

STATE OF	PROJECT NH-CR 0081(122)3 &	SHEET	TOTAL SHEETS
SOUTH DAKOTA	P 0046(87)334	C1	C15

Revised, 12/03/2024(AP)

## INDEX OF SHEETS

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END NH 0081(122)03 Sta. 509+23.96 End Shoulder Surfacing MRM 15.34 +0.155

#### Section C - Traffic Control PCN 07V2

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
110E5020	Salvage Traffic Sign	8	Each
110E7150	Remove Sign for Reset	25	Each
110E7152	Remove Delineator for Reset	80	Each
260E1010	Base Course	500.0	Ton
632E2100	Reset Delineator	80	Each
632E3500	Reset Sign	25	Each
634E0010	Flagging	350.0	Hour
634E0020	Pilot Car	150.0	Hour
634E0110	Traffic Control Signs	982.0	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0135	Traffic Control Supervisor	Lump Sum	LS
634E0275	Type 3 Barricade	30	Each
634E0340	Temporary Raised Pavement Markers	31.5	Mile
634E0380	Tubular Marker	300	Each
634E0420	Type C Advance Warning Arrow Board	2	Each
634E0640	Temporary Pavement Marking	6,500	Ft
634E1002	Detour and Restriction Signing	947.0	SqFt

#### PCN 09P4

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
634E0010	Flagging	80.0	Hour
634E0020	Pilot Car	20.0	Hour
634E0110	Traffic Control Signs	293.0	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS

#### **SEQUENCE OF OPERATIONS**

Contractor requests to deviate from the sequence of operations will be submitted in writing to the Engineer for review. Approval of an alternate sequence of operations will only be allowed when the proposed changes meet with the Department's intent for traffic control and sequencing of the work. An alternate sequence will be submitted for review a minimum of one week prior to potential implementation.

#### Phase 1.

- Install fixed location traffic control signs.
- Install temporary perimeter erosion control.
- Complete temporary widening from 202+00 to Sta. 213+10 Rt & Lt. •

#### Phase 2.

- Install overwidth truck detour.
- Direct traffic onto temporary widening and place two-way traffic in the NBL.
- Complete guardrail removal, existing traffic signing removal, conflicting pavement marking, and asphalt pavement in the closed lane.
- Complete PCC pavement, joint sealing and asphalt shoulder surfacing work in the SBLs.
- Install guardrail on structure of the completed paved roadway.

#### **SEQUENCE OF OPERATIONS (CONTINUED)**

- Complete interim erosion and sediment control in SBL's.
- Install temporary pavement marking and signing in the completed paved roadway.

#### Phase 3.

- Remove and reset temporary traffic control guardrail on the SB bridge.
- Place traffic onto the temporary widening and on the newly surfaced SB lanes.
- Complete guardrail removal, existing signing removal, conflicting pavement markings and asphalt pavement in the closed lane.
- Complete PCC pavement, joint sealing and asphalt surfacing work.
- Install guardrail on structure in the completed paved roadway.
- Complete final erosion control and sediment control work in NBL.
- Install permanent pavement marking and signing.

#### Phase 4.

- Place traffic in the designated northbound and southbound lanes
- Remove temporary traffic control guardrail from the SB bridge. Remove median crossovers and temporary widening.
- Complete permanent erosion control and clean up. •
- Remove temporary traffic control and overwidth truck detour.

#### Phase 5.

- Install traffic control for asphalt shoulder resurfacing work.
- Mill and pave the designated asphalt shoulders.
- Complete permanent pavement marking
- Remove temporary traffic control.

#### **GENERAL TRAFFIC CONTROL**

Existing STOP signs that are removed will be reset prior to the end of each day's work. A stop signs on portable supports must be used whenever a permanent ground mounted stop sign is removed. Cost for this work will be incidental to the contract unit price per square foot for Traffic Control Sign.

Throughout the project, the Contractor must maintain local traffic, access to businesses, residences, and intersecting roadways at all times. Adequate passage and ramping will be provided. The Contractor will keep businesses and residents informed of construction sequences in areas that have a direct impact on their access.

500 tons of Base Course have been provided for traffic control purposes to maintain traffic during construction. When directed by the Engineer, the Base Course will be salvaged and reused during various phases of construction. Cost to remove, disposal and/or reuse of this material will be incidental to the contract unit price per ton for Base Course.

Existing guide, route, regulatory, warning and 911 Street signs will be temporarily reset and maintained during construction. Removing, relocating, covering, salvaging, and resetting of existing traffic control devices, including delineation, will be the responsibility of the Contractor. Cost for this work will be incidental to the contract unit prices for the various items unless otherwise specified in the plans. Any signs damaged or lost will be replaced by the Contractor at no cost to the State.

An estimated 25 of existing permanent traffic control signs will be impacted by the concrete paving operation which will be required to be removed and reset. The actual quantity will be measured in the field at the time of construction. The cost to remove and reset the existing signs will be paid at the bid item price for "Remove Sign for Reset per each and Reset Sign per Each."

All temporary traffic control sign locations will be set in the field by the Contractor and verified by the Engineer prior to installation.

All temporary speed limit signs will have a minimum mounting height of 5 feet in rural locations, even when mounted on portable supports.

If there is a discrepancy between the traffic control plans, standard plates, and the MUTCD, whichever is more stringent will be used, as determined by the Engineer.

darkness.

Fixed location signing placed more than 4 calendar days prior to the start of construction will be covered or laid down until the time of construction. The covers must be approved by the Engineer prior to installation. The cost of materials, labor, and equipment necessary to complete this work will be incidental to other contract items. No separate payment will be made.

Prior to opening a lane of traffic, drop-offs near the roadway edge will be marked with signs and delineated with drums, 42" cones, or vertical panels at a maximum of 100' spacing. Drums or 42" cones will only be allowed when they will meet the minimum height requirements in the MUTCD of 28" above the driving surface. When the vertical drop-off prevents the minimum 28" height requirement, vertical panels will be placed on the edge of the driving surface. The Contractor will have sufficient quantity of vertical panels on site to mark the drop-offs in the event of an emergency, or weather delays the resumption of work. Payment for signs will be at the contract unit price for Traffic Control per square foot. The cost for drums, 42" cones, and vertical panels will be incidental to the contract lump sum price for Traffic Control, Miscellaneous.

At no time will a vertical drop-off of greater than 3 inches be left overnight adjacent to the traveled way. The Contractor will utilize embankment material to ensure a 3-inch vertical drop-off is not exceeded. The slope of the embankment material will not be steeper than a 3:1 within 30 feet of the traveled way.

All haul trucks will be equipped with an additional flashing amber light that is visible from the backside of the haul truck. The costs for the flashing amber lights will be incidental to the various related contract items.

