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Date of Issuance: 04/08/2026	Effective Date: 04/08/2026
Owner: Pennington County	Owner's Contract No.: 2503-10545
Contractor: JV Bailey Co, Inc.	Contractor's Project No.: N/A
Engineer: KLJ Engineering	Engineer's Project No.: 2503-10545
Project: BRF 6220(00)24-1, PCN 09R8	Contract Name: STR. 52-457-406 Preservation

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The Contract is modified as follows upon execution of this Change Order:

Description:

Earthwork and guardrail quantities have been adjusted to accommodate shoulder slope conditions. Additional soil stabilization materials have been incorporated into the contract. Affected bid items are listed below:

- Unclassified Excavation
- Contractor Furnished Borrow Excavation
- Placing Topsoil
- ~~- Remove and Replace Topsoil~~
- ~~- Straight Class A Thrie Beam Rail with Wood Posts~~
- Straight Double Class A Thrie Beam Rail with Wood Posts
- Guardrail Delineator
- 12" Diameter Erosion Control Wattles
- Type 2 Erosion Control Blanket

Quantities for traffic control items have been adjusted to facilitate a width restriction detour during construction to accommodate the Contractor's concrete paving equipment. The Contractor will give a minimum of seven days advanced notice to the County prior to installation of the detour. Affected bid items are listed below:

- Traffic Control Signs
- Contractor Furnished Portable Changeable Message Sign

Attachments: 09R8 CCO #1 Tabulation and updated plan sheets.

CHANGE IN CONTRACT PRICE	CHANGE IN CONTRACT TIMES <i>[note changes in Milestones if applicable]</i>
Original Contract Price: \$ <u>484,862.90</u>	Original Contract Times: Substantial Completion: <u>November 30, 2026</u> Ready for Final Payment: <u>December 15, 2026</u> days or dates
[Increase] [Decrease] from previously approved Change Orders No. ___ to No. ___: \$ <u>0.00</u>	[Increase] [Decrease] from previously approved Change Orders No. ___ to No. ___: Substantial Completion: <u>N/A</u> Ready for Final Payment: _____ days
Contract Price prior to this Change Order: \$ <u>484,862.90</u>	Contract Times prior to this Change Order: Substantial Completion: <u>N/A</u> Ready for Final Payment: _____ days or dates
[Increase] of this Change Order: \$ <u>51,134.50</u>	[Increase] [Decrease] of this Change Order: Substantial Completion: <u>No Change</u> Ready for Final Payment: <u>No Change</u> days or dates
Contract Price incorporating this Change Order: \$ <u>535,997.40</u>	Contract Times with all approved Change Orders: Substantial Completion: <u>November 30, 2026</u> Ready for Final Payment: <u>December 15, 2026</u> days or dates

RECOMMENDED:

ACCEPTED:

ACCEPTED:

By: *Shan Ullah*  
Engineer (if required)

By: *Joseph M. Hall*  
Owner (Authorized Signature)

By: *Rafan D. Steinback*  
Contractor (Authorized Signature)

Title: Project Manager

Title: Highway Superintendent

Title: Project Manager

Date: 04-08-2026

Date: 4/8/2026

Date: 4/9/2026

Approved by Funding Agency (if applicable)

By: N/A

Date: \_\_\_\_\_

Title: N/A

# QUOTATION

4/8/2026

TO: KLJ Engineering

FROM: J.V. Bailey Co. Inc.  
P.O. Box 1825  
Rapid City, South Dakota 57709-1825

OFFICE (605)343-2390 FAX: (605)343-2633  
EMAIL: jvbcoinc@midconetwork.com

Project No. BRF 6220(00)24-1 PCN 09R8  
Str # 52-457-406 Preservation  
Extra Work Guardrail embankment

Item No.

BID DATE: 4/8/2026

ITEM NO.	SDDOT ITEM	DESCRIPTION	UNITS	QUANTITY	AMOUNT BID	EXTENDED AMOUNT
120E0010		Unclassified Excavation	CY	105	\$ 165.00	\$ 17,325.00
120E0600		Contractor Furnished Borrow Excavation	CY	60	\$ 170.00	\$ 10,200.00
230E0010		Furnish & Placing Top Soil	CY	80	\$ 190.00	\$ 15,200.00
630E0110		Straight Double Class A Thrie Beam Rail w wood posts	FT	59.5	\$ 197.00	\$ 11,721.50
734 E 0102		Type 2 Erosion Control Blanket	SY	202	\$ 7.00	\$ 1,414.00
TOTAL						\$ 55,860.50

