

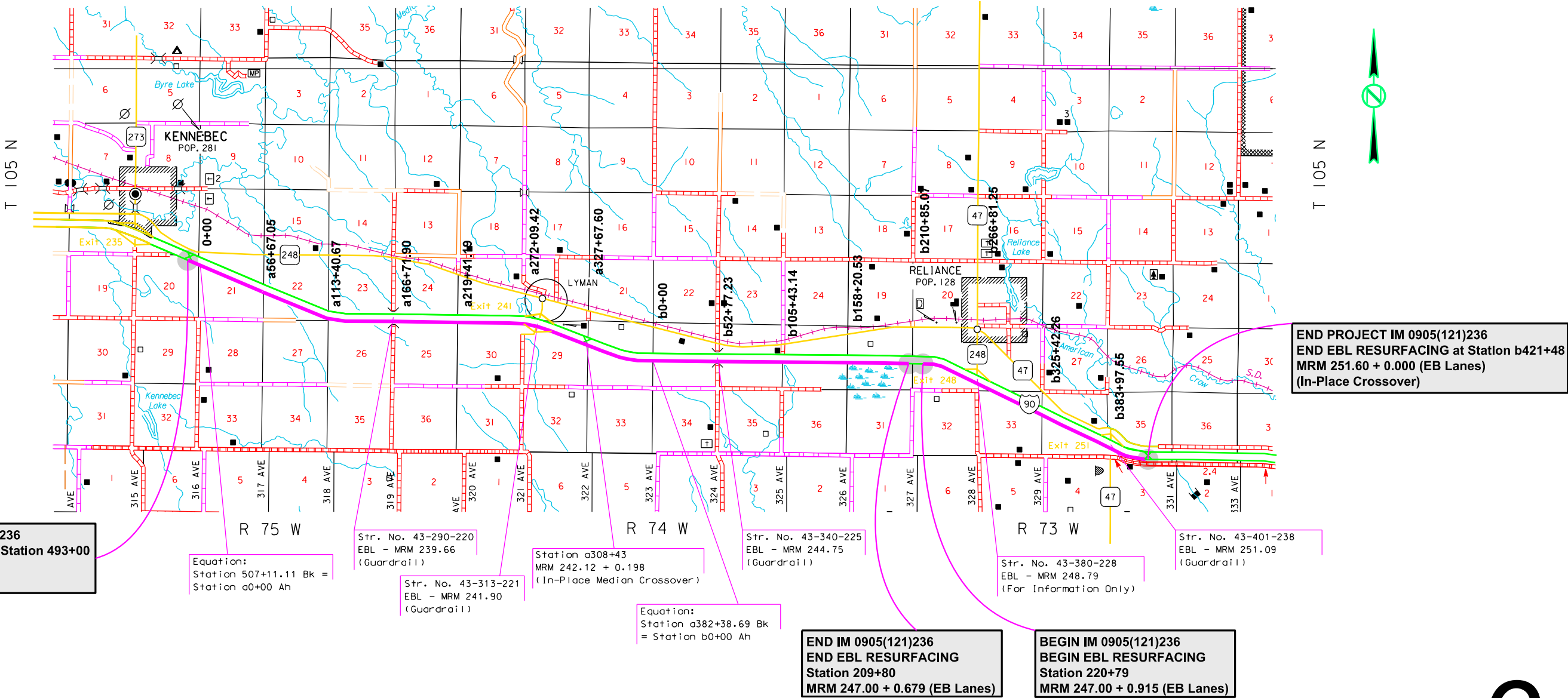
SECTION C: TRAFFIC CONTROL PLANS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-CR 0905(121)236	C1	C8

Plotting Date: 03/19/2025

INDEX OF SHEETS

- C1
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- General Layout with Index
- Estimate & Plan Notes
- Ramp Signing Details
- Standard Plates



ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
634E0010	Flagging	100.0	Hour
634E0110	Traffic Control Signs	939.6	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0275	Type 3 Barricade	53	Each
634E0330	Temporary Raised Pavement Markers	9,657	Ft
634E0420	Type C Advance Warning Arrow Board	2	Each
634E1215	Contractor Furnished Portable Changeable Message Sign	2	Each
634E1255	Contractor Furnished Speed Monitoring Radar Trailer	2	Each

SEQUENCE OF OPERATIONS

The Contractor will submit a sequence of operations for approval two weeks prior to the preconstruction meeting. If changes to the sequence of operations are proposed during the project, these must be submitted for review a minimum of one week prior to potential implementation. Approval for changes to the 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.

Aside from work that can be completed within a Mobile Operation setup, all other required work within the lane closure will be completed before lane closure removal.

Estimation of Traffic Control items was based upon the following major items of work. Ancillary work items will need to be performed as they best fit the Contractor’s work schedule.

Under Traffic Lane Closures (for EBL – Passing Lane & Driving Lane)

1. Install Lane Closure Devices and Ramp Entrance / Exit Signing
2. Perform CRC Pavement Repairs
3. Perform shoulder milling operation
4. Guardrail removal and installation at structures
5. Mainline Heave Repair milling and asphalt paving
6. Perform shoulder asphalt paving
7. Asphalt Surface Treatment application

Under Traffic Mobile Operation (for EBL – Passing Lane & Driving Lane)

1. Rumble Strip Installations
2. Permanent Pavement Marking Installation

GENERAL TRAFFIC CONTROL

Existing guide, route, informational logo, regulatory, and warning 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 delineators and signs damaged or lost will be replaced by the Contractor at no cost to the State.

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.

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

All fixed location signs, sign posts, and breakaway bases will be removed within 7 calendar days following pavement marking.

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.

Traffic will be maintained on the driving lanes. Use of the shoulder as a driving lane will not be permitted. Any damage to the shoulder due to rerouted traffic or Contractor’s equipment will be repaired at no expense to the Department.

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”.

A mobile work operation will be allowed provided the rumble strip grooving, flush sealing, and pavement marking can be completed satisfactorily by a continuously moving work operation. A mobile work operation will require approval by the Engineer.

A Type 3 Barricade will be installed at the end of a lane closure taper as detailed in these plans. Additional Type 3 Barricades will be installed facing traffic within the closed lane at a spacing of ¼ mile.

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Construction vehicles will exit or enter the construction work zone at locations identified by the Engineer. At no time will construction vehicles utilize the maintenance crossovers or the Interstate median to exit or enter Interstate traffic.

Slow moving equipment that operates at a speed less than 40 MPH will not operate on open lanes of interstate or the shoulder.

The Contractor’s employee vehicles will not be allowed to park on the interstate median at any time.

Interstate 90 traffic will not be stopped at any time. The interstate will be kept open with one lane of traffic at all times.

All interstate entrance / exit ramps will remain open at all times and traffic control setups will accommodate those throughout the duration of the lane closure.

LANE CLOSURES

Interstate lane closures shorter than 5 miles will be used if 5 miles is greater than the length of work that can be accomplished in one day’s production. Two separate lane closures in-place simultaneously may be permitted; however, there will be a minimum of a three-mile section between lane closures, excluding the tapers.

Interstate lane closures will be removed when work will not be occurring for a period of 3 or more calendar days. Activities that do not involve workers being present, such as curing time for concrete, constitute work. Lane closures will not be set up on a Friday if no work will be occurring on Saturday or Sunday. In these cases, the lane closure will be installed on Monday.

TRAFFIC CONTROL SIGNS

Sufficient traffic control devices have been included in these plans to provide 2 lane closure workspaces and supplemental signing on 4 ramps. If the Contractor elects to work on additional locations simultaneously, the cost for additional traffic control devices will be incidental to the contract unit price per square foot for “Traffic Control Signs”.

