STATE OF S.D.	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 6312(22)	1	58

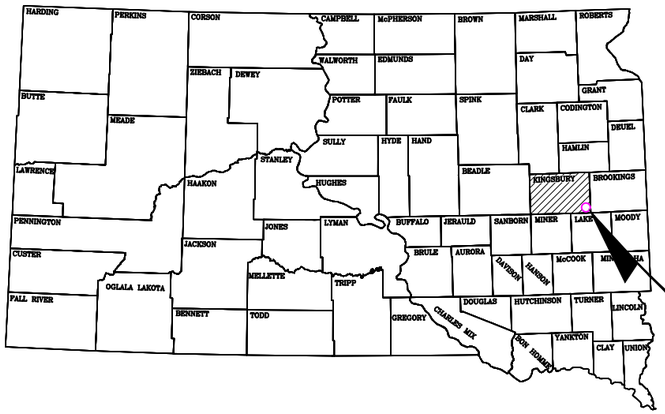
FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED

PROJECT PH 6312(22)
COUNTY HIGHWAY 6 / 218TH STREET
KINGSBURY COUNTY

SHOULDER WIDENING, BANK STABILIZATION, GUARDRAIL, AC SURFACING
PCN 09VT



PROJECT LOCATION



INDEX OF SHEETS

1	Title Sheet
2	Estimate of Quantities
3-5	Environmental Commitments
6-8	General Notes
9	Sign Removal Table
10	Sign Installation Table
11-13	Storm Water Pollution Prevention Plan (SWPPP)
14	Legend of Symbols
15-17	Typical Sections
18	Horizontal Alignment/Control Data
19-20	Traffic Control Plan
21-22	Right-of-Way/Easements
23-24	Existing Conditions & Removals
25-26	Erosion Control Plan
27-30	Plan & Profile
31-32	Guardrail Layout
33-34	Permanent Signing & Pavement Markings
35-45	Standard Plates
46-47	Special Details
48-58	Cross Sections

DESIGN DESIGNATION

218TH STREET

ADT (2023):	400
ADT (2038):	431 (+0.5%)
DESIGN SPEED:	55 MPH

STORM WATER PERMIT

Latitude: 44° 13' 26.04" N
Longitude: 97° 07' 58.90" W
Area Disturbed : 1.30 Acres
Total Project Area: 3.42 Acres
Major Stream: Highway 81 Pond

BEGIN PROJECT PH 6312(22)
218TH STREET, KINGSBURY COUNTY
Sta. 1+88.90 = 2,176.98' WEST OF THE NE CORNER OF SECTION 25 - T109N - R53W

END PROJECT PH 6312(22)
218TH STREET, KINGSBURY COUNTY
Sta. 24+44.40 = 50.02' WEST OF THE NE CORNER OF SECTION 25 - T109N - R53W

Gross Length	2,255.50 Feet	0.427 Miles
Length of Exceptions	0.00 Feet	0.000 Miles
Net Length	2,255.50 Feet	0.427 Miles

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 12059
CHRIS J. BROZIK
SOUTH DAKOTA

4/30/2026

I, Chris J. Brozik, P.E., hereby acknowledge that these plans were prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of South Dakota.

Prepared By:

CIVIL DESIGN INC.
605 Main Avenue South
Brookings, South Dakota 57006
Phone: (605) 696 - 3200

3

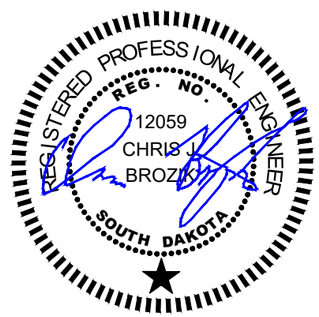
December 9, 2026

FOR BIDDING PURPOSES ONLY

STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
S.D.	PH 6312(22)	2	58

Revised: 10/26/2026

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
009E3230	Grade Staking	0.427	Mile
009E3245	Final Cross Section Survey	0.427	Mile
009E3250	Miscellaneous Staking	0.427	Mile
009E3301	Engineer Directed Surveying/Staking	40.0	Hour
009E4200	Construction Schedule, Category II	Lump Sum	LS
100E0020	Clear and Grub Tree	1	Each
110E0130	Remove Traffic Sign	5	Each
110E0135	Remove Delineator	12	Each
110E7150	Remove Sign for Reset	3	Each
120E0010	Unclassified Excavation	854	CuYd
120E0600	Contractor Furnished Borrow	782	CuYd
120E9000	Pit Run	591.9	Ton
230E0010	Placing Topsoil	236	CuYd
260E1010	Base Course	1,156.7	Ton
320E1200	Asphalt Concrete Composite	184.6	Ton
320E7008	Grind 8" Rumble Strip or Stripe in Asphalt Concrete	0.4	Mile
330E0210	SS-1h or CSS-1h Asphalt for Flush Seal	0.1	Ton
630E0500	Type 1 MGS	1,918.0	Ft
630E2018	MGS MASH Tangent End Terminal	2	Each
632E1320	2.0"x2.0" Perforated Tube Post	121.5	Ft
632E2220	Guardrail Delineator	42	Each
632E3205	Flat Aluminum Sign, Nonremovable Copy Super/Very High Intensity	90.0	SqFt
632E3500	Reset Sign	3	Each
633E1220	High Build Waterborne Pavement Marking Paint, 4" White	4,488	Ft
633E1222	High Build Waterborne Pavement Marking Paint, 4" Yellow	4,488	Ft
634E0110	Traffic Control Signs	568.8	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0275	Type 3 Barricade	8	Each
700E0210	Class B Riprap	3,676.5	Ton
734E0010	Erosion Control	Lump Sum	LS
734E0103	Type 3 Erosion Control Blanket	605	SqYd
734E0604	High Flow Silt Fence	497	Ft
734E0630	Floating Silt Curtain	1,421	Ft
831E0210	Non-woven Separator Fabric	1,244	SqYd



10/26/2026

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/doing-business/environmental/about-environmental/>

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 A: AQUATIC RESOURCES

COMMITMENT A1: WETLANDS

All efforts to avoid and minimize wetland impacts from the project have resulted in approximately 0.62 acres of wetlands (includes temporary and permanent) becoming impacted.

Table of Impacted Wetlands

Other Waters No.	Station	Permanent Impact (Acres)	Temporary Impact (Acres)	Total Impact (Acres)
1	8+20 to 22+00 L	0.25	0.37	0.62

Action Taken/Required:

Temporary impacts identified in the Table of Impacted Wetlands will not be mitigated as original contours and elevations will be re-established as designated in the plans. Prior to initiating temporary work in wetlands, the Contractor will submit a plan to the Project Engineer in accordance with Section 7.18 of the Specifications.

The Contractor will notify the Project Engineer if additional easement is needed to complete work adjacent to any wetland. The Project Engineer will obtain an appropriate course of action from the Environmental Office before proceeding with construction activities that affect any wetlands beyond the work limits and easements shown in the plans.

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 C: WATER SOURCE

If a Contractor needs access to state waters for extraction, the Contractor must obtain a water right, through the application of a Temporary Permit to Use Public Waters before work begins.

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 SDDOT Environmental Office. 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.

The Contractor will not withdraw water directly from streams of the James, Big Sioux, and Vermillion watersheds without prior approval from the SDDOT Environmental Office.

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 (SDDANR) and the United States Army Corps of Engineers (USACE) prior to water extraction activities.

Temporary permit to use public waters for highway construction purposes application can be found on the SDDANR website: https://danr.sd.gov/OfficeOfWater/WaterRights/PermitForms/default.aspx

Additional information and mapping of water sources impacted by Aquatic Invasive Species in South Dakota can be accessed at:
< https://sdleastwanted.sd.gov/maps/default.aspx >

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

COMMITMENT D: WATER QUALITY STANDARDS

COMMITMENT D1: SURFACE WATER QUALITY

This project may be in the vicinity of multiple streams and wetlands. These waters are considered waters of the state and are protected under Administrative Rules of South Dakota (ARSD) Chapter 74:51. Special construction measures may have to be taken to ensure that this water body is not impacted.

Action Taken/Required:

The Contractor is advised that the South Dakota Surface Water Quality Standards, administered by the South Dakota Department of Agriculture and Natural Resources (DANR), apply to this project. Special construction measures will be taken to ensure the above standard(s) of the surface waters are maintained and protected.

COMMITMENT D2: SURFACE WATER DISCHARGE

The DANR General Permit for Temporary Discharge Activities is required for temporary dewatering and discharges to waters of the state. The effluent limit for total suspended solids will be 90 mg/L 30-day average. The effluent limit applies to discharges to all waters of the state except discharges to waters classified as coldwater permanent fish life propagation waters according to the ARSD 74:51:01:45. For discharges to waters of the state classified as coldwater permanent fish life propagation waters, the effluent limit for total suspended solids will be 53 mg/L daily maximum.

The permittee has the option of completing effluent testing or implementing a pollution prevention plan for compliance with this permit. If the permittee develops a pollution prevention plan instead of total suspended solids sampling, the plan must be developed and implemented prior to discontinuing total suspended solids sampling. Refer to Section 4.0 of the permit. If any pollutants are suspected of being discharged, a sample must be taken for those parameters listed in Section 3.4 of the permit.

Refer to Commitment D1: Surface Water Quality for stream classification.

Action Taken/Required:

If construction dewatering is required and this project is currently covered under a General Permit for Stormwater Discharges Associated with Construction Activities, the contractor will need to submit the dewatering information to the Project Engineer using the following SDDOT Dewatering Info CDX form:

<https://dot.sd.gov/doing-business/environmental/forms/>

The Contractor will provide a copy of the approved permit or the submitted dewatering information to the Project Engineer prior to proceeding with any

COMMITMENT D2: SURFACE WATER DISCHARGE, CONTINUED

dewatering activities. The approved permit or submitted dewatering information must be kept on-site and as part of the project records.

Effluent monitoring, as a result of dewatering activities, will be summarized for each month and recorded on a separate Discharge Monitoring Report (DMR) and submitted to DANR monthly. Additional information can be found at:
< https://danr.sd.gov/OfficeOfWater/SurfaceWaterQuality/swdpermitting/Ereporting.aspx >

COMMITMENT E: STORM WATER

Construction activities constitute 1 acre or more of earth disturbance and/or work in a waterway.

Action Taken/Required:

The DANR General Permit for Stormwater Discharges Associated with Construction Activities is required for construction activity disturbing one or more acres of earth and work in a waterway. The SDDOT is the owner of this permit and will submit the NOI to DANR 15 days prior to project start in order to obtain coverage under the General Permit. Work can begin once the DANR letter of approval is received.

The Contractor must adhere to the "Special Provision Regarding Storm Water Discharges to Waters of the State."

The Contractor will complete the DANR Contractor Authorization Form prior to the pre-construction meeting. The form certifies under penalty of law that the Contractor understands and will comply with the terms and conditions of the permit for this project. Work may not begin on this project until this form is signed and submitted to DANR.

The form can be found at:
< https://danr.sd.gov/OfficeOfWater/SurfaceWaterQuality/docs/DANR_CGPAppendixCCA2023Fillable.pdf >

The Contractor is advised that permit coverage may also be required for off-site activities, such as borrow and staging areas, which are the responsibility of the Contractor.

Storm Water Pollution Prevention Plan

The Storm Water Pollution Prevention Plan (SWPPP) will be developed prior to the submittal of the NOI and will be implemented for all construction activities for compliance with the permit. The SWPPP must be kept on-site and updated as site conditions change. Erosion control measures and best management practices will be implemented in accordance with the SWPPP.

The DOT 298 Form will be used for site inspections and to document changes to the SWPPP. A copy of the completed inspection form will be filed with the SWPPP documents and retained for a minimum of three years.

The inspection will include disturbed areas of the construction site that have not been finally stabilized, areas used for storage materials, structural control measures, and locations where vehicles enter or exit the site. These areas will be inspected for evidence of, or the potential for, pollutants entering the drainage system. Erosion and sediment control measures identified in the SWPPP will be observed to ensure that they are operating correctly, and sediment is not tracked off the site.

Information on storm water permits and SWPPPs are available on the following websites:

SDDOT: < https://dot.sd.gov/doing-business/environmental/stormwater >

DANR:< https://danr.sd.gov/OfficeOfWater/SurfaceWaterQuality/stormwater/default.aspx >

EPA: < https://www.epa.gov/npdes >

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: HISTORIC PRESERVATION OFFICE CLEARANCES

The SDDOT has obtained concurrence with the State Historic Preservation Office (SHPO) 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 150 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.

COMMITMENT J: CONSTRUCTION PRACTICES FOR TEMPORARY WORKS IN WATERWAYS OF THE U.S.

The Contractor is advised that special construction measures must be taken to ensure that the waterways of the U.S. are not impacted.

Action Taken/Required:

Excavation will not occur below the ordinary high-water elevation in waterways outside of caissons, cribs, cofferdams, steel piling, or sheeting. The natural streambed will not be disturbed unless specified by the plans and under the observation of the Project Engineer. Refer to the Table of U.S. Waterways to Protect for ordinary high-water elevations. Any structure work over or within the waterway will be constructed according to Section 7.18 C of the Specifications.

All dredged or excavated materials will be placed at a site above the ordinary high-water elevation in a confined area (not classified as a wetland) that is a minimum of 50 feet away from concentrated flows of storm water, drainage courses, and inlets to prevent return of such material to the waterway.

The construction of temporary work platforms, crossings, or berms below the ordinary high-water elevation will be allowed if all material placed below the ordinary high-water elevation consists of Class B or larger riprap.

All temporary caissons, cribs, cofferdams, steel piling, sheeting, work platforms, crossings, and berms will be removed with minimal disturbance to the streambed. Proper construction practices will be used to minimize increases in suspended solids and turbidity in the waterway.

Bridge berms, wing dams, traffic diversions, channel reconstruction, stream diversions, grading, etc. will be constructed in close conformity with the plans to ensure that the hydraulic capacity of the waterway is not changed.

Temporary waterway crossings required for the Contractor's construction operations will be constructed with an adequate drainage structure size and minimum fill height to reduce the potential for upstream flooding. The Contractor will be responsible for sizing the temporary drainage structure for these crossings.

All temporary works in waterways of the US are required to be covered in the Corp of Engineers 404 Permit. At the time of the preconstruction meeting, the Contractor will submit documentation for all temporary works for the purpose of complying with the 404 Permit requirements in accordance with Section 423.3 A of the Specifications.

Table of U.S. Waterways to Protect

Station	Waterway	Ordinary High-Water Elevation
8+20 to 22+00 L	Spring East Lake	1779.5 – 100-yr water surface

Stream channel excavation within "Waters of the US" is subject to USACE regulatory jurisdiction. Stream channel excavation cannot exceed the permitted quantities and/or surface area. The 404 Permit is included in the Special Provisions.

The Contractor will take all precautions necessary to prevent any incidental discharges associated with the excavation and hauling of material from the stream channel. This pertains to any excavation operations such as, foundation, pier, or abutment excavation, channel cleanout, excavation for riprap protection, and removal of any temporary fill associated with construction activities.

COMMITMENT N: SECTION 404 PERMIT

The SDDOT has obtained a Section 404 Permit from the USACE for the permanent actions associated with this project.

Action Taken/Required:

The Contractor will comply with all requirements contained in the Section 404 Permit.

The Contractor will also be responsible for obtaining a Section 404 Permit for any dredge, excavation, or fill activities associated with material sources, storage areas, waste sites, and Contractor work sites outside the plan work limits that affect wetlands, floodplains, or waters of the United States.

FOR BIDDING PURPOSES ONLY

Revised: 10/26/2026

UTILITIES

The Contractor will be aware that the existing utilities shown in the plans were surveyed prior to the design of this project and might have been relocated or replaced by a new utility facility prior to construction of this project, might be relocated or replaced by a new utility facility during the construction of this project or might not require adjustment and may remain in its current location. The Contractor will contact each utility owner and confirm the status of all existing and new utility facilities.

The Contractor will contact South Dakota One Call at 800-781-7474 a minimum of 48 hours prior to any underground work to determine utility locations. The Contractor will protect all existing utilities. The following are utilities defined by One-Call as having infrastructure in the area:

Rural Water
Kingbrook Rural Water
302 E. Ash St.
Arlington, SD 57212
(605) 983-5074

Buried Electric
Sioux Valley Energy
SD-34 & 471st Avenue
Colman, SD 57017
(800) 234-1960

Kingbrook Rural Water has a rural waterline located south of the 218th Street Right-of-Way. No impact to this utility is anticipated.

Sioux Valley Energy has a buried electric cable located south of the 218th Street Right-of-Way near US Highway 81. No impact to this utility is anticipated.

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.

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.

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.

GRADING OPERATIONS

Water for Embankment is estimated at the rate of 10 gallons per cubic yard of Embankment minus Waste. 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."

Special ditch grades and other sections of the roadway different than the typical sections will be constructed to the limits shown on the cross sections. If significant changes to the cross sections are necessary during construction, the Engineer will contact the Designer for the proposed change.

Temporary fence and/or permanent fence will be placed ahead of the grading operation unless otherwise directed by the Engineer.

Excavation and construction of embankments will be performed in accordance with Section 120 of the Standard Specifications. Compaction requirements will be governed by the Specified Density Method. Excess moisture in the embankment material will be removed by drying operations.

The plans quantity for "Unclassified Excavation" as shown in the Estimate of Quantities will be the basis of payment for this item, unless changes are approved by the Engineer.

Any waste material generated from this project will be the responsibility of the Contractor. All costs for removing waste material will be incidental to the other contract items.

SHRINKAGE FACTOR: Embankment +40%

Table of Excavation Quantities (CuYd)

Section	Stripping Topsoil	Excavation	Contractor Furnished Borrow	Total Excavation	* Placing Topsoil
218th St.	674	180	782	1,636	236

TABLE OF UNCLASSIFIED EXCAVATION

Stripping Topsoil	674
Excavation	180
*Unclassified Excavation	854 CuYd

*Placing Topsoil = 236 CuYd

*The quantities for these items are in the Estimate of Quantities under their respective bid items.

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" 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.

PLACING TOPSOIL

Topsoil will be spread evenly and uniformly over the designated areas to a depth of six inches (6") minimum on all disturbed areas within the project limits, except for surfacing, riprap, & pit run limits. If topsoil is not available in sufficient quantities to cover the designated areas to the plan depth, the Contractor will spread the available topsoil as directed by the Engineer.