NOTES: ALL ITEMS TIED

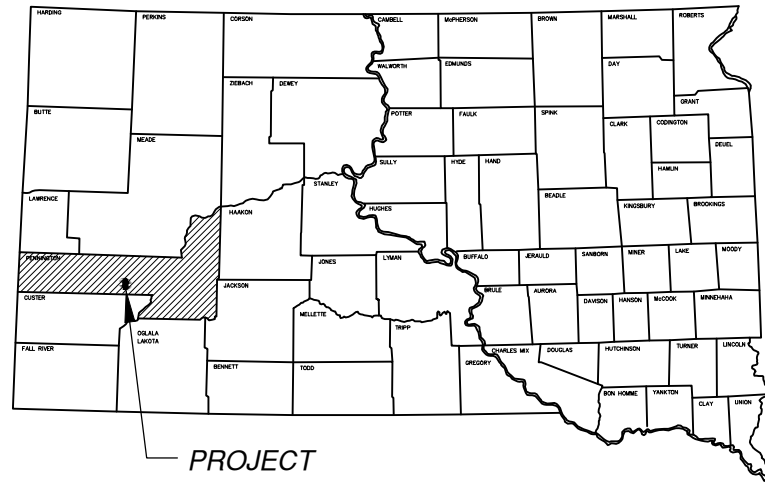
BY: Ryan D. Steinback  
Ryan Steinback, Project Manager  
Cell: 605-391-9315

Accepted By: Joseph Mill  
Date: 4/8/2026

**CONTRACT CHANGE ORDER #1  
BRF 6220(00)24-1 PCN 09R8  
STR. NO. 52-457-406 PRESERVATION  
PENNINGTON COUNTY, SD**



PCN 09R8, STRUCTURE 52-457-406				JV Bailey Co, Inc. Rapid City, SD	
ITEM #	UNIT DESCRIPTION	QTY	UNIT	UNIT PRICE	TOTAL SUM
<b>New Item</b>					
120E0010	Unclassified Excavation	105	CuYd	\$ 165.00	\$ 17,325.00
120E0600	Contractor Furnished Borrow Excavation	60	CuYd	\$ 170.00	\$ 10,200.00
230E0010	Placing Topsoil	80	CuYd	\$ 190.00	\$ 15,200.00
630E0110	Straight Double Class A Thrie Beam Rail with Wood Posts	59.5	Ft	\$ 197.00	\$ 11,721.50
734E0102	Type 2 Erosion Control Blanket	202	SqYd	\$ 7.00	\$ 1,414.00
		New Item Total:		\$	55,860.50
<b>Additional</b>					
632E2220	Guardrail Delineator	4	Each	\$ 33.00	\$ 132.00
634E0110	Traffic Control Signs	132.0	SqFt	\$ 3.50	\$ 462.00
634E1215	Contractor Furnished Portable Message Sign	3	Each	\$ 1,500.00	\$ 4,500.00
734E0154	12" Diameter Erosion Control Wattle	100	Ft	\$ 11.00	\$ 1,100.00
		Additional Total:		\$	6,194.00
<b>Removed</b>					
230E0100	Remove and Replace Topsoil	1	LS	\$ -8,500.00	\$ -8,500.00
630E0010	Straight Class A Thrie Beam Rail with Wood Posts	22.0	Ft	\$ -110.00	\$ -2,420.00
		Removed Total:		\$	-10,920.00
<b>CCO #1 Total:</b>				<b>\$</b>	<b>51,134.50</b>



