

STATE OF SOUTH DAKOTA  
 DEPARTMENT OF TRANSPORTATION  
 PLANS FOR PROPOSED

**PROJECT P 0013(170)**  
**SD HWYS 26 & 47**  
**FAULK, HAND & HYDE COUNTIES**  
 Asphalt Surface Treatment  
 PCN 09KY

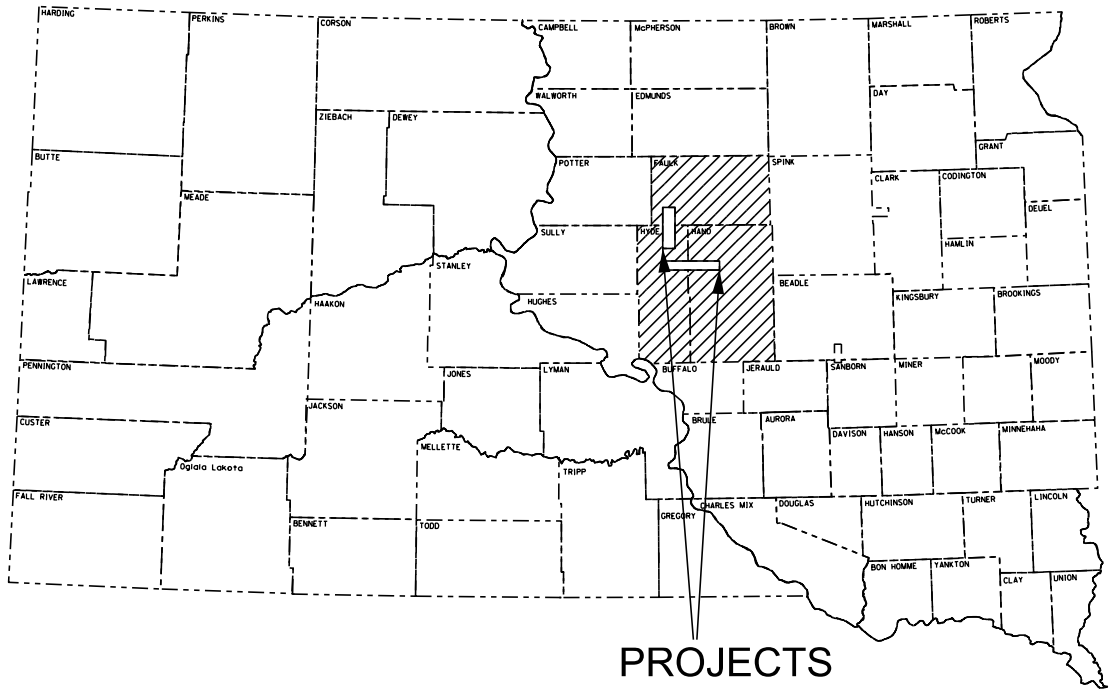
STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	P 0013(170)	1	18

Plotting Date: 01/06/2025

**Index of Sheets**

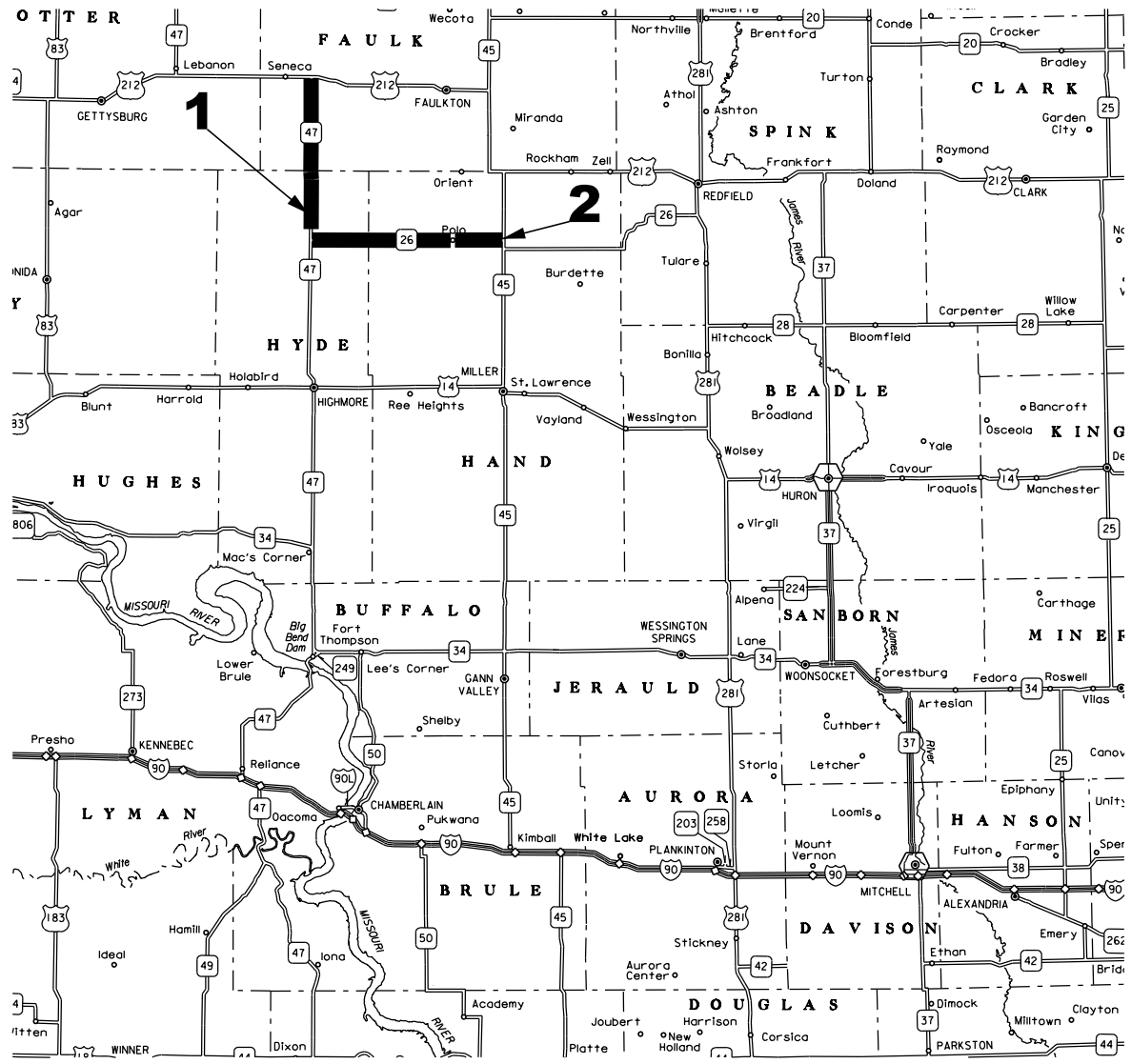
- Sheet: 1-3 Title Sheet & Layout Map
- Sheet: 4-5 Estimate of Quantities and Environmental Commitments
- Sheet: 6 Table of Quantities
- Sheet: 7 Rates of Materials
- Sheet: 8-10 Plan Notes
- Sheet: 11-12 Traffic Control
- Sheet: 13 Typical Detail
- Sheet: 14-15 Standard Plates
- Sheet: 16 Itemized List for Traffic Control
- Sheet: 17-18 Typical Pavement Markings

PLOT SCALE - 1" = 1000'



PROJECTS

**SEGMENT 1 - SD 47 - MRM 157.00 + 0.778 TO MRM 173.92 + 0.000**  
**SEGMENT 2 - SD 26 - MRM 230.12 + 0.000 TO MRM 252.85 + 0.000**



STORM WATER PERMIT  
 (None Required)

9

March 19, 2025

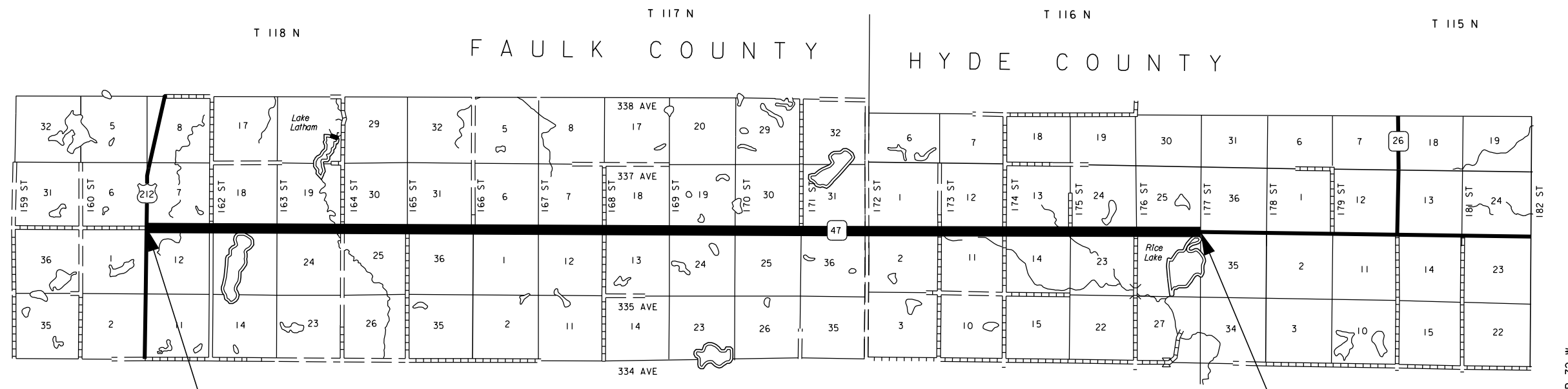
PLOTTED FROM - TRHJUNT04

FILE - ... \HAND09KY\DESIGN\TITLE\_09KY.DGN

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	P 0013(170)	2	18
Plotting Date: 01/06/2025			

# SD HIGHWAY 47 SEGMENT #1 FAULK & HYDE COUNTIES

LENGTH: 16.135 MILES



**SEGMENT #1  
BEGIN PROJECT  
STA. 851+92.8  
MRM 173.92+0.000  
MILEAGE 137.987**

**SEGMENT #1  
END PROJECT  
STA. 0+00  
MRM 157.00+0.778  
MILEAGE 121.852**

DESIGN DESIGNATION	
AADT(2022)	263
AADT(2042)	393
DHV	44
D	51
DHV T%	12.8%
AADT T%	28.2%
V	65 mph

PROJECT LENGTH	
Gross Length:	85,192.8' 16.135 Miles
Deductions:	00.00' 0.000 Miles
Net Length:	85,192.8' 16.135 Miles