The Contractor will furnish, install, maintain, and remove TRUCK CROSSING (W8-6) signs daily. The TRUCK CROSSING signs will be displayed always when haul vehicles are hauling material. When hauling conditions no longer exist, the signs will be covered or removed from view. The exact number and location will be determined during construction. Payment for additional signs will be based on the contract unit price per square foot for "Traffic Control Signs".

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**GENERAL TRAFFIC CONTROL (CONTINUED)** 

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Unless otherwise stated in these plans, work will not be allowed during hours of

#### SALVAGE TRAFFIC SIGNS

The following traffic control signs will be removed and delivered to the Yankton Area DOT Maintenance Shop when no longer applicable. Signs, posts, and bases will be disassembled and banded together prior to delivery to the Yankton Maintenance Shop.

- 4 W8-7 Loose Gravel signs
- 4 W8-8 Rough Road signs

The length of the  $2.0^{\circ} \times 2.0^{\circ}$  Perforated Tube Post is estimated to be 10.5' each. The total length is estimated to be 84' to be removed from the signs.

All signs for salvage will be handled with care so that the signs are not damaged during removal or transport. The Contractor will replace and pay for any salvaged signs damaged in their care.

All cost for removing the signs, disassembly, banding and delivery to the Yankton DOT Maintenance Shop will be included in the contract unit price per each for "Salvage Traffic Sign".

#### **EXISTING MAILBOXES AND NEWSPAPER CONTAINERS**

The Contractor will be required to relocate on temporary supports existing mailboxes and newspaper containers affected by the project as necessary in order to provide continuous mail service to local residents and businesses. Throughout the project. It is anticipated that the Contractor will be required to relocate at a location acceptable to the Postmaster. The Engineer will approve the material used for temporary supports. Cost of this work will be incidental to various contract items. Due to phased construction, mailboxes may need to be moved more than once temporarily.

#### **OVERWIDTH RESTRICTION AND DETOUR SIGNING**

The Contractor will furnish and install the overwidth restriction and detour signs as shown in these plans. Prior to installing the signs, the Contractor will mark the sign locations and review them with the Engineer. Overwidth restriction and detour signs will be installed on fixed location, ground mounted, breakaway supports. It will be the responsibility of the Contractor to maintain and reinstall these signs during the project as required by the construction progress. Upon completion of the project, the Contractor will remove the overwidth restriction and detour signs.

All costs for furnishing the signs, posts, and mounting hardware, and for installing, maintaining, covering, and removing the overwidth restriction and detour signs will be incidental to the contract unit price per square foot for "Detour and Restriction Signing".

An overwidth detour route will be used due to limited lane width. Route will consist of SD50 west to SD25, north to SD46, and east to US81.

Special "WIDTH RESTRICTION 12 FT MAX US81 SOUTH USE DETOUR ROUTE" signs will be placed at the locations shown in the plans:

Special "WIDTH RESTRICTION 12 FT MAX US81 NORTH USE DETOUR ROUTE" signs will be placed at the locations shown in the plans.

Special "NO VEHICLES OVER 12 FT WIDE" signs will be placed at the following locations:

#### **OVERWIDTH RESTRICTION AND DETOUR SIGNING (CONTINUED)**

US81: Northbound, 150 ft north of the intersection with SD50 US81: Southbound, 100 ft south of the intersection with SD46

All cost for furnishing, posts, mounting hardware, and for installing, maintaining, covering, and removing the "Special Signs" will be incidental to the contract unit price per square foot for "Detour and Restriction Signing".

#### WORK ZONE SPEED REDUCTION

The Department is required to obtain a speed reduction resolution prior to the installation of any SPEED LIMIT (R2-1) signs shown in the plans. To provide adequate time for the resolution to be enacted, the Contractor will inform the Engineer a minimum of 3 weeks prior to the scheduled installation of any work zone speed reduction signs on the project.

The information provided by the Contractor will include the anticipated date of sign installation, the newly reduced speed limit, the location of the work zone, and the anticipated completion date of work requiring the speed reduction.

Speed will be reduced to 45 mph or 55 mph for the length of the project per the engineer.

### PRESS RELEASE ANNOUNCEMENTS

The SDDOT will prepare a press release to be released 5 days prior to any phase change or any other major change that affects traffic flow. The Contractor will be responsible to keep law enforcement, emergency services, and the traveling public notified of changes in project access. The Contractor will provide the Engineer with pertinent information 7 days prior to any phase change or any other major change that affects traffic flow.

#### INTERSECTING ROADS AND MEDIAN CROSSOVER

Intersecting roads and median crossover located throughout the project will be maintained for cross traffic at all times. Base Course for maintenance of traffic is included in Section C for temporary surfacing. Cost for removal, disposal and/or reuse of this material will be incidental to the contract unit price per ton for Base Course.

Intersecting road and median crossover paving block outs are anticipated to be needed to maintain cross traffic and access to adjacent property.

Place R2-1, R4-1, and W6-3 at each side of the intersecting roads. Intersecting roads consist of 303rd, 304th, and 306th St.

#### **TEMPORARY PAVEMENT MARKING**

Temporary Pavement Marking will be marked on existing asphalt concrete after the completion of temporary widening is completed. This temporary pavement marking will be marked on the tapers near project ends and near project structures.

For the first phase of construction when traffic is two-way in the NBLs, repaint the inside white edgeline to yellow and place Tubular Markers and Tabs down centerline. For the second phase, will need Tubular Marker & Tabs down centerline and temporary paint or tabs for the outside yellow edgeline.

Conflicting pavement markings will be required to removed.

The painted temporary pavement marking will be paid for at the contract unit price per foot for Temporary Pavement Marking.

#### **TEMPORARY RAISED PAVEMENT MARKERS**

Temporary raised pavement markers will be used for marking edge lines, lane lines, and centerlines. Temporary raised pavement markers will be used on all new permanent surfacing sections of roadway and on existing surfacing where temporary marking locations are different than existing marking locations, unless noted or as directed by the Engineer.

Temporary raised pavement markers will be attached to the roadway surface with a flexible non-permanent bituminous adhesive capable of being removed from the roadway surface or with an adhesive approved by the Engineer.

Markers".

### **TUBULAR MARKERS**

The color of the tubular markers on centerline will be predominately orange. The color of the tubular markers installed on the shoulders will be predominately white. The white tubular markers will be installed 1.0 feet from the existing edge line at intervals of approximately 480 feet.

All tubular markers will be a minimum of 28 inches in height. The base of the tubular marker should be attached to the roadway surface with a flexible nonpermanent bituminous adhesive capable of being removed from the roadway surface after use. The pin used to connect the marker to the base will be of a type that will not puncture a vehicle tire if it should become dislodged from the base.

All costs for furnishing, installing, maintaining, and removing the tubular markers will be incidental to the contract unit price per each for "Tubular Marker".