PIT RUN MATERIAL

Pit Run material will be obtained from a granular source conforming to Section 120 of the Specifications and the below gradation.

Sieve Size	Percent Passing
6 Inch	100
No. 4	0 - 60
No. 200	0 - 20.0

Measurement and payment for Pit Run will be specified by the bid item "Pit Run".

NON-WOVEN SEPARATOR FABRIC

Non-woven Separator Fabric has been included in the Estimate of Quantities. This fabric is to be used as a separator between Pit Run and the Base Course to prevent migration of fines from the Base Course into the Pit Run. If the Pit Run Material contains enough fines as placed to prevent the loss of material from the Base Course, the separator fabric may be eliminated by CCO. Non-woven Separator Fabric will conform to Section 831 of the Specifications.

Non-Woven Separator Fabric will be paid for at the contract unit price per square yard of fabric placed. Payment for this item will be full payment for furnishing all equipment, labor and incidentals required to furnish and install the fabric.

TABLE OF RIPRAP, PIT RUN, & NON-WOVEN SEPARATOR FABRIC

Station	to	Station	L/R	Class B Riprap (Cu Yd) *	Class B Riprap (Ton) #	Pit Run (Cu Yd) **	Pit Run (Ton) #	Non-Woven Separator Fabric (Sq Yd) ***
8+00		13+00	L	750	1,050.1	164	228.9	480
13+00		14+35	L	-	-	25	35.6	78
14+35		21+50	L	1,876	2,626.4	234	327.4	686
			TOTAL:	2,626	3,676.5	423	591.9	1,244

* In Place Cubic Yards +15% Shrinkage Factor
** In Place Cubic Yards +25% Shrinkage Factor
\# A factor of 1.4 Tons/CuYd was used to convert CuYd to Tons.
*** In Place Square Yards + 15% for Fabric Overlaps

TABLE OF GUARDRAIL QUANTITIES

Location	Type 1 MGS (Ft)	MGS MASH Tangent End Terminal (Each)
Sta. 3+18.30 to Sta. 3+80.80 Lt.		1
Sta. 3+80.80 to Sta. 22.98.30 Lt.	1918.0	
Sta. 22+98.30 to Sta. 23+60.80 Lt.		1
Totals:	1918.0	2

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 12059
CHRIS J. BROZIK
SOUTH DAKOTA

10/26/2026

STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
S.D.	PH 6312(22)	7	58

FOR BIDDING PURPOSES ONLY

REMOVE TRAFFIC SIGN

Existing signs called for removal in the Sign Removal Table will become the property of the Contractor. Existing sign posts and bases will be removed in their entirety. All existing signs, posts, and/or hardware removed will not be reused. Holes remaining from the removal of posts will be backfilled and compacted with material placed in layers not to exceed 6 inches in depth.

All costs associated with the removal of existing signs, posts, hardware, and backfilled holes will be incidental to the contract unit price per each for "Remove Traffic Sign". Quantities will be per assembly at the contract unit price per each.

REMOVE DELINEATOR

Existing delineators called for removal in the Sign Removal Table will become the property of the Contractor. The Contractor will remove all existing posts and delineators identified along the north shoulder of the roadway.

All costs for removal including full compensation for labor and equipment necessary to remove, dismantle, backfill holes, and dispose will be incidental to the contract unit price per each assembly for "Remove Delineator".

REMOVE SIGN FOR RESET AND RESET SIGN

Signs that are scheduled for reset will be dismantled and reassembled to the extent needed by the Contractor to properly reset the sign. Signs will be handled with care so that the existing signs, posts, and bases are not damaged during the relocation process. The Contractor will replace and pay for any reset signs damaged in their care. The Contractor will remove and dispose of any existing posts for all reset signs that require use of new posts as shown in the SIGN INSTALLATION TABLE on sheet 10.

All costs for removing, dismantling, and disposing of any existing posts will be incidental to the contract unit price per each for "Remove Sign for Reset". All costs for resetting the existing signs will be incidental to the contract unit price per each for "Reset Sign". All quantities for "Remove Sign for Reset" and "Reset Sign" will be per assembly at the contract unit price per each.

GENERAL PERMANENT SIGNING

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.

When signs are mounted in an assembly, they will be 1-2 inches apart vertically and horizontally.

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.

Aluminum U-Channel stiffeners will be used on all signs 36 inches or greater in width and will conform to ASTM B221 Alloy 6063-T6 or 6061-T6. The U-Channel will be 2 inches in width and free of holes. The U-Channel stiffeners will also be used to connect various signs together so that an entire sign assembly can be erected on a single installation. Stiffeners may be fastened to signs by use of 1/4-inch diameter drive rivets.

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.

Prior to ordering signs, the Contractor will verify dimensions, background, border, and legend of the signs.

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

NEW PERMANENT SIGNING

All signs will be manufactured in accordance with the sheeting manufacturer's recommendations utilizing a matched component system, including inks, electronic cuttable films, and protective overlay films.

All Flat Aluminum Signs, Nonremovable Copy High Intensity will have sheeting in conformance with the requirements of ASTM D4956 Type IV. All Flat Aluminum Signs, Nonremovable Copy Super/Very High Intensity will have sheeting in conformance with the requirements of ASTM D4956 Type XI.

All costs associated with furnishing and installing the new permanent signs, and with furnishing and installing stiffeners and hardware will be incidental to the contract unit price per square foot for "Flat Aluminum Sign, Nonremovable Copy Super/Very High Intensity"

SQUARE TUBE ANCHOR SLEEVE

The Contractor will furnish and install new 2.5" x 2.5" x 18", 12 Gauge square tube anchor sleeve or equivalent components as approved by the Engineer for 2.0" x 2.0" perforated tube posts. A 2.25" x 2.25" x 4', 12 Gauge perforated tube post will be used as the anchor post for installation with the square tube anchor sleeve.

ASPHALT CONCRETE COMPOSITE

Asphalt Concrete Composite will include MC-70 Asphalt for Prime placed at the rate of 0.30 gallons per square yard. The Asphalt for Prime will be applied to the Base Course for the full width of the bottom layer of Asphalt Concrete Composite plus one foot additional on the outside shoulder. Blotting Sand for Prime is not required. A flush seal and sand for flush seal is not required, except a flush seal will be required over the rumble strip installation as indicated in the "Grind Rumble Strips in Asphalt Concrete" notes.

SS-1h or CSS-1h asphalt for tack will be applied prior to each lift of Asphalt Concrete Composite. Asphalt for tack will be applied at a rate of 0.09 gallons per square yard on existing pavement or milled asphalt concrete surfaces and at a rate of 0.06 gallons per square yard on primed base course or new asphalt concrete pavement. The Asphalt for tack will be applied for the full width of the bottom layer of Asphalt Concrete Composite plus one-half foot additional on the outside shoulder.

TABLE OF CONSTRUCTION STAKING

(See Special Provision for Contractor Staking)

Roadway and Description	Begin Station	End Station	Number of Lanes	Length (Ft)	Grade Staking				Miscellaneous Staking Quantity (Mile)	Final Cross Section Survey Quantity (Mile)
					Length (Mile)	Lane Factor	*Sets of Stakes	**Grade Staking Quantity (Mile)		
County Highway 6 (218th Street) (1 Shoulder AC Pavement)	1+88.90	24+44.40	1	2,255.5	0.427	1	1	0.427	0.427	0.427

* 1 = Blue Top Stakes Only (Asphalt Concrete Pavement)
2 = Blue Top and Paving Hub Stakes (PCC Pavement)

** Grade Staking Quantity = (Length) x (Lane Factor) x (Sets of Stakes)

GRIND RUMBLE STRIPS IN ASPHALT CONCRETE

Asphalt Concrete Rumble Strips will be constructed along the north shoulder. Rumble Strips will be paid for at the contract unit price per mile for "Grind 8" Rumble Strip or Stripe in Asphalt Concrete". It is estimated that 0.4 miles of asphalt concrete rumble strips will be required.

Rumble Strip installation will be completed prior to application of the Flush Seal and Permanent Pavement Markings. In the event the Flush Seal is eliminated from the contract, the Contractor will still be required to apply a Flush Seal to the newly installed 8" Rumble Strips at a width of 14" and at a rate of 0.05 gallon per square yard (8.5 lbs per gallon). No adjustment in payment will be made and SS-1h or CSS-1h Asphalt for Flush Seal will be paid at the contract unit price per ton.

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 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 MARKING PAINT

Solid 4” line = 22.5 Gals/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.

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 12059
CHRIS J. BROZIK
SOUTH DAKOTA

4/30/2026

FOR BIDDING PURPOSES ONLY

RETROREFLECTIVITY FOR PAVEMENT MARKING PAINT

The Department may take retroreflectivity readings on the pavement marking lines after 14 days and within 42 days of the line application using either a portable or mobile retroreflectometer that conforms to 30-meter geometry. If the Department chooses to take retroreflectivity readings, three retroreflectivity readings will be taken on each line at each test location. The three readings will be averaged and become the reading for that test location.

If the Department chooses to take retroreflectivity readings, three readings will be taken on the edge lines and lane lines in the direction of application. For combination solid yellow and skip yellow lines for turn lanes and for centerline markings on two-way roadways, three readings will be taken in one direction, the reflectometer will be turned 180 degrees and three more readings will be taken. The six readings for the centerline markings will be averaged and become the test reading for that test location.

If the Department chooses to take readings, the minimum retroreflectivity values will be 275 mc/m²/lux for white and 170 mc/m²/lux for yellow.

EROSION CONTROL

The estimated area requiring erosion control is 30,952 square feet. All costs for the erosion control work for furnishing, placing, and maintaining erosion control including equipment, labor, seeding, fertilizing, mulching, and mycorrhizal inoculum 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 per pound for the corresponding permanent seed mixture.

The Mycorrhizal Inoculum provided will be from the approved product list. The approved product list may be viewed at the following internet site:

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

Fertilizing

The Contractor will apply an all-natural slow release fertilizer prior to seeding or placing sod. The all-natural fertilizer will have a minimum guaranteed analysis of 4-4-4 and be USDA Certified BioBased. It should provide a minimum of 4% (N) nitrogen with a minimum water insoluble nitrogen (WIN) fraction of 2.07%, a minimum of 4% (P2O5) available phosphate, a minimum of 4% (K2O) soluble potash, and a maximum carbon to nitrogen ratio (C:N ratio) of 5:1. The all-natural fertilizer will be free of weed-seed and pathogens accomplished through thermophilic composting, and not mechanical or chemical sterilization, to assure presence of beneficial soil microbiology. The fertilizer will have a near neutral pH, a low salt index, a low biological oxygen demand, contain organic humic and fulvic acids, and have high aerobic organism counts. The fertilizer will also be stable, free of bad odors, and be unattractive as a food source for animals. It should also be in a granular form that is easily spread.

The fertilizer will be applied at a rate of 1,500 pounds per acre in accordance with the manufacturer's recommended method of application.

The Fertilizer provided will be from the approved product list. The approved product list may be viewed at the following internet site:

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

Permanent Seeding

The areas to be seeded comprise of all newly graded areas within the project limits, except for the top of roadways and temporary easements under cultivation.

Type G 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
Switchgrass	Dacotah, Forestburg, Nebraska 28, Pathfinder, Summer, Sunburst, Trailblazer	3
Indiangrass	Holt, Tomahawk, Chief, Nebraska 54	3
Big Bluestem	Bison, Bonilla, Champ, Sunnyview, Rountree, Bonanza	3
Oats or Spring Wheat: April through May; Winter Wheat: August through November		10
	Total:	**26**

Fiber mulching

Fiber mulch will be applied in a separate operation following permanent seeding.

An additional 2% by weight of tackifier will be added to the fiber mulch product selected from the approved product list. If the product selected has guar gum tackifier included, then the additional 2% of tackifier will be guar gum. If the product selected has synthetic tackifier included, then the additional 2% of tackifier will be synthetic.

Fiber mulch will be applied at the rate of 3,000 pounds per acre.

The Contractor will allow the fiber mulch to cure a minimum of 18 hours prior to watering or any storm event to ensure proper cohesion between the soil and fiber particles.

All costs for the additional tackifier added to the fiber mulch including labor, equipment, and materials will be incidental to the lump sum price for "Erosion Control".

The fiber mulch provided will be from the approved product list. The approved product list for fiber mulch may be viewed at the following internet site:

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

HIGH FLOW SILT FENCE

The high flow silt fence fabric provided will be from the approved product list. The approved product list for high flow silt fence may be viewed at the following Internet site:

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

High flow silt fence will be placed at the locations noted in the table and at locations that will minimize siltation of adjacent streams, lakes, dams, or drainage areas as determined by the Engineer during construction. Refer to Standard Plate 734.05 for details.

An additional quantity of High Flow Silt Fence has been added to the Estimate of Quantities for temporary sediment control.

TABLE OF HIGH FLOW SILT FENCE

Station	Quantity (Ft)
5+54.9 - 60.5' Lt to 8+00.0 - 37.5' Lt	257
21+76.7 - 56.3' Lt to 22+96.8 - 52.8' Lt	140
Additional Quantity	100
Total:	**497**

FLOATING SILT CURTAIN

Floating silt curtains will be installed at locations noted in the table and at locations determined by the Engineer during construction.

The Contractor will determine the water depth and other waterway characteristics, such as stream flow velocity and seek technical advice from the manufacturer before ordering the floating silt curtain so that the floating silt curtain installed is the correct type for the individual sites.

The Contractor will install the floating silt curtain according to the manufacturer's installation instructions or as directed by the Engineer.

The Contractor will maintain the floating silt curtains for the duration of the project to ensure continuous protection of the waterway.

The Floating Silt Curtain provided will be from the approved product list. The approved product list may be viewed at the following internet site:

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

TABLE OF FLOATING SILT CURTAIN

Station	Quantity (Ft)
7+33.6 - 41.8' Lt to 21+98.0 - 62.1' Lt	1,421
Total:	**1,421**

EROSION CONTROL BLANKET

Erosion control blanket will be installed 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

An additional quantity of Type 3 Erosion Control Blanket has been added to the Estimate of Quantities for temporary erosion control.

TABLE OF EROSION CONTROL BLANKET

Station	Quantity (Sq Yd)
6+54.4 to 8+00 Lt	257
21+50.0 to 23+00.0 Lt	298
Additional Quantity	50
Total:	**605**

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 12059
CHRIS J. BROZIK
SOUTH DAKOTA

4/30/2026

STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
S.D.	PH 6312(22)	9	58

FOR BIDDING PURPOSES ONLY

SIGN REMOVAL TABLE

Station	L/R	Sign						Description	Remarks
		Width (in)	Height (in)	Facing Traffic	Remove Traffic Sign	Remove Delineator	Remove Sign for Reset		
4+18.2	L	24	30	Westbound	1	-	-	CHEVRON ARROW (W1-8L)	
5+45.7	L	24	30	Eastbound	1	-	-	CHEVRON ARROW (W1-8R)	
		24	30	Westbound	-	-	-	CHEVRON ARROW (W1-8L)	
7+60.3 to 13+87.7	L	-	-	EB & WB	-	7	-	DELINEATORS	
14+92.6 to 19+77.8	L	-	-	EB & WB	-	5	-	DELINEATORS	
20+90.1	L	24	30	Westbound	1	-	-	CHEVRON ARROW (W1-8L)	
21+94.1	L	24	30	Eastbound	1	-	-	CHEVRON ARROW (W1-8R)	
		24	30	Westbound	-	-	-	CHEVRON ARROW (W1-8L)	
22+72.7	L	24	30	Westbound	-	-	1	SPEED LIMIT 55 (R2-1)	REMOVE FOR RESET
		24	24	Westbound	-	-	-	TRUCKS 45 (R2-2)	
23+31.4	L	24	30	Eastbound	1	-	-	CHEVRON ARROW (W1-8R)	
23+61.8	L	24	24	Westbound	-	-	1	KINGSBURY COUNTY 6 (M1-6)	REMOVE FOR RESET
24+20.6	L	48	48	Westbound	-	-	1	S CURVE (W1-5L)	REMOVE FOR RESET
		24	24	Westbound	-	-	-	35 MPH (R2-2)	
TOTAL:					**5**	**12**	**3**		

REGISTERED PROFESSIONAL ENGINEER
REG. NO.
12059
CHRIS J.
BROZIK
SOUTH DAKOTA

4/30/2026

STATE OF S.D.	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 6312(22)	10	58