PLOT SCALE - 1:9983.91

PLOTTED FROM - TRHJUNT04

PLOT NAME - 1

FILE - ... \DESIGN\HWY 47 SEGMENT 1.DGN

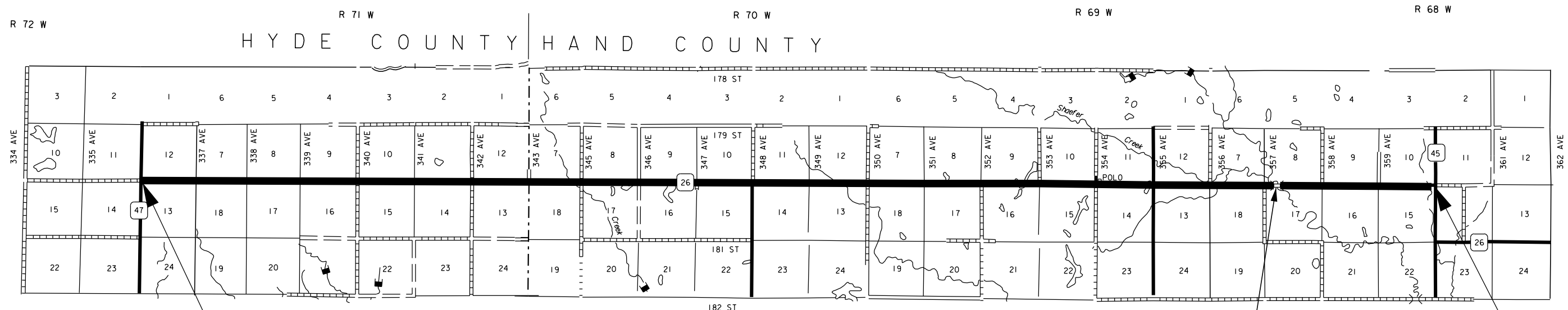
STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	P 00131(170)	3	18
Plotting Date: 01/06/2025			

# SD HIGHWAY 26

## SEGMENT #2

### HAND & HYDE COUNTIES

LENGTH: 22.728 MILES



SEGMENT #2  
BEGIN PROJECT  
Sta. 0+00  
MRM 230.12 + 0.000  
MILEAGE 0.000

Str. 30-132-080  
Prestressed Girder Bridge  
106.5'=0.020 Miles  
MRM 250.09

SEGMENT #2  
END PROJECT  
Sta. 1200+03  
MRM 252.85 + 0.000  
MILEAGE 22.728

DESIGN DESIGNATION	
AADT (2022)	95
AADT (2042)	141
DHV	0
D	51
DHV T%	8.7%
AADT T%	19.2%
V	65MPH

PROJECT LENGTH	
Gross Length:	120,003.8' 22.728 Miles
Deductions:	106.50' 0.020 Miles
Net Length:	119,897.3' 22.708 Miles

PLOT SCALE - 1:9983.91

PLOTTED FROM - TRHJUNT04

PLOT NAME - 1

FILE - ... \DESIGN\HWY 26 SEGMENT 2.DGN

Revised PAR 1/13/25

## ESTIMATE OF QUANTITIES

Project: P 0013(170), PCN 09KY

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
330E0300	SS-1h or CSS-1h Asphalt for Fog Seal	122.0	Ton
330E3000	Sand for Fog Seal	20.0	Ton
360E0042	CRS-2P Asphalt for Surface Treatment	1,019.1	Ton
360E1010	Type 1A Cover Aggregate	2,651.0	Ton
360E1010	Type 1A Cover Aggregate	3,074.2	Ton
633E0030	Cold Applied Plastic Pavement Marking, 24"	36	Ft
633E1200	High Build Waterborne Pavement Marking Paint, White	2,797	Gal
633E1205	High Build Waterborne Pavement Marking Paint, Yellow	387	Gal
633E5050	Surface Preparation for Pavement Marking	36	Ft
633E6020	Pavement Marking Masking, 25"	72	Ft
634E0010	Flagging	390.0	Hour
634E0020	Pilot Car	102.0	Hour
634E0110	Traffic Control Signs	902.2	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0630	Temporary Pavement Marking	77.6	Mile

### SPECIFICATIONS

Standard Specifications for Roads and Bridges, 2015 Edition and Required Provisions, Supplemental Specifications and Special Provisions as included in the Proposal.

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	P 0013( 170 )	5	18
Plotting Date: 01/06/2025			

## ENVIRONMENTAL COMMITMENTS

The SDDOT is committed to protecting the environment and uses Environmental Commitments as a communication tool for the Engineer and Contractor to ensure that attention is given to avoid, minimize, and/or mitigate an environmental impact. Environmental commitments to various agencies and the public have been made to secure approval of this project. An agency with permitting authority can delay a project if identified environmental impacts have not been adequately addressed. Unless otherwise designated, the Contractor's primary contact regarding matters associated with these commitments will be the Project Engineer. During construction, the Project Engineer will verify that the Contractor has met Environmental Commitment requirements. These environmental commitments are not subject to change without prior written approval from the SDDOT Environmental Office.

Additional guidance on SDDOT's Environmental Commitments can be accessed through the Environmental Procedures Manual found at: <https://dot.sd.gov/media/documents/EnvironmentalProceduresManual.pdf> >

For questions regarding change orders in the field that may have an effect on an Environmental Commitment, the Project Engineer will contact the Environmental Engineer at 605-773-3180 or 605-773-4336 to determine whether an environmental analysis and/or resource agency coordination is necessary.

Once construction is complete, the Project Engineer will review all environmental commitments for the project and document their completion.

### COMMITMENT B: FEDERALLY THREATENED, ENDANGERED, AND PROTECTED SPECIES

#### COMMITMENT B2: WHOOPING CRANE

The Whooping Crane is a spring and fall migratory bird in South Dakota that is about 5 feet tall and typically stops on wetlands, rivers, and agricultural lands along their migration route. An adult Whooping Crane is white with a red crown and a long, dark, pointed bill. Immature Whooping Cranes are cinnamon brown. While in flight, their long necks are kept straight and their long dark legs trail behind. Adult Whooping Cranes' black wing tips are visible during flight.

#### Action Taken/Required:

Harassment or other measures to cause the Whooping Crane to leave the site is a violation of the Endangered Species Act. If a Whooping Crane is sighted roosting in the vicinity of the project, borrow pits, or staging areas associated with the project, cease construction activities in the affected area until the Whooping Crane departs and immediately contact the Project Engineer. The Project Engineer will contact the Environmental Office so that the sighting can be reported to USFWS.

#### COMMITMENT B4: BALD EAGLE

Bald eagles are known to occur in this area

#### Action Taken/Required:

If a nest is observed within one mile of the project site, notify the Project Engineer immediately so that he/she can consult with the Environmental Office for an appropriate course of action.

#### COMMITMENT E: STORM WATER

Construction activities constitute less than 1 acre of disturbance.

#### Action Taken/Required:

At a minimum and regardless of project size, appropriate erosion and sediment control measures must be installed to control the discharge of pollutants from the construction site.

#### COMMITMENT H: WASTE DISPOSAL SITE

The Contractor will furnish a site(s) for the disposal of construction and/or demolition debris generated by this project.

#### Action Taken/Required:

Construction and/or demolition debris may not be disposed of within the Public ROW.

The waste disposal site(s) will be managed and reclaimed in accordance with the following from the General Permit for Construction/Demolition Debris Disposal Under the South Dakota Waste Management Program issued by the Department of Agriculture and Natural Resources.

The waste disposal site(s) will not be located in a wetland, within 200 feet of surface water, or in an area that adversely affects wildlife, recreation, aesthetic value of an area, or any threatened or endangered species, as approved by the Environmental Office and the Project Engineer.

If the waste disposal site(s) is located such that it is within view of any ROW, the following additional requirements will apply:

1. Construction and/or demolition debris consisting of concrete, asphalt concrete, or other similar materials will be buried in a trench separate from wood debris. The final cover over the construction and/or demolition debris will consist of a minimum of 1 foot of soil capable of supporting vegetation. Waste disposal sites provided outside of the Public ROW will be seeded in accordance with Natural Resources Conservation Service recommendations. The seeding recommendations may be obtained through the appropriate County NRCS Office. The Contractor will control the access to waste disposal sites not within the Public ROW with fences, gates, and placement of a sign or signs at the entrance to the site stating, "No Dumping Allowed".
2. Concrete and asphalt concrete debris may be stockpiled within view of the ROW for a period not to exceed the duration of the project. Prior to project completion, the waste will be removed from view of the ROW or buried, and the waste disposal site reclaimed as noted above.

The above requirements will not apply to waste disposal sites that are covered by an individual solid waste permit as specified in SDCL 34A-6-58, SDCL 34A-6-1.13, and ARSD 74:27:10:06.

Failure to comply with the requirements stated above may result in civil penalties in accordance with South Dakota Solid Waste Law, SDCL 34A-6-1.31.

All costs associated with furnishing waste disposal site(s), disposing of waste, maintaining control of access (fence, gates, and signs), and reclamation of the waste disposal site(s) will be incidental to the various contract items.

#### COMMITMENT I: HISTORICAL PRESERVATION OFFICE CLEARANCES

The SDDOT has obtained concurrence with the State Historical Preservation Office (SHPO or THPO) for all work included within the project limits and all department designated sources and designated option material sources, stockpile sites, storage areas, and waste sites provided within the plans.

#### Action Taken/Required:

All earth disturbing activities not designated within the plans require a cultural resource review prior to scheduling the pre-construction meeting. This work includes but is not limited to: Contractor furnished material sources, material processing sites, stockpile sites, storage areas, plant sites, and waste areas.

The Contractor will arrange and pay for a record search and when necessary, a cultural resource survey. The Contractor has the option to contact the state Archaeological Research Center (ARC) at 605-394-1936 or another qualified archaeologist, to obtain either a records search or a cultural resources survey. A record search might be sufficient for review if the site was previously surveyed; however, a cultural resources survey may need to be conducted by a qualified archaeologist.

The Contractor will provide ARC with the following: a topographical map or aerial view in which the site is clearly outlined, site dimensions, project number, and PCN. If applicable, provide evidence that the site has been previously disturbed by farming, mining, or construction activities with a landowner statement that artifacts have not been found on the site.

The Contractor will submit the cultural resources survey report to SDDOT Environmental Office, 700 East Broadway Avenue, Pierre, SD 57501-2586. SDDOT will submit the information to the appropriate SHPO/THPO. Allow **30 Days** from the date this information is submitted to the Environmental Engineer for SHPO/THPO review.

In the event of an inadvertent discovery of human remains, funerary objects, or if evidence of cultural resources is identified during project construction activities, then such activities within 100 feet of the inadvertent discovery will immediately cease and the Project Engineer will be immediately notified.

The Project Engineer will contact the SDDOT Environmental Office, who will contact the appropriate SHPO/THPO within 48 hours of the discovery to determine an appropriate course of action.

SHPO/THPO review does not relieve the Contractor of the responsibility for obtaining any additional permits and clearances for Contractor furnished material sources, material processing sites, stockpile sites, storage areas, plant sites, and waste areas that affect wetlands, threatened and endangered species, or waterways. The Contractor will not utilize a site known or suspected of having contaminated soil or water. The Contractor will provide the required permits and clearances to the Project Engineer at the preconstruction meeting.