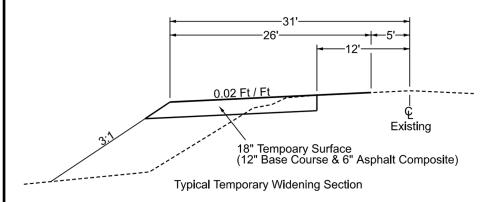
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TEMPORARY PAVEMENT MARKING (CONTINUED) Revised, 10/015/2024(MY)

Temporary Pavement Marking will be provided and paid for in accordance with Section 634 of the Standard Specifications and the Supplemental Specifications.

All costs to furnish, install, replace if necessary, and remove the markers will be incidental to the contract unit price per mile for "Temporary Raised Pavement

#### TEMPORARY WIDENING



During Phase 2 & 3, temporary widening will be constructed from 202+00 to 213+10 Rt. to maintain 26' of roadway width. The 26' roadway width will be measured starting 5' east of centerline and ending 31' east of centerline. A typical section is shown above.

42" cones will be installed marking the edge of travel surface on the temporary widening section, spaced 100' alternating (200' per side). 42" cones will be incidental to the contract lump sum price for Traffic Control, Miscellaneous.

See Section F notes for contract quantities and details.

#### **INCIDENTS**

An incident is an emergency road user occurrence, a natural disaster, or other unplanned event that affects or impedes the normal flow of traffic such as a crash, hazardous materials spill, or other event.

The Contractor will set up a meeting prior to start of work to plan and coordinate responses to an incident. The Contractor will invite the Department of Transportation, the South Dakota Highway Patrol, the Yankton County Sheriff, and local emergency response entities to the meeting.

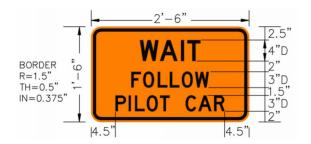
The Contractor will assist to maintain traffic as required by these plan notes and as agreed to at that meeting.

Emergency vehicle access through the project will be considered and discussed at the meeting.

#### **FLAGGING**

Operations will be conducted so that the traveling public will not have to wait longer than 15 minutes at the flagger station.

Additional flagger warning signs and flagger hours have been included in the Estimate of Quantities for use on intersecting roads. These flaggers will be used as directed by the Engineer and will be used primarily during daytime hours. Also included in the Estimate of Quantities are WAIT FOLLOW PILOT CAR signs for use on low volume intersecting roads as determined by the Engineer. WAIT FOLLOW PILOT CAR signs will not block the view of the stop sign.



It is required that the flaggers and pilot car operators be able to communicate with one another. If an emergency vehicle needs to pass through the project, Contractor will be required to expedite traffic movement. All costs associated with this will be incidental to the contract unit price per hour for "Flagging".

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Revised, 11/07/2024(AP)

## PCN 07V2 - ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS

			CONVENTIO	ONAL ROAD	
SIGN CODE	SIGN DESCRIPTION	NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
R1-1	STOP	4	30"	5.2	20.8
R2-1	SPEED LIMIT _45_	10	24" x 30"	5.0	50.0
R2-1	SPEED LIMIT _65_	3	24" x 30"	5.0	15.0
R2-6aP	FINES DOUBLE (plaque)	5	24" x 18"	3.0	15.0
R4-1	DO NOT PASS	9	24" x 30"	5.0	45.0
R4-7	KEEP RIGHT (symbol)	3	24" x 30"	5.0	15.0
R11-2	ROAD CLOSED	10	48" x 30"	10.0	100.0
R11-3a	ROAD CLOSED MILES AHEAD LOCAL TRAFFIC ONLY	8	60" x 30"	12.5	100.0
W1-4	REVERSE CURVE (L or R)	4	48" x 48"	16.0	64.0
W3-5	SPEED REDUCTION AHEAD ( MPH)	4	48" x 48"	16.0	64.0
W4-2	LEFT or RIGHT LANE ENDS (symbol)	2	48" x 48"	16.0	32.0
W6-3	TWO WAY TRAFFIC (symbol)	6	48" x 48"	16.0	96.0
W7-3aP	NEXT MILES (plaque)	2	36" x 30"	7.5	15.0
W13-1P	ADVISORY SPEED (plaque)	4	30" x 30"	6.3	25.2
W20-1	ROAD WORK AHEAD	6	48" x 48"	16.0	96.0
W20-3	ROAD CLOSED AHEAD	8	48" x 48"	16.0	128.0
W20-5	LEFT or RIGHT LANE CLOSED AHEAD	2	48" x 48"	16.0	32.0
G20-1	ROAD WORK NEXT XX MILES	10	36" x 18"	4.5	45.0
G20-2	END ROAD WORK	4	36" x 18"	4.5	18.0
G20-5aP	WORK ZONE (plaque)	2	24" x 18"	3.0	6.0
			IVENTIONAL CONTROL SI		982.0

# PCN 09P4 - ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS

			CONVENTIO	NAL ROAD	
SIGN CODE	SIGN DESCRIPTION	NUM BER	SIGN SIZE	SQFT PER SIGN	SQFT
W8-17	SHOULDER DROP-OFF (symbol)	2	48" x 48"	16.0	32.0
W16-2P	FEET (supplemental distance plaque)	2	30" x 24"	5.0	10.0
W20-1	ROAD WORK AHEAD	4	48" x 48"	16.0	64.0
W20-4	ONE LANE ROAD AHEAD	2	48" x 48"	16.0	32.0
W20-7	FLAGGER (symbol)	4	48" x 48"	16.0	64.0
W21-5	SHOULDER WORK	4	48" x 48"	16.0	64.0
G20-1	ROAD WORK NEXT 0.5 MILE	2	36" x 18"	4.5	9.0
G20-2	END ROAD WORK	4	36" x 18"	4.5	18.0
		_	VENTIONAL CONTROL SI	-	293.0