PROJECT

PLANS FOR PROPOSED

# PROJECT BRF 6220(00)24-1 BRIDGE PRESERVATION PENNINGTON COUNTY

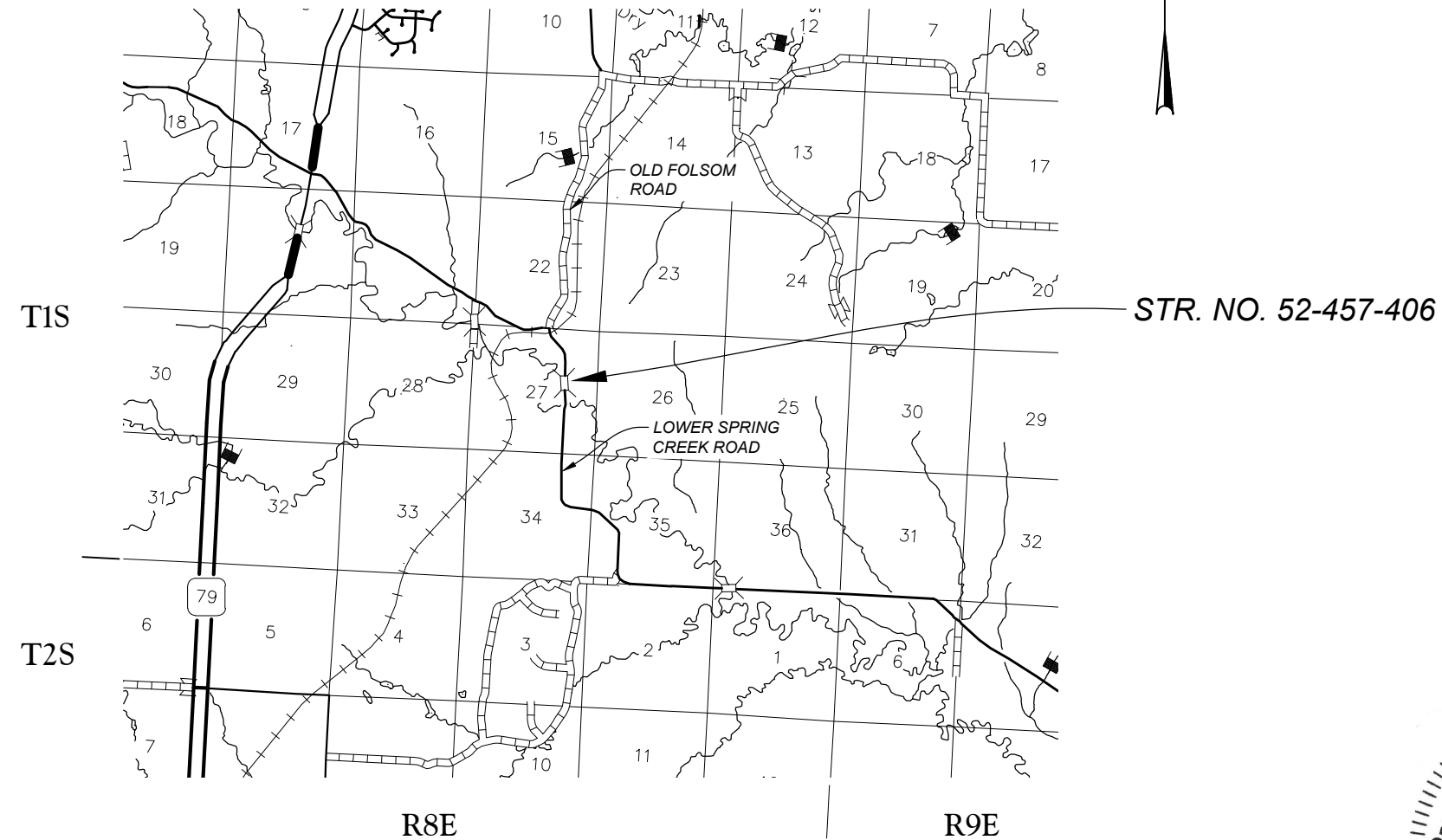
## INDEX OF SHEETS

SHEETS

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- 36 CROSS-SECTIONS (Added CCO #1)

### DECK OVERLAY, BRIDGE RAIL & GUARDRAIL INSTALLATION STR. NO. 52-457-406

PCN 09R8




DESIGN DESIGNATION

AAADT (2021) 389  
V 50 MPH

STORM WATER PERMIT  
NONE REQUIRED



# ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

 STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	BRF 6220(00)24-1	2	36

Revised 04-06-26

## General Quantities

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
110E0730	Remove Beam Guardrail	195	Ft
120E0010 *	Unclassified Excavation	105	CuYd
120E0600 *	Contractor Furnished Borrow Excavation	60	CuYd
230E0010 *	Placing Topsoil	80	CuYd
230E0400 *	Remove and Replace Topsoil	Lump Sum	LS
260E1010	Base Course	41.6	Ton
320E1200	Asphalt Concrete Composite	59.2	Ton
630E0040 *	Straight Class A Thrie Beam Rail with Wood Posts	22.0	Ft
630E0110 *	Straight Double Class A Thrie Beam Rail with Wood Posts	59.5	Ft
630E2001	Asymmetrical W Beam to Thrie Beam Guardrail Transition	4	Each
630E2020	W Beam Guardrail Tangent End Terminal	4	Each
632E1320	2.0"x2.0" Perforated Tube Post	26.0	Ft
632E2220	Guardrail Delineator	18	Each
632E2220 *	Guardrail Delineator	4	Each
632E3526	Install State Furnished Sign	2	Each
633E1220	High Build Waterborne Pavement Marking Paint, 4" White	680	Ft
633E1222	High Build Waterborne Pavement Marking Paint, 4" Yellow	680	Ft
634E0100	Flagging	50.0	Hour
634E0110	Traffic Control Signs	179.6	SqFt
634E0110 *	Traffic Control Signs	132.0	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0275	Type 3 Barricade	2	Each
634E0600	4" Temporary Pavement Marking Tape, Type 1	240	Ft
634E1215	Contractor Furnished Portable Changeable Message Sign	3	Each
634E1215 *	Contractor Furnished Portable Changeable Message Sign	3	Each
734E0010	Erosion Control	Lump Sum	LS
734E0102 *	Type 2 Erosion Control Blanket	202	SqYd
734E0154	12" Diameter Erosion Control Wattle	500	Ft
734E0154 *	12" Diameter Erosion Control Wattle	100	Ft

\* denotes Contract Change Order #1 items

## Str. No. 52-457-406

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E5000	Concrete Penetrating Sealer	373.3	SqYd
110E0020	Remove Bridge Railing	280	Ft
460E0070	Class A45 Concrete, Bridge Repair	2.6	CuYd
460E0174	Concrete Patching Material, Miscellaneous	1.5	CuFt
460E0300	Breakout Structural Concrete	3.2	CuYd
460E0380	Install Dowel in Concrete	16	Each
470E0030	Special Steel Railing	280	Ft
480E0200	Epoxy Coated Reinforcing Steel	44	Lb
550E0010	Low Slump Dense Concrete Bridge Deck Overlay	20.2	CuYd
550E0100	Concrete Removal Type 1A	372.8	SqYd
550E0105	Concrete Removal Type 2A	93.2	SqYd
550E0110	Concrete Removal Type 1B	37.2	SqYd
550E0120	Concrete Removal Type 1C	18.6	SqYd
550E0130	Concrete Removal Type 1D	18.6	SqYd
550E0140	Concrete Removal Type B	24.0	Ft
550E0200	Class A45 Concrete Fill	0.4	CuYd

## SPECIFICATIONS

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

## ENVIRONMENTAL COMMITMENTS

Pennington County 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 Project engineer.