FOR BIDDING PURPOSES ONLY

SIGN INSTALLATION TABLE

Station	Offset	Sign							Post*		Description	Remarks
		Width (in)	Height (in)	Area (SqFt)	Sign Code	Facing Traffic	New Sign	Reset Sign	Size (in)	Length (ft) #		
3+00.0	24.5' L	24	30	5.0	W1-8	Westbound	1	-	2 x 2	8.0	CHEVRON ARROW	INSTALL NEW SIGN ON NEW POST
4+20.0	24.0' L	24	30	5.0	W1-8	Eastbound	1	-	2 x 2	8.0	CHEVRON ARROW	INSTALL NEW SIGN ON NEW POST W/ ANGLE BRACKET KIT
		24	30	5.0	W1-8	Westbound	1	-	-	-	CHEVRON ARROW	INSTALL NEW SIGN WITH OTHER CHEVRON ARROW SIGN ACCORDING TO SPECIAL DETAIL L09
5+40.0	24.0' L	24	30	5.0	W1-8	Eastbound	1	-	2 x 2	8.0	CHEVRON ARROW	INSTALL NEW SIGN ON NEW POST W/ ANGLE BRACKET KIT
		24	30	5.0	W1-8	Westbound	1	-	-	-	CHEVRON ARROW	INSTALL NEW SIGN WITH OTHER CHEVRON ARROW SIGN ACCORDING TO SPECIAL DETAIL L09
6+60.0	24.0' L	24	30	5.0	W1-8	Eastbound	1	-	2 x 2	8.0	CHEVRON ARROW	INSTALL NEW SIGN ON NEW POST W/ ANGLE BRACKET KIT
		24	30	5.0	W1-8	Westbound	1	-	-	-	CHEVRON ARROW	INSTALL NEW SIGN WITH OTHER CHEVRON ARROW SIGN ACCORDING TO SPECIAL DETAIL L09
7+80.0	24.0' L	24	30	5.0	W1-8	Eastbound	1	-	2 x 2	9.0	CHEVRON ARROW	INSTALL NEW SIGN ON NEW POST W/ ANGLE BRACKET KIT
		24	30	5.0	W1-8	Westbound	1	-	-	-	CHEVRON ARROW	INSTALL NEW SIGN WITH OTHER CHEVRON ARROW SIGN ACCORDING TO SPECIAL DETAIL L09
9+00.0	24.0' L	24	30	5.0	W1-8	Eastbound	1	-	2 x 2	9.0	CHEVRON ARROW	INSTALL NEW SIGN ON NEW POST
16+03.9	18.0' R	24	30	5.0	W1-8	Eastbound	1	-	2 x 2	8.0	CHEVRON ARROW	INSTALL NEW SIGN ON NEW POST W/ ANGLE BRACKET KIT
		24	30	5.0	W1-8	Westbound	1	-	-	-	CHEVRON ARROW	INSTALL NEW SIGN WITH OTHER CHEVRON ARROW SIGN ACCORDING TO SPECIAL DETAIL L09
17+23.9	18.0' R	24	30	5.0	W1-8	Eastbound	1	-	2 x 2	8.0	CHEVRON ARROW	INSTALL NEW SIGN ON NEW POST
21+00.0	24.0' L	24	30	5.0	W1-8	Eastbound	1	-	2 x 2	9.0	CHEVRON ARROW	INSTALL NEW SIGN ON NEW POST W/ ANGLE BRACKET KIT
		24	30	5.0	W1-8	Westbound	1	-	-	-	CHEVRON ARROW	INSTALL NEW SIGN WITH OTHER CHEVRON ARROW SIGN ACCORDING TO SPECIAL DETAIL L09
22+20.0	24.0' L	24	30	5.0	W1-8	Eastbound	1	-	2 x 2	9.0	CHEVRON ARROW	INSTALL NEW SIGN ON NEW POST W/ ANGLE BRACKET KIT
		24	30	5.0	W1-8	Westbound	1	-	-	-	CHEVRON ARROW	INSTALL NEW SIGN WITH OTHER CHEVRON ARROW SIGN ACCORDING TO SPECIAL DETAIL L09
23+00.0	30.0' L	24	30	-	R2-1	Westbound	-	1	2 x 2	9.5	SPEED LIMIT 55	RESET EXISTING SIGN ON NEW POST
		24	24	-	R2-2	Westbound	-	-	-	-	TRUCKS 45	RESET EXISTING SIGN BELOW SPEED LIMIT 55 SIGN
23+40.0	24.5' L	24	30	5.0	W1-8	Eastbound	1	-	2 x 2	8.0	CHEVRON ARROW	INSTALL NEW SIGN ON NEW POST
23+50.0	30.0' L	48	48	-	W1-5L	Westbound	-	1	2 x 2	11.0	S CURVE	RESET EXISTING SIGN ON NEW POST
		24	24	-	R2-2	Westbound	-	-	-	-	35 MPH	RESET EXISTING SIGN BELOW S CURVE SIGN
24+00.0	29.0' L	24	24	-	M1-6	Westbound	-	1	2 x 2	9.0	KINGSBURY COUNTY 6	RESET EXISTING SIGN ON NEW POST
			TOTAL:	**90.0**			**18**	**3**		**121.5**		

* Fitted with Anchor Post Breakaway Stub Clearance
# Post lengths are estimates. The post lengths shall be field verified by the Contractor.

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 12059
CHRIS J. BROZIK
SOUTH DAKOTA

4/30/2026

FOR BIDDING PURPOSES ONLY

STORMWATER POLLUTION PREVENTION PLAN CHECKLIST

*(The numbers left of the title headings are **reference numbers** to the GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES (Stormwater Permit))*

5.3 (2): STAFF TRAINING/SWPPP IMPLEMENTATION

To promote stormwater management awareness specific for this project, the Contractor's Erosion Control Supervisor should provide correspondence of how the SWPPP will be implemented. The Contractor's Erosion Control Supervisor is responsible for providing this information at the preconstruction meeting, and subsequently completing an attendance log, which should identify site-specific implementation of the SWPPP and the names of the personnel who attended the preconstruction meeting. Documentation of the preconstruction meeting will be filed with the SWPPP documents.

5.3 (3): DESCRIPTION OF CONSTRUCTION ACTIVITIES

- **5.3 (3a): Project Limits** (See Title and Plan Sheets)
- **5.3 (3a): Project Description** (See Title Sheet)
- **5.3 (4): Site Map(s)** (See Title Sheet and Plans)
- **Major Soil Disturbing Activities** (check all that apply)
  - ☒ Clearing and grubbing
  - ☐ Excavation/borrow
  - ☒ Grading and shaping
  - ☒ Filling
  - ☐ Other (describe):
- **5.3 (3b): Total Project Area:** 3.42 acres
- **5.3 (3b): Total Area to be Disturbed:** 1.30 acres
- **5.3 (3c): Maximum Area Disturbed at One Time:** 1.30 acres
- **5.3 (3d): Existing Vegetative Cover :** 75%
- **5.3 (3d): Description of Vegetative Cover :** Grass
- **5.3 (3e): Soil Properties:** Silty Clay Loam, Silty Clay, Clay Loam
- **5.3 (3f): Name of Receiving Water Body/Bodies** : Unnamed Slough/Highway 81 Pond
- **5.3 (3g): Location of Construction Support Activity Areas :** ROW & Easements

5.3 (3h): ORDER OF CONSTRUCTION ACTIVITIES

The Contractor will enter the Estimated Start Date.

Description	Estimated Start Date
Install Erosion Control Devices.	
Complete removals in accordance to removals plans.	
Stabilize disturbed areas.	
Construct Proposed Bank Stabilization.	
Construct Proposed Shoulder Widening.	
Final Paving.	
Construct Proposed Guardrail Installation.	
Adjust Erosion Control Items, as Required.	
Complete planting and seeding in accordance to plans.	

5.3 (5): DESCRIPTION AND MAINTENANCE OF CONTROL MEASURES

All controls will be maintained in good working order. Necessary repairs will be initiated within 24 hours of the site inspection report. Include the technical reasoning for selecting each control. (check all that apply)

Perimeter Controls (See Detail Plan Sheets)

Description	Estimated Start Date
☐ Natural Buffers (within 50 ft of Waters of State)	
☒ Silt Fence	
☐ Erosion Control Wattles	
☐ Temporary Berm/Windrow	
☒ Floating Silt Curtain	
☐ Stabilized Construction Entrances	
☐ Entrance/Exit Equipment Tire Wash	
☐ Other:	

Structural Erosion and Sediment Controls

Description	Estimated Start Date
☒ Silt Fence	
☐ Temporary Berm/Windrow	
☐ Erosion Control Wattles	
☐ Temporary Sediment Barriers	
☐ Erosion Bales	
☐ Temporary Slope Drain	
☐ Turf Reinforcement Mat	
☒ Riprap	
☐ Gabions	
☐ Rock Check Dams	
☐ Sediment Traps/Basins	
☐ Culvert Inlet Protection	
☐ Transition Mats	
☐ Median/Area Drain Inlet Protection	
☐ Curb Inlet Protection	
☐ Interceptor Ditch	
☐ Concrete Washout Facility	
☐ Work Platform	
☐ Temporary Water Barrier	
☐ Temporary Water Crossing	
☐ Permanent Stormwater Ponds	
☐ Permanent Open Vegetated Swales	
☐ Natural Depressions to allow for Infiltration	
☐ Sequential Systems that combine several practices	
☐ Other:	

Dust Controls

Description	Estimated Start Date
☐ Tarps & Wind impervious fabrics	
☐ Watering	
☐ Stockpile location/orientation	
☐ Dust Control Chlorides	
☐ Other:	

Dewatering BMPs

Description	Estimated Start Date
☐ Sediment Basins	
☐ Dewatering bags	
☐ Weir tanks	
☐ Temporary Diversion Channel	
☐ Other:	

Stabilization Practices (See Detail Plan Sheets)

(Stabilization measures will begin the following work day whenever earth disturbing activity on any portion of the site has temporarily or permanently ceased. Temporary stabilization will be completed as soon as practicable but no later than 14 days after initiating soil stabilization activities (**3.18**))

Description	Estimated Start Date
☐ Vegetation Buffer Strips	
☐Temporary Seeding (Cover Crop Seeding)	
☒ Permanent Seeding	
☐ Sodding	
☐ Planting (Woody Vegetation for Soil Stabilization)	
☐ Mulching (Grass Hay or Straw)	
☒ Fiber Mulching (Wood Fiber Mulch)	
☐ Soil Stabilizer	
☐ Bonded Fiber Matrix	
☐ Fiber Reinforced Matrix	
☒ Erosion Control Blankets	
☐ Surface Roughening (e.g. tracking)	
☐ Other:	

Wetland Avoidance

Will construction and/or erosion and sediment controls impinge on regulated wetlands?

Yes ☒ No ☐ If yes, the structural and erosion and sediment controls have been included in the total project wetland impacts and have been included in the 404 permit process with the USACE.

5.3 (6): PROCEDURES FOR INSPECTIONS

- Inspections will be conducted at least once every 7 days.
- All controls will be maintained in good working order. Necessary repairs will be initiated within 24 hours of the site inspection report.
- Silt fence will be inspected for depth of sediment and for tears to ensure the fabric is securely attached to the posts and that the posts are well anchored. Sediment buildup will be removed from the silt fence when it reaches ⅓ of the height of the silt fence.
- Sediment basins and traps will be checked. Sediment will be removed when depth reaches approximately 50 percent of the structure's capacity, and at the conclusion of the construction.
- Check dams will be inspected for stability. Sediment will be removed when depth reaches ½ the height of the dam.
- All seeded areas will be checked for bare spots, washouts, and vigorous growth free of significant weed infestations.
- Inspection and maintenance reports will be prepared on form DOT 298 for each site inspection, this form will also be used to document changes to the SWPPP. A copy of the completed inspection form will be filed with the SWPPP documents.
- The SDDOT Project Engineer and Contractor's Erosion Control Supervisor are responsible for inspections. Maintenance and repair activities are the responsibility of the Contractor. The SDDOT Project Engineer will complete the inspection and maintenance reports and distribute copies per the distribution instructions on DOT 298.

5.3 (7): POST CONSTRUCTION STORMWATER MANAGEMENT

Stormwater management will be handled by temporary controls outlined in “DESCRIPTION AND MAINTENANCE OF CONTROL MEASURES” above, and any permanent controls needed to meet permanent stormwater management needs in the post construction period will be shown in the plans and noted as permanent.

FOR BIDDING PURPOSES ONLY

5.3 (8): POLLUTION PREVENTION PROCEDURES

5.3 (8a): Spill Prevention and Response Procedures

➢ **Material Management**

▪ Housekeeping

- Only needed products will be stored on-site by the Contractor.
- Except for bulk materials the Contractor will store all materials under cover and/or in appropriate containers.
- Products must be stored in original containers and labeled.
- Material mixing will be conducted in accordance with the manufacturer's recommendations.
- When possible, all products will be completely used before properly disposing of the container off-site.
- The manufacturer's directions for disposal of materials and containers will be followed.
- The Contractor's site superintendent will inspect materials storage areas regularly to ensure proper use and disposal.
- Dust generated will be controlled in an environmentally safe manner.

▪ Hazardous Materials

- Products will be kept in original containers unless the container is not resealable and provide secondary containment as applicable.
- Original labels and material safety data sheets will be retained in a safe place to relay important product information.
- If surplus product must be disposed of, manufacturer's label directions for disposal will be followed.
- Maintenance and repair of all equipment and vehicles involving oil changes, hydraulic system drain down, de-greasing operations, fuel tank drain down and removal, and other activities which may result in the accidental release of contaminants will be conducted on an impervious surface and under cover during wet weather to prevent the release of contaminants onto the ground.
- Wheel wash water will be collected and allowed to settle out suspended solids prior to discharge. Wheel wash water will not be discharged directly into any stormwater system or stormwater treatment system.
- Potential pH-modifying materials such as: bulk cement, cement kiln dust, fly ash, new concrete washings, concrete pumping, residuals from concrete saw cutting (either wet or dry), and mixer washout waters will be collected on site and managed to prevent contamination of stormwater runoff.

➢ **Spill Control Practices**

In addition to the previous housekeeping and management practices, the following practices will be followed for spill prevention and cleanup if needed.

- For all hazardous materials stored on site, the manufacturer's recommended methods for spill cleanup will be clearly posted. Site personnel will be made aware of the procedures and the locations of the information and cleanup supplies.
- Appropriate cleanup materials and equipment will be maintained by the Contractor in the materials storage area on-site. As appropriate, equipment and materials may include items such as brooms, dust pans, mops, rags, gloves, goggles, kitty litter, sand, sawdust, and plastic and metal trash containers specifically for cleanup purposes.
- All spills will be cleaned immediately after discovery and the materials disposed of properly.
- The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
- After a spill a report will be prepared describing the spill, what caused it, and the cleanup measures taken. The spill prevention plan will be adjusted to include measures to prevent this type of spill from reoccurring, as well as clean up instructions in the event of reoccurrences.
- The Contractor's site superintendent, responsible for day-to-day operations, will be the spill prevention and cleanup coordinator.

➢ **Spill Response**

The primary objective in responding to a spill is to quickly contain the material(s) and prevent or minimize migration into stormwater runoff and conveyance systems. If the release has impacted on-site stormwater, it is critical to contain the released materials on-site and prevent their release into receiving waters. If a spill of pollutants threatens stormwater or surface water at the site, the spill response procedures outlined below must be implemented in a timely manner to prevent the release of pollutants.

- The Contractor's site superintendent will be notified immediately when a spill or the threat of a spill is observed. The superintendent will assess the situation and determine the appropriate response.
- If spills represent an imminent threat of escaping erosion and sediment controls and entering receiving waters, personnel will be directed to respond immediately to contain the release and notify the superintendent after the situation has been stabilized.
- Spill kits containing appropriate materials and equipment for spill response and cleanup will be maintained by the Contractor at the site.
- If oil sheen is observed on surface water (e.g. settling ponds, detention ponds, swales), action will be taken immediately to remove the material causing the sheen. The Contractor will use appropriate materials to contain and absorb the spill. The source of the oil sheen will also be identified and removed or repaired as necessary to prevent further releases.
- If a spill occurs the superintendent or the superintendent's designee will be responsible for completing the spill reporting form and for reporting the spill to SDDANR.
- Personnel with primary responsibility for spill response and cleanup will receive training by the Contractor's site superintendent or designee. The training must include identifying the location of the spill kits and other spill response equipment and the use of spill response materials.
- Spill response equipment will be inspected and maintained as necessary to replace any materials used in spill response activities.

5.3 (8b): WASTE MANAGEMENT PROCEDURES

➢ **Waste Disposal**

- All liquid waste materials will be collected and stored in approved sealed containers. All trash and construction debris from the site will be deposited in the approved containers. Containers will be serviced as necessary, and the trash will be hauled to an approved disposal site or licensed landfill. All onsite personnel will be instructed in the proper procedures for waste disposal and notices stating proper practices will be posted. The Contractor is responsible for ensuring waste disposal procedures are followed.

➢ **Hazardous Waste**

- All hazardous waste materials will be disposed of in a manner specified by local or state regulations or by the manufacturer. Site personnel will be instructed in these practices, and the Contractor will be responsible for seeing that these practices are followed.

➢ **Sanitary Waste**

- Portable sanitary facilities will be provided on all construction sites. Sanitary waste will be collected from the portable units which must be secured to prevent tipping and serviced in a timely manner by a licensed waste management Contractor or as required by any local regulations.

5.3 (9): CONSTRUCTION SITE POLLUTANTS

The following materials or substances are expected to be present on the site during the construction period. These materials will be handled as noted under the heading “POLLUTION PREVENTION PROCEDURES” (check all that apply).

➢ ☐ Concrete and Portland Cement
➢ ☐ Detergents
➢ ☒ Paints
➢ ☒ Metals
➢ ☒ Bituminous Materials
➢ ☒ Petroleum Based Products
➢ ☒ Diesel Exhaust Fluid
➢ ☐ Cleaning Solvents
➢ ☒ Wood
➢ ☐ Cure
➢ ☐ Texture
➢ ☒ Chemical Fertilizers
➢ ☐ Other:

Product Specific Practices

▪ **Petroleum Products**
All on-site vehicles will be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage. Petroleum products will be stored in tightly sealed containers which are clearly labeled.

▪ **Fertilizers**
Fertilizers will be applied only in the amounts specified by the Project Engineer. Once applied, fertilizers will be worked into the soil to limit the exposure to stormwater. Fertilizers will be stored in an enclosed area. The contents of partially used fertilizer bags will be transferred to sealable containers to avoid spills.

▪ **Paints**
All containers will be tightly sealed and stored when not required for use. The excess will be disposed of according to the manufacturer's instructions and any applicable state and local regulations.

▪ **Concrete Trucks**
Contractors will provide designated truck washout facilities on the site. These areas must be self-contained and not connected to any stormwater outlet of the site. Upon completion of construction, the area at the washout facility will be properly stabilized.

5.3 (10): NON-STORMWATER DISCHARGES

The following non-stormwater discharges are anticipated during the course of this project (check all that apply).

➢ ☐ Discharges from water line flushing.
➢ ☐ Pavement wash-water, where no spills or leaks of toxic or hazardous materials have occurred.
➢ ☐ Uncontaminated ground water associated with dewatering activities.

5.3 (11): INFEASIBILITY DOCUMENTATION

If it is determined to be infeasible to comply with any of the requirements of the Stormwater Permit, the infeasibility determination must be thoroughly documented in the SWPPP.

7.1: SPILL NOTIFICATION

In the event of a spill, the Contractor's site superintendent will make the appropriate notification(s), consistent with the following procedures:

➢ A release or spill of a regulated substance (includes petroleum and petroleum products) must be reported to SDDANR immediately **if any one of the following** conditions exists:

- The release or spill threatens or is able to threaten waters of the state (surface water or ground water)
- The release or spill causes an immediate danger to human health or safety
- The release or spill exceeds 25 gallons
- The release or spill causes a sheen on surface water
- The release or spill of any substance that exceeds the ground water quality standards of ARSD Chapter 74:54:01
- The release or spill of any substance that exceeds the surface water quality standards of ARSD Chapter 74:51:01
- The release or spill of any substance that harms or threatens to harm wildlife or aquatic life
- The release or spill is required to be reported according to Superfund Amendments and Reauthorization Act (SARA) Title III List of Lists, Consolidated List of Chemicals Subject to Reporting Under the Emergency Planning and Community Right to Know Act, US Environmental Protection Agency.