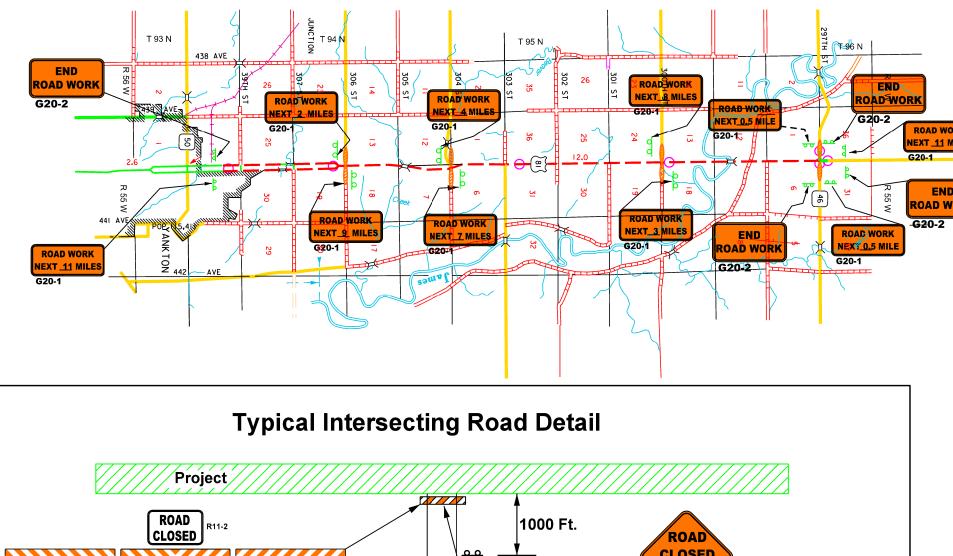
# PCN 07V2 - ITEMIZED LIST FOR DETOUR AND RESTRICTION SIGNING

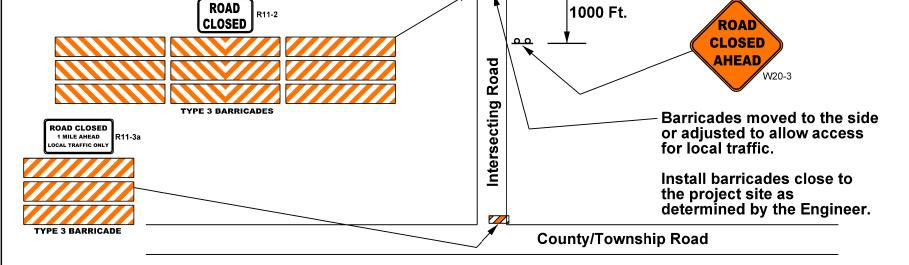
			CONVENTIO	NAL ROAD	
SIGN CODE	SIGN DESCRIPTION	NUM BER	SIGN SIZE	SQFT PER SIGN	SQFT
M1-4	US ROUTE MARKER (1 or 2 digits)	30	24" x 24"	4.0	120.0
M3-1	DIRECTION MARKER - NORTH	14	24" x 12"	2.0	28.0
M3-3	DIRECTION MARKER - SOUTH	16	24" x 12"	2.0	32.0
M4-8	DETOUR	30	36" x 12"	3.0	90.0
M4-8a	END DETOUR	2	24" x 18"	3.0	6.0
M5-1	ADVANCE TURN ARROW 90° (L or R)	10	21" x 15"	2.2	22.0
M6-1	DIRECTION ARROW - Horizontal Single Head (L or R)	10	21" x 15"	2.2	22.0
M6-3	DIRECTION ARROW - Vertical Single Head	10	21" x 15"	2.2	22.0
SPECIAL	OVERWIDTH VEHICLES	30	30" x 18"	3.8	114.0
SPECIAL	WIDTH RESTRICTION 12 FT MAX US81 SOUTH	4	120" x 66"	55.0	220.0
SPECIAL	WIDTH RESTRICTION 12 FT MAX US81 NORTH	4	120" x 66"	55.0	220.0
SPECIAL	NO VEHICLES OVER 12FT WIDE	2	102" x 36"	25.5	51.0
		DETOU	IVENTIONAL IR AND REST SIGNING SQF	RICTION	947.0