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 so that the sighting can be reported to USFWS.

## COMMITMENT C: WATER SOURCE

The Contractor will not withdraw water with equipment previously used outside the State of South Dakota or previously used in aquatic invasive species (AIS) positive waters within South Dakota without prior approval from the Project engineer. To prevent and control the introduction and spread of invasive species into the project vicinity, all equipment will be power washed with hot water (≥140 °F) and completely dried for a minimum of 7 days prior to subsequent use. South Dakota administrative rule 41:10:04:02 forbids the possession and transport of AIS; therefore, all attached dirt, mud, debris and vegetation must be removed and all compartments and tanks capable of holding standing water must be drained. This includes, but is not limited to, all equipment, pumps, lines, hoses and holding tanks.

### Action Taken/Required:

The Contractor will obtain the necessary permits from the regulatory agencies such as the South Dakota Department of Agriculture and Natural Resources (DANR) and the United States Army Corps of Engineers (USACE) prior to water extraction activities.

Additional information and mapping of water sources impacted by Aquatic Invasive Species in South Dakota can be accessed at:

< <http://sdleastwanted.com/maps/default.aspx> >

< [South Dakota Administrative Rule 41:10:04 Aquatic Invasive Species: https://sdlegislature.gov/rules/DisplayRule.aspx?Rule=41:10:04](https://sdlegislature.gov/rules/DisplayRule.aspx?Rule=41:10:04) >

## 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.



**COUNTY RESPONSIBILITIES**

Pennington County will be responsible for the following at no cost to the Contractor.

1. Right of way and temporary and permanent easements. (No work will occur outside existing right of way. No temporary or permanent easements needed.)
2. Coordination of any utility adjustments.

**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 County.

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

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.

**Special Conditions**

1. Lower Spring Creek Road will remain open to traffic for the duration of the project with a minimum lane width of 9' maintained at all times. The Contractor will coordinate their schedule with the Engineer and the County to ensure the least amount of disruption to traffic.
2. At the request of the County, 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 Pennington County Highway Department, the South Dakota Highway Patrol, the Pennington County Sheriff and local emergency response entities to the meeting.
3. An over-width signed detour will be installed and maintained by the Contractor. The Contractor will contact the County and Spring Creek Acres Road District one week prior to the width restriction being implemented. The county contact is Jakob Wolf at 605-394-2166. The road district contact is John Schelske at 605-730-2465.

**TRAFFIC CONTROL. MISCELLANEOUS**

During the bridge repairs, the driving lane is to be marked by drums in accordance with MUTCD Standards Sections 6F.67 and 6F.85, 2009 Edition and the layouts shown in these plans. The drums are to be spaced at 25' are to be placed allowing a minimum lane width of 9'.

Only one side of the structure may be repaired at a time. Once repairs on one side of the bridge are completed, traffic will be switched to resume repair work on the other side of the bridge. The cost to adjust the traffic control to accommodate traffic in the opposite direction is incidental to the contract lump sum price for "Traffic Control, Miscellaneous".

The Contractor will install a flashing red light on the stop signs (R1-1) located at each end of the bridge.

In addition to the requirements of Section 634.5 of the Specifications, all required flagging and relocation of traffic signs and devices (as necessary) will be incidental to the contract lump sum price for "Traffic Control, Miscellaneous".

**CONTRACTOR FURNISHED PORTABLE CHANGEABLE MESSAGE SIGN**

The Contractor will furnish and place portable changeable message signs, as directed by the Engineer, one week prior to implementing the width restriction. The message text will be determined at time of installation.

The contract unit price for Contractor Furnished Portable Changeable Message Sign includes all labor, equipment, materials, and incidentals necessary to furnish, erect, maintain, and operate the sign for the duration of the project.

**TEMPORARY PAVEMENT MARKING TAPE, TYPE I**

Temporary pavement marking for stop lines will consist of 4" Temporary Pavement Marking Tape Type I. Placement of each 24" white stop line will be accomplished by placing six pieces of 4" x 10' tape adjacent to one another. Each workspace requires four stop lines (assuming reinstallation of the (2) stop lines when traffic is switched to the opposite side of the road), which is an equivalent of approximately 240' of 4" tape. Temporary tape will be removed upon completion of the project.

**UTILITIES**

The Contractor will contact the involved utility companies through South Dakota One Call (1-800-781-7474) prior to starting work. It will be the responsibility of the Contractor to coordinate work with the utility owners to avoid damage to existing facilities. The Contractor will contact each utility owner and confirm the status of all utility facilities.

Black Hills Electric Cooperative  
P.O. Box 792  
Custer, SD 57730  
Phone: 800-742-0085

**REMOVE BEAM GUARDRAIL**

All removed guardrail, posts and connections will become the property of the Contractor. All costs associated with dismantling, removing, and disposing will be incidental to the unit price per foot for "Remove Beam Guardrail".