➢ To report a release or spill, call SDDANR at 605-773-3296 during regular office hours (8 a.m. to 5 p.m. Central Standard Time). To report the release after hours, on weekends or holidays, call South Dakota Emergency Management at 605-773-3231. Reporting the release to SDDANR does not meet any obligation for reporting to other state, local, or federal agencies. Therefore, you must also contact local authorities to determine the local reporting requirements for releases. A written report of the unauthorized release of any regulated substance, including quantity discharged, and the location of the discharge will be sent to SDDANR within 14 days of the discharge.

FOR BIDDING PURPOSES ONLY

5.4: SWPPP CERTIFICATIONS

➢ **Certification of Compliance with Federal, State, and Local Regulations**

The Storm Water Pollution Prevention Plan (SWPPP) for this project reflects the requirements of all local municipal jurisdictions for storm water management and sediment and erosion control as established by ordinance, as well as other state and federal requirements for sediment and erosion control plans, permits, notices or documentation as appropriate.

➢ **South Dakota Department of Transportation**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



_____

Authorized Signature (See the General Permit, Section 7.4 (1))

➢ **Prime Contractor**

This section is to be executed by the General Contractor after the award of the contract. This section may be executed any time there is a change in the Prime Contractor of the project.

I certify under penalty of law that this document and all attachments will be revised or maintained under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

_____

Authorized Signature

CONTACT INFORMATION

The following personnel are duly authorized representatives and have signatory authority for modifications made to the SWPPP:

➢ **Contractor Information**:

- Prime Contractor Name: _____
- Contractor Contact Name: _____
- Address: _____
- _____
- City: _____State: _____Zip: _____
- Office Phone: _____Field: _____
- Cell Phone: _____Fax: _____

➢ **Erosion Control Supervisor**

- Name: _____
- Address: _____
- _____
- City: _____State: _____Zip: _____
- Office Phone: _____Field: _____
- Cell Phone: _____Fax: _____

➢ **SDDOT Project Engineer**

- Name: _____
- Business Address: _____
- Job Office Location: _____
- City: _____State: _____Zip: _____
- Office Phone: _____Field: _____
- Cell Phone: _____Fax: _____

➢ **SDDANR Contact Spill Reporting**

- Business Hours Monday-Friday (605) 773-3296
- Nights and Weekends (605) 773-3231

➢ **SDDANR Contact for Hazardous Materials.**

- (605) 773-3153

➢ **National Response Center Hotline**

- (800) 424-8802.

➢ **SDDANR Stormwater Contact Information**

- SDDANR Stormwater (800) 737-8676
- Surface Water Quality Program (605) 773-3351

5.1: REQUIRED SWPPP MODIFICATIONS

➢ **5.5 (1): Conditions Requiring SWPPP Modification**

The SWPPP must be modified, including the site map(s), in response to any of the following conditions:

- When a new operator responsible for implementation of any part the SWPPP begins work on the site.
- When changes to the construction plans, sediment and erosion control measures, or any best management practices on site that are no longer accurately reflected in the SWPPP. This includes changes made in response to corrective actions triggered by inspections.
- To reflect areas on the site map where operational control has been transferred (including the date of the transfer) or has been covered under a new permit since initiating coverage under this general permit.
- If inspections by site staff, local officials, SDDANR, or U.S. EPA determine that SWPPP modifications are necessary for compliance with the Stormwater Permit.
- To reflect any revisions to applicable federal, state, or local requirements that affect the control measures implemented at the site.
- If approved by the Secretary, to reflect any changes in chemical water treatment systems or controls, including the use of a different water treatment chemical, age rates, different areas, or methods of application.

➢ **5.5 (2): Deadlines for SWPPP Modification**

Any required revisions to the SWPPP must be completed within 7 calendar days following any of the items listed above.

➢ **5.5 (3): Documentation of Modifications to the Plan**

All SWPPP modification records are required to be maintained showing the dates of when the modification occurred. The records must include the name of the person authorizing each change and a brief summary of all changes.

➢ **5.5 (4): Certification Requirements**

All modifications made to the SWPPP must be signed and certified as required in Section 7.4.

➢ **5.5 (5): Required Notice to Other Operators**

If there are multiple operators at the site, the Contractor's Erosion Control Supervisor must notify each operator that may be impacted by the change to the SWPPP within 24 hours.

When modifications as described above occur, the SWPPP will be modified to provide appropriate protection to disturbed areas, all storm water structures, and adjacent waters. The SDDOT Project Engineer will modify the SWPPP using the DOT 298 form and drawings on the plan will be modified to reflect the needed changes. Copies of the DOT 298 forms and the SWPPP will be retained on site in a designated place for review throughout the course of the project. A copy of the DOT 298 form will be given to the Contractor Erosion Control Supervisor and a copy will be emailed to the SDDOT Environmental Section in accordance with the DOT 298 Form.

STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
S.D.	PH 6312(22)	14	58

FOR BIDDING PURPOSES ONLY

LEGEND OF SYMBOLS

- ANCHOR
- APPROACH
- BENCH MARK
- CENTERLINE
- COMMERCIAL SIGN DOUBLE FACE
- COMMERCIAL SIGN ONE POST
- COMMERCIAL SIGN TWO POST
- CURB/GUTTER
- CURB
- FIRE HYDRANT
- GUIDE SIGN ONE POST
- GUIDE SIGN TWO POST
- MAILBOX
- MANHOLE ELECTRIC
- MANHOLE GAS
- MANHOLE MISC
- MANHOLE SANITARY SEWER
- MANHOLE STORM SEWER
- MANHOLE TELEPHONE
- MANHOLE WATER
- PROPERTY CORNER
- CONTROL POINT
- PIPE WITH END SECTION
- PIPE WITH HEADWALL
- REINFORCED CONCRETE PIPE
- CORRUGATED METAL PIPE
- POWER POLE
- PROPANE TANK
- TELEPHONE JUNCTION BOX

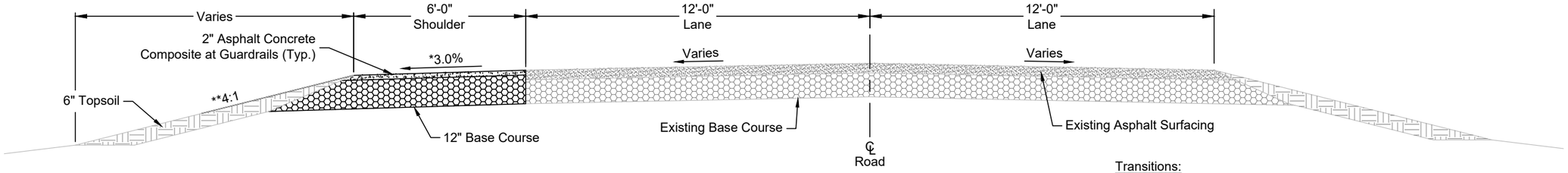
- TREE CONIFEROUS
- TREE DECIDUOUS
- OVERHEAD ELECTRIC
- UNDERGROUND ELECTRIC LINE
- UNDERGROUND GAS LINE
- UNDERGROUND HIGH PRESSURE GAS LINE
- UNDERGROUND SANITARY SEWER
- UNDERGROUND STORM SEWER
- UNDERGROUND TELEPHONE LINE
- UNDERGROUND TELEVISION CABLE
- UNDERGROUND WATER LINE
- UNDERGROUND FIBER OPTIC
- WATER METER
- WATER WELL
- SECTION LINE
- QUARTER LINE
- PROPERTY LINE
- CUT AND FILL LIMITS (CATCH LINE)
- DRAINAGE ARROW
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- FLOATING SILT CURTAIN
- HIGH FLOW SILT FENCE
- EROSION CONTROL WATTLE
- TYPE 2 ROW FENCE
- TYPE 1 TEMPORARY FENCE
- BARBED WIRE FENCE

- SHRUB
- SUBSUFACE UTILITY EXPLORATION TEST HOLE
- CONTROLLED DENSITY FILL
- TYPE B DRAINAGE FABRIC
- TYPE 3 EROSION CONTROL BLANKET
- PERMANENT SEED MIXTURE
- WETLAND
- RIPRAP

STATE OF S.D.	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 6312(22)	15	58

TYPICAL SECTIONS

FOR BIDDING PURPOSES ONLY



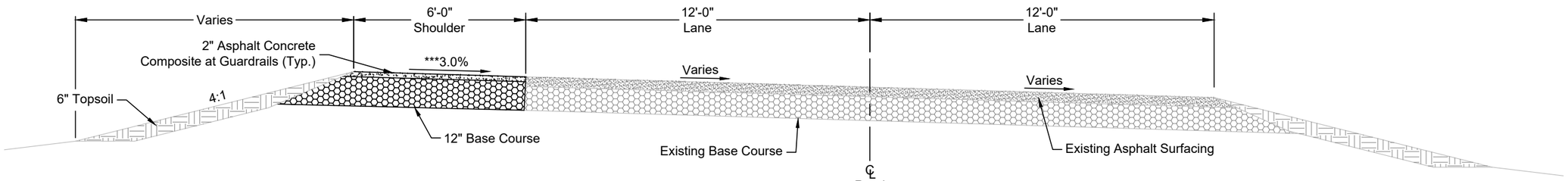
Proposed 218th St

Sta. 1+89.79 to 4+38.80
Sta. 6+85.26 to 8+00.00

Transitions:
Sta. 3+68.00 to Sta. 4+38.80
*3.0% to 0.0%

Sta. 6+85.26 to Sta. 7+77.00
*0.0% to 3.0%

Sta. 7+00.00 to Sta. 8+00.00
**4:1 to 2:1



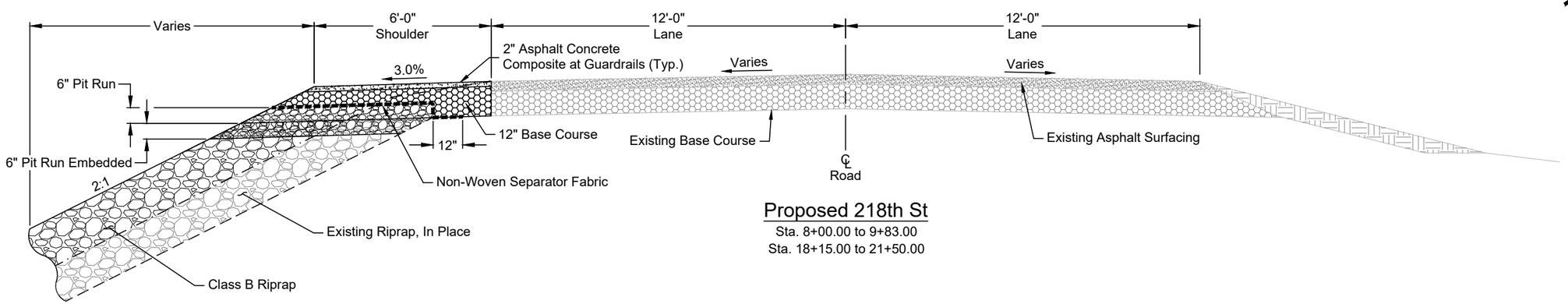
Proposed 218th St

Sta. 4+38.80 to 6+85.26

Transitions:
Sta. 4+38.80 to Sta. 5+13.00
***0.0% to 3.0%

Sta. 5+90.00 to Sta. 6+85.26
***3.0% to 0.0%

Note:
Riprap extents in typical sections are not to scale.
For detailed existing and proposed riprap extents,
see Cross Section plan sheets.



Proposed 218th St

Sta. 8+00.00 to 9+83.00
Sta. 18+15.00 to 21+50.00

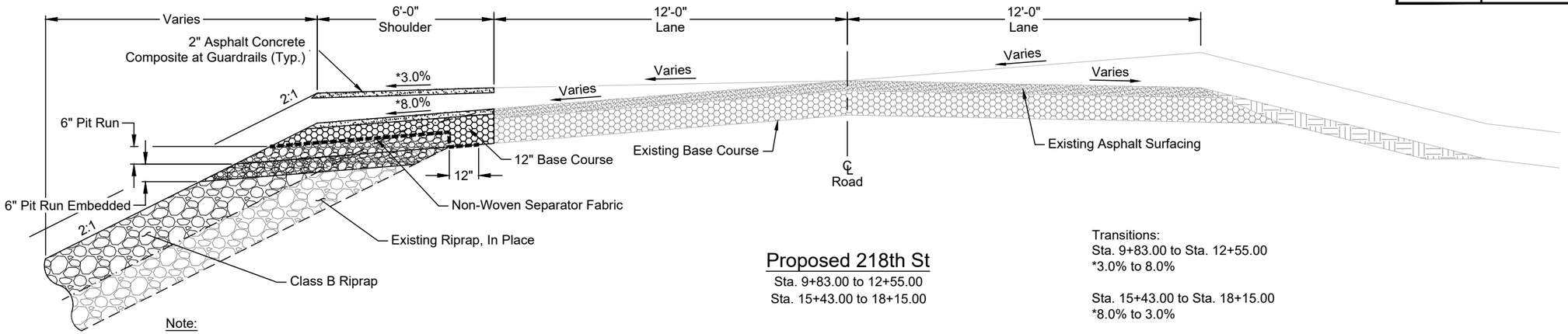
REGISTERED PROFESSIONAL ENGINEER
REG. NO.
12059
CHRIS J.
BROZIK
SOUTH DAKOTA

4/30/2026

STATE OF S.D.	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 6312(22)	16	58

TYPICAL SECTIONS

FOR BIDDING PURPOSES ONLY

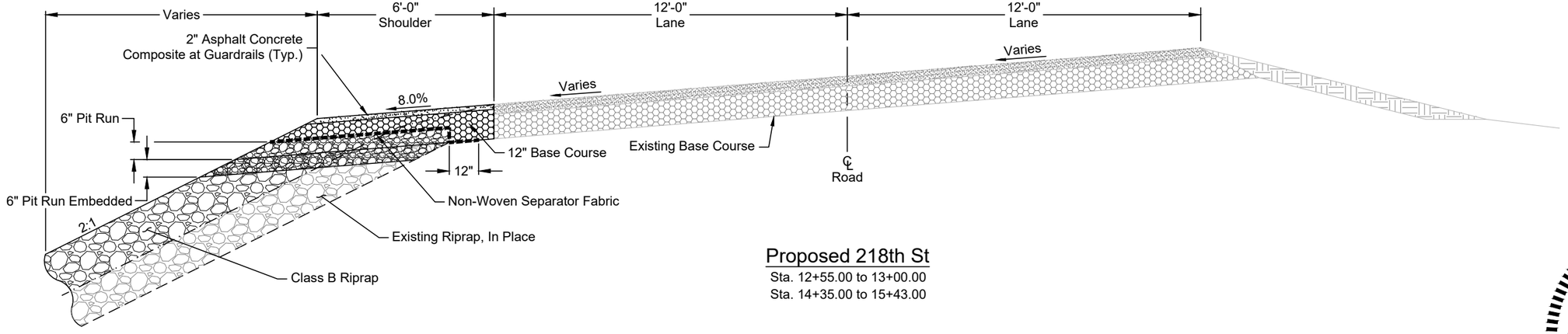


Note:
Riprap extents in typical sections are not to scale.
For detailed existing and proposed riprap extents, see Cross Section plan sheets.

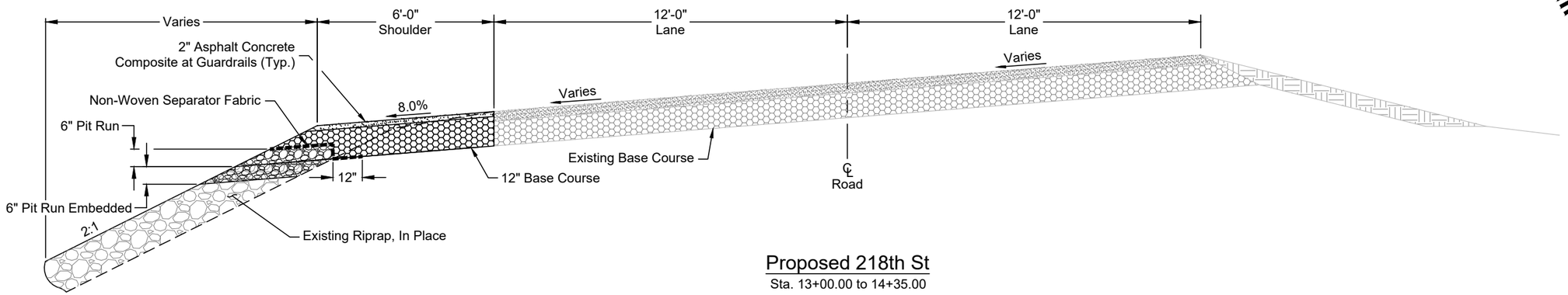
Proposed 218th St
Sta. 9+83.00 to 12+55.00
Sta. 15+43.00 to 18+15.00

Transitions:
Sta. 9+83.00 to Sta. 12+55.00
*3.0% to 8.0%

Sta. 15+43.00 to Sta. 18+15.00
*8.0% to 3.0%



Proposed 218th St
Sta. 12+55.00 to 13+00.00
Sta. 14+35.00 to 15+43.00



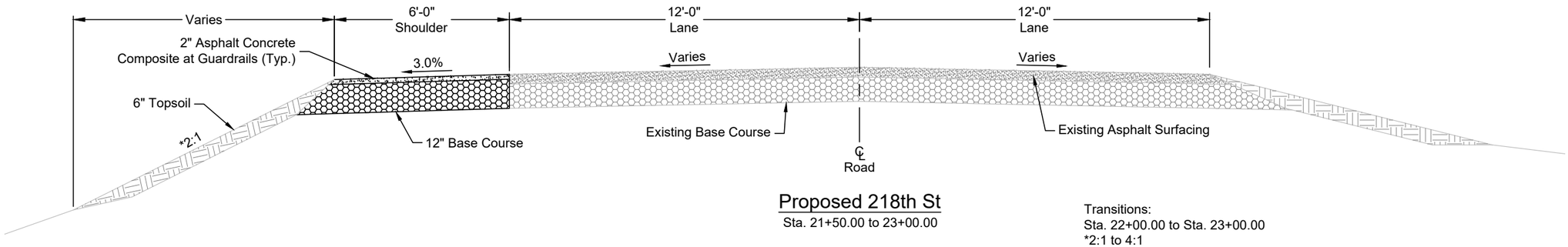
Proposed 218th St
Sta. 13+00.00 to 14+35.00

