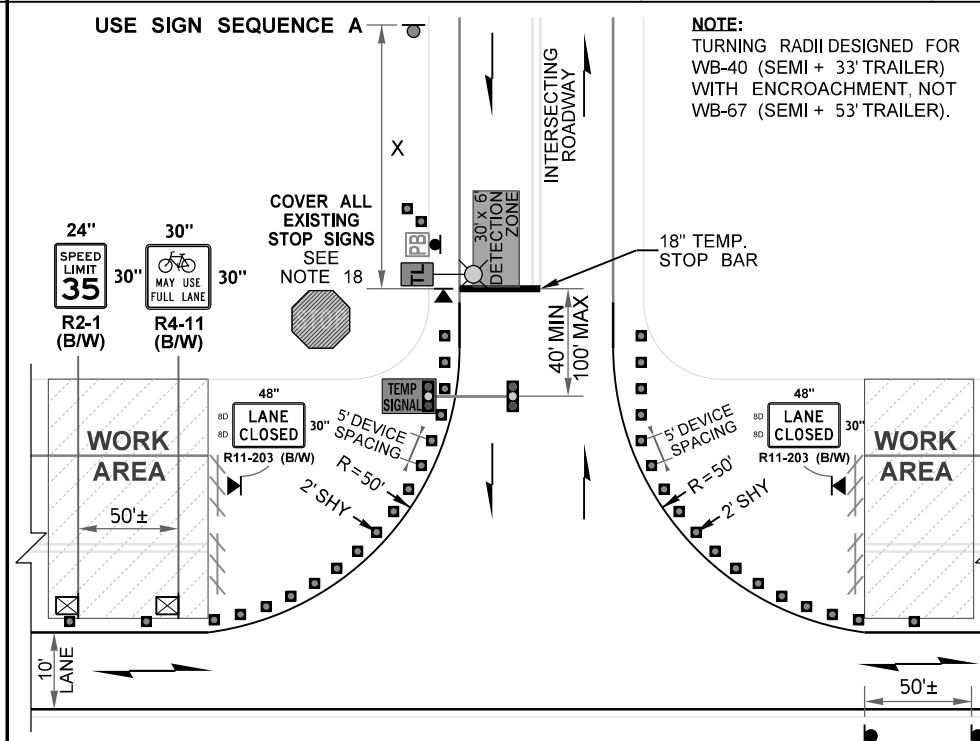
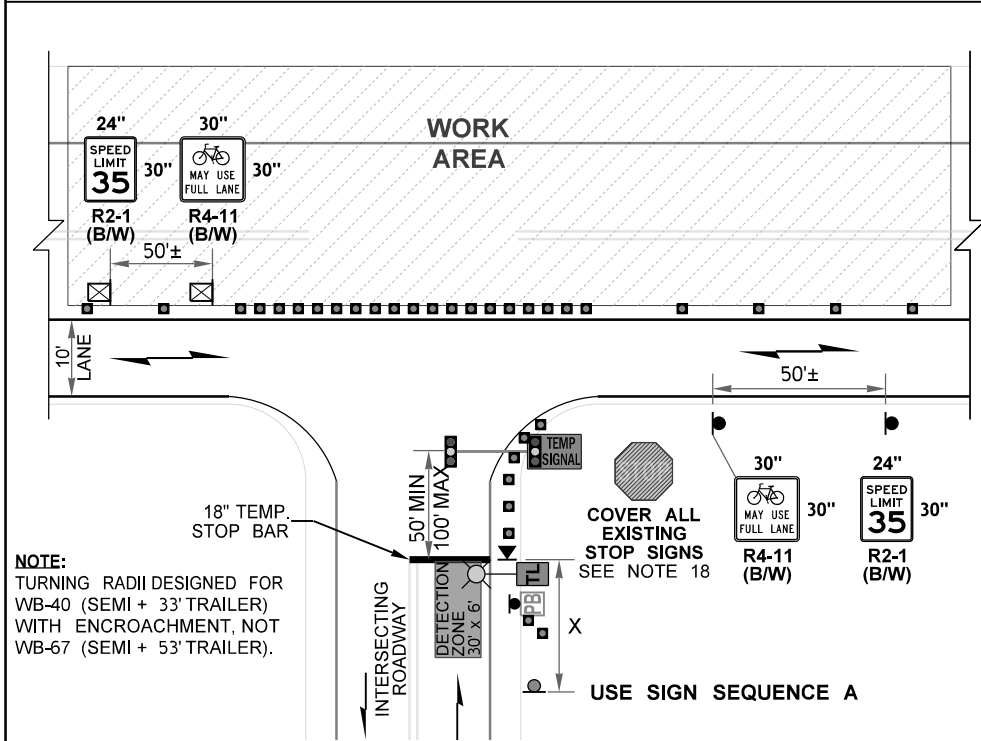