**BASE COURSE**

Approximately 2" of the existing gravel surface at each guardrail embankment area will be removed and the area reshaped for installation of new base course. 4" of base course will be placed and compacted prior to installation of new approach guardrails.

The base course will be installed along the existing asphalt shoulder and to the edge of the guardrail embankment inslope. Positive drainage toward inslopes is required after placement of new base course.

Base course will meet the requirements of Table 1 of Section 882.2 of the Specifications. Placement of Base Course will be in accordance with Section 260.3 D of the Specifications and to the satisfaction of the Engineer.


Plans quantity will be used for payment of base course. Removal and shaping of existing base course and water for new base course will be incidental to the contract unit price per ton for "Base Course".

**UNCLASSIFIED EXCAVATION**

The plans quantity for "Unclassified Excavation" as shown in the Table of Earthwork Quantities will be the basis of payment.

Prior to beginning the grading operations, existing topsoil will be removed from the guardrail areas for use embankment material. Following completion of the base course installation, imported topsoil will be spread evenly along the embankment slopes. Rocks greater larger than 2" will be removed prior to placing topsoil.

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All costs to remove the topsoil for use as embankment will be incidental to the contract unit price per cubic yard for "Unclassified Excavation".

Water for Embankment is estimated at the rate of 12 gallons of water per cubic yard of Embankment. The estimated quantity of Water for Embankment is 2 MGal. No separate payment will be made for the Water for Embankment and all costs associated will be incidental to the contract unit price per cubic yard of "Unclassified Excavation".

**CONTRACTOR FURNISHED BORROW EXCAVATION**

The Contractor will provide a suitable site for Contractor furnished borrow excavation material. The Contractor is responsible for obtaining all required permits and clearances for the borrow site. The borrow material will be approved by the Engineer. The plans quantity for "Contractor Furnished Borrow Excavation" as shown in the Estimate of Quantities will be the basis of payment for this item.

Restoration of the Contractor furnished borrow excavation site will be the responsibility of the Contractor.

**TABLE OF EARTHWORK QUANTITIES**

Excavation	70 CY
Topsoil Stripping	35 CY
<b>Total Unclassified Excavation</b>	<b>105 CY</b>
Embankment	122 CY
35% Shrinkage	43 CY
<b>Total Placing Embankment</b>	<b>165 CY</b>
Borrow Excavation	60 CY
<b>Total Borrow Excavation</b>	<b>60 CY</b>

**TOPSOIL**

Following completion of construction, imported topsoil will be spread evenly over the disturbed areas. The thickness will be approximately 3 inches.

Payment for Placing Topsoil will be plans quantity unless changes are directed by the Engineer. The estimated amount of topsoil to be placed is as follows:

Location	L/R	Import (CuYd)
Northwest	L	20
Northeast	R	20
Southwest	L	20
Southeast	R	20
Total:		80

All costs to supply and place the topsoil will be incidental to the contract unit price per cubic yard for "Placing Topsoil".



**ASPHALT CONCRETE COMPOSITE**

Asphalt concrete composite will be supplied and installed as per Section 324 of the Specifications.

The asphalt will be placed in one 2" lift and compaction will be by the Specified Roller Coverage Method.

A 4' wide cold milling transition joint will be provided at the paving limits at each approach roadway. The milling joint will be a minimum of 1" deep and have a vertical edge. All costs for cold milling will be incidental to the contract unit price "Asphalt Concrete Composite". The asphalt material resulting from milling will become the property of the Contractor for disposal.

**TABLE OF ASPHALT CONCRETE COMPOSITE**

Location	Width (Ft)	Length (Ft)	Asphalt Concrete (Ton)
North Approach Roadway	24	100	29.6
South Approach Roadway	24	100	29.6
Total:			59.2

**PERMANENT PAVEMENT MARKING**

The Contractor will be required to repaint all existing pavement markings including centerline and edge lines. The Contractor will be required to document and be able to relocate for replacement the existing locations before the markings are obliterated. The cost to duplicate the existing marking locations will be incidental to the contract unit prices for the various contract items.

**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.

High Build Waterborne Pavement Marking Paint applied after October 15 must be formulated as cold-weather waterborne paint. Cold weather waterborne paint will meet the requirements of Section 980.1 C.

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

Solid 4" line = 22.5 Gal/Mile  
Dashed 4" line = 6.2 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.

**EROSION CONTROL BLANKET**

Erosion control blanket will be installed 12 feet wide at the locations noted in the table and at locations determined by the Engineer during construction.

The erosion control blanket provided will be from the approved product list. The approved product list for erosion control blanket may be viewed at the following internet site:

<http://apps.sd.gov/HC60ApprovedProducts/main.aspx>

All costs for shaping for erosion control blanket will be incidental to the contract unit price per square yard for "Type 2 Erosion Control Blanket".

**TABLE OF EROSION CONTROL BLANKET**

Location	L/R	Location	Type	Quantity (SqYd)
Southwest	L	Guardrail Embankment	2	202

**EROSION CONTROL WATTLE**

Erosion control wattles for restraining the flow of runoff and sediment will be installed at locations noted in the table and at locations determined by the Engineer during construction. Refer to Standard Plate 734.06 for details.