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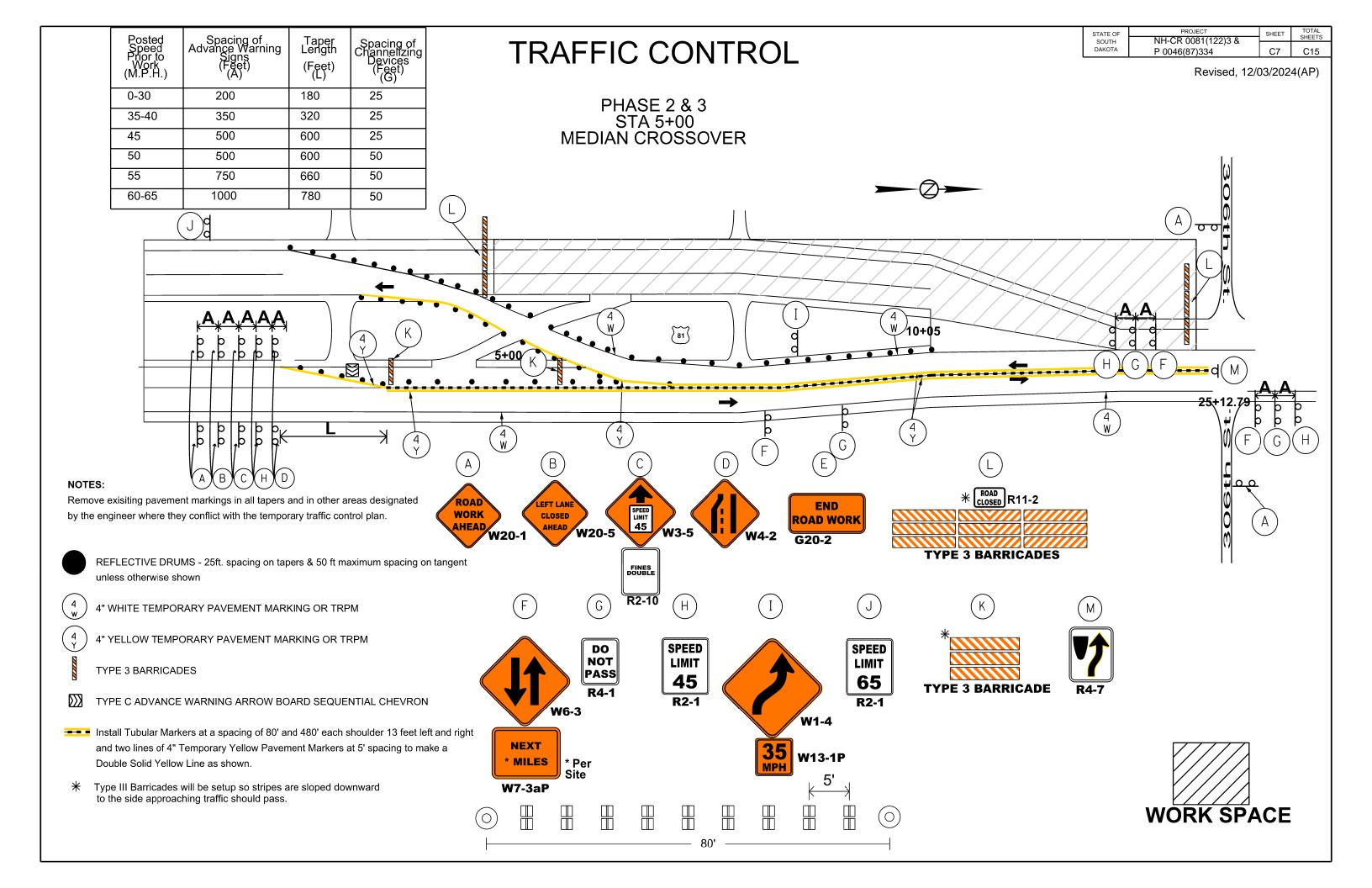
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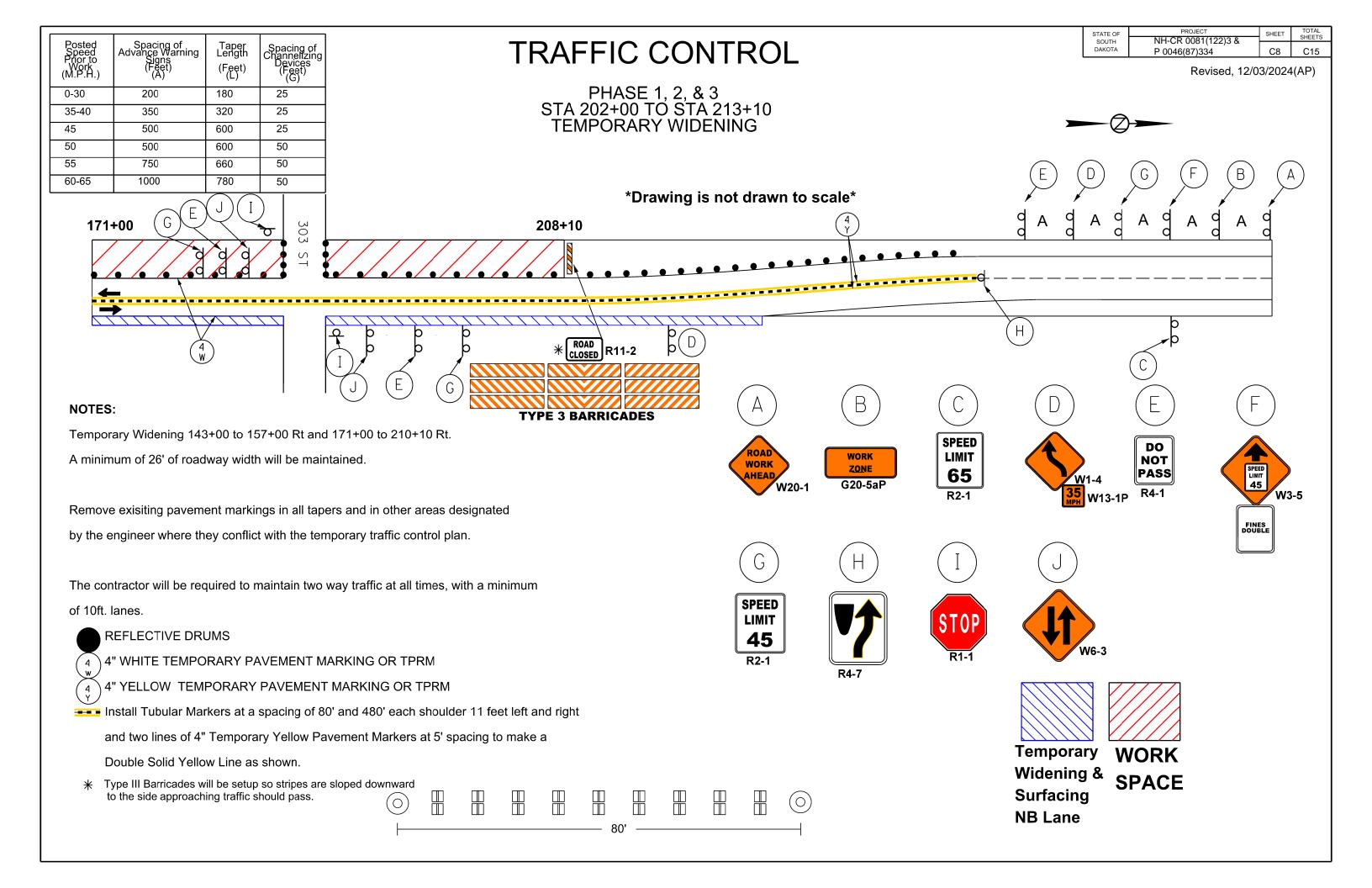
# FIXED LOCATION SIGNS GROUND MOUNTED, BREAKAWAY SUPPORTS