TRAFFIC CONTROL FOR PCCP REPAIR

Each mainline concrete repair location, from which the in-place concrete has been removed, will be marked with a minimum of two reflectorized drums. In areas containing numerous concrete repair locations, two reflectorized drums should be installed at a spacing of 660 feet alternating with the Type 3 Barricades.

If work is in progress within an entrance / exit ramp, Flaggers will be required to direct traffic.

OVERWIDTH RESTRICTION

Traffic Control will be installed to ensure that a 16’ wide load can be accommodated and pass through the project during all hours. A 14’ wide restriction during working hours will be allowed providing that flaggers are used and traffic control is adjusted to allow a 16’ wide load to pass. Payment for moving traffic control to allow for 16’ wide load will be paid for at the contract lump sum price for “Traffic Control, Miscellaneous”.

WORK ZONE SPEED REDUCTION

Lane closures with active work and construction workers present the traffic speeds will be restricted to 45 MPH. During non-working hours when construction workers are not present, the speed limit will be returned to 65 MPH.

Speed Limit 65 MPH signs will be installed immediately after the occupied work area. The WORK AREA, FINES DOUBLED, SPEED ZONE AHEAD, and the SPEED LIMIT 45 MPH signs will be posted only during the hours when the associated work is being performed. The removal or covering of the signs is required when related work activity is changed for whatever reason. If the work activity is periodically moved or relocated within the project, then the speed zone will be moved with the related activity.

The Department is required to obtain a speed reduction resolution prior to the installation of any SPEED LIMIT (R2-1) signs shown on standard plate 634.63 or as 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.

TEMPORARY RAISED PAVEMENT MARKERS

Temporary raised pavement markers will be used for marking along lane closure tapers and for marking edge lines and centerline at the Heave Repair site.

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.

All costs to furnish, install, replace if necessary, and remove the markers will be incidental to the contract unit price per foot for “Temporary Raised Pavement Markers”.

The total length of temporary raised pavement markers on the project is estimated to be 5,760 feet for 6 lane closures (6 @ 960 feet) and 3,897 feet on the final asphalt surface prior to permanent pavement marking for centerline and edgelines at Heave Repair site (3 @ 1,299 feet)

CONTRACTOR FURNISHED SPEED MONITORING RADAR TRAILER

The Contractor will provide 2 radar speed feedback trailers to monitor traffic speeds on designated routes at locations specified in the field by the Engineer.

The radar speed feedback sign assembly will include a speed limit sign mounted in conjunction with the radar speed feedback display. The speed display will not flash vehicle speeds exceeding the speed limit or any other messages.

All costs associated with furnishing, maintaining, transporting, relocating if necessary, and removing the radar speed feedback trailers from locations specified by the Engineer will be incidental to the contract unit price per each for “Contractor Furnished Speed Monitoring Radar Trailer”.

CONTRACTOR FURNISHED PORTABLE CHANGEABLE MESSAGE SIGN

One week prior to starting work affecting the traveling public, portable changeable message signs (PCMS) will be installed at locations detailed in the plans to notify drivers of the upcoming construction. The Contractor will program the portable changeable message signs with the following message:

ROAD WORK
STARTS (Date)

When work begins that will affect traffic patterns, the Contractor will re-program the PCMS with the messages as directed by the Engineer.

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 Lyman 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.

The Contractor may be required to modify messages on portable changeable message signs or relocate portable changeable message signs, and to provide flaggers to direct or detour traffic. The Contractor should be prepared to relocate advance warning signs if determined to be necessary for a major traffic incident lasting more than two hours. Fixed location ground mounted signs may be covered and additional portable signs provided.

No additional payment will be made for the modification of portable changeable message sign messages or the relocation of portable changeable message signs. Cost for the relocation of an advance warning sign due to an incident will be 50% of the designated sign rate. Flaggers will be paid for at the contract unit price per hour for “Flagging”.

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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 SDDOT 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.