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 12059
CHRIS J. BROZIK
SOUTH DAKOTA
4/30/2026

TYPICAL SECTIONS

FOR BIDDING PURPOSES ONLY

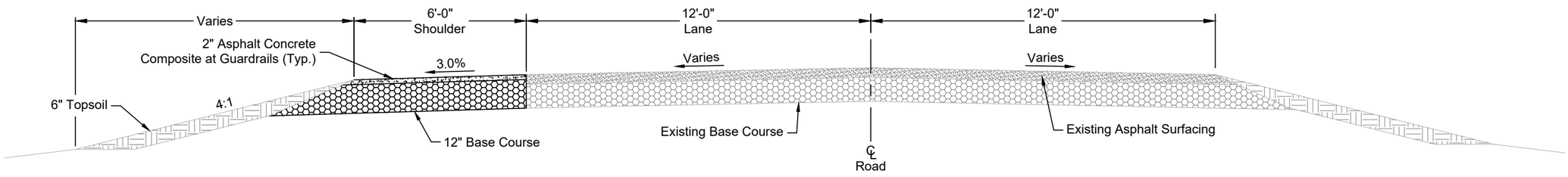
STATE OF S.D.	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 6312(22)	17	58



Proposed 218th St

Sta. 21+50.00 to 23+00.00

Transitions:
Sta. 22+00.00 to Sta. 23+00.00
*2:1 to 4:1



Proposed 218th St

Sta. 23+00.00 to 24+32.94

REGISTERED PROFESSIONAL ENGINEER
REG. NO.
12059
CHRIS J.
BROZIK
SOUTH DAKOTA

4/30/2026

FOR BIDDING PURPOSES ONLY

HORIZONTAL ALIGNMENT / CONTROL DATA

HORIZONTAL ALIGNMENT: ℄ 218TH STREET

Type	Station			Northing	Easting
POB	0+00.00			155,945.6570	2,718,588.5490
		TL = 380.80'	N87°29'47"E		
PC	3+80.80			155,962.2909	2,718,968.9852
PI	5+15.33	R = 750.00'	Delta = 20°33'19"R	155,968.2315	2,719,104.8518
PT	6+49.87			155,926.0894	2,719,234.1540
PC	6+49.87			155,926.0894	2,719,234.1540
PI	7+43.95	R = 1,800.00'	Delta = 5°59'23"R	155,896.9082	2,719,323.6888
PT	8+38.04			155,858.5436	2,719,409.6898
		TL = 214.87'	S65°57'31"E		
PC	10+52.91			155,771.0055	2,719,605.9220
PI	11+55.53	R = 1,128.00'	Delta = 10°25'29"L	155,729.0835	2,719,699.8975
PT	12+58.15			155,704.8579	2,719,799.9073
PC	12+58.15			155,704.8579	2,719,799.9073
PI	14+36.82	R = 558.00'	Delta = 36°41'33"L	155,661.2950	2,719,979.7465
PT	16+15.49			155,733.8213	2,720,149.9812
PC	16+15.49			155,733.8213	2,720,149.9812
PI	16+81.21	R = 930.00'	Delta = 08°05'50"L	155,759.6214	2,720,210.5394
PT	17+46.92			155,793.6940	2,720,266.8598
		TL = 364.62'	N58°57'25"E		
PC	21+11.54			155,981.7231	2,720,579.2601
PI	22+04.94	R = 365.00'	Delta = 29°19'20"R	156,030.9665	2,720,661.0753
PT	22+98.34			156,033.8340	2,720,756.5237
		TL = 194.09'	N88°16'45"E		
POE	24+92.43			156,039.6623	2,720,950.5237

HORIZONTAL AND VERTICAL CONTROL POINTS

POINT	STATION	OFFSET	DESCRIPTION	NORTHING	EASTING	ELEVATION
10	-2+03.51	41.31' R	Rebar	155895.500	2718387.039	1809.75
20	21+14.91	114.41' R	Rebar	155884.885	2720640.242	1797.22

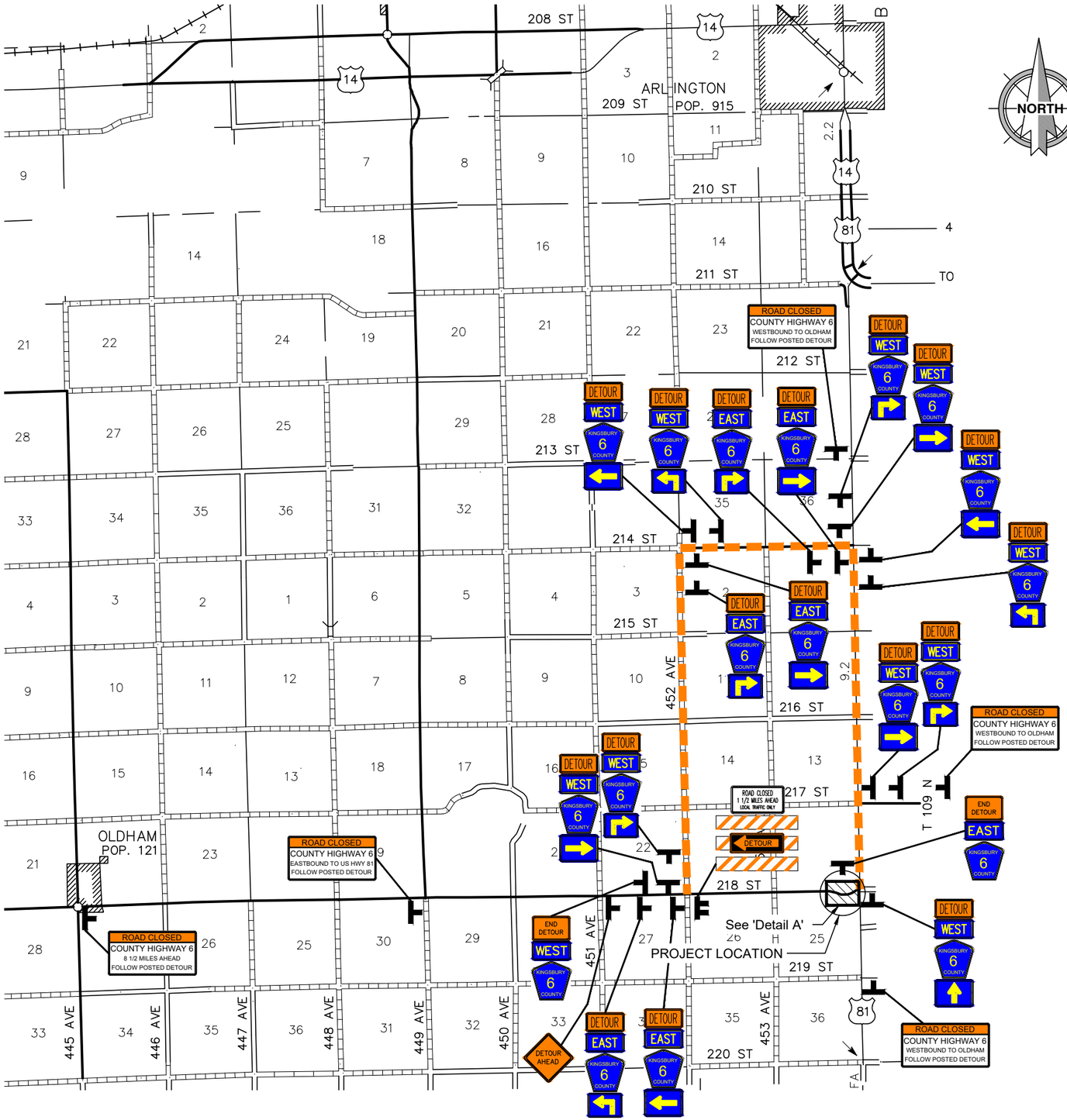
REGISTERED PROFESSIONAL ENGINEER
REG. NO.
12059
CHRIS J.
BROZIK
SOUTH DAKOTA

4/30/2026

TRAFFIC CONTROL PLAN

FOR BIDDING PURPOSES ONLY

STATE OF S.D.	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 6312(22)	19	58



LEGEND

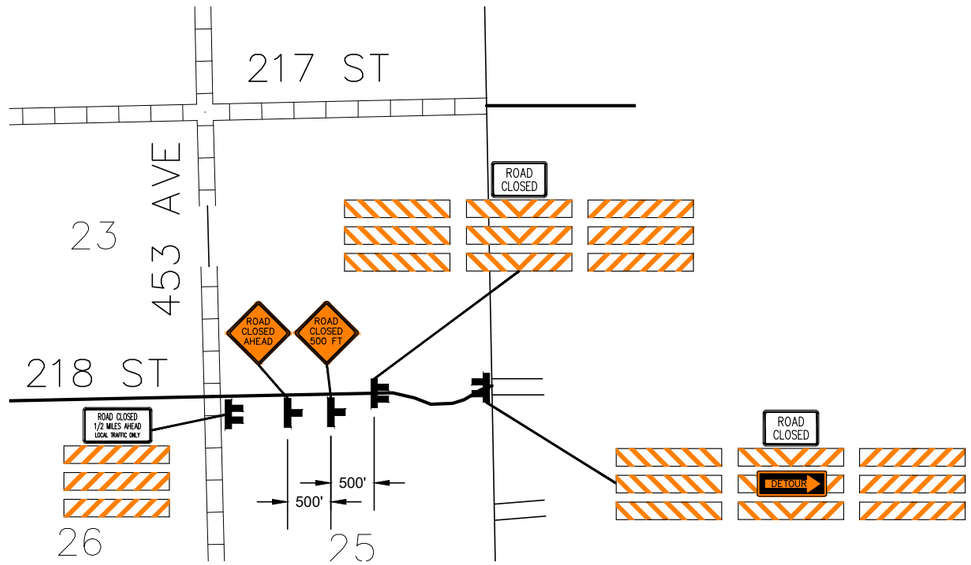
or Sign Location

Project Limits

Detour Route (10.0 mi)

NOTE:

Construction signs will not block the view of existing signs.



DETAIL A

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 12059
CHRIS J. BROZIK
SOUTH DAKOTA

4/30/2026

TRAFFIC CONTROL PLAN

FOR BIDDING PURPOSES ONLY

STATE OF S.D.	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 6312(22)	20	58



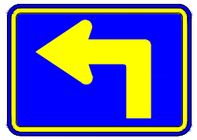
M4-8a (24" x 18")

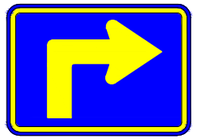


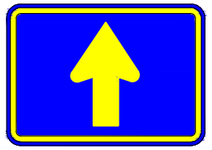
M4-8 (24" x 12")



M3-2 (24" x 12")

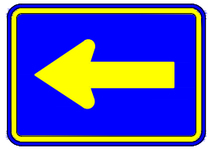

M5-1L (21" x 15")

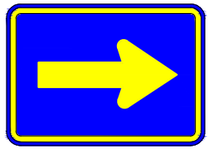

M5-1R (21" x 15")


M6-3 (21" x 15")



M3-4 (24" x 12")


M4-9L (24" x 30")


M4-9R (24" x 30")



M1-6 (24" x 24")



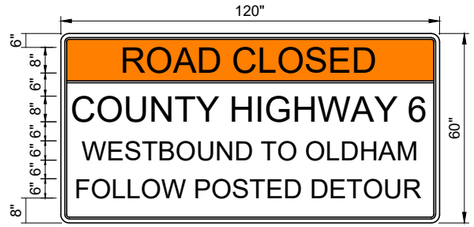
W20-2 (48" x 48")



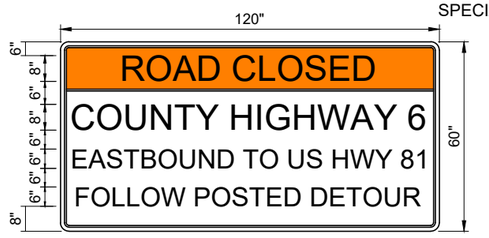
W20-3 (48" x 48")



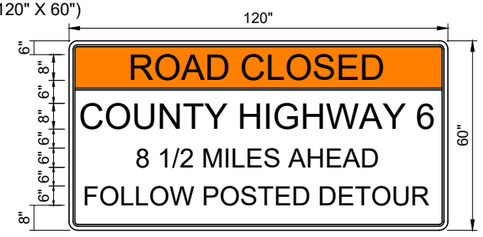
W20-3 (48" x 48")



SPECIAL #1 (120" X 60")



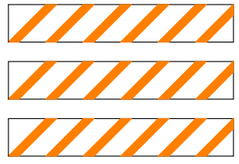
SPECIAL #2 (120" X 60")



SPECIAL #3 (120" X 60")

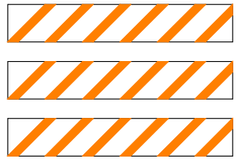


R11-3 (60" x 30")


Type 3 Barricade



R11-3 (60" x 30")


Type 3 Barricade

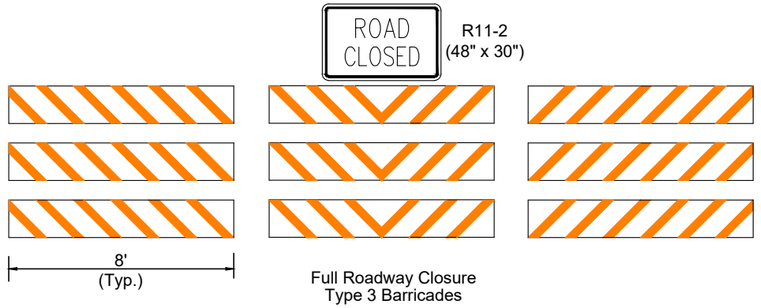


M4-10L (48" x 18")



M4-10R (48" x 18")

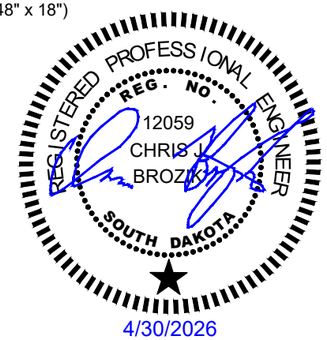
Set on Type 3 Barricades



Full Roadway Closure
Type 3 Barricades

ITEMIZED LIST FOR TRAFFIC CONTROL					
SIGN CODE	**DESCRIPTION**	**NUMBER REQUIRED**	**SIGN SIZE**	**SQ FT PER SIGN**	**TOTAL SQ FT**
M1-6	COUNTY ROUTE MARKER (1 DIGIT)	19	24" x 24"	4	76.0
M3-2	DIRECTION MARKER - EAST	7	24" x 12"	2	14.0
M3-4	DIRECTION MARKER - WEST	12	24" x 12"	2	24.0
M4-8	DETOUR	17	24" x 12"	2	34.0
M4-8a	END DETOUR	2	24" x 18"	3	6.0
M4-9	DETOUR WITH ARROW (LEFT OR RIGHT)	8	24" x 30"	5	40.0
M4-10	DETOUR ARROW (LEFT OR RIGHT)	2	48" x 18"	6	12.0
M5-1	ADVANCE TURN 90 DEGREE (LEFT OR RIGHT)	8	21" x 15"	2.2	17.6
M6-3	DIRECTION ARROW - VERTICAL SINGLE HEAD	1	21" X 15"	2.2	2.2
R11-2	ROAD CLOSED	2	48" x 30"	10	20.0
R11-3	ROAD CLOSED 1/2 MILES AHEAD LOCAL TRAFFIC ONLY	1	60" x 30"	12.5	12.5
R11-3	ROAD CLOSED 1 1/2 MILES AHEAD LOCAL TRAFFIC ONLY	1	60" x 30"	12.5	12.5
SPECIAL #1	ROAD CLOSED COUNTY HWY 6 WESTBOUND TO OLDHAM FOLLOW POSTED DETOUR	3	120" X 60"	50.0	150.0
SPECIAL #2	ROAD CLOSED COUNTY HWY 6 EASTBOUND TO US HWY 81 FOLLOW POSTED DETOUR	1	120" X 60"	50.0	50.0
SPECIAL #3	ROAD CLOSED COUNTY HWY 6 8 1/2 MILES AHEAD FOLLOW POSTED DETOUR	1	120" X 60"	50.0	50.0
W20-2	DETOUR AHEAD	1	48" x 48"	16	16.0
W20-3	ROAD CLOSED 500 FT. OR AHEAD	2	48" x 48"	16	32.0
				TRAFFIC CONTROL SIGNS SQFT	**568.8**

ITEMIZED LIST FOR TRAFFIC CONTROL	
DESCRIPTION	**NUMBER REQUIRED**
TYPE 3 BARRICADE	8



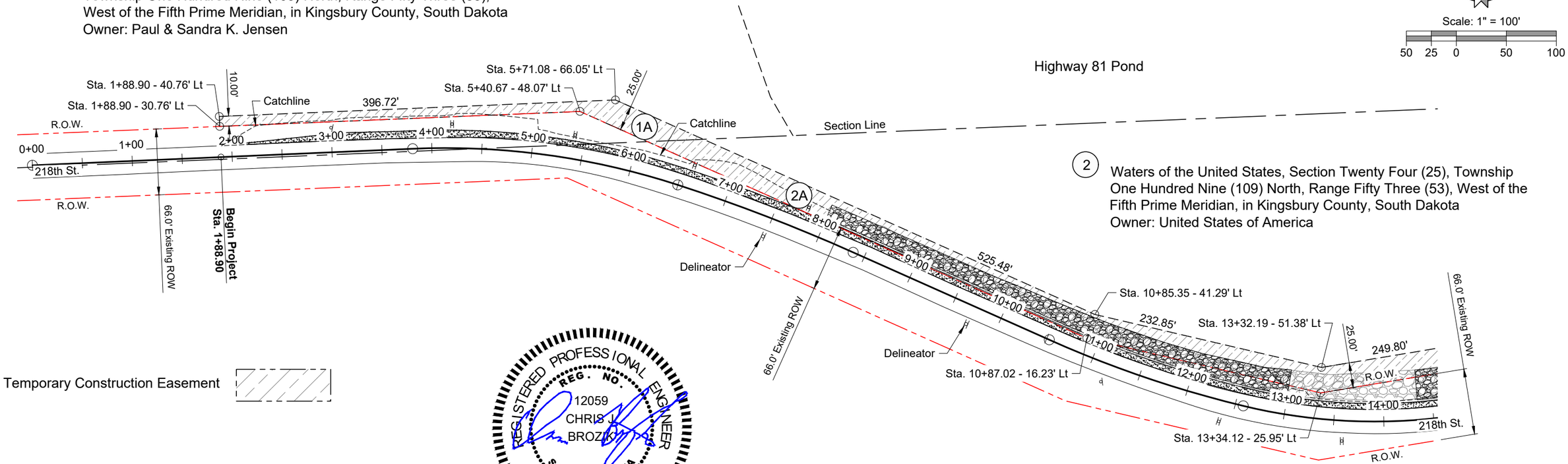
4/30/2026

STATE OF S.D.	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 6312(22)	21	58