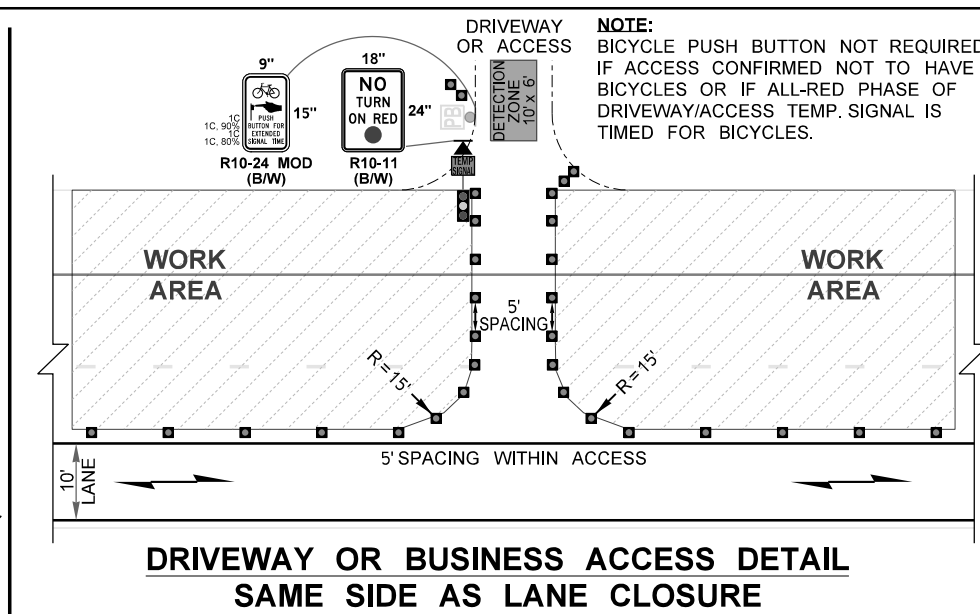