The Contractor will provide certification that the erosion control wattles do not contain noxious weed seeds.

Erosion control wattles will remain on the project to decompose.

**TABLE OF EROSION CONTROL WATTLE**

Station - Offset	Location	Diameter (Inch)	Quantity (Ft)
Guardrail Embankment:			
Northwest	Inslope	12	150
Northeast	Inslope	12	150
Southwest	Inslope	12	150
Southeast	Inslope	12	150
Total:			600

**EROSION CONTROL**

The estimated area requiring erosion control is 0.15 Acres. All costs for the erosion control work for furnishing, placing, and maintaining erosion control including equipment, labor, seeding, and mulching will be incidental to the contract lump sum price for "Erosion Control".

The limits of erosion control work will be determined by the Engineer during construction.


**Mycorrhizal Inoculum**

Mycorrhizal inoculum will consist of mycorrhizal fungi spores and mycorrhizal fungi-infected root fragments in a solid carrier. The carrier may include organic materials, calcinated clay, or other materials consistent with application and good plant growth. The supplier will provide certification of the fungal species claimed and the live propagule count. The inoculum will include a minimum 25% the fungal species *Rhizophagus intraradices*. The remaining 75% may include other endomycorrhizal fungal species.

All seed will be inoculated by the seed supplier with a minimum of 100,000 live propagules of mycorrhizal fungi per acre. All costs of inoculating the seed will be incidental to the contract unit price for, "Erosion Control".

Product	Manufacturer
MycoApply	Mycorrhizal Applications, Inc. Grants Pass, OR Phone: 1-866-476-7800 <a href="http://www.mycorrhizae.com">www.mycorrhizae.com</a>
AM 120 Multi Species Blend	Reforestation Technologies Int. Gilroy, CA Phone: 1-800-784-4769 <a href="http://www.reforest.com">www.reforest.com</a>
LALRISE Prime and Max WP	Lallemand Specialties Inc. Milwaukee, WI Phone: 1-844-590-7781 <a href="http://www.lallemandplantcare.com">www.lallemandplantcare.com</a>

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**Permanent Seeding**

The areas to be seeded consist of all newly graded areas within the project limits except for the top of roadways.

Type F Permanent Seed Mixture will consist of the following:

Grass Species	Variety	Pure Live Seed (PLS) (Pounds/Acre)
Western Wheatgrass	Arriba, Flintlock, Rodan, Rosana, Walsh	7
Green Needlegrass	Lodorm, AC Mallard Ecovar	4
Sideoats Grama	Butte, Pierre	3
Blue Grama	Bad River	2
Oats or Spring Wheat: April through May; Winter Wheat: August through November		10
Total:		26

**BIG SIGN INSTALLATION**

The state furnished BIG Sign must be permanently installed in accordance with Special Details L72, L03 and L21. The Contractor will coordinate with Pennington County Highway Department to arrange pick up of the state furnished signs. The value for excise tax purposes for State Furnished Signs is \$62.80 each.

New sign installations will be staked in the field by the Contractor and checked by the Engineer. The Contractor will give the Engineer a minimum of one week to check staked locations prior to signpost installation. Lateral offset of signs will be as shown in the plans or as directed by the Engineer.

The Contractor will be responsible for contacting South Dakota One Call to locate the utilities at the staked sign installation locations.

Prior to ordering signposts, the Contractor will verify post lengths. The height of the post must not exceed the minimum height needed by more than 0.5 feet. Any portion that extends above the sign will be cut off. No separate payment will be made for cutting the post or for that length cut off.

Prior to use, the Contractor will provide documentation for the sign support devices showing they meet the applicable NCHRP 350 or MASH requirements.

Stiffeners may be fastened to signs by use of 1/4-inch diameter drive rivets. Refer to the Breakaway Sign Supports diagram for typical sign and stiffener details.

The Contractor will use 3/8-inch diameter rust proof machine sign bolts, flat metal washers, neoprene washers (against the sign sheeting), lock washers, and nuts to fasten the sign to the channel aluminum and posts. A minimum of two bolts will extend through each post.

All costs associated with installing the BIG signs and with furnishing and installing stiffeners and hardware will be incidental to the contract unit price per each for "Install State Furnished Sign" and the contract unit price per foot for "2.0"x2.0" Perforated Tube Post.