FOR BIDDING PURPOSES ONLY

RIGHT-OF-WAY/EASEMENTS
(Sta 0+00 to 14+50)

(1) Lot Two (2) and the Northwest Quarter of the Southwest Quarter (NW $\frac{1}{4}$ SE $\frac{1}{4}$), and the Southwest Quarter (SW $\frac{1}{4}$) and Lot Three (3) of the Southeast Quarter (SE $\frac{1}{4}$), all in Section Twenty Four (24), Township One Hundred Nine (109) North, Range Fifty Three (53), West of the Fifth Prime Meridian, in Kingsbury County, South Dakota
Owner: Paul & Sandra K. Jensen



(2) Waters of the United States, Section Twenty Four (25), Township One Hundred Nine (109) North, Range Fifty Three (53), West of the Fifth Prime Meridian, in Kingsbury County, South Dakota
Owner: United States of America

Temporary Construction Easement

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 12059
CHRIS J. BROZIK
SOUTH DAKOTA
4/30/2026

TABLE OF EASEMENTS

NUMBER	STATION	SIDE	TYPE	AREA (Sq. Ft.)	OWNER	DESCRIPTION
1A	Sta. 1+88.90 - 30.76' Lt / Sta. 1+88.90 - 40.76' Lt / Sta. 5+71.08 - 66.05' Lt / Sta. 6+59.84 - 51.39' Lt / Sta. 6+09.38 - 32.95' Lt / Sta. 5+40.67 - 48.07' Lt	Lt	Temporary Construction Easement	5,916	Paul & Sandra K. Jensen	Lot Two (2) and the Northwest Quarter of the Southwest Quarter (NW $\frac{1}{4}$ SE $\frac{1}{4}$), and the Southwest Quarter (SW $\frac{1}{4}$) and Lot Three (3) of the Southeast Quarter (SE $\frac{1}{4}$), all in Section Twenty Four (24), Township One Hundred Nine (109) North, Range Fifty Three (53), West of the Fifth Prime Meridian, in Kingsbury County, South Dakota
2A	Sta. 6+09.38 - 32.95' Lt / Sta. 6+59.84 - 51.39' Lt / Sta. 10+85.35 - 41.29' Lt / Sta. 13+32.19 - 51.38' Lt / Sta. 16+11.53 - 56.34' Lt / Sta. 22+02.30 - 71.06' Lt / Sta. 21+75.11 - 54.43' Lt / Sta. 15+66.12 - 38.87' Lt / Sta. 13+34.12 - 25.95' Lt / Sta. 10+87.02 - 16.23' Lt	Lt	Temporary Construction Easement	29,171	United States of America	Waters of the United States, Section Twenty Four (25), Township One Hundred Nine (109) North, Range Fifty Three (53), West of the Fifth Prime Meridian, in Kingsbury County, South Dakota

STATE OF S.D.	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 6312(22)	22	58

RIGHT-OF-WAY/EASEMENTS
(Sta 14+50 to 24+92)

FOR BIDDING PURPOSES ONLY

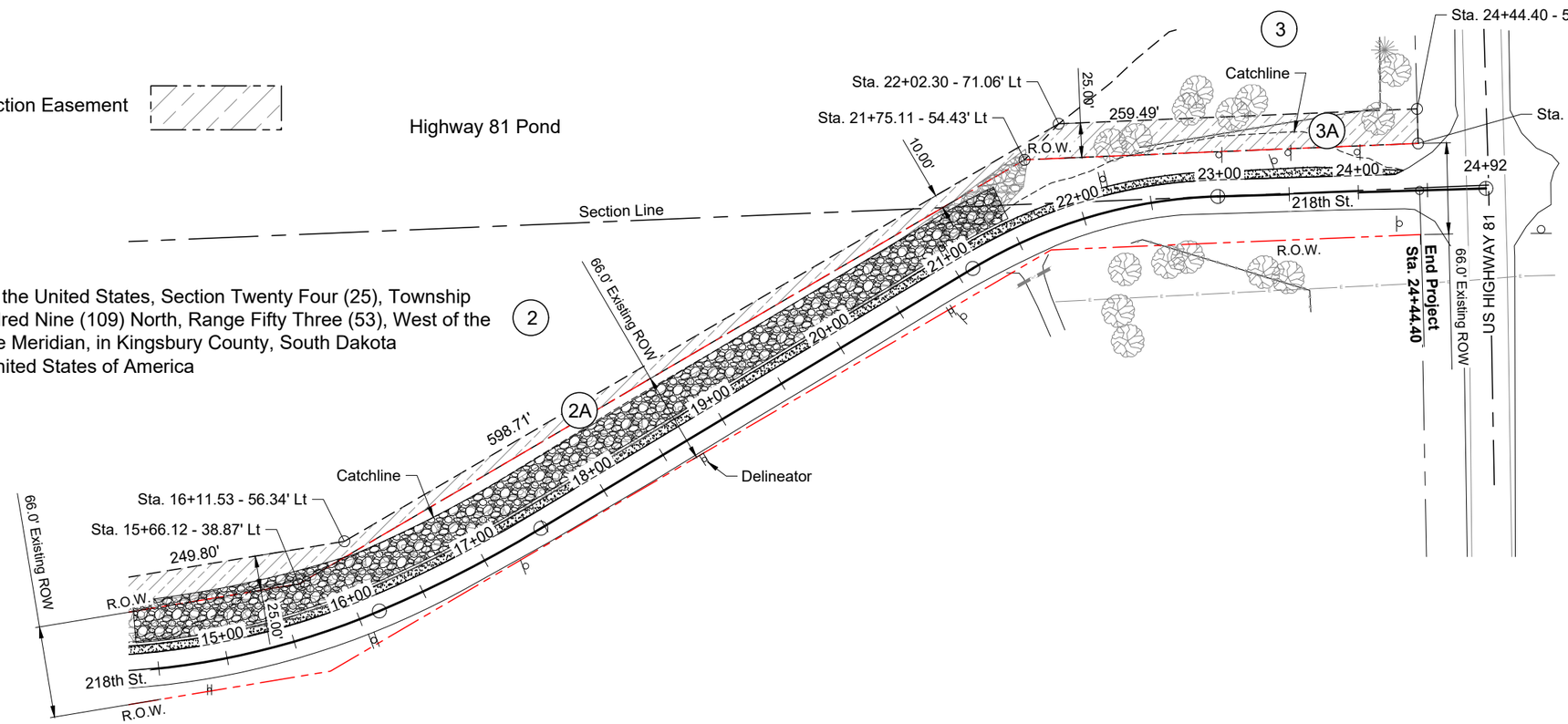
Government Lot 4, Section Twenty Four (24), Township One Hundred Nine (109) North, Range Fifty Three (53), West of the Fifth Prime Meridian, in Kingsbury County, South Dakota
Owner: United States of America

Scale: 1" = 100'
50 25 0 50 100

Temporary Construction Easement

Highway 81 Pond

Waters of the United States, Section Twenty Four (25), Township One Hundred Nine (109) North, Range Fifty Three (53), West of the Fifth Prime Meridian, in Kingsbury County, South Dakota
Owner: United States of America



REGISTERED PROFESSIONAL ENGINEER
REG. NO. 12059
CHRIS J. BROZIK
SOUTH DAKOTA

4/30/2026

TABLE OF EASEMENTS

NUMBER	STATION	SIDE	TYPE	AREA (Sq. Ft.)	OWNER	DESCRIPTION
2A	Sta. 6+09.38 - 32.95' Lt / Sta. 6+59.84 - 51.39' Lt / Sta. 10+85.35 - 41.29' Lt / Sta. 13+32.19 - 51.38' Lt / Sta. 16+11.53 - 56.34' Lt / Sta. 22+02.30 - 71.06' Lt / Sta. 21+75.11 - 54.43' Lt / Sta. 15+66.12 - 38.87' Lt / Sta. 13+34.12 - 25.95' Lt / Sta. 10+87.02 - 16.23' Lt	Lt	Temporary Construction Easement	29,171	United States of America	Waters of the United States, Section Twenty Four (25), Township One Hundred Nine (109) North, Range Fifty Three (53), West of the Fifth Prime Meridian, in Kingsbury County, South Dakota
3A	Sta. 21+75.11 - 54.43' Lt / Sta. 22+02.30 - 71.06' Lt / Sta. 24+44.40 - Sta. 59.04' Lt / Sta. 24+44.40 - 34.03' Lt	Lt	Temporary Construction Easement	6,806	United States of America	Government Lot 4, Section Twenty Four (24), Township One Hundred Nine (109) North, Range Fifty Three (53), West of the Fifth Prime Meridian, in Kingsbury County, South Dakota

STATE OF S.D.	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 6312(22)	23	58

EXISTING CONDITIONS & REMOVALS FOR BIDDING PURPOSES ONLY

(Sta 0+00 to 14+50)

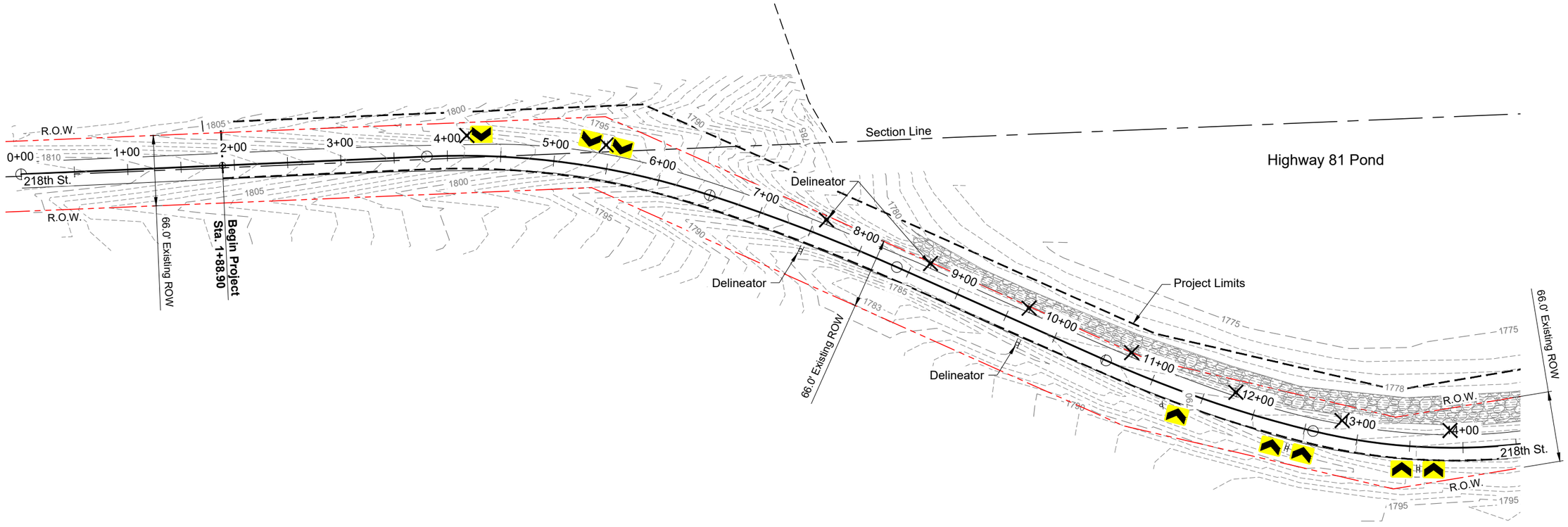
Remove Traffic Signs
Sta. 4+18.2 - 19.0' Lt (Chevron Arrow, W1-8)
Sta. 5+45.7 - 22.1' Lt (Chevron Arrows, W1-8)

Remove Delineators (7 Each)
Sta. 7+60.3 to 13+87.7 - Lt

NORTH

Scale: 1" = 100'

50 25 0 50 100



REGISTERED PROFESSIONAL ENGINEER
REG. NO.
12059
CHRIS J.
BROZIK
SOUTH DAKOTA

4/30/2026

STATE OF S.D.	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 6312(22)	24	58

EXISTING CONDITIONS & REMOVALS FOR BIDDING PURPOSES ONLY

(Sta 14+50 to 24+92)

Remove Delineators (5 Each)
Sta. 14+92.6 to 19+77.8 - Lt

Remove Traffic Signs
Sta. 20+90.1 - 20.5' Lt (Chevron Arrow, W1-8)
Sta. 21+94.1 - 17.2' Lt (Chevron Arrows, W1-8)
Sta. 23+31.4 - 20.2' Lt (Chevron Arrow, W1-8)

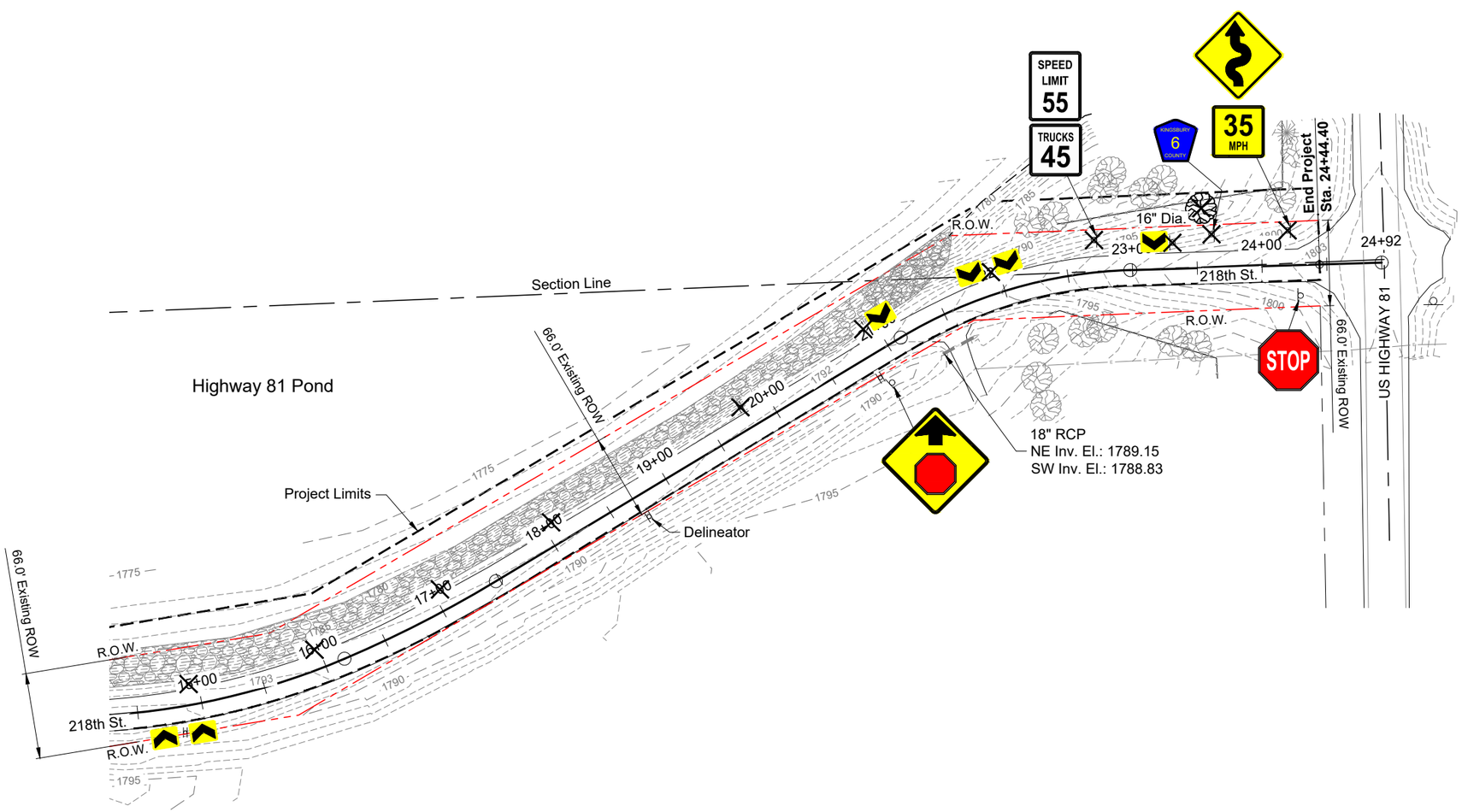
Remove Sign for Reset
Sta. 22+72.7 - 25.0' Lt (Speed Limit 55, R2-1; Trucks 45, R2-2)
Sta. 23+61.8 - 25.8' Lt (Kingsbury County 6, M1-6)
Sta. 24+20.6 - 27.0' Lt (S Curve, W1-5L; 35 mph, R2-2)

Clear & Grub Tree (1 Each)
Sta. 23+54.4 - 46.1' Lt (16" Dia.)