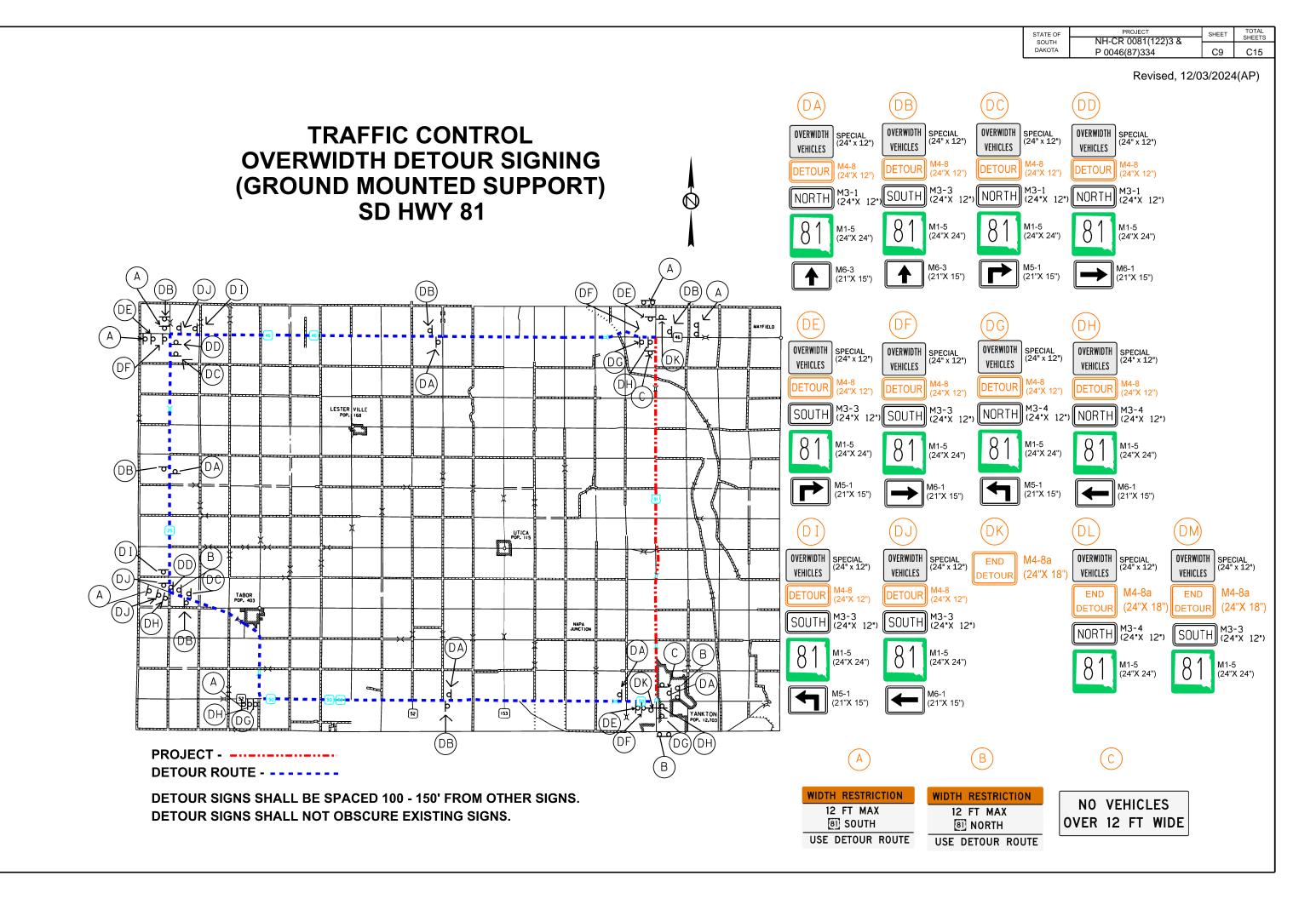




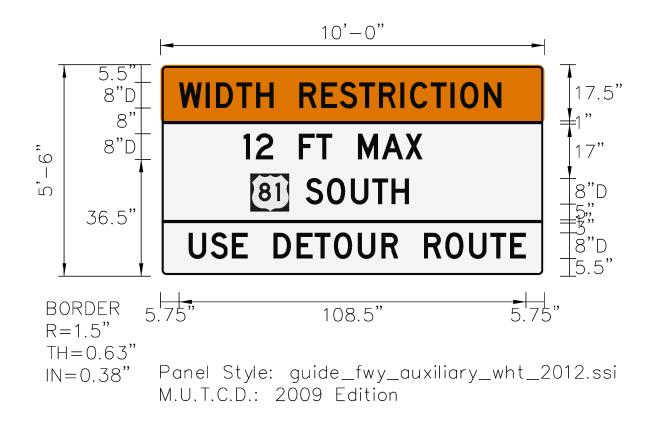
Device A project    Device A project   Control project		SOUTH	NH-CR 0081(122)3 &		
Theresecting Roads to receive Traffic Control. Install only when applicable. Project ALL TEMPORARY TRAFFIC CONTROL SIGNS WILL ESPACED 100-150' FROM OTHER SIGNS AND NOT				C6	C15
Install only when applicable. Project ALL TEMPORARY TRAFFIC CONTROL SIGNS WILL BE SPACED 100-150' FROM OTHER SIGNS AND NOT	DRK WILES	<u> </u>	Revised, 12/0	03/2024	(AP)
	ALL TEMPOR	II only w Project	hen applicable. FFIC CONTROL SIGNS		
I	BE SPACED 1	100-150' FI	ROM OTHER SIGNS AN		