HIGHWAY WORKERS GIVE ‘EM A BRAKE SIGNS

One fixed location ground mounted HIGHWAY WORKERS GIVE ‘EM A BRAKE sign will be installed 2000 feet in advance of the ROAD WORK NEXT XX MILES signs for eastbound directions of travel. The signs will be mounted to the right of the roadway, a minimum of 16 feet from the edge of the shoulder to the inside edge of the sign.

The Contractor will furnish a sign design detail for the HIGHWAY WORKERS GIVE ‘EM A BRAKE sign for Engineer review and approval. Cost for furnishing the sign will be included in the contract lump sum price for “Traffic Control, Miscellaneous”.

ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS

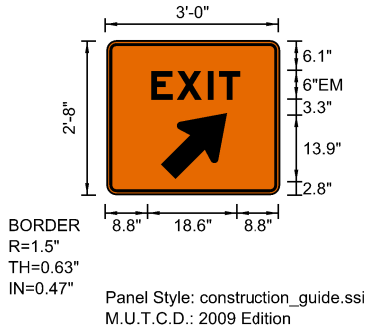
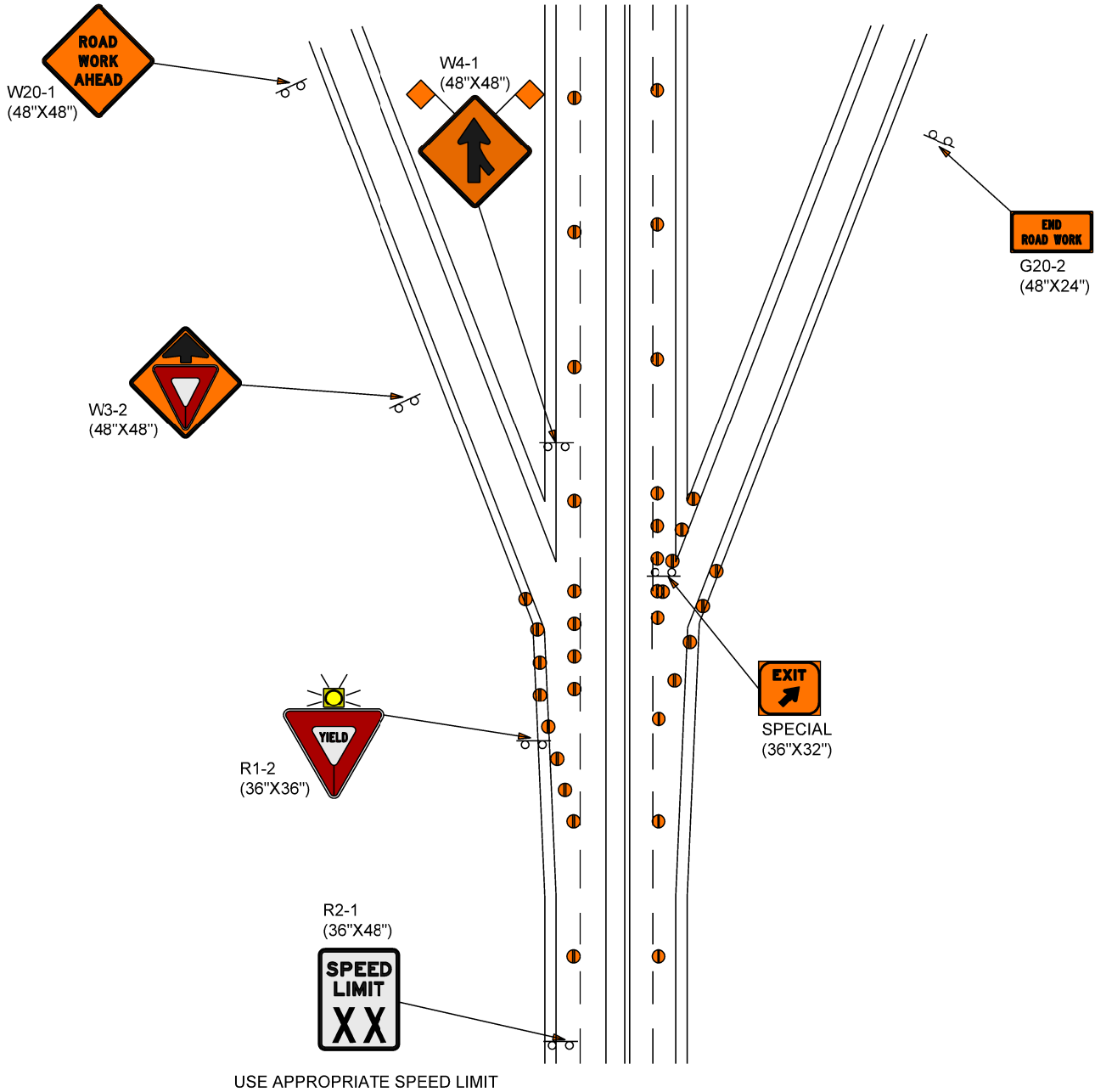
SIGN CODE	SIGN DESCRIPTION	EXPRESSWAY / INTERSTATE			
		NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
R1-2	YIELD	4	36"	3.9	15.6