**TABLE OF QUANTITIES (FOR INFORMATION ONLY)**

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	P 0013 (170)	6	18
Plotting Date: 01/06/2025			

ITEM	SEGMENT 1	SEGMENT 2	TOTAL	UNIT
	<b>SD 47</b>	<b>SD 26</b>		
Mobilization	Lump Sum	Lump Sum	Lump Sum	LS
SS1H or CSS-1H Asphalt for Fog Seal	56.5	65.5	122.0	Ton
Sand for Fog Seal	10	10	20	Ton
CRS-2P Asphalt for Surface Treatment	471.1	548.0	1019.1	Ton
Type 1A Cover Aggregate	2651.0	-	2651.0	Ton
Type 1A Cover Aggregate	-	3074.2	3074.2	Ton
Pavement Marking Paint, White	897	1900	2797	Gal
Pavement Marking Paint, Yellow	170	217	387	Gal
Flagging	150.0	190.0	340.0	Hour
Additional Flagging Hours	50.0		50.0	Hour
Pilot Car	42.0	60.0	102.0	Hour
Traffic Control Signs	384.2	518.0	902.2	SqFt
Traffic Control Miscellaneous	Lump Sum	Lump Sum	Lump Sum	LS
Temporary Pavement Markings	32.2	45.4	77.6	Mile
Surface Preparation for Pavement Markings	12	24	36	Ft
Cold Applied Plastic Pavement Markings 24"	12	24	36	Ft
Pavement Marking Masking, 25"	24	48	72	Ft

PLOT SCALE - 1:200

PLOT NAME - 1

FILE - ... \DESIGN\BORDER 09KX.DGN

PLOTTED FROM - TRHJUNT04

**RATES OF MATERIALS**

The Estimate of Quantities is based on the following quantities of materials per mile.

The radiuses to intersecting State Highways will be chipped to top of the sluff.

**ASPHALT SURFACE TREATMENT:**

Segment	ROUTE	Station		Station
1	SD 47	0+00	to	851+92.8

CRS-2P Asphalt for Surface Treatment at the rate of 29.2 tons applied 28 feet wide.  
(Rate = 0.42 Gal./S.Y.)

Type 1A Cover Aggregate at the rate of 164.3 tons applied 28 feet wide.  
(Rate= 20 Lbs./S.Y.)

CSS-1H or SS-1H for Fog Seal at the rate of 3.5 tons applied 40 feet wide.  
(Rate = 0.05 Gal./S.Y.)

Segment	ROUTE	Station		Station
2	SD 26	0+00	to	885+49

**Note: Average Width through transition including turn lane.**

CRS-2P Asphalt for Surface Treatment at the rate of 25.1 tons applied 24 feet wide.  
(Rate = 0.42 Gal./S.Y.)

Type 1A Cover Aggregate at the rate of 140.8 tons applied 24 feet wide.  
(Rate= 20 Lbs./S.Y.)

CSS-1H or SS-1H for Fog Seal at the rate of 3.0 tons applied 24 feet wide.  
(Rate = 0.05 Gal./S.Y.)

Segment	ROUTE	Station		Station
2	SD 26	885+49	to	1039+85.52
2	SD 26	1058+85.52	to	1200+03

CRS-2P Asphalt for Surface Treatment at the rate of 20.9 tons applied 20 feet wide.  
(Rate = 0.42 Gal./S.Y.)

Type 1A Cover Aggregate at the rate of 117.3 tons applied 20 feet wide.  
(Rate= 20 Lbs./S.Y.)

CSS-1H or SS-1H for Fog Seal at the rate of 2.5 tons applied 20 feet wide.  
(Rate = 0.05 Gal./S.Y.)

Segment	ROUTE	Station		Station
2	SD 26	1039+85.52	to	1050+05.52
2	SD 26	1058+35.52	to	1058+85.52

CRS-2P Asphalt for Surface Treatment at the rate of 28.3 tons applied 27 feet wide.  
(Rate = 0.42 Gal./S.Y.)

Type 1A Cover Aggregate at the rate of 158.4 tons applied 27 feet wide.  
(Rate= 20 Lbs./S.Y.)

CSS-1H or SS-1H for Fog Seal at the rate of 3.4 tons applied 27 feet wide.  
(Rate = 0.05 Gal./S.Y.)

Segment	ROUTE	Station		Station
2	SD 26	1050+05.52	to	1053+70.0
2	SD 26	1054+76.0	to	1058+35.52

CRS-2P Asphalt for Surface Treatment at the rate of 33.5 tons applied 32 feet wide.  
(Rate = 0.42 Gal./S.Y.)

Type 1A Cover Aggregate at the rate of 187.7 tons applied 32 feet wide.  
(Rate= 20 Lbs./S.Y.)

CSS-1H or SS-1H for Fog Seal at the rate of 4.0 tons applied 32 feet wide.  
(Rate = 0.05 Gal./S.Y.)

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	P 0013(170)	8	18
Plotting Date: 01/06/2025			

**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.

1. Install Construction Signing
2. Install Temporary Pavement Markings
3. Apply Asphalt Surface Treatment
4. Apply Fog Seal
5. Apply Permanent Pavement Marking Paint
6. Project Cleanup and Removal of Construction Signing

**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.

Portable sign supports will not be located on sidewalks, bicycle facilities, or other areas designated for pedestrian or bicycle traffic.

All construction operations will be conducted in the general direction of traffic movement.

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 bid 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.

Lane closures will be limited to 3 miles in length. The distance between the closest points of any two-lane closures will be at least 3 miles, excluding tapers.

**TRAFFIC CONTROL FOR ASPHALT SURFACE TREATMENT**

The Contractor will furnish, install, and maintain LOOSE GRAVEL (W8-7) signs with 40 MPH (W13-1P) advisory speed plaques upon start of surface treatment operations at each end of the segment and on either side of intersecting asphalt roads and major intersections as determined by the Engineer. In addition, LOOSE GRAVEL signs with 40 MPH advisory speed plaques will be installed at no more than 4 mile intervals throughout each segment. LOOSE GRAVEL signs and 40 MPH advisory speed plaques will be covered or removed from view when they are not applicable.

ROAD WORK NEXT XX MILES (G20-1), LOOSE GRAVEL (W8-7), and END ROAD WORK (G20-2) signs are the only signs that need to be mounted on fixed location breakaway sign supports, as shown on the plan layout. ROAD WORK AHEAD (W20-1), FLAGGER (W20-7), ONE LANE ROAD AHEAD (W20-4) signs may be mounted on portable supports. Signs mounted on portable supports will be moved as necessary to keep current with the work activities.

Until the end of each day's chip seal operations, additional flaggers and FLAGGER (W20-7) symbol signs will be provided to alert the traveling public entering completed portions of the project to the potential of airborne chips.

The flaggers will provide each motorist with a printed notice on the Contractor's letterhead similar to the one shown below. Cost of the notice will be incidental to other contract bid items. The Contractor must have enough printed notices on hand to allow one for every vehicle (Current ADT).

All construction vehicles, including trucks, will be restricted to a maximum 40 mph within any area that has been sealed regardless of which lane they are driving on.

**"CONTRACTOR'S LETTERHEAD"**

THIS HIGHWAY IS BEING RESURFACED WITH A ROCK CHIP SEAL COAT.

THIS TYPE OF CONSTRUCTION HAS THE POTENTIAL OF CAUSING VEHICLE DAMAGE SUCH AS CHIPPED WINDSHIELDS AND BROKEN HEADLIGHTS DUE TO ROCKS BEING THROWN BY HIGH SPEED ONCOMING OR PASSING TRAFFIC.

YOU MAY WISH TO CONSIDER TAKING AN ALTERNATE ROUTE. IF YOU PROCEED, KEEP TO THE RIGHT AND DRIVE 40 MPH OR LESS. ANOTHER FLAGGER AND A PILOT CAR WILL BE ESCORTING YOU AROUND THE OIL SEAL COAT APPLICATION AREA.

THANK YOU.

**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 50 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.





STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	P 0013( 170 )	9	18
Plotting Date: 01/06/2025			

**FLAGGING CONT.**

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, the 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".

**COVER AGGREGATE**

Cover Aggregate will conform to the requirements of the specifications for Type 1A Cover Aggregate.

Quality tests on the Cover Aggregate for abrasion and soundness are required by specification. The Contractor will notify the Area office prior to sampling and a representative from the Area office will witness all sampling of aggregates to be submitted to the Central Testing Laboratory for quality testing. Satisfactory test results for the Cover Aggregate will be obtained prior to its use on the Project. Application of the Cover Aggregate must be maintained within 1000 feet or have a time limit of 5 minutes between the application of the CRS-2P for Asphalt Surface Treatment and the application of the cover aggregate, whichever amounts to the shorter period of time.

The Contractor will continue chip spreader progress, forward, thru the asphalt application at any end where work will be temporarily shut down for a time greater than 5 minutes, to allow for satisfactory uniform rolling of the placed aggregate. The Contractor will not allow the chip spreader, trucks, or other equipment to lie dormant on the aggregate while transitioning between asphalt distributor loads and or any other temporary shutdown of production, before uniform rolling is complete. A cover aggregate gradation failure on the #200 sieve will cause all operations to cease immediately and the Engineer will determine correction action(s), if necessary, prior to restarting the operations.

**PROJECT BROOMING**

All material will be broomed off of bridges and curb & gutter areas adjacent to the bridges. No material will be broomed under the guardrail, including the 3 cable guardrail or into the drop inlets. This material from the curb & gutter areas of the bridges, the guardrail areas of the bridges and the drop inlets will be disposed of in a manner satisfactory to the Engineer.

Material that is broomed onto the roadway in slopes will not be left in piles or windrows. The material will be evenly distributed at a height that will not hinder mowing operations or cause dispersion of the material into the traveled roadway when passed over with a mower.

As per Section 360.3 of the Specifications, loose material at the following locations in the table below will be removed by the Contractor by means of pickup broom having integral mounted self-contained storage using water to control dust and will be removed during the cool period of the early morning of the day following application or as directed by the Engineer.

Removed material will be disposed of at sites provided by the Contractor and approved by the Engineer.

Segment	ROUTE	Description
2	SD 26	Polo City Limits

This list may not be complete. Additional areas may need as directed by the Engineer.

At no time before, during, or after placement of Asphalt Surface Treatment will a broom without working integral mounted self-contained storage using water (in working condition) be used.

Brooming will be incidental to the various contract items for the Asphalt Surface Treatment.

**FOG SEAL**

The fog seal will be placed following the completion of the asphalt surface treatment. Prior to the application of the fog seal, the Contractor will be required to broom the asphalt surface treatment. A CSS-1h or SS-1h emulsion will be used for the fog seal application. A water-to-emulsion rate of 1:1 should be used for the Fog Seal application.

The Contractor will fog seal the entire asphalt surface treatment surface.

The Contractor will plan the fog seal operation to allow adequate cure time for the fog seal and to minimize/eliminate the need to apply Sand for Fog Seal.

If adequate cure time for the Fog Seal is not available, to facilitate traffic, the Contractor will be allowed to place a minimum sufficient amount of blotting sand on the fog seal to allow traffic to cross the uncured portion of the fog seal, as permitted by the Engineer.

Sand for Fog Seal is only intended to be placed for accesses to businesses, intersection crossings, and as determined by the Engineer to facilitate traffic movements. Sand for Fog Seal will not be placed to accelerate the Contractor's schedule.

Bill of Ladings showing both the CSS-1h or SS-1h and water will be required.

Sand that is applied will be broomed off the surface of the roadway once the fog seal has sufficiently cured as determined by the Engineer.

Sand for Fog Seal will conform to Section 879.1.B.

Passing a 3/8 Inch Sieve	100%
Passing a No. 4 Sieve	85-100%
Passing a No. 8 Sieve	60-95%
Passing a No. 40 Sieve	5-45%
Passing a No. 200 Sieve	0-10.0%

Prior to hauling, Sand for Fog Seal will be screened to minimize segregation, eliminate oversize, and effectively breakup or discard material bonded into chunks. All costs for supplying, hauling, placing, and brooming the blotting sand will be incidental to the contract unit price per ton for Sand for Fog Seal.