NORTH

Scale: 1" = 100'

50 25 0 50 100



REGISTERED PROFESSIONAL ENGINEER
REG. NO. 12059
CHRIS J. BROZIK
SOUTH DAKOTA

4/30/2026

STATE OF S.D.	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 6312(22)	25	58

EROSION CONTROL PLAN
(Sta 0+00 to 14+50)

FOR BIDDING PURPOSES ONLY

Install High Flow Silt Fence at the following locations:
Sta. 5+54.9 - 60.5' Lt to 8+00.0 - 37.5' Lt (257 Ft)

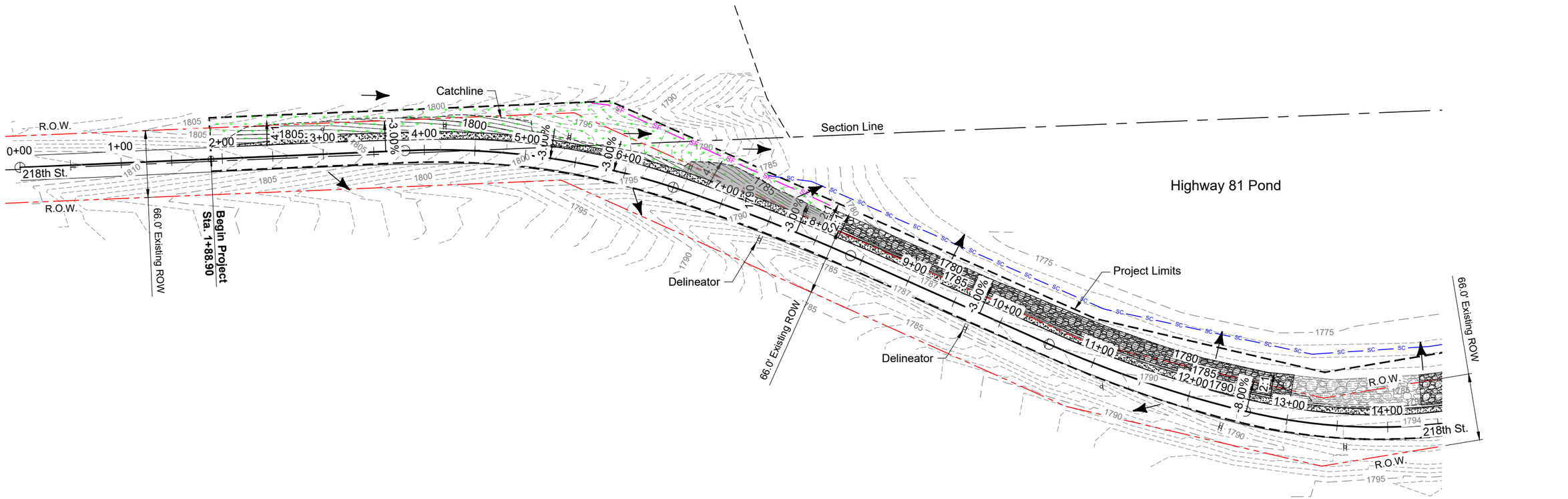
Install Type 3 Erosion Control Blanket at the following locations:
Sta. 6+54.4 to Sta. 8+00.0 Lt (257 SqYd)

Install Floating Silt Curtain at the following locations:
Sta. 7+33.6 - 41.8' Lt to 21+98.0 - 62.1' Lt (1,421 Ft)

NORTH

Scale: 1" = 100'

50 25 0 50 100



REGISTERED PROFESSIONAL ENGINEER
REG. NO. 12059
CHRIS J. BROZIK
SOUTH DAKOTA

4/30/2026

STATE OF S.D.	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 6312(22)	26	58

EROSION CONTROL PLAN
(Sta 14+50 to 24+92)

FOR BIDDING PURPOSES ONLY

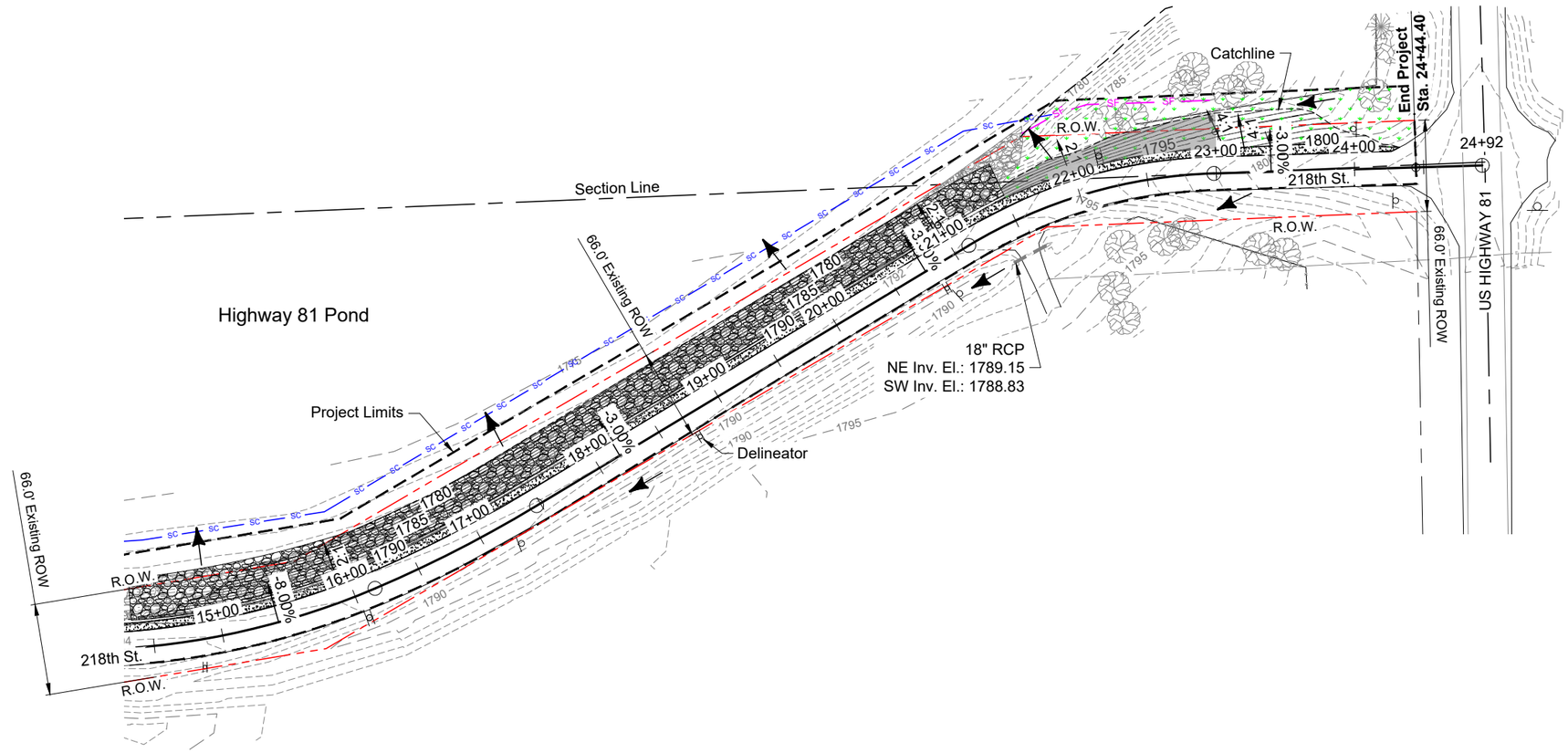
Install Type 3 Erosion Control Blanket at the following locations:
Sta. 21+50.0 to Sta. 23+00.0 Lt (298 SqYd)

Install High Flow Silt Fence at the following locations:
Sta. 21+76.7 - 56.3' Lt to 22+96.8 - 52.8' Lt (140 Ft)

NORTH

Scale: 1" = 100'

50 25 0 50 100



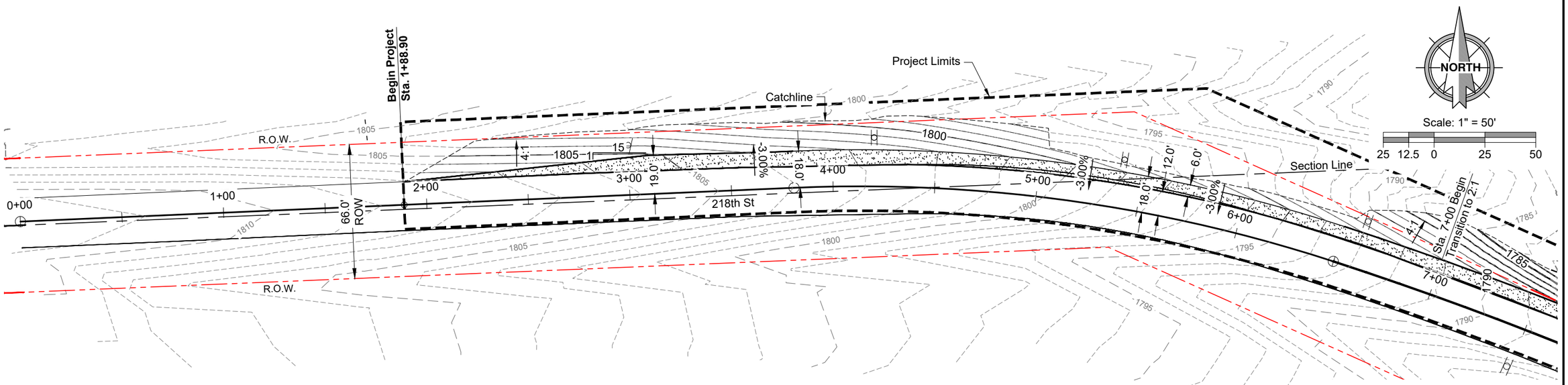
REGISTERED PROFESSIONAL ENGINEER
REG. NO. 12059
CHRIS J. BROZIK
SOUTH DAKOTA

4/30/2026

STATE OF S.D.	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 6312(22)	27	58

PLAN AND PROFILE
(Sta 0+00 to 7+00)

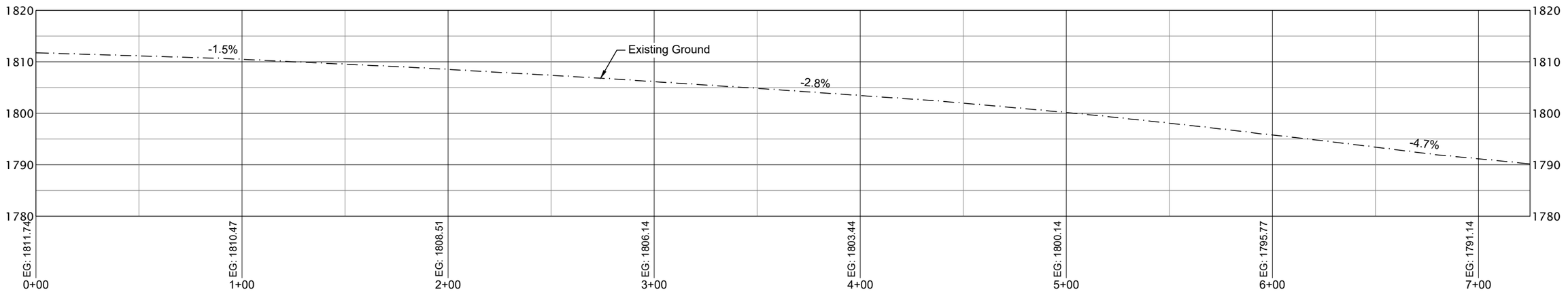
FOR BIDDING PURPOSES ONLY



REGISTERED PROFESSIONAL ENGINEER
REG. NO. 12059
CHRIS J. BROZIK
SOUTH DAKOTA

4/30/2026

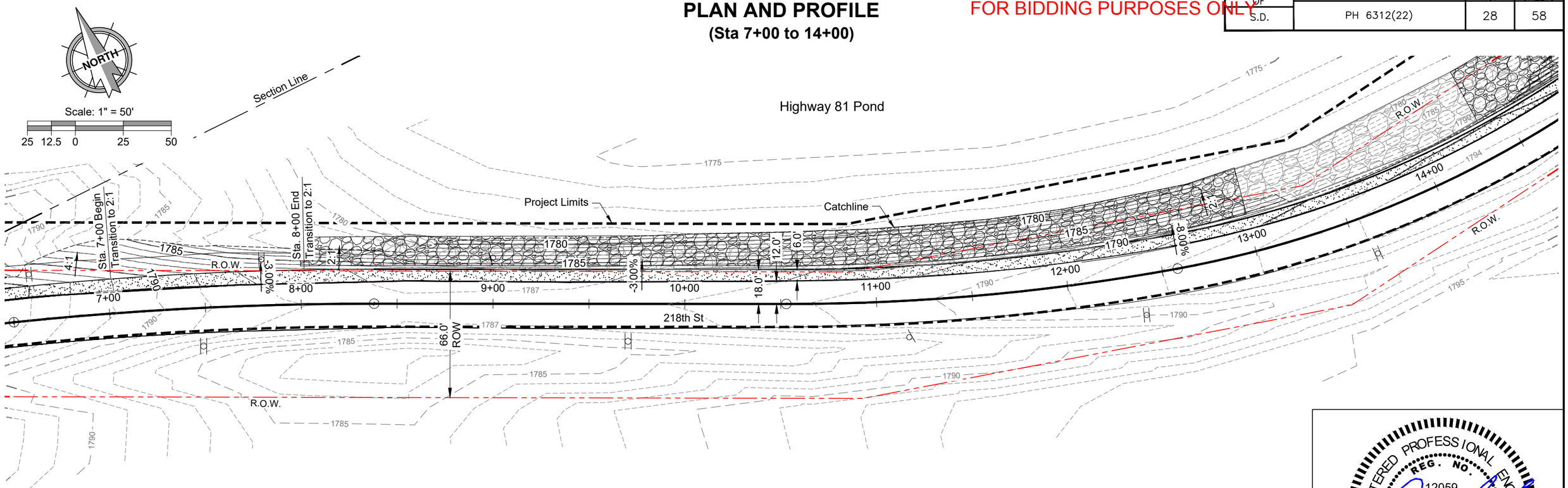
Horizontal Scale: 1"=50'
25 12.5 0 25 50
Vertical Scale: 1"=20'
10 5 0 10 20

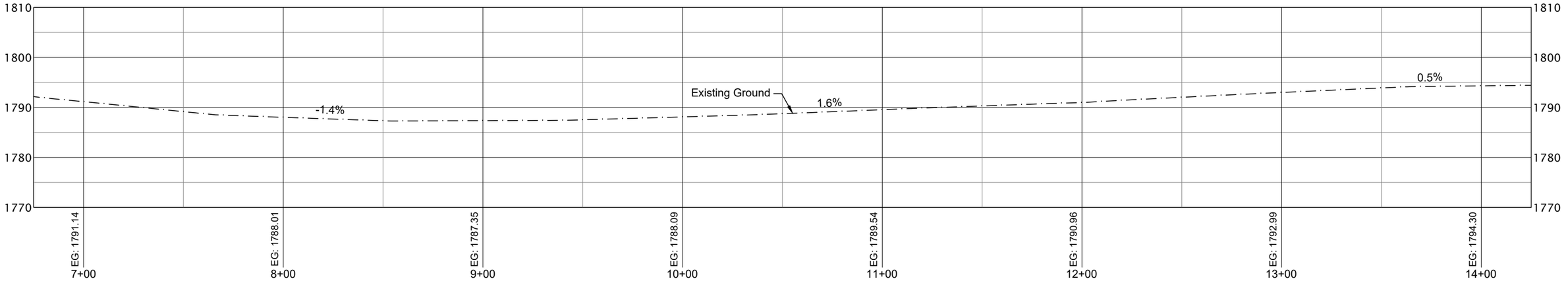


STATE OF S.D.	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 6312(22)	28	58

FOR BIDDING PURPOSES ONLY

PLAN AND PROFILE
(Sta 7+00 to 14+00)





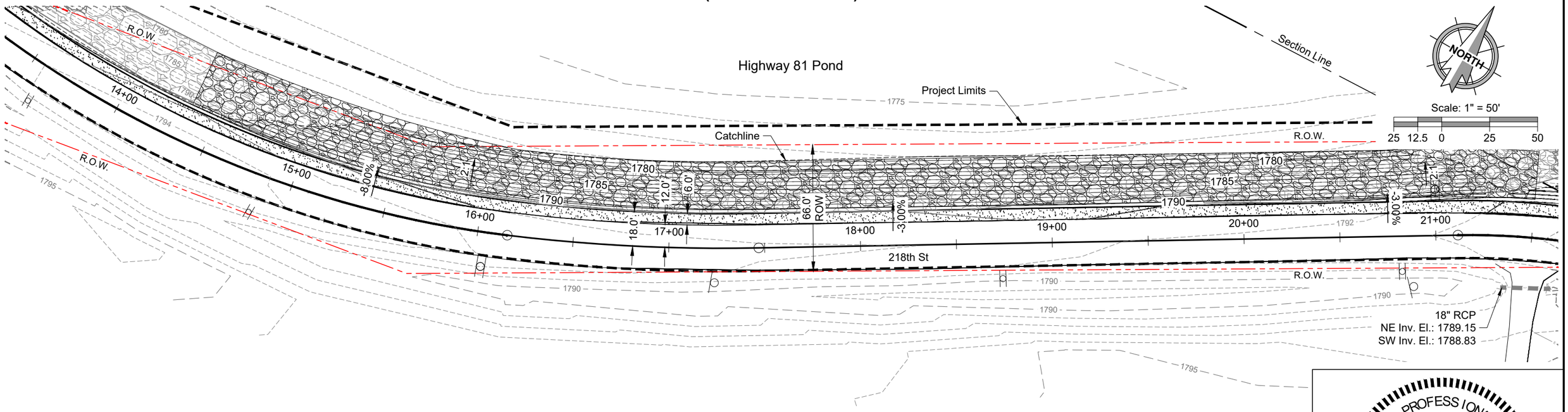
REGISTERED PROFESSIONAL ENGINEER
REG. NO. 12059
CHRIS J. BROZIK
SOUTH DAKOTA

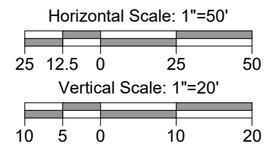
4/30/2026

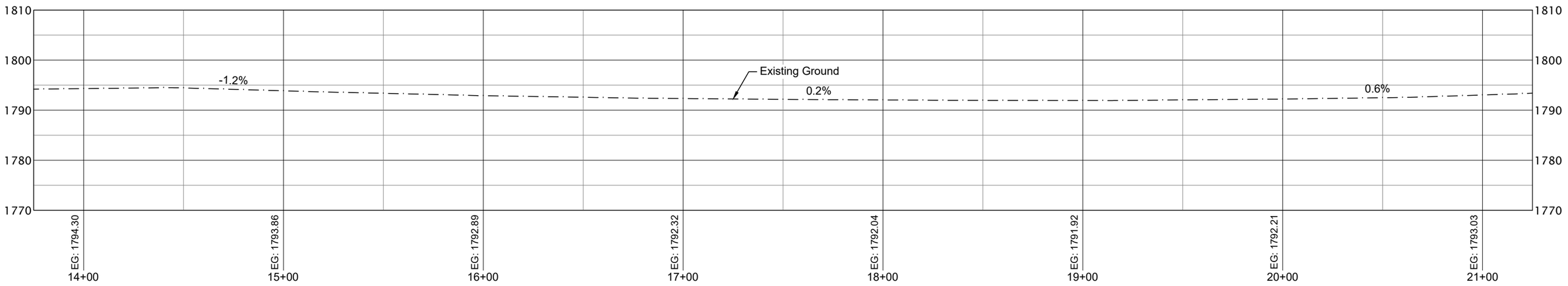
STATE OF S.D.	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 6312(22)	29	58