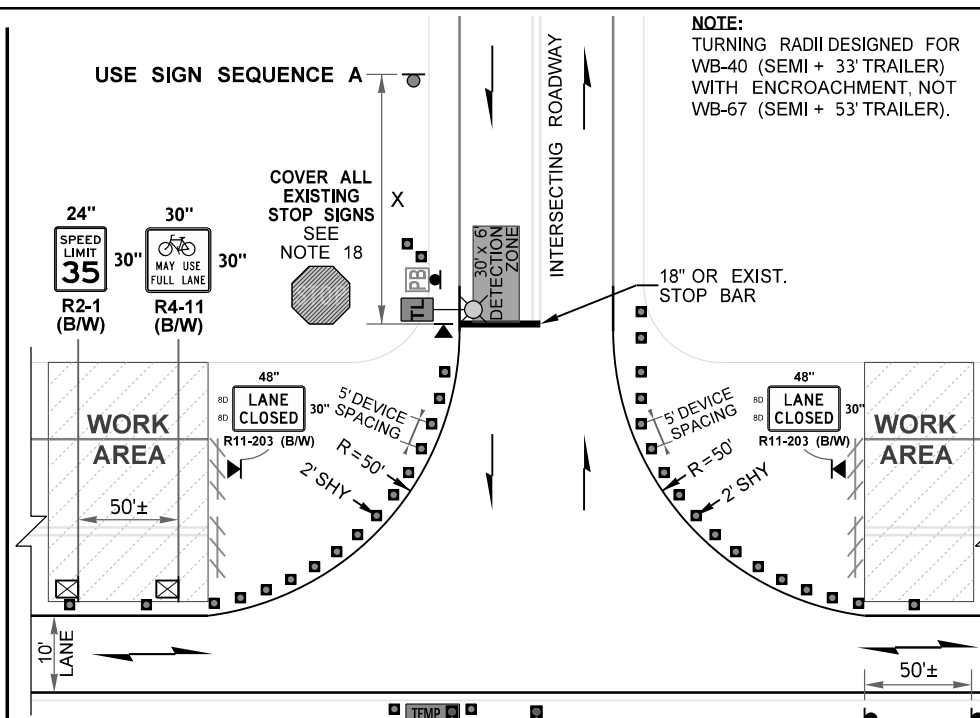
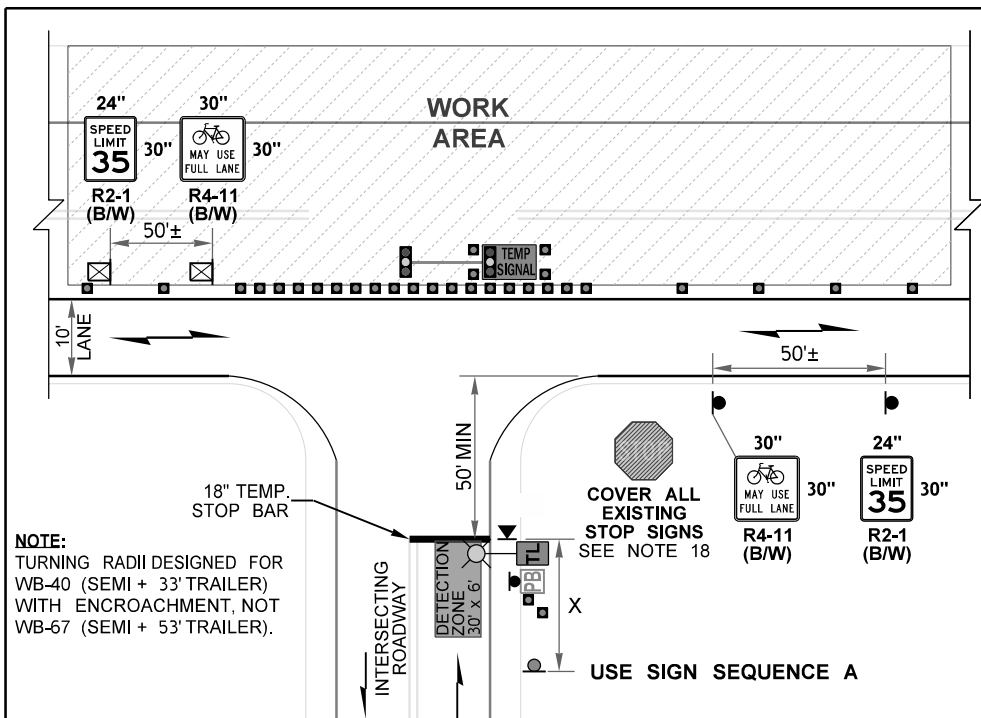