Revised  
04-06-26

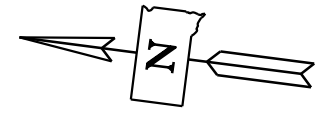


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DAKOTA

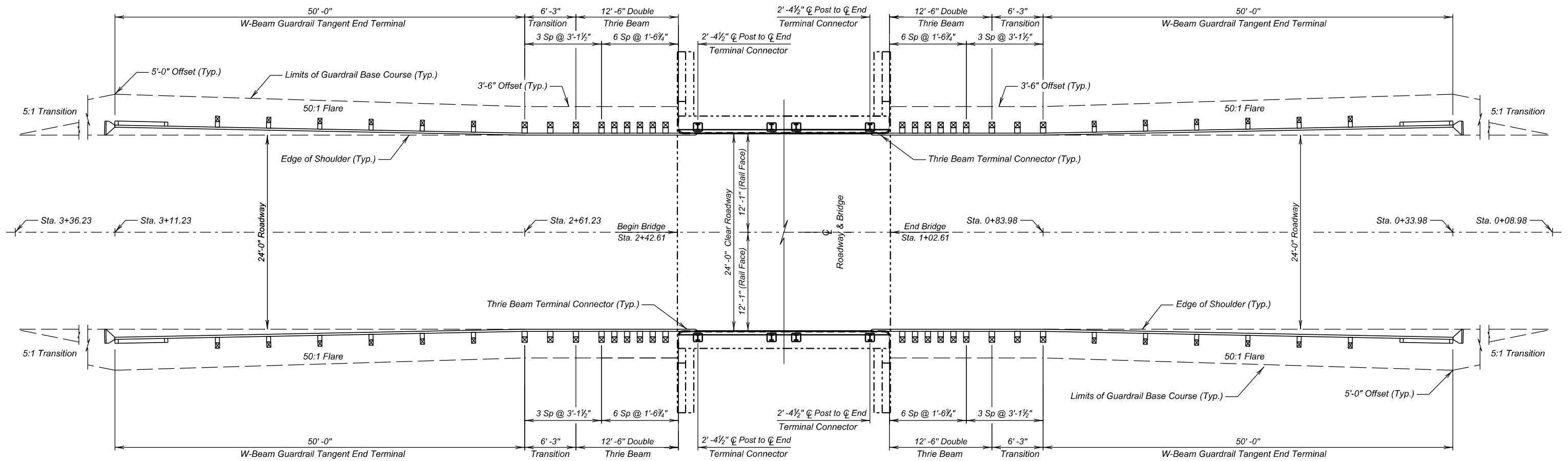
PROJECT  
BRF 6220(00)24-1

SHEET  
7

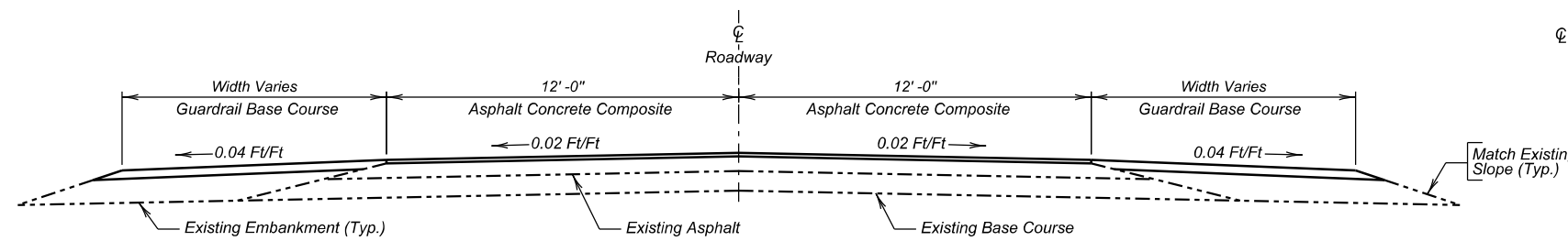
TOTAL  
SHEETS  
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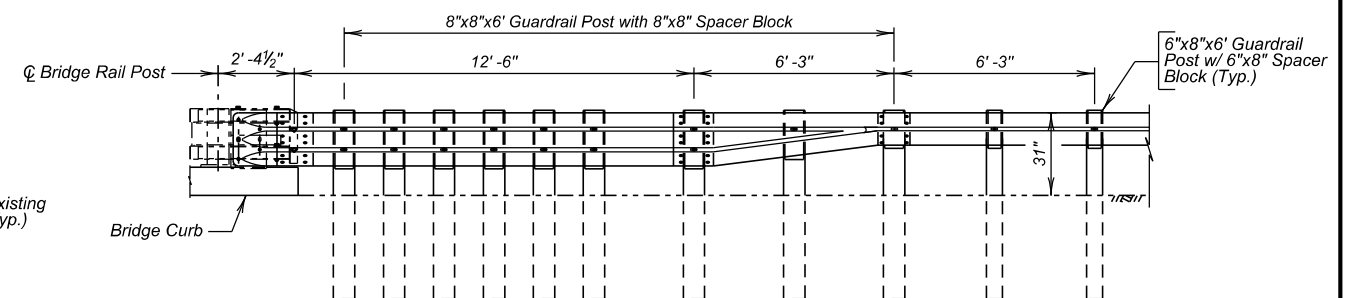
# GUARDRAIL LAYOUT



PLAN



TYPICAL SECTION



INSIDE ELEVATION OF RAIL

# TRAFFIC CONTROL WIDTH RESTRICTION DETOUR

Added 04-06-26



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SOUTH  
DAKOTA

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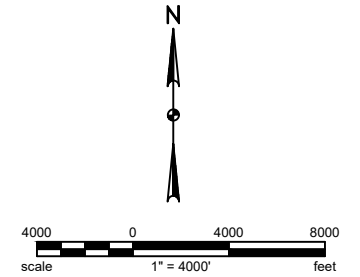
SHEET