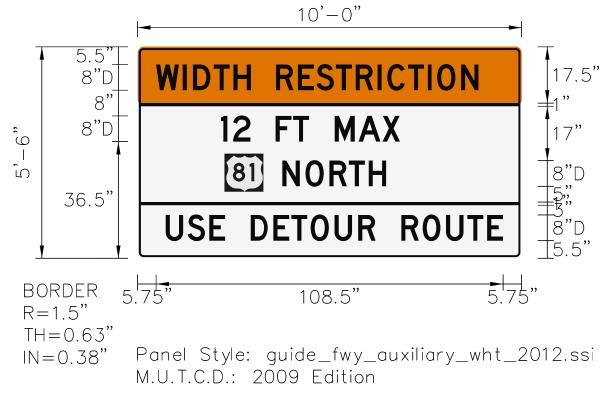


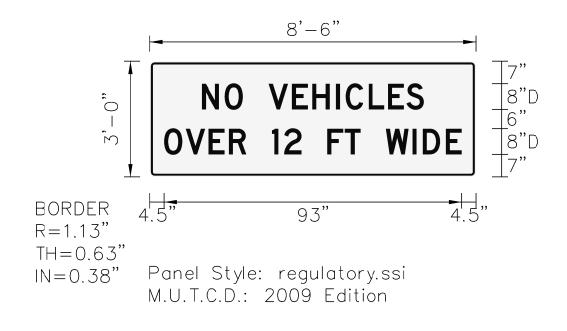


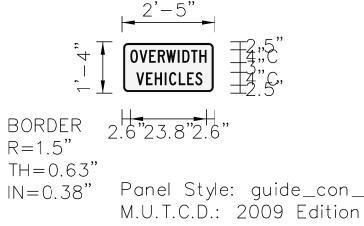


# **OVERWIDTH SIGN DETAILS**



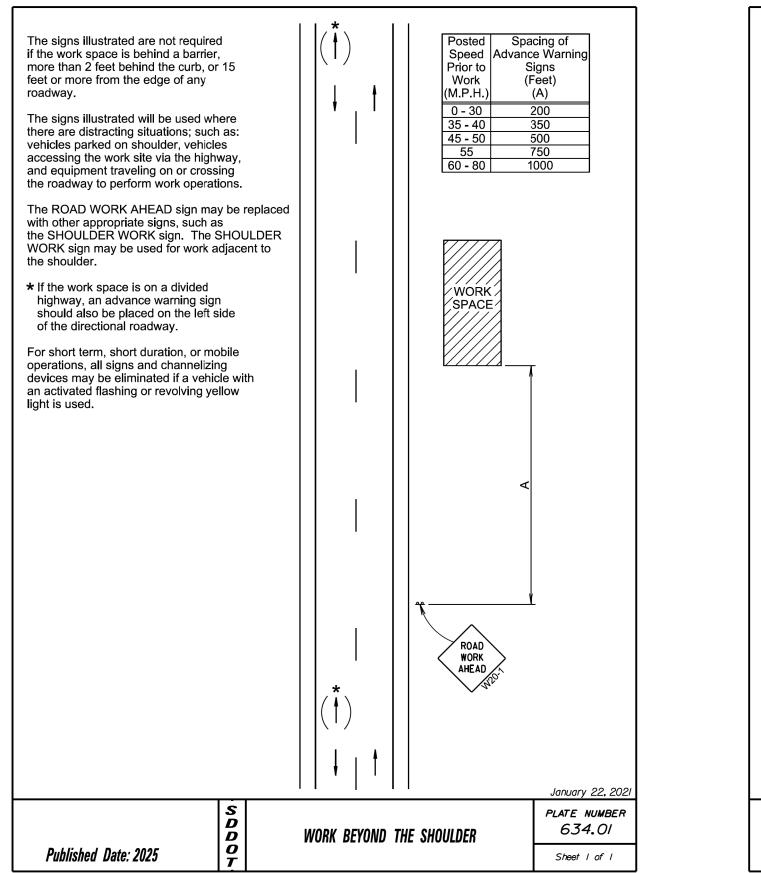


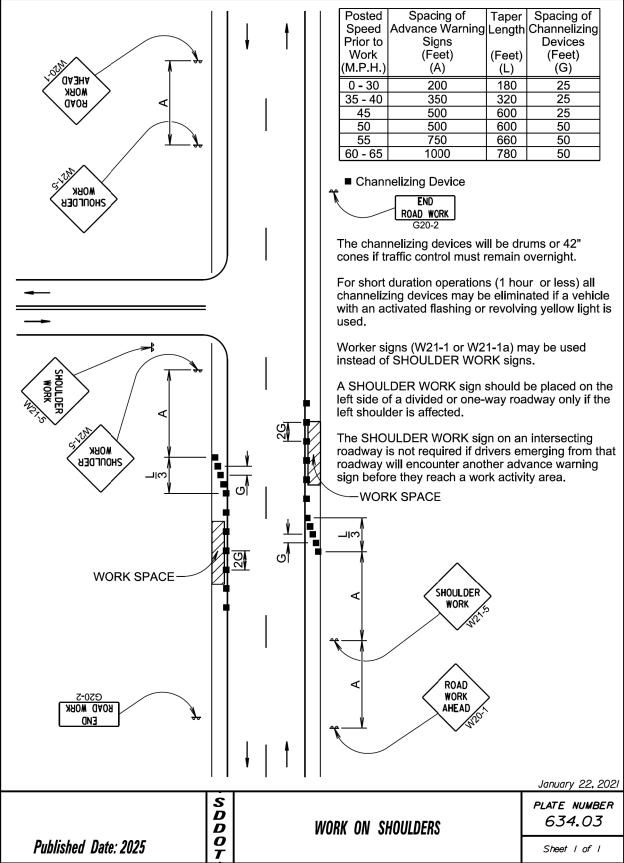




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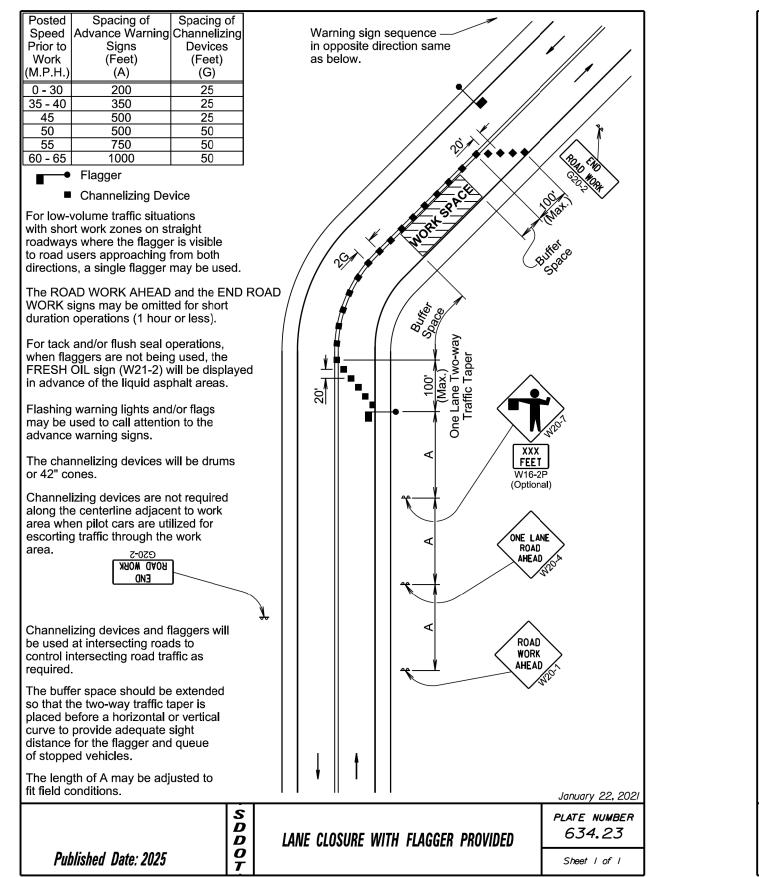