**HAUL ROAD**

The Contractor will be responsible for any haul roads used to transport material to the project site. The State will not participate in the cost of restoration of any haul roads used by the Contractor.

**TEMPORARY PAVEMENT MARKINGS**

Temporary flexible vertical markers (tabs) will be used to mark dashed centerline, No Passing Zones, and applicable lane lines. Paint will not be allowed for temporary pavement marking.

Covers on the tabs will be sufficiently secured to prevent traffic from dislodging the cover and when removed, the covers will be properly disposed of. The Contractor will remove and properly dispose of the tabs after permanent pavement marking is applied. Method of removal will be nondestructive to the road surface and will be accomplished within one week of completion of the permanent pavement marking.

Any temporary flexible vertical markers (tabs) with covers removed before the flush seal will be replaced prior to application of the flush seal. Full reflectivity of all temporary flexible vertical markers (tabs) is required at all times. The Contractor will be to replace any missing or non-reflective tabs at no additional cost to the State.

In the absence of a signed lane closure or pilot car operation, FLAGGER (W20-7) symbol signs and flaggers, or a shadow vehicle with rotating yellow lights or strobe lights will be positioned on the shoulder in advance of workers for both directions of traffic during the installation and removal of the temporary flexible vertical markers (tabs). The traffic control device used will be moved intermittently to provide proper warning of the work operation. A ROAD WORK AHEAD (W20-1) sign, a WORKER (W21-1) symbol sign or a BE PREPARED TO STOP (W3-4) sign will be mounted on the rear of the shadow vehicle. The method of traffic control used by the Contractor for this work must be approved by the Engineer.

Prior to nightfall, tabs will be required to mark centerline on segments of roadway where existing centerline markings have been removed and new markings have not been installed.

The Contractor is allowed to use DO NOT PASS and PASS WITH CARE signs for a period of 2 weeks to mark no passing zones on roads with an average daily traffic of 2500 vehicles or less.

Quantities of Temporary Pavement Markings consist of:  
 One pass on top of the Seal Coat.  
 One pass on top of the Fog Seal.

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	P 0013 ( 170 )	10	18
Plotting Date: 01/06/2025			

**TEMPORARY PAVEMENT MARKINGS CONT.**

**TABLE OF TEMPORARY PAVEMENT MARKING ITEMS**

SEGMENT	(N.A.B.I.) DO NOT PASS Signs (Each)	(N.A.B.I.) PASS WITH CARE Signs (Each)	Total Length of No Passing Zones (Miles)
Segment 1 (SD 47)	7	7	1.689
Segment 2 (SD 26)	10	10	1.600

**PERMANENT PAVEMENT MARKINGS**

Traffic Control will be incidental to the cost of application. The striper and advance or trailing warning vehicle will be equipped with flashing amber lights or advance warning arrow panel.

All materials will be applied as per manufacturer's recommendations.

The Contractor will advise the Engineer a minimum of 2 weeks prior to the application of the permanent pavement marking to allow the State to check and mark the location of no passing zones. All materials will be applied as per manufacturer's recommendations.

The Contractor will be required to repaint all pavement markings including centerline, edge line, lane lines, and stop bar (1). This list is approximate. The Contractor will be required to inventory and mark, with appropriate colored tabs, the extent and location of the existing word messages, turn arrows, stop bars, railroad crossings, pedestrians crossings, etc. before marking the markings are obliterated. The Engineer will be provided a copy of the pavement marking inventory. Additional quantities are included in the estimates of quantities to paint additional pavement marking. The cost of tabs will be incidental to contract unit prices for various items.

The application of permanent pavement marking paint will not begin until 7 calendar days following completion of final surfacing and will be completed within 14 calendar days following completion of final surfacing when DO NOT PASS and PASS WITH CARE signs are used to mark No Passing Zones.

**HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT**

All materials will be applied as per manufacturer's recommendations. High build waterborne pavement marking paint will conform to the supplemental specifications for Section 980.1 B.

Reflective media will consist of glass beads. Reflective media will require a Certificate of Compliance for Certification for each source and lot. Acceptance sampling will not be required.

**RATES OF MATERIALS FOR HIGH BUILD WATERBORNE PAVEMENT MARKINGS PAINT**

**SD 47**

Solid 4" line = 27.8 Gals/Mile.  
Dashed 4" line = 7.6 Gal/Mile.  
Glass Beads = 8 Lbs/Gal.

**SD 26**

Solid 4" line = 27.8 Gals/Mile.  
Dashed 4" line = 7.6 Gal/Mile.  
Solid 6" line = 41.8 Gal/Mile.  
Glass Beads = 8 Lbs/Gal.

All cost for materials, labor and equipment necessary to furnish and install the pavement markings will be incidental to the contract unit price for the respective High Build Waterborne Pavement Marking Paint items.

**TRANSVERSE RUMBLE STRIPS**

The Contractor will ensure transverse rumble strips are not damaged or otherwise modified to lose their functionality during the application of the surface treatment. The Contractor will only apply a fog seal to the rumble strips. The Contractor will repair any damages or loss of functionality of rumble strips to the satisfaction of the Engineer at no additional cost to the Department.

The note is intended for the junction of SD 26/SD 47, SD26/45 and SD47/US 212 right before the stop signs.

**PAVEMENT MARKING MASKING**

Just prior to beginning the asphalt surface treatment and the fog sealing operation, all pavement marking tape will be covered with an approved pavement marking masking material to protect the pavement marking from oil and aggregates. Tabs will be placed at the beginning of each masking line to provide a guide for locating the masking material after the seal has been applied.

Masking of stop bars may need to be done twice due to the required placement of the Fog Seal on these routes. Once prior to the placement of the chip seal and once prior to the fog seal application. Each masking application will be paid for separately. If the Contractor can achieve satisfactory results by leaving the masking in place for both the chip seal and the fog seal applications, this procedure will be allowed. In this case, the masking will be paid for once. Unsatisfactory results will be repaired by the Contractor with no additional cost to the State.

The Contractor will remove and dispose of the masking after completion of the work. All costs associated with the pavement marking masking will be incidental to the contract unit price for Pavement Marking Masking.

ITEM	SEGMENT 1	SEGMENT 2
	SD 47	SD 26
Gore Area	-	-
Turn Arrows	-	-
Stop Bars	24 FT	48 FT

# SD HIGHWAY 47

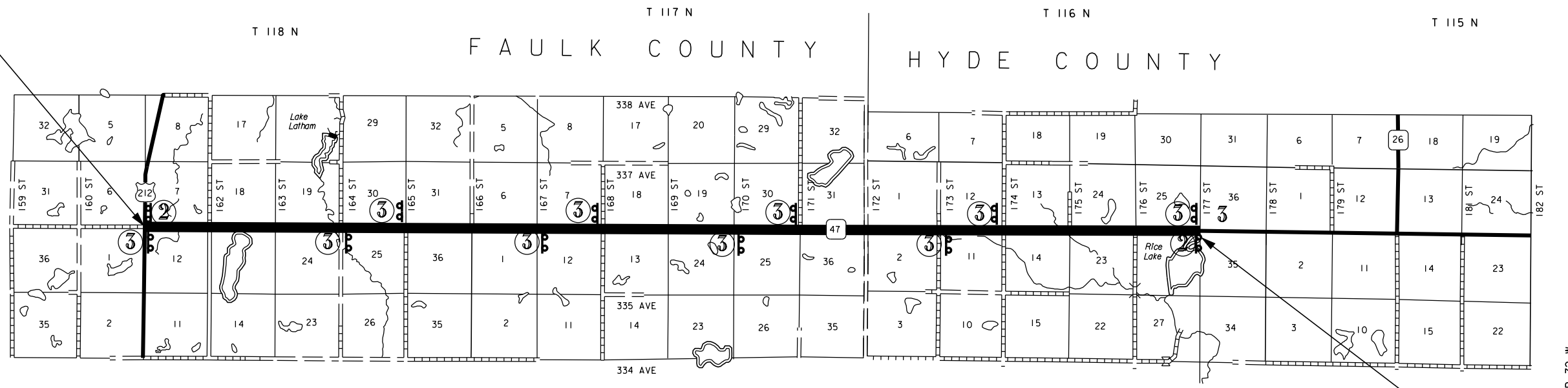
## SEGMENT #1

### FAULK & HYDE COUNTIES

LENGTH: 16.135 MILES

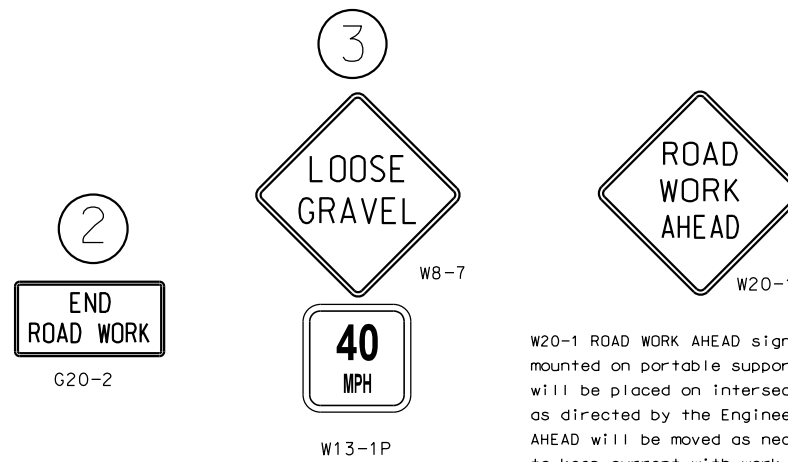


ROAD WORK  
NEXT 16 MILES  
G20-1



ROAD WORK  
NEXT 16 MILES  
G20-1

Fixed Location Sign Type	Quantity
Road Work Next 16 Miles	2
End Road Work	2
Loose Gravel	10
40 MPH Sign Plaque	10



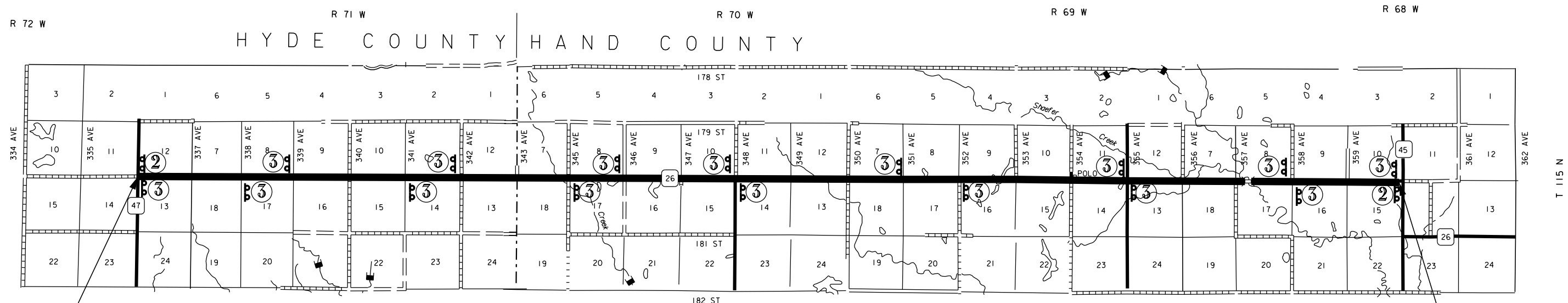
W20-1 ROAD WORK AHEAD signs will be mounted on portable supports and will be placed on intersecting roadways as directed by the Engineer. ROAD WORK AHEAD will be moved as necessary to keep current with work activities.