R2-1	SPEED LIMIT __	4	36" x 48"	12.0	48.0
R2-1	SPEED LIMIT 45	4	36" x 48"	12.0	48.0
R2-1	SPEED LIMIT 65	6	36" x 48"	12.0	72.0
R2-1	SPEED LIMIT 80	2	36" x 48"	12.0	24.0
R2-6aP	FINES DOUBLE (plaque)	2	36" x 24"	6.0	12.0
W3-2	YIELD AHEAD (symbol)	4	48" x 48"	16.0	64.0
W3-5	SPEED REDUCTION AHEAD (45 MPH)	2	48" x 48"	16.0	32.0
W3-5	SPEED REDUCTION AHEAD (65 MPH)	4	48" x 48"	16.0	64.0
W4-1	MERGE (symbol)	4	48" x 48"	16.0	64.0
W4-2	LEFT or RIGHT LANE ENDS (symbol)	4	48" x 48"	16.0	64.0
W8-6	TRUCK CROSSING	2	48" x 48"	16.0	32.0
W20-1	ROAD WORK AHEAD	8	48" x 48"	16.0	128.0
W20-5	LEFT or RIGHT LANE CLOSED AHEAD	4	48" x 48"	16.0	64.0
W20-7	FLAGGER (symbol)	6	48" x 48"	16.0	96.0
SPECIAL	EXIT __ (1 or 2 digits) (45° ARROW)	2	36" x 32"	8.0	16.0
G20-1	ROAD WORK NEXT __ MILES	6	48" x 24"	8.0	48.0
G20-2	END ROAD WORK	6	48" x 24"	8.0	48.0
		EXPRESSWAY / INTERSTATE TRAFFIC CONTROL SIGNS SQFT			
		939.6			