ADVANCED TEMPORARY SIGNAL-CONTROLLED ALTERNATING 1-LANE, 2-WAY TRAFFIC 35 WZSL + CHANNELIZING DEVICES + RUMBLE STRIPS (45+ MPH HIGHWAYS, 8+ DAYS) NOT TO SCALE

FILE NAME	C:\Users\LintzF\OneDrive - Washington State Department of Transportation\Desktop\Work Zone TCPS\344Hwy45+AltTrafficAdvTempSignalRS35WZSLSharedLn.dgn						 Washington State Department of Transportation	Plot 5 PLAN REF NO TC344
TIME	1:03:31 PM							
DATE	8/1/2024							
PLOTTED BY	LintzF							
DESIGNED BY								
ENTERED BY								
CHECKED BY								
PROJ. ENGR.								
REGIONAL ADM.								
REVISION	DATE	BY	CONTRACT NO.	LOCATION NO.	DATE	P.E. STAMP BOX	DATE	P.E. STAMP BOX

TYPICAL TRAFFIC CONTROL PLANS

SHEET
5
OF
6
SHEETS



Washington State Department of Transportation

Plot 6
PLAN REF NO
TC344

SHEET
6
OF
6
SHEETS

TYPICAL TRAFFIC CONTROL PLANS

FILE NAME	C:\Users\LintzF\OneDrive - Washington State Department of Transportation\Desktop\Work Zone TCPs\344Hwy45+AltTrafficAdvTempSignalRS35WZSLSharedLn.dgn		
TIME	1:03:31 PM		
DATE	8/1/2024		
PLOTTED BY	LintzF	REGION NO.	10
DESIGNED BY		STATE	WASH
ENTERED BY		JOB NUMBER	
CHECKED BY		CONTRACT NO.	
PROJ. ENGR.		LOCATION NO.	
REGIONAL ADM.		DATE	
REVISION		DATE	
BY		P.E. STAMP BOX	
		P.E. STAMP BOX	

WORK ZONE MICROSTATION CELLS: Updated work zone cells incorporated (April 2024).

WSDOT CAE automatically updates cell libraries on WSDOT and on-site consultant staff computers (no action needed); however, external users or off-site consultants must manually install them. For additional information e-mail HQCAEHelpDesk@wsdot.wa.gov.

Division 4 in WSDOT Plans Preparation Manual, Section 400.06(29), provides updated work zone cell library policy and information for PS&Es. See <https://wsdot.wa.gov/engineering-standards/all-manuals-and-standards/manuals/plans-preparation-manual>

TYPICAL TCP USAGE EXPLANATION:

Plots 1-3: Advanced temporary signal-controlled 1-lane, 2-way alternating traffic on 45+ mph, 2-lane highways with temporary barrier separating work area for long-duration closures (8+ days). While the regulatory speed limit is 25 mph approaching the temporary signal, it is increased to 35 mph after the lane closure taper to maximize traffic capacity, which minimizes delays & queues. Details for driveway, business access, and/or intersecting roadways included in Plot 3.

Plots 4-6: Advanced temporary signal-controlled 1-lane, 2-way alternating traffic on 45+ mph, 2-lane highways with channelizing devices separating work area for long-duration closures (8+ days). While the regulatory speed limit is 25 mph approaching the temporary signal, it is increased to 35 mph after the lane closure taper to maximize traffic capacity, which minimizes delays & queues. Details for driveway, business access, and/or intersecting roadways included in Plot 6.

Plots 11-14: Version for 45 mph highways of Sheet 1 & 2 (temporary barrier) and Sheet 4 & 5 (channelizing device). Plot 3 and 6 still used but change title to "(45 MPH HIGHWAYS, 8+ DAYS)". See Microstation file in .ZIP file.

Plots 16-19: Version for 50 mph highways of Sheet 1 & 2 (temporary barrier) and Sheet 4 & 5 (channelizing device). Plot 3 and 6 still used but change title to "(50 MPH HIGHWAYS, 8+ DAYS)". See Microstation file in .ZIP file.

Plots 21-24: Version for 55 mph highways of Sheet 1 & 2 (temporary barrier) and Sheet 4 & 5 (channelizing device). Plot 3 and 6 still used but change title to "(55 MPH HIGHWAYS, 8+ DAYS)". See Microstation file in .ZIP file.

Plots 26-29: Version for 60 mph highways of Sheet 1 & 2 (temporary barrier) and Sheet 4 & 5 (channelizing device). Plot 3 and 6 still used but change title to "(60 MPH HIGHWAYS, 8+ DAYS)". See Microstation file in .ZIP file.

Plots 31-34: Version for 65 mph (trucks 60 mph) highways of Sheet 1 & 2 (temporary barrier) and Sheet 4 & 5 (channelizing device). Plot 3 and 6 still used but change title to "(65 MPH HIGHWAYS, 8+ DAYS)". See Microstation file in .ZIP file.