PLAN AND PROFILE
(Sta 14+00 to 21+00)

FOR BIDDING PURPOSES ONLY







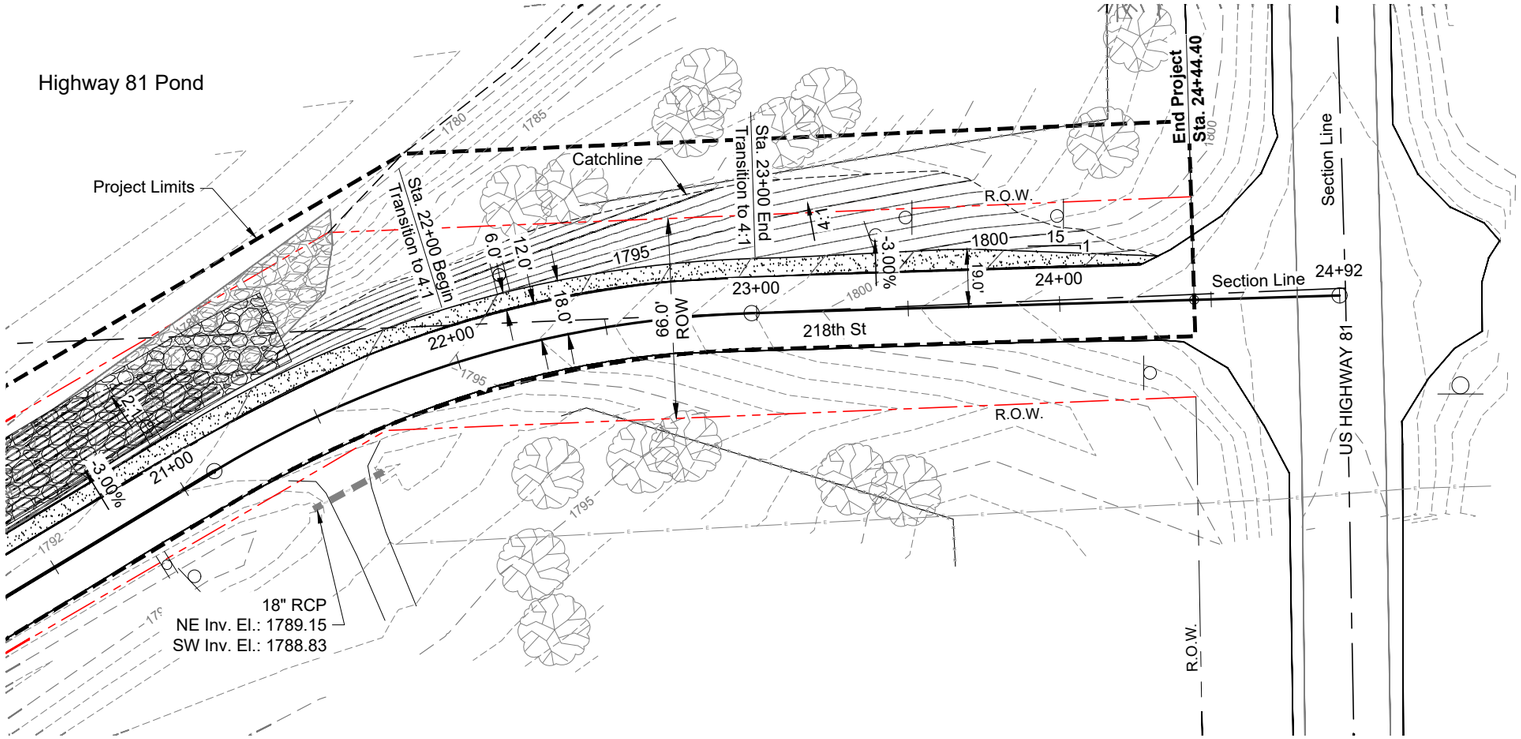
REGISTERED PROFESSIONAL ENGINEER
REG. NO. 12059
CHRIS J. BROZIK
SOUTH DAKOTA

4/30/2026

STATE OF S.D.	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 6312(22)	30	58

FOR BIDDING PURPOSES ONLY

PLAN AND PROFILE
(Sta 21+00 to 24+92)



NORTH

Scale: 1" = 50'

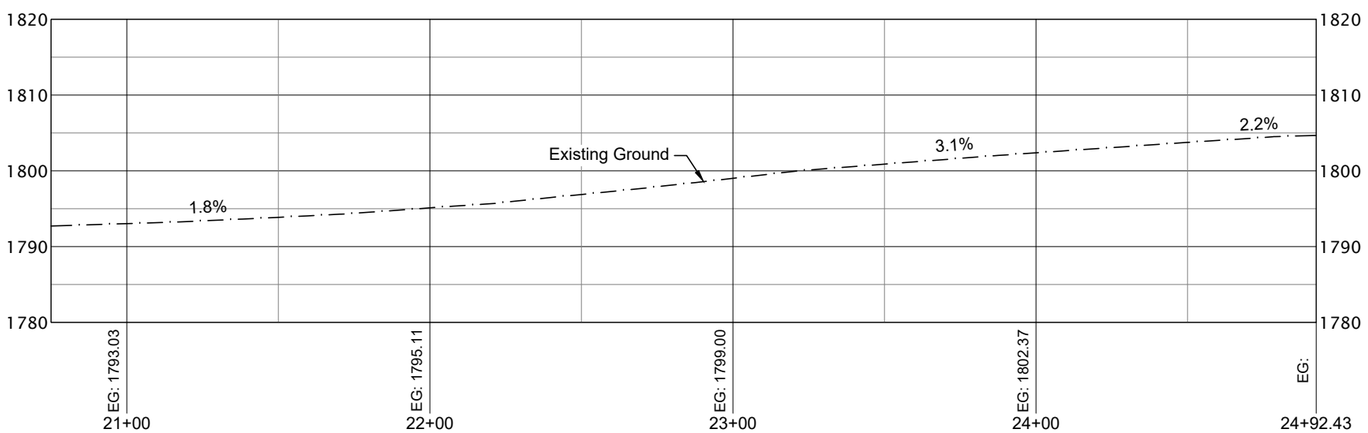
25 12.5 0 25 50

Horizontal Scale: 1"=50'

25 12.5 0 25 50

Vertical Scale: 1"=20'

10 5 0 10 20



REGISTERED PROFESSIONAL ENGINEER
REG. NO. 12059
CHRIS J. BROZIK
SOUTH DAKOTA

4/30/2026

STATE OF S.D.	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 6312(22)	31	58

FOR BIDDING PURPOSES ONLY

GUARDRAIL LAYOUT
(Sta 0+00 to 14+50)

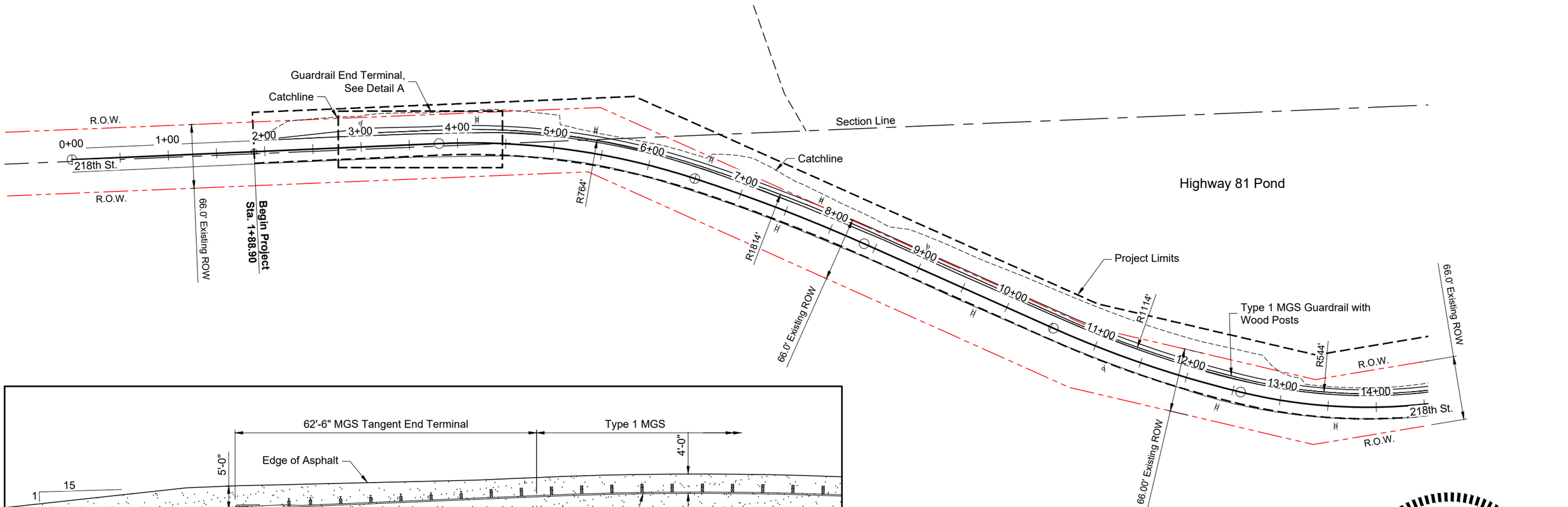
Install MGS Guardrail Tangent End Terminal
Sta. 3+18.30 to 3+80.8 - 14.0' Lt (1 Each)

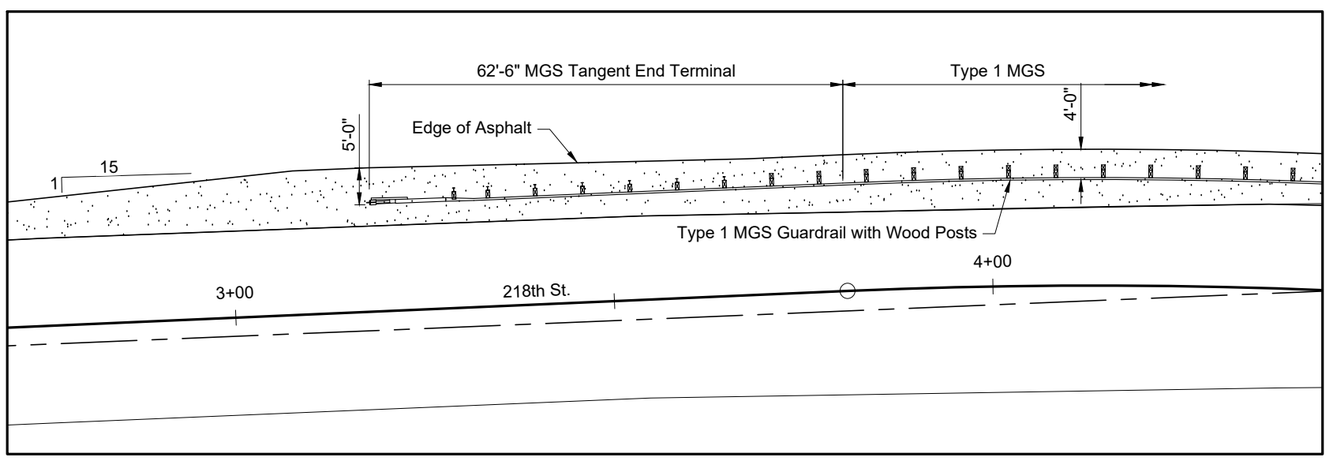
Install Type 1 MGS Guardrail with Wood Posts
Sta. 3+80.8 - 14.0' Lt to Sta. 22+98.3 - 14.0' Lt (1,918.0 Ft)

NORTH

Scale: 1" = 100'

50 25 0 50 100





Detail A
(Scale: 1" = 20')

NOTE:
See Guardrail Standard Plates for additional installation details.

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 12059
CHRIS J. BROZIK
SOUTH DAKOTA

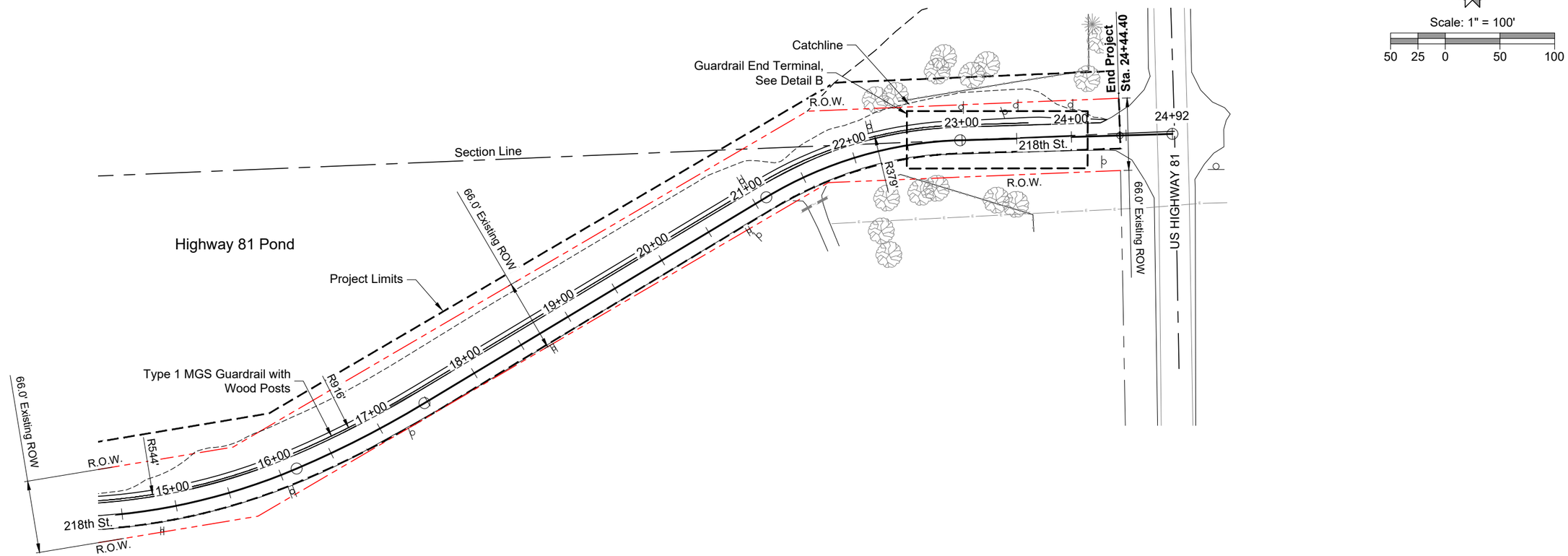
4/30/2026

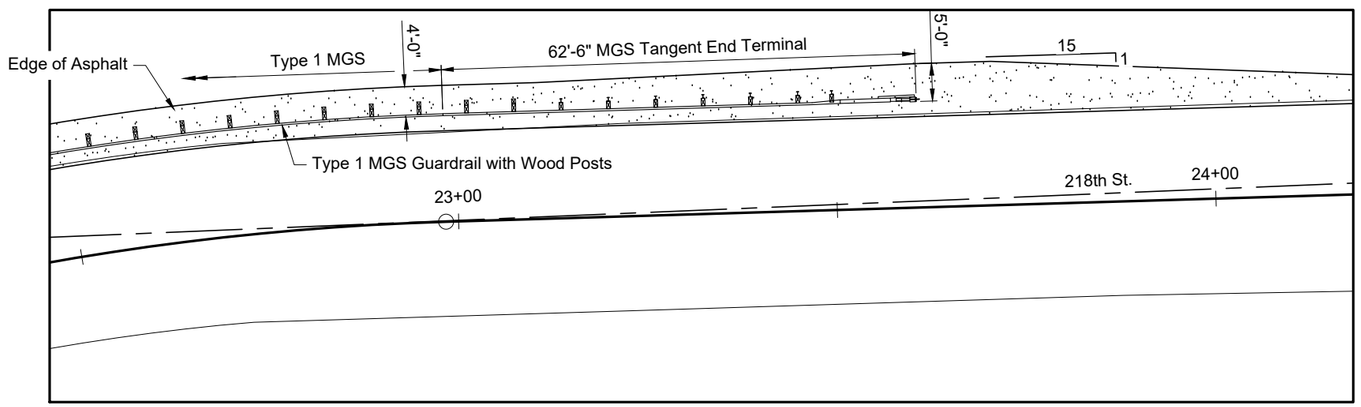
STATE OF S.D.	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 6312(22)	32	58

FOR BIDDING PURPOSES ONLY

GUARDRAIL LAYOUT
(Sta 14+50 to 24+92)

Install MGS Guardrail Tangent End Terminal
Sta. 22+98.3 to 23+60.8 - 14.0' Lt (1 Each)





Detail B
(Scale: 1" = 20')

NOTE:
See Guardrail Standard Plates for additional installation details.

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 12059
CHRIS J. BROZIK
SOUTH DAKOTA

4/30/2026

STATE OF S.D.	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 6312(22)	33	58

FOR BIDDING PURPOSES ONLY

PERMANENT SIGNING & PAVEMENT MARKINGS
(Sta 0+00 to 14+50)

Install Traffic Signs
Sta. 3+00.0 - 24.5' Lt (Chevron Arrow, W1-8)
Sta. 4+20.0 - 24.0' Lt (Chevron Arrows, W1-8)
Sta. 5+40.0 - 24.0' Lt (Chevron Arrows, W1-8)
Sta. 6+60.0 - 24.0' Lt (Chevron Arrows, W1-8)
Sta. 7+80.0 - 24.0' Lt (Chevron Arrows, W1-8)
Sta. 9+00.0 - 24.0' Lt (Chevron Arrow, W1-8)

4" Pavement Marking Paint, White
Sta. 1+88.90 to 24+32.17 - 11.5' Lt (Solid - 2,244 Ft)
Sta. 1+88.90 to 24+32.17 - 11.5' Rt (Solid - 2,244 Ft)

4" Pavement Marking Paint, Yellow (2" From CL; Solid WB Lane - 2,244 Ft)
Sta. 1+88.90 to 24+32.17 - 0.17' Lt