TRAFFIC CONTROL

RAMP ENTRANCE AND EXIT SIGNING DETAILS #1

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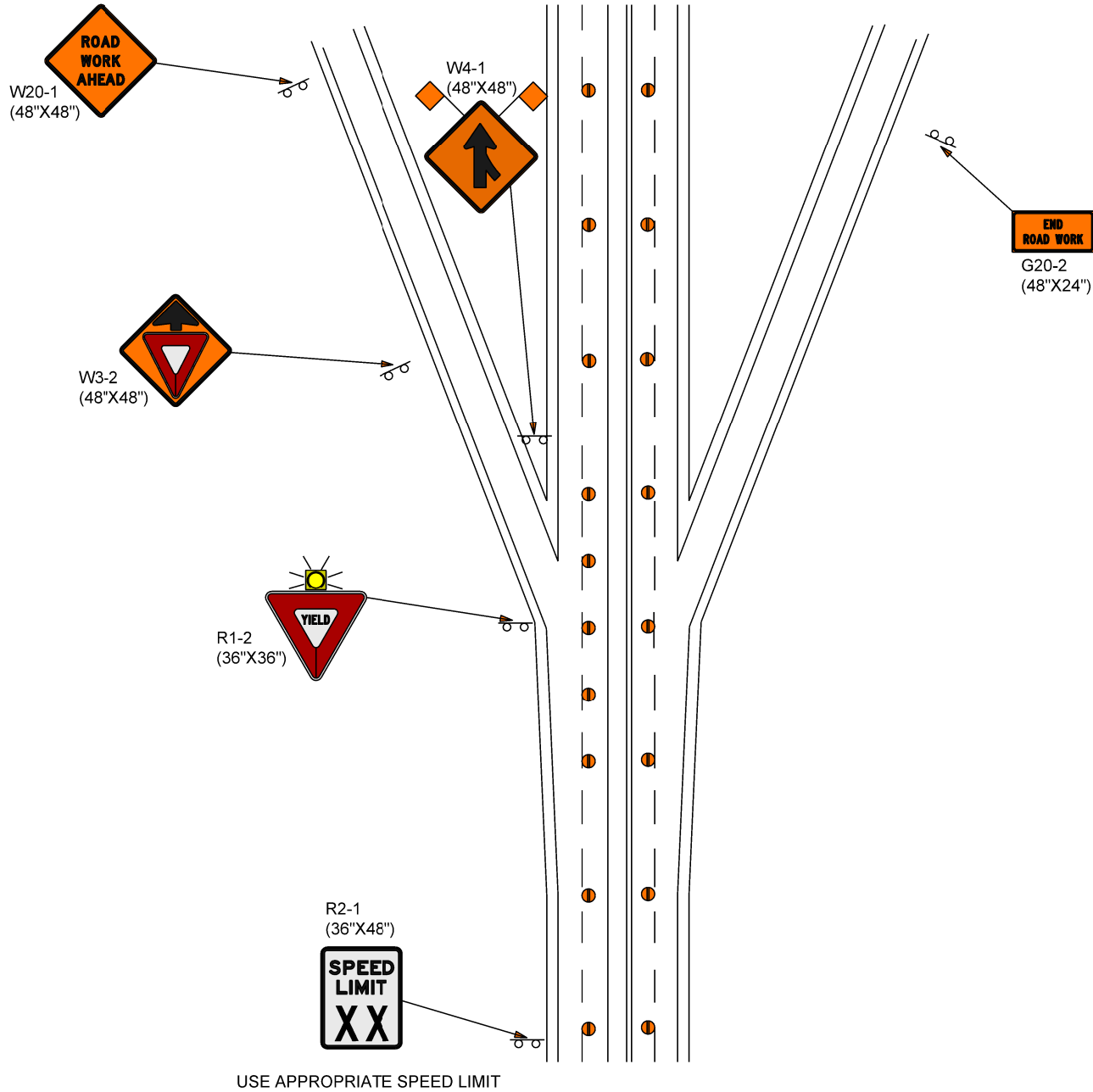
 -- TYPE B SHIELDED WARNING LIGHT

TRAFFIC CONTROL

RAMP ENTRANCE AND EXIT SIGNING DETAILS #2

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Plotting Date: 05/13/2021



 -- TYPE B SHIELDED WARNING LIGHT

* Messages on signs will vary depending on the operation being conducted.