35

TOTAL  
SHEETS

36

Plotting Date: 4/6/2026



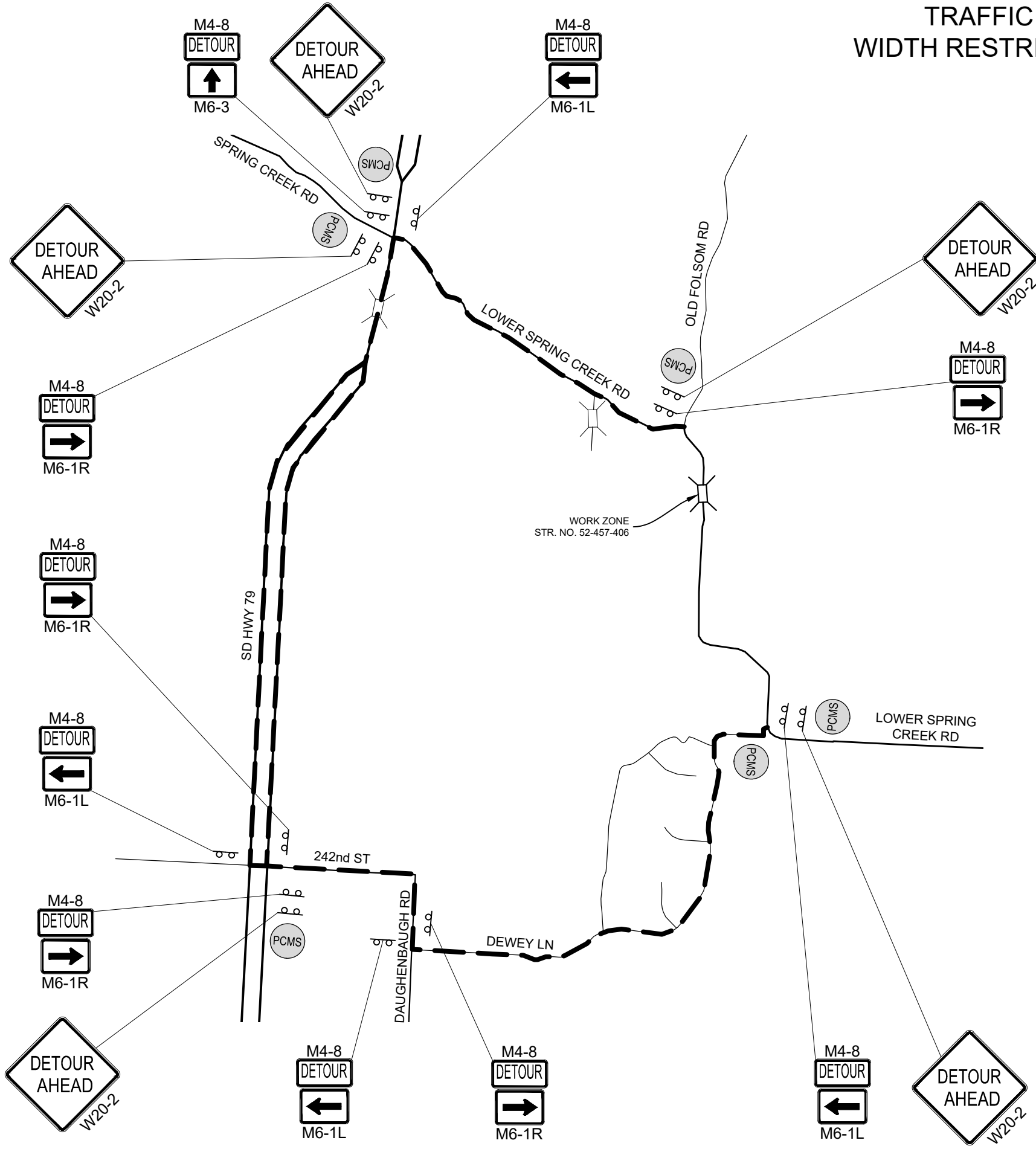
**LEGEND**

- PROPOSED DETOUR ROUTE
- PORTABLE CHANGEABLE MESSAGE SIGN  
INSTALL 7 DAYS PRIOR TO WIDTH RESTRICTION

NOTE: FOR ALL DETOUR SIGNS USE A SPACING OF 500 FEET.

## ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS

CONVENTIONAL ROAD					
SIGN CODE	SIGN DESCRIPTION	NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
W20-2	DETOUR AHEAD	5	48" x 48"	16.0	80.0
M4-8P	DETOUR	10	24" x 18"	3.0	30.0
M6-1R	DIRECTIONAL ARROW (RIGHT)	5	21" x 15"	2.2	11.0
M6-1L	DIRECTIONAL ARROW (LEFT)	4	21" x 15"	2.2	8.8
M6-3	DIRECTIONAL ARROW (STRAIGHT)	1	21" x 15"	2.2	2.2
	PORTABLE CHANGEABLE MESSAGE SIGN	6			
<b>TOTAL</b>					<b>132.0</b>



Plotted From: pennie.willett

File: K:\Projects\County\SD\Pennington\2303-00174\_2024Preservations\CAD\Design\Plans\457-406\457-406\_detour2.dwg

Added 04-06-26



STATE OF SOUTH DAKOTA

PROJECT	SHEET	TOTAL SHEETS
BRF 6220(00)24-1	36	36