# SD HIGHWAY 26

## SEGMENT #2

### HAND & HYDE COUNTIES

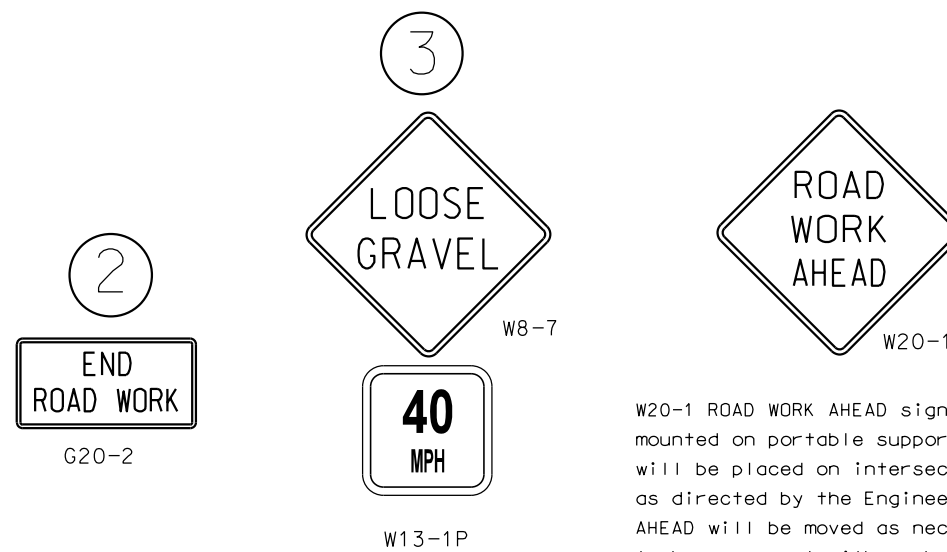
LENGTH: 22.728 MILES



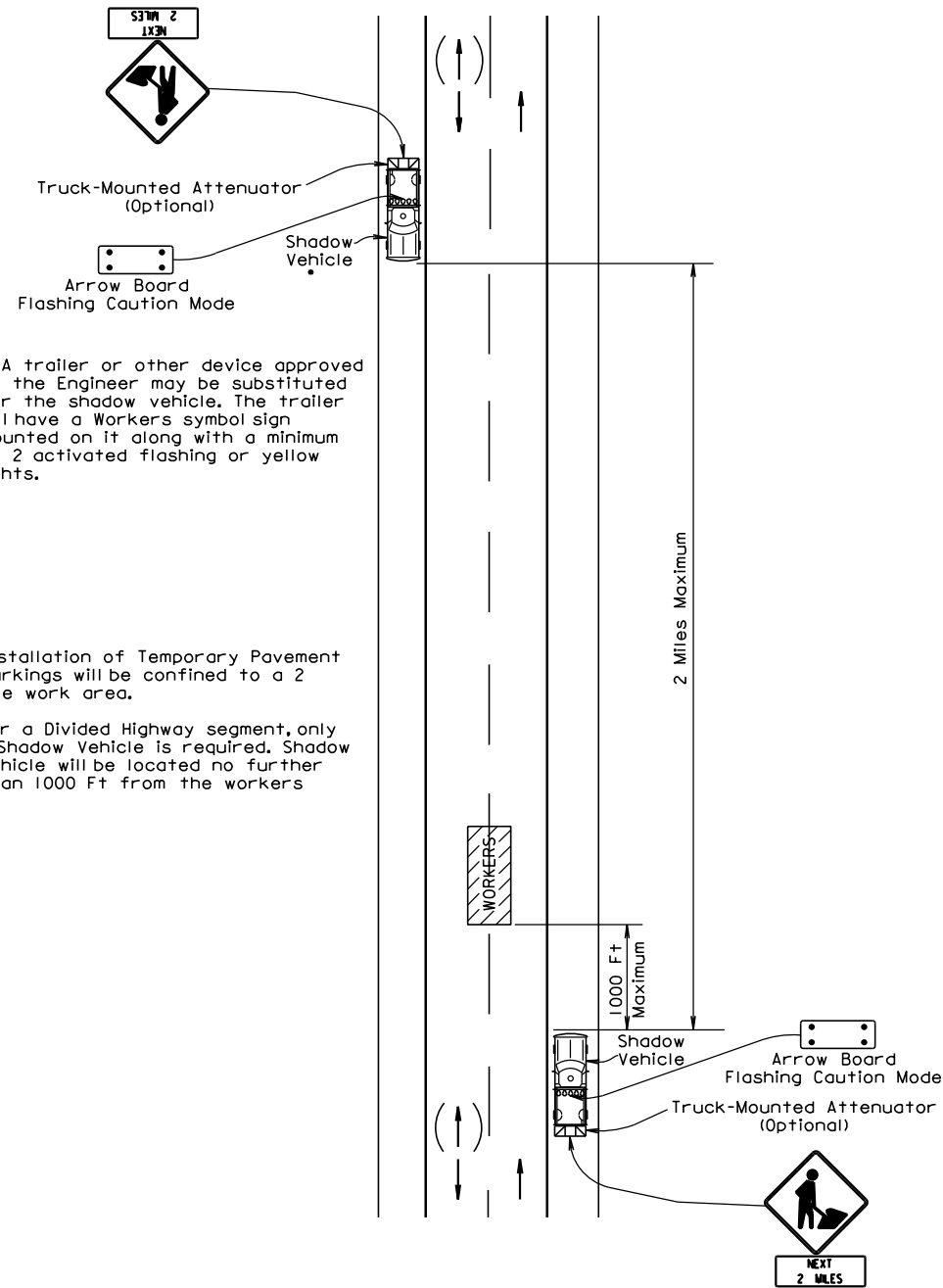
ROAD WORK  
NEXT 23 MILES  
G20-1

ROAD WORK  
NEXT 23 MILES  
G20-1

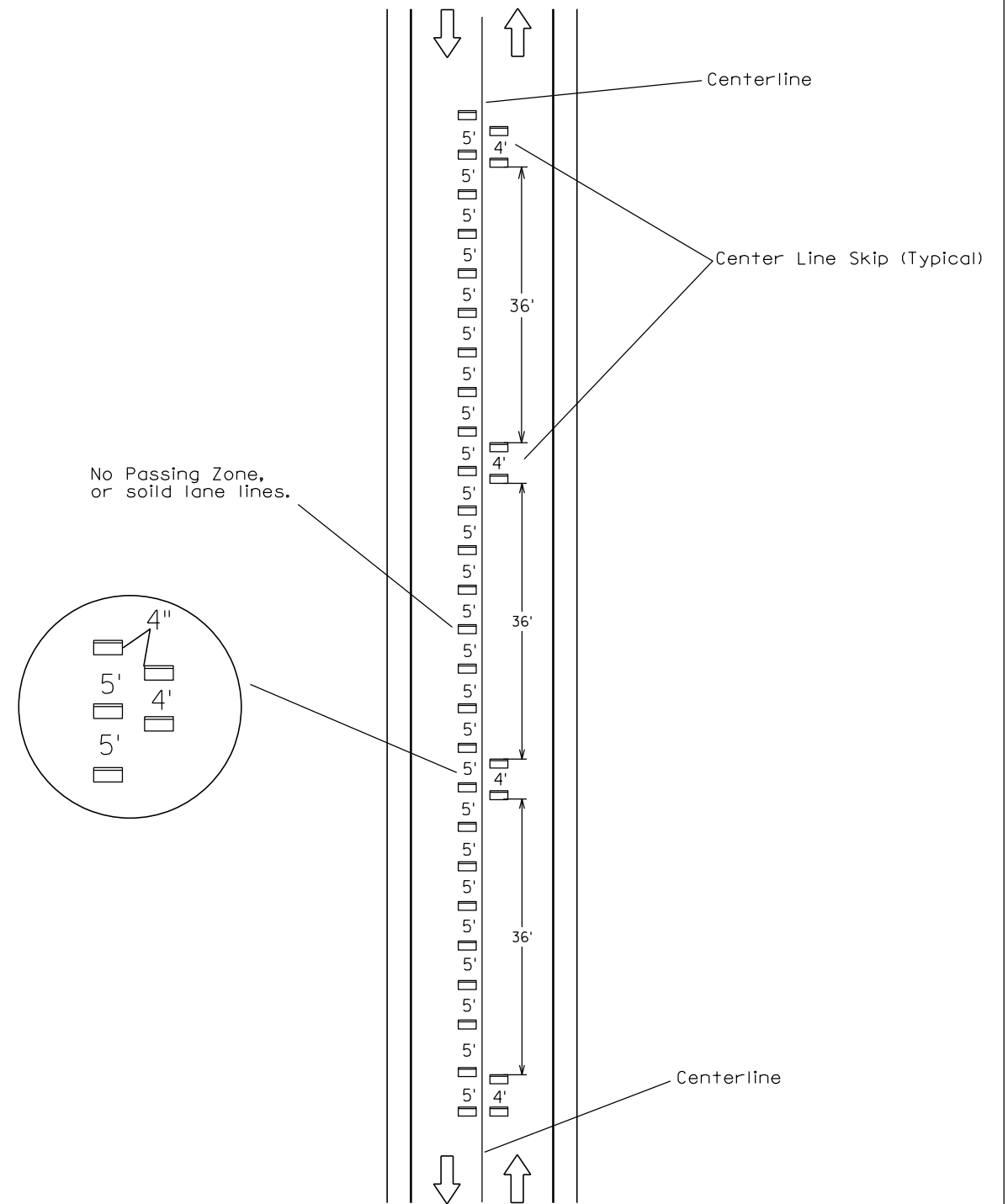
Fixed Location Sign Type	Quantity
Road Work Next 23 Miles	2
End Road Work	2
Loose Gravel	16
40 MPH Sign Plaque	16



**GUIDES FOR TRAFFIC CONTROL DEVICES  
APPLICATION OF TEMPORARY FLEXIBLE VERTICAL MARKERS**



**DETAILS FOR TRAFFIC CONTROL DEVICES  
TEMPORARY ROAD MARKER INSTALLATION**



PLOT SCALE - 1:200

\* 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.