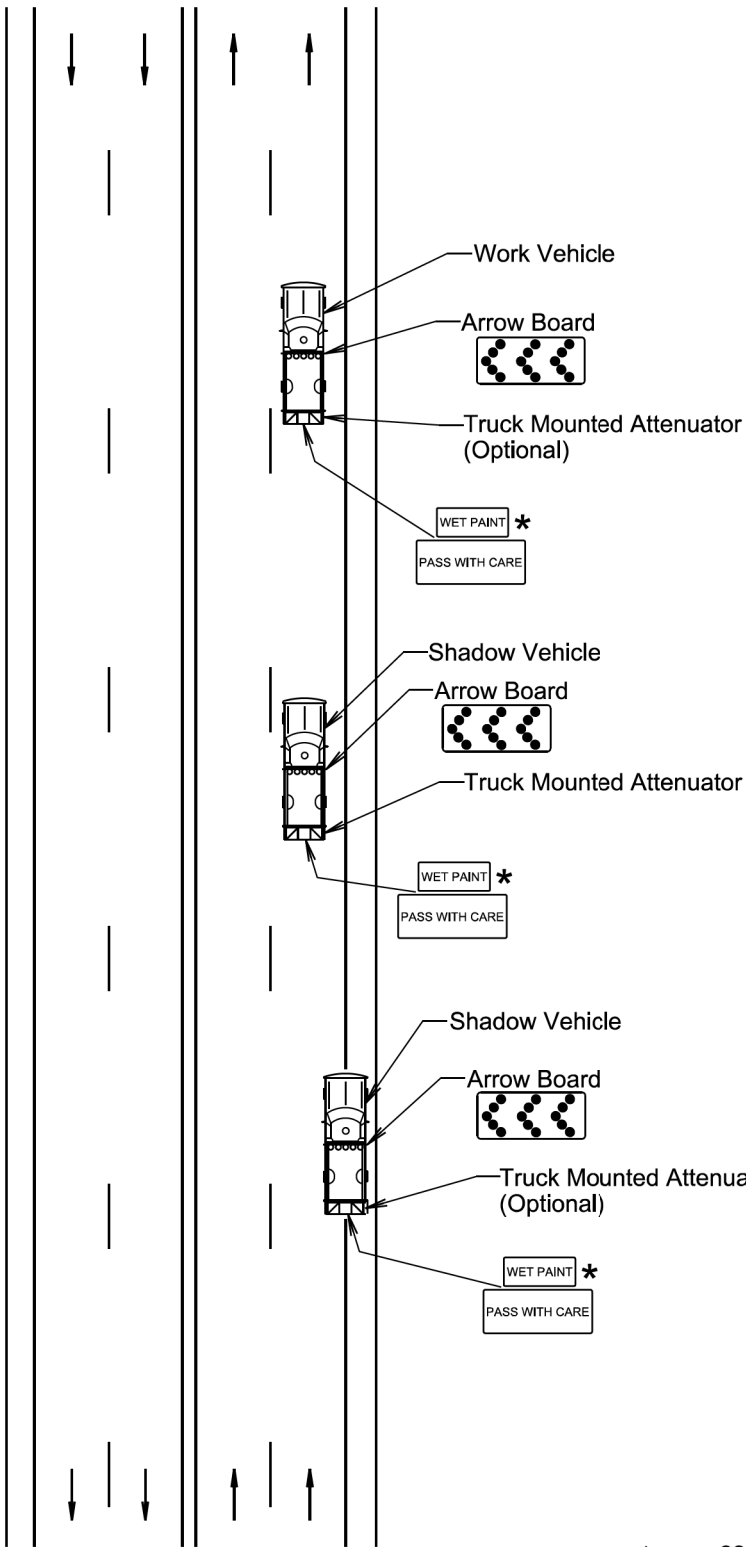
Vehicle-mounted signs will be mounted in a manner such that they are not obscured by equipment or supplies. Sign legends on vehicle-mounted signs will be covered or turned from view when work is not in progress.

Shadow and Work vehicles will display high-intensity rotating, flashing, oscillating, or strobe lights, flags, signs, or arrow boards.

Vehicle hazard warning signals will not be used instead of the vehicle's high-intensity rotating, flashing, oscillating, or strobe lights.

Arrow boards will, as a minimum, be Type B, with a size of 60" x 30".

All costs associated with the traffic control for mobile operation including signs, arrow boards and equipment will be incidental to the contract lump sum price for "Traffic Control, Miscellaneous".