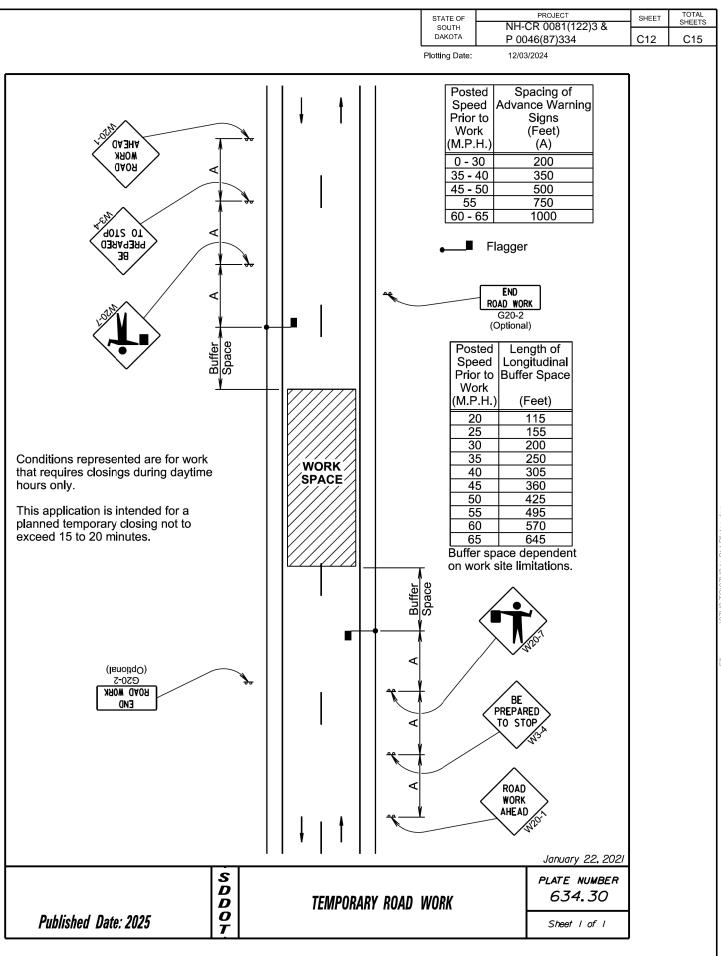
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DAKOTA	P 0046(87)334	C11	C15
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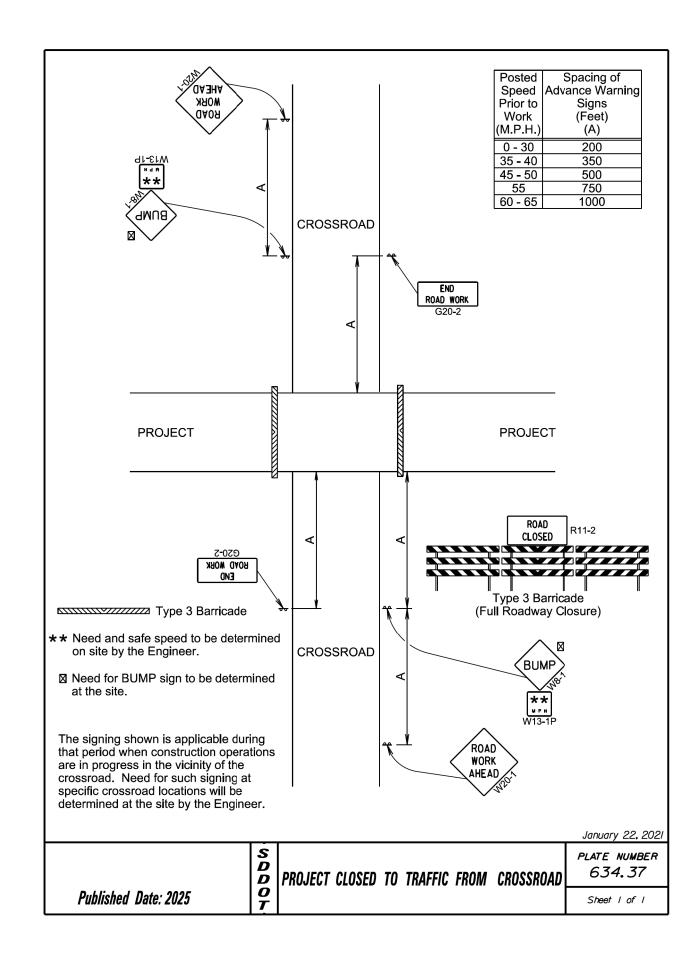
Posted	Spacing of	Taper	Spacing of
Speed	Advance Warning	Length	Channelizing
Prior to	Signs	Ŭ	Devices
Work	(Feet)	(Feet)	(Feet)
(M.P.H.)	`(A) ´	`(L) ´	`(G) ́
0 - 30	200	180	25
35 - 40	350	320	25
45	500	600	25
50	500	600	50
55	750	660	50
60 - 65	1000	780	50

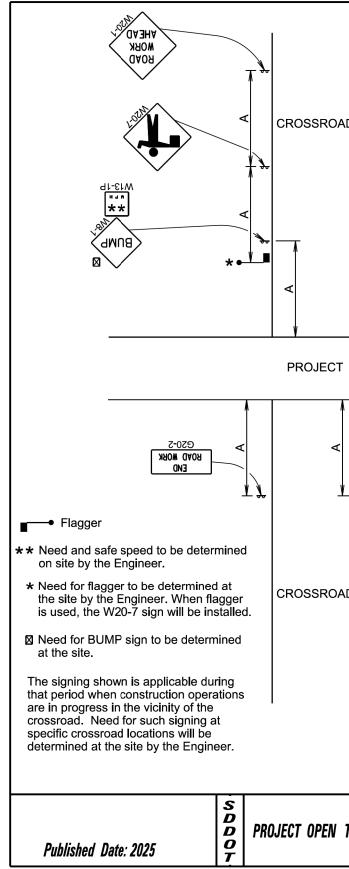




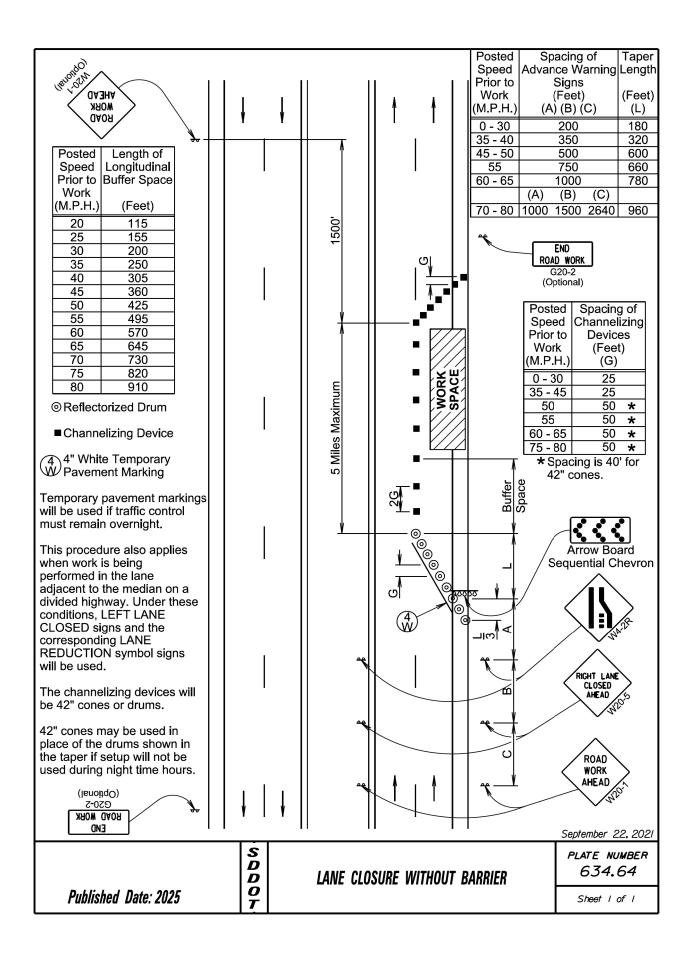








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		DAKOTA		046(87)334	C13	C15
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DAD		Poste Spee Prior 1 Work (M.P.H 0 - 3( 35 - 4 45 - 5 55 60 - 6	d Adva (c) (1.) 0 0 0	pacing of nce Warning Signs (Feet) (A) 200 350 500 750 1000		
<b>*</b>		END ROAD WORK G20-2				
т						
		$\sim$				
			$\checkmark$	January 22, 202	21	
	RAFFIC FI	ROM CROS	SROAD	PLATE NUMBER 634.38		
I IU IH						



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	Plotting Date:	12/03/2024		