Other Alternating Traffic TCPs (45+ mph): See Typical Traffic Control Plan Library (<https://wsdot.wa.gov/engineering-standards/all-manuals-and-standards/plan-sheet-library/work-zone-typical-traffic-control-plans-tcp>)
* TC320s for flagger-controlled alternating traffic plans
* TC330s for other variations of AFAD-controlled alternating traffic plans
* TC340s for temporary signal-controlled alternating traffic plans
* TC350s for traffic holds
If not published yet, they will be added in the future.

Other Alternating Traffic TCPs (40 mph or less): See Typical Traffic Control Plan Library (<https://wsdot.wa.gov/engineering-standards/all-manuals-and-standards/plan-sheet-library/work-zone-typical-traffic-control-plans-tcp>)
* TC420s for flagger-controlled alternating traffic
* TC430s for AFAD-controlled alternating traffic
* TC440s for temporary signal-controlled alternating traffic plans
* TC450s for traffic holds
If not published yet, they will be added in the future.

DESIGNER NOTES:

A. Temporary Traffic Signals located within 1/4 mile of a railroad grade crossing shall be evaluated for railroad preemption per WSDOT Manual 1330.04(7)(b). Note, this process tends to take up to 6 months due to collaboration with railroads.

B. Contact Region Traffic Operations to determine which Typical TCP(s) to utilize, as there are several variations available (or soon will be).

C. These typical traffic control plans may be modified for site specific situations and/or WSDOT Region Traffic Operations standard practices. **Typical TCPs are not "Standard Plans".**

D. Per WSDOT Executive Order E1060 (<https://www.wsdot.wa.gov/publications/policies/fulltext/1060.pdf>); speed limit reductions and advisory speeds must be approved for work zones. Submit speed reduction reductions & advisory speed requests for work zones through WSDOT Region Transportation Operations. See Traffic Manual Section 5-18 for additional information for documentation and notification requirements.

DESIGNER NOTES: (continued)

E. See MUTCD Table 6F-1 for additional temporary sign size information. Work zone signs are usually smaller than those used permanently.

F. WAC 468-95-300 modifies MUTCD Table 6-1 "Recommended Advance Warning Sign Minimum Spacing". Sign spacing may be adjusted for field conditions based on engineering judgement. The Sign Spacing table is acceptable to use in Typical TCPs; however, site-specific traffic control plans should include actual sign spacing values (withA) that have been verified in the field, on SR view, or via Google Maps.

G. The temporary sign spacing between W3-5 (speed reduction ahead) and R2-1 (speed limit) signage is based on Exhibit 2-8 in Chapter 2 of the WSDOT Traffic Manual (<https://www.wsdot.wa.gov/publications/manuals/fulltext/m51-02/chapter2.pdf>).

H. For 8+ day traffic control plans, Class A construction signs will be used and are typically mounted per Standard Plan K-80.10; however, tripod-mounted (1-foot, 5-foot when behind channelizing devices) and barrier-mounted signs are also used in these plans. For 7 day or less plans, Class B construction signs are used and consist of tripod-mounted (1-foot, 5-foot when behind channelizing devices) and barrier-mounted signs.

I. For this Typical TCP, the work zone design speed is based on the 25 mph continuous regulatory speed limit for sign spacing, channelizing device spacing, buffer, roll ahead distances, and use of concrete barrier terminals until the one-lane section where the speed limit then is based on the 35 mph continuous regulatory speed limit where TL-2 temporary impact attenuators are used instead of concrete barrier terminals. This allows the work zone to be condensed coming into the lane closure, but then allows traffic to travel faster between the temporary signals, which is beneficial when temporary signals are spaced more than 1500 feet apart or may be appropriate in other circumstances as well based on Region Transportation Operation's engineering judgement. If the 8+ day bypass needs to be designed at a lower speed (20 mph or 25 mph), then add a W13-1P advisory speed plaque below the W24-1 series signs based on the restricted features' design speed.