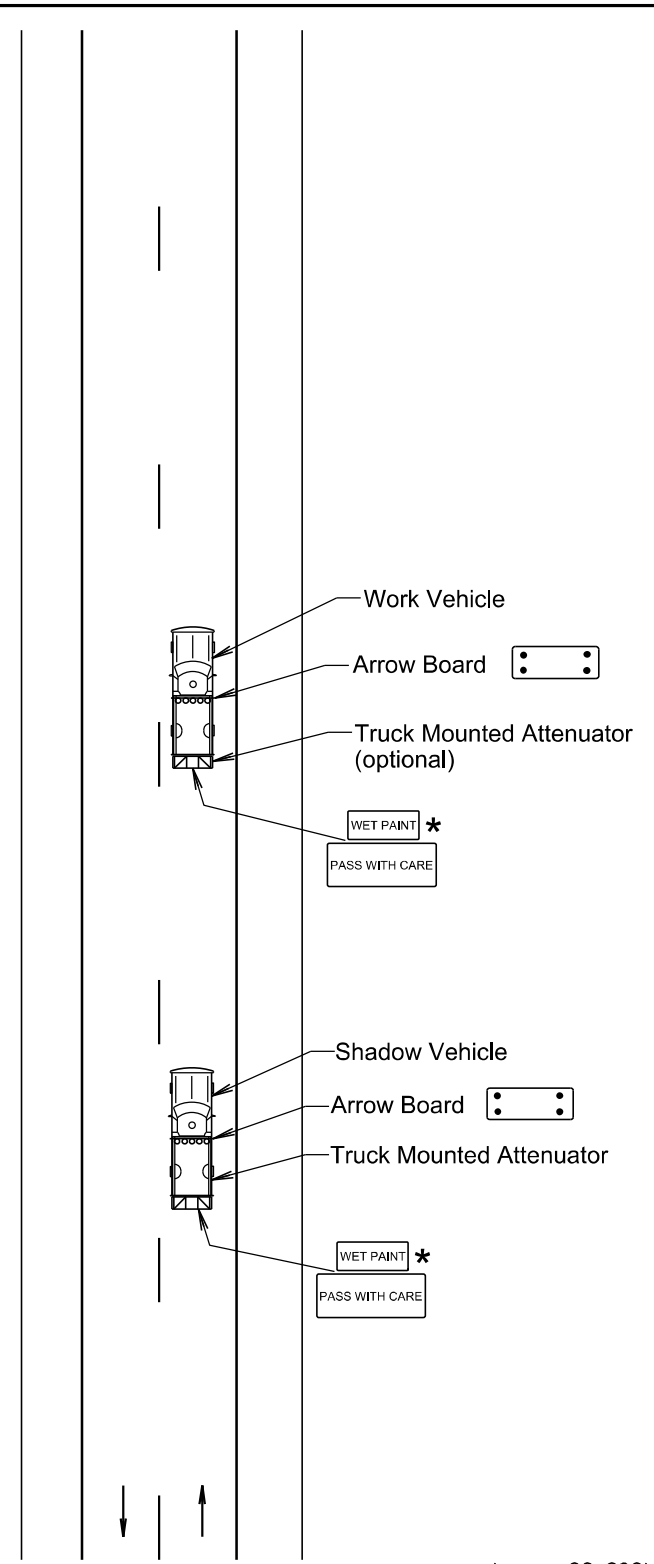
Shadow and Work vehicles will display high-intensity rotating, flashing, oscillating, or strobe lights, flags, signs, or arrow boards.

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

When an arrow board is used, it will be used in the caution mode. Marching Diamonds are acceptable.

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

<b>Published Date: 2025</b>	<b>S D D O T</b>	<b>MOBILE OPERATIONS ON 2-LANE ROAD</b>	PLATE NUMBER <b>634.06</b>
			Sheet 1 of 1

Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A)	Spacing of Channelizing Devices (Feet) (G)
0 - 30	200	25
35 - 40	350	25
45	500	25
50	500	50
55	750	50
60 - 65	1000	50

● Flagger  
■ Channelizing Device

For low-volume traffic situations with short work zones on straight roadways where the flagger is visible to road users approaching from both directions, a single flagger may be used.

The ROAD WORK AHEAD and the END ROAD WORK signs may be omitted for short duration operations (1 hour or less).

For tack and/or flush seal operations, when flaggers are not being used, the FRESH OIL sign (W21-2) will be displayed in advance of the liquid asphalt areas.

Flashing warning lights and/or flags may be used to call attention to the advance warning signs.

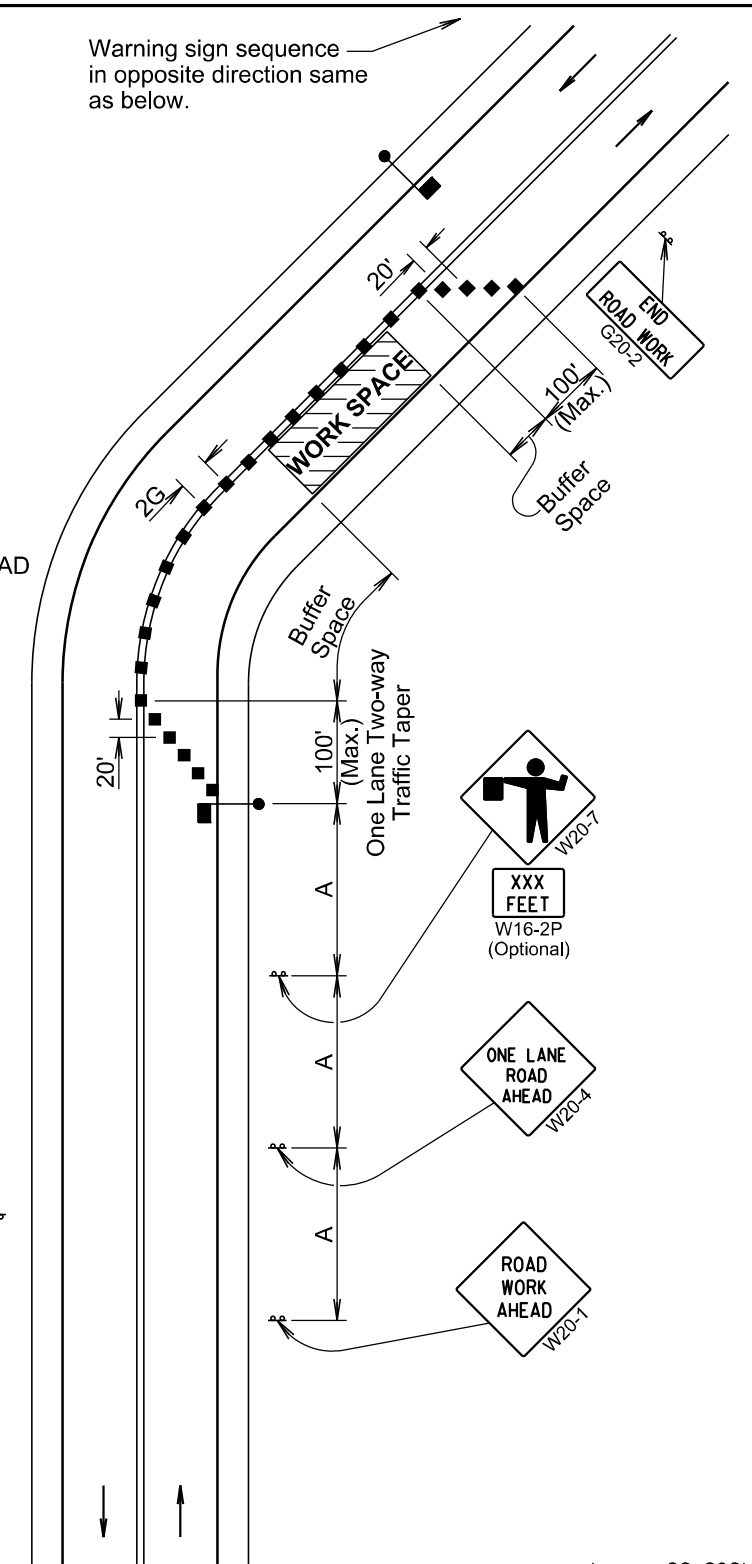
The channelizing devices will be drums or 42" cones.

Channelizing devices are not required along the centerline adjacent to work area when pilot cars are utilized for escorting traffic through the work area.

Channelizing devices and flaggers will be used at intersecting roads to control intersecting road traffic as required.

The buffer space should be extended so that the two-way traffic taper is placed before a horizontal or vertical curve to provide adequate sight distance for the flagger and queue of stopped vehicles.

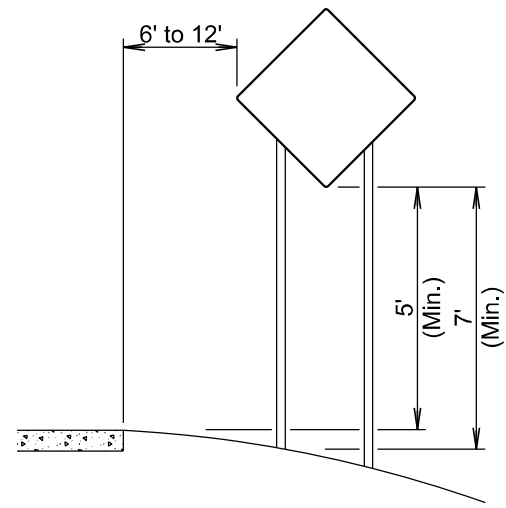
The length of A may be adjusted to fit field conditions.



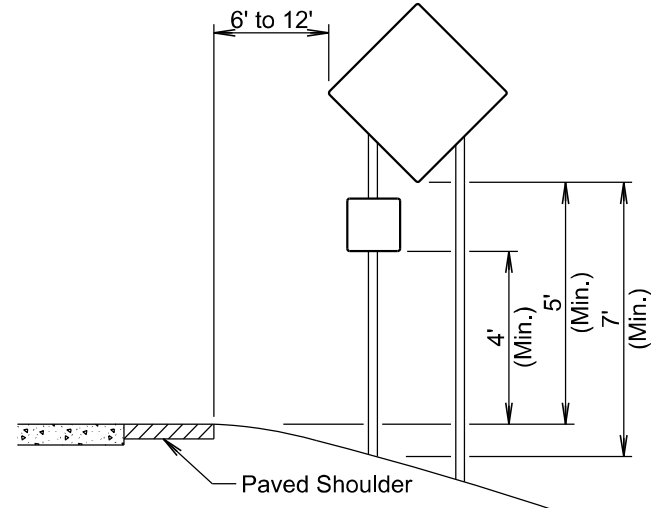
January 22, 2021

<b>Published Date: 2025</b>	<b>S D D O T</b>	<b>LANE CLOSURE WITH FLAGGER PROVIDED</b>	PLATE NUMBER <b>634.23</b>
			Sheet 1 of 1

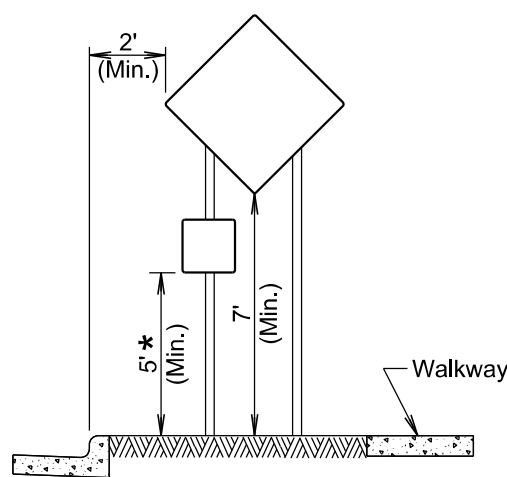
PLOT NAME - 1  
FILE - ... \DESIGN\BORDER 09KX.DGN