January 22, 2021

Published Date: 2025	S D D O T	MOBILE OPERATIONS ON MULTI-LANE HIGHWAYS	PLATE NUMBER
			634.08
			Sheet 1 of 1

Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet)		
	(A)	(B)	(C)
0 - 30	200		
35 - 40	350		
45 - 50	500		
55	750		
60 - 65	1000		
	(A)	(B)	(C)
70 - 80	1000	1500	2640

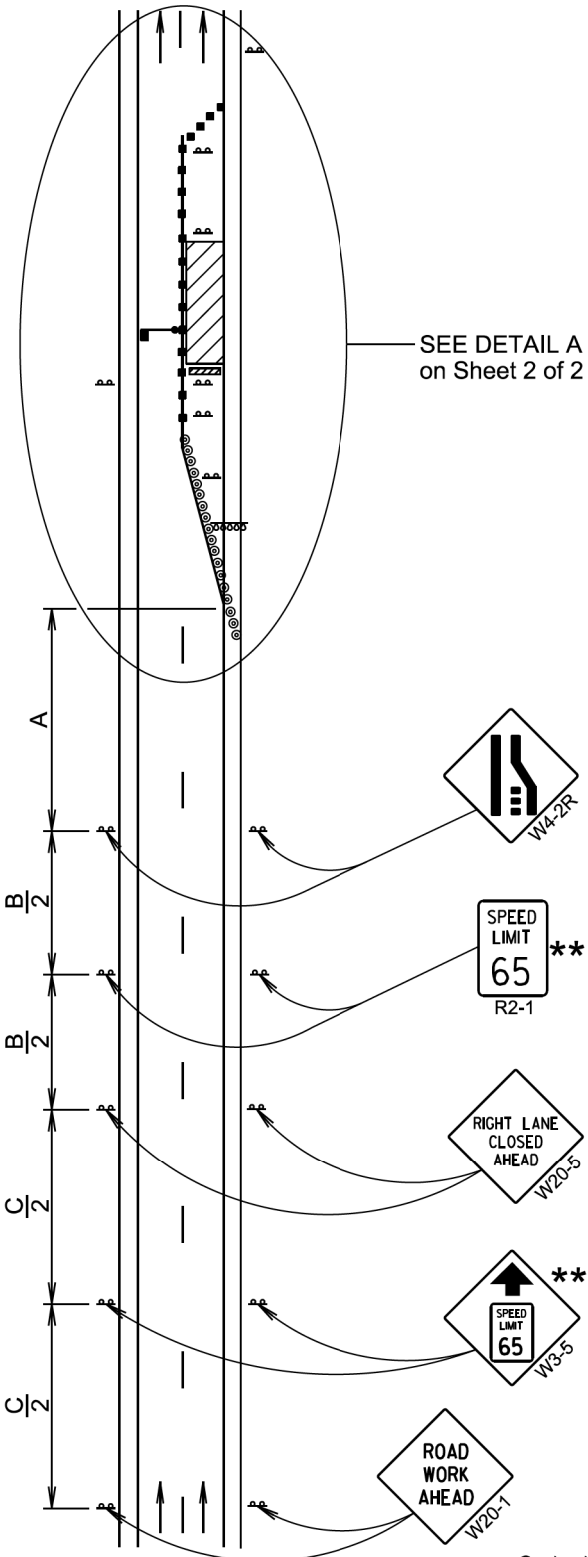
** Speed appropriate for location.

◉ Reflectorized Drum

■ Channelizing Device

ROAD WORK AHEAD sign is only required in advance of the first lane closure.

High speed is defined as having a posted speed limit greater than 45 mph.



September 22, 2021

Published Date: 2025	S D D O T	WORK ZONE SPEED REDUCTION FOR INTERSTATE AND HIGH SPEED MULTI-LANE HIGHWAYS	PLATE NUMBER
			634.63
			Sheet 1 of 2