J. Lane closure tapers for temporary signal alternating traffic is typically 50'-100' per closed lane with 6 devices minimum (10'-20' spacing on the taper) regardless of the posted speed limit or lane width per MUTCD 6C.08, Paragraph 15. Never use "L" for these tapers. This Typical TCP 10:1 tapers (but this can be reduced to 5:1 tapers in restricted areas) in lieu of actual taper distances to account for the additional lane shift behind centerline due to varying shoulder widths (10' shoulders shown in Typical TCP) which impacts the taper length. Site-specific traffic control plans may use this Typical TCP as reference and modify it from stopbar to stopbar using curvilinear alignment.

K. Channelization devices types may be modified (vertical panel channelizing devices prohibited). Warning lights on channelizing devices is being phased out in Washington. Contact Region Traffic Operations for information regarding their standard practices.

L. Maximum channelizing device spacing table for tangents is reduced to 20' spacing to enhance delineation through the lane closure, even though 60' allowed in WAC 468-95-301 for 35 mph. Channelization spacing may ALWAYS be reduced. To allow construction access into the work area, truck & trailers need about 120' gap in devices to maneuver--so these devices are optional during working hours to allow that movement.

M. Per MUTCD Section 6C.06, longitudinal buffer spaces are optional. This Typical TCP uses a 40' tangent & 120' construction access as the 160' longitudinal buffer (155' buffer for 25 mph). A protective vehicle has been added in the closed lane behind the first set of Type 3 barricades with just a 40' buffer to keep the distance between signals minimized (which maximizes traffic capacity).

N. The lateral buffer (transverse distance between open travel lanes and work area) is optional. No lateral buffer has been provided in these Typical TCPs due to the low speeds of alternating traffic when channelizing devices used but a 2' lateral deflection distance used for temporary barrier (for their deflection space) due to 35 mph speeds versus the typical 3 feet. Actual work area limits may be modified.

O. See Design Manual Chapter 1610 for temporary barrier design & sloped concrete barrier terminal (allowed 35 mph or less). See Design Manual Chapter 1620 for temporary impact attenuators (required 30+ mph, approved Temporary Impact Attenuator list required to be provided on TCPs).

P. Placing Type 3 barricades or channelizing devices transversely (at 0° and 3-foot spacing) is an optional strategy to stop errant drivers traveling within the closed lane(s). This Typical TCP uses several Type 3 barricades strategically placed.

Q. In lieu of portable trailer-mounted traffic signals, WSDOT HQ has a timber-pole mounted traffic signal variation that is more economical if traffic signals remain in place for 4 months or longer. For additional information, contact HQworkzone@wsdot.wa.gov.

R. If distance between mainline temporary lights exceed 200 feet, perform Light Level Criteria calculations per Design Manual 1040.10. At intersections, a single 200W+ class light at the stopbar is sufficient if the stop line for the cross-street is within 75 feet from the edge line of the main roadway.

S. When utilizing temporary transverse rumble strips in Contracts, include the following Section 1-10 General Special Provisions for Specification, Measurement, and Payment. <https://wsdot.wa.gov/publications/fulltext/projectdev/gspspdf/egsp8.pdf>
* 8-23.2(9-34).OPT1.GR8 (Temporary Adhesive Transverse Rumble Strip Materials GSP)
* 8-23.3(4)A.OPT1.GR8 (Temporary Adhesive Transverse Rumble Strip Specifications GSP)
* 8-23.4.OPT1.GR8 (Temporary Adhesive Transverse Rumble Strip Measurement GSP)
* 8-23.5.OPT1.GR8 (Temporary Adhesive Transverse Rumble Strip Payment GSP)

**ADVANCED TEMPORARY SIGNAL-CONTROLLED ALTERNATING 1-LANE, 2-WAY TRAFFIC
35 WZSL + RUMBLE STRIPS (45+ MPH HIGHWAYS, 8+ DAYS)**

INFORMATIONAL USE ONLY

**DO NOT INCLUDE THIS SHEET IN
CONTRACT PS&Es or TCP SUBMITTALS.**

DESIGNER GUIDANCE

TC344