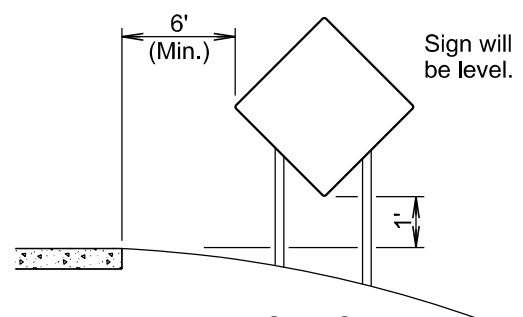
**RURAL DISTRICT**



**RURAL DISTRICT WITH SUPPLEMENTAL PLATE**



**URBAN DISTRICT**

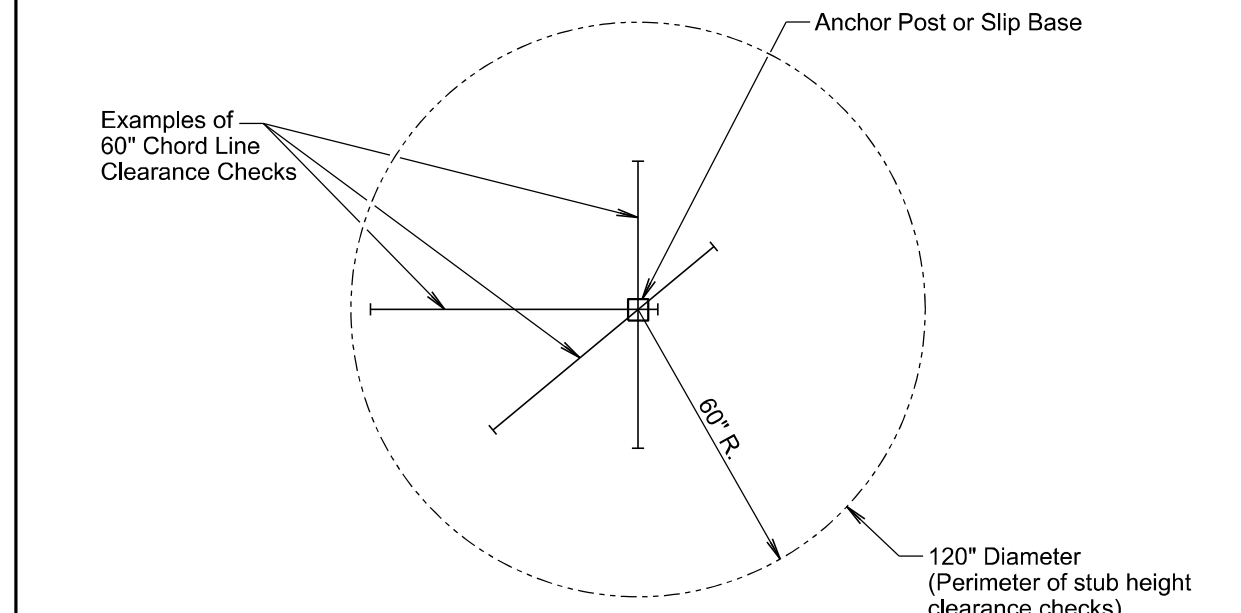


**RURAL DISTRICT 3 DAY MAXIMUM**  
(Not applicable to regulatory signs)

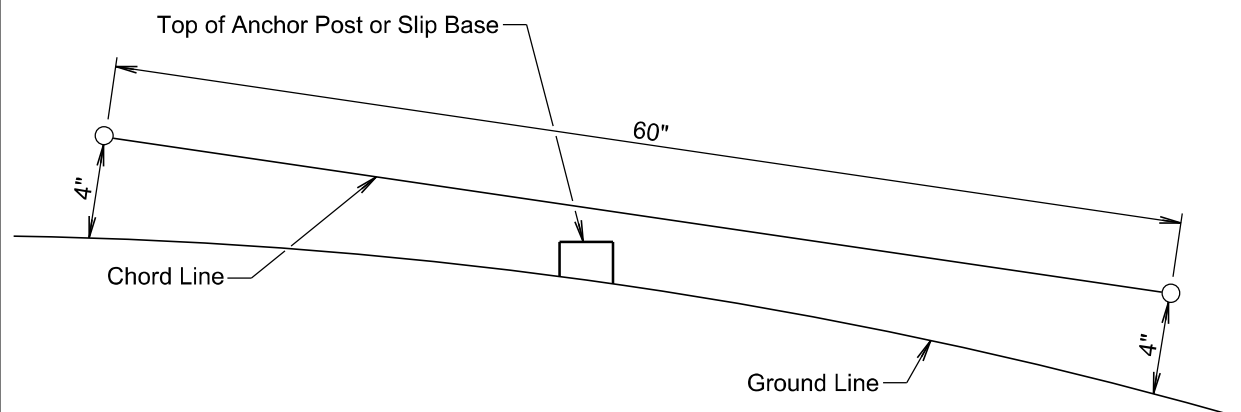
\* If the bottom of supplemental plate is mounted lower than 7 feet above a pedestrian walkway, the supplemental plate should not project more than 4" into the pedestrian facility.

January 22, 2021

Published Date: 2025	S D D O T	CRASHWORTHY SIGN SUPPORTS (Typical Construction Signing)	PLATE NUMBER 634.85
			Sheet 1 of 1



**PLAN VIEW**  
(Examples of stub height clearance checks)



**ELEVATION VIEW**

**GENERAL NOTES:**

- The top of anchor posts and slip bases WILL NOT extend above a 60" chord line within a 120" diameter circle around the post with ends 4" above the ground.
- At locations where there is curb and gutter adjacent to the breakaway sign support, the stub height will be a maximum of 4" above the ground line at the localized area adjacent to the breakaway support stub.
- The 4" stub height clearance is not necessary for U-channel lap splices where the support is designed to yield (bend) at the base.

January 22, 2021

Published Date: 2025	S D D O T	BREAKAWAY SUPPORT STUB CLEARANCE	PLATE NUMBER 634.99
			Sheet 1 of 1

PLOT SCALE - 1:200

PLOTTED FROM - TRHJUNT04

PLOT NAME - 1

FILE - ... \DESIGN\BORDER 09KY.DGN

**Itemized list for Traffic Control**

**Segment #1 (SD 47)**

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD			
		NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
W8-6	TRUCK CROSSING	2	48" x 48"	16.0	32.0
W8-7	LOOSE GRAVEL	10	48" x 48"	16.0	160.0
W13-1P	40 MPH ADVISORY SPEED (plaque)	10	30" x 30"	6.3	63.0
W20-1	ROAD WORK AHEAD	2	48" x 48"	16.0	32.0
W20-4	ONE LANE ROAD AHEAD	2	48" x 48"	16.0	32.0
W20-7	FLAGGER (symbol)	2	48" x 48"	16.0	32.0
SPECIAL	WAIT FOLLOW PILOT CAR	4	30" x 18"	3.8	15.2
G20-1	ROAD WORK NEXT 16 MILES	2	36" x 18"	4.5	9.0
G20-2	END ROAD WORK	2	36" x 18"	4.5	9.0
<b>CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT</b>					<b>384.2</b>

**Segment #2 (SD 26)**

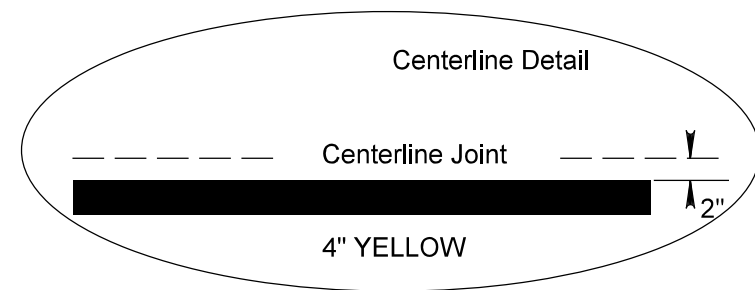
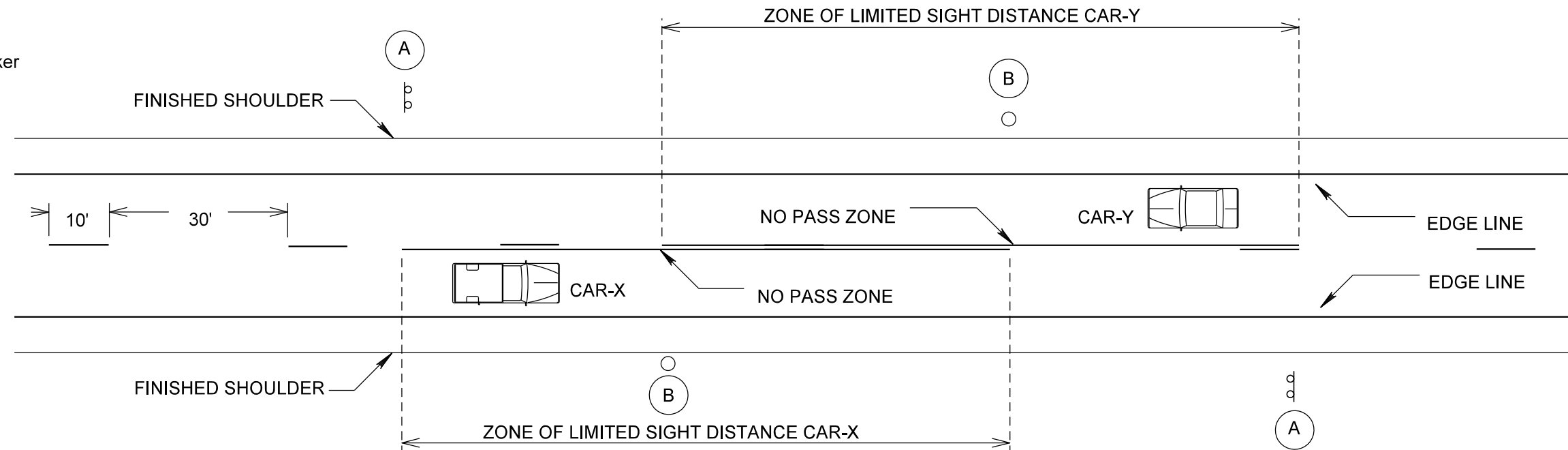
SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD			
		NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
W8-6	TRUCK CROSSING	2	48" x 48"	16.0	32.0
W8-7	LOOSE GRAVEL	16	48" x 48"	16.0	256.0
W13-1P	40 MPH ADVISORY SPEED (plaque)	16	30" x 30"	6.3	100.8
W20-1	ROAD WORK AHEAD	2	48" x 48"	16.0	32.0
W20-4	ONE LANE ROAD AHEAD	2	48" x 48"	16.0	32.0
W20-7	FLAGGER (symbol)	2	48" x 48"	16.0	32.0
SPECIAL	WAIT FOLLOW PILOT CAR	4	30" x 18"	3.8	15.2
G20-1	ROAD WORK NEXT 23 MILES	2	36" x 18"	4.5	9.0
G20-2	END ROAD WORK	2	36" x 18"	4.5	9.0
<b>CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT</b>					<b>518.0</b>



# SD 47 PAVEMENT MARKING LAYOUT

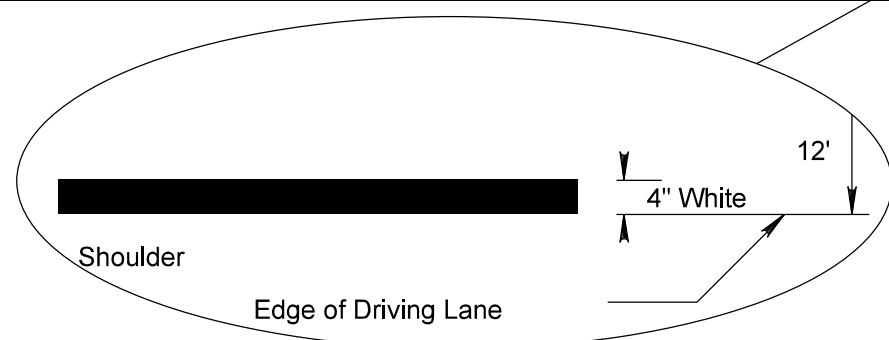
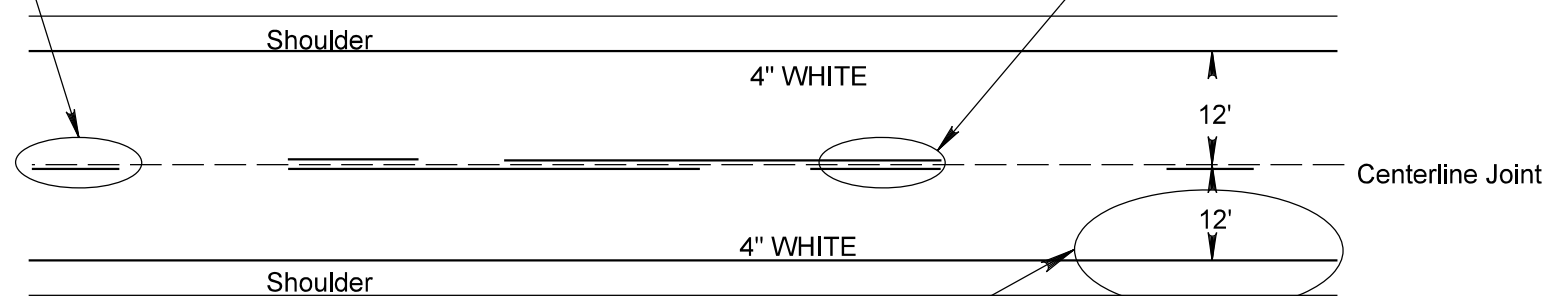
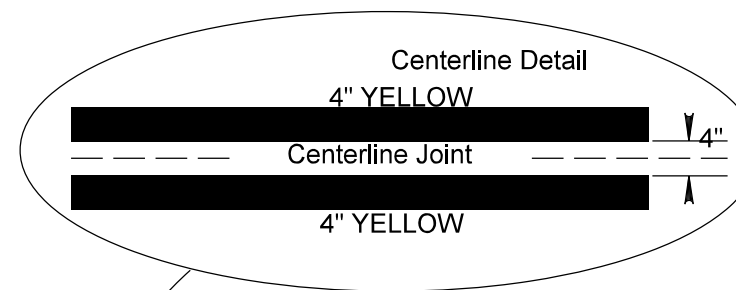


B End of Zone Marker



NOTE: A TWO "GUN" SYSTEM WILL BE USED TO OBTAIN THIS PATTERN.

WHEN A SINGLE SKIP LINE EXISTS, THE SKIP WILL BE PLACED TO THE SOUTH OR EAST OF THE CENTERLINE JOINT.



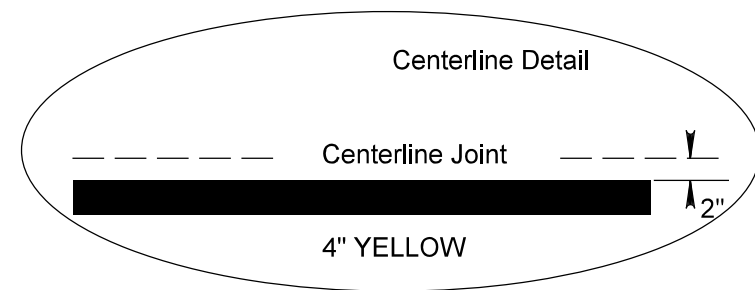
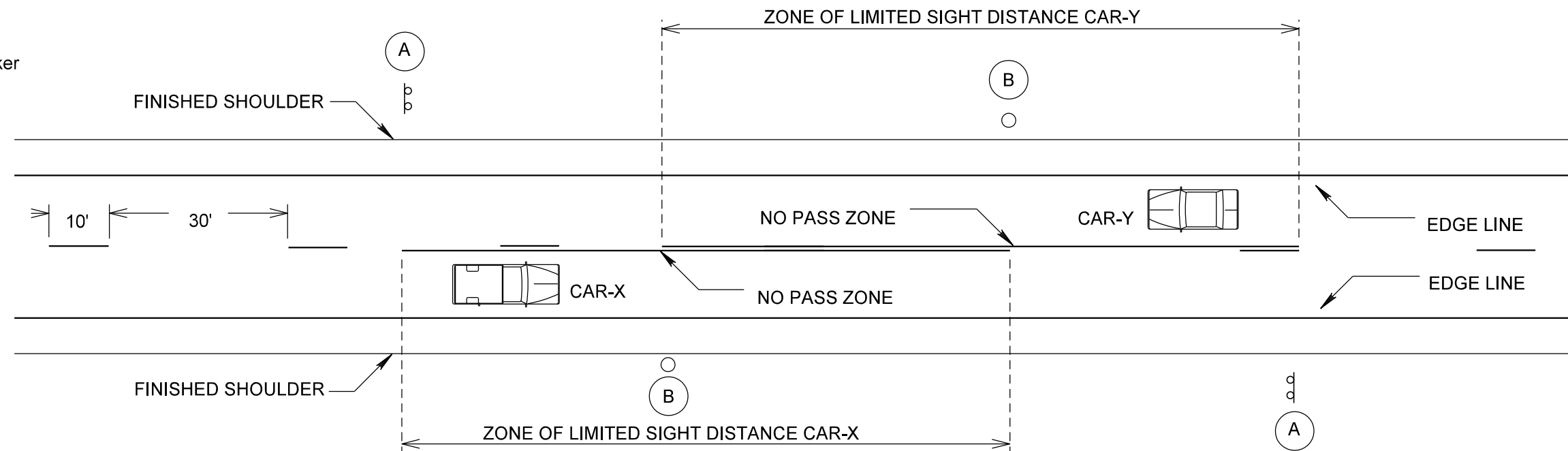
### FURNISHING AND APPLYING HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT

- The approximate paint application rates will be as follows:  
 Undivided Roadway  
 Dashed 4" Line  
 7.6 Gallons/Pass-Mile  
 Solid 4" Line  
 27.8 Gallons/Pass-Mile
- The typical pavement markings as shown on this sheet will be applied throughout the entire length of the project.
- Exact location of the NO PASSING ZONE lines will be determined in the field by the Engineer. A dash of white paint will mark the beginning and end of all no passing zones. NO PASSING ZONE signs and the ending post in fence lines, if present, will not be used as the beginning and ending NO PASSING ZONE lines.
- Traffic Control will be incidental to the cost of application. The striper and advance or trailing warning vehicle will be equipped with flashing amber lights or advance warning arrow panel.

# SD HIGHWAY 26 PAVEMENT MARKING LAYOUT

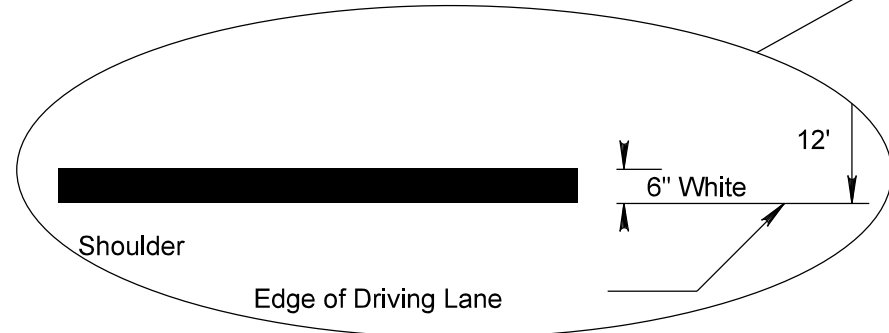
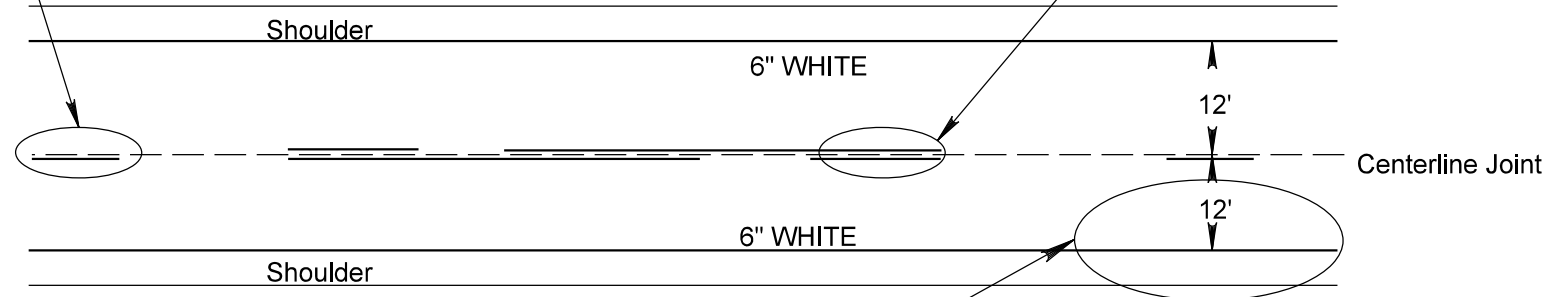
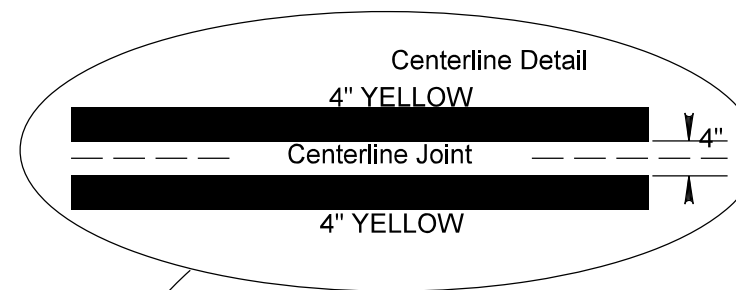


B End of Zone Marker



NOTE: A TWO "GUN" SYSTEM WILL BE USED TO OBTAIN THIS PATTERN.

WHEN A SINGLE SKIP LINE EXISTS, THE SKIP WILL BE PLACED TO THE SOUTH OR EAST OF THE CENTERLINE JOINT.



## FURNISHING AND APPLYING HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT

1. The approximate paint application rates will be as follows:

- Undivided Roadway
- Dashed 4" Line  
7.6 Gallons/Pass-Mile
- Solid 4" Line  
27.8 Gallons/Pass-Mile
- Solid 6" Line  
41.8 Gallons/Pass-Mile

2. The typical pavement markings as shown on this sheet will be applied throughout the entire length of the project.

3. Exact location of the NO PASSING ZONE lines will be determined in the field by the Engineer. A dash of white paint will mark the beginning and end of all no passing zones. NO PASSING ZONE signs and the ending post in fence lines, if present, will not be used as the beginning and ending NO PASSING ZONE lines.

4. Traffic Control will be incidental to the cost of application. The striper and advance or trailing warning vehicle will be equipped with flashing amber lights or advance warning arrow panel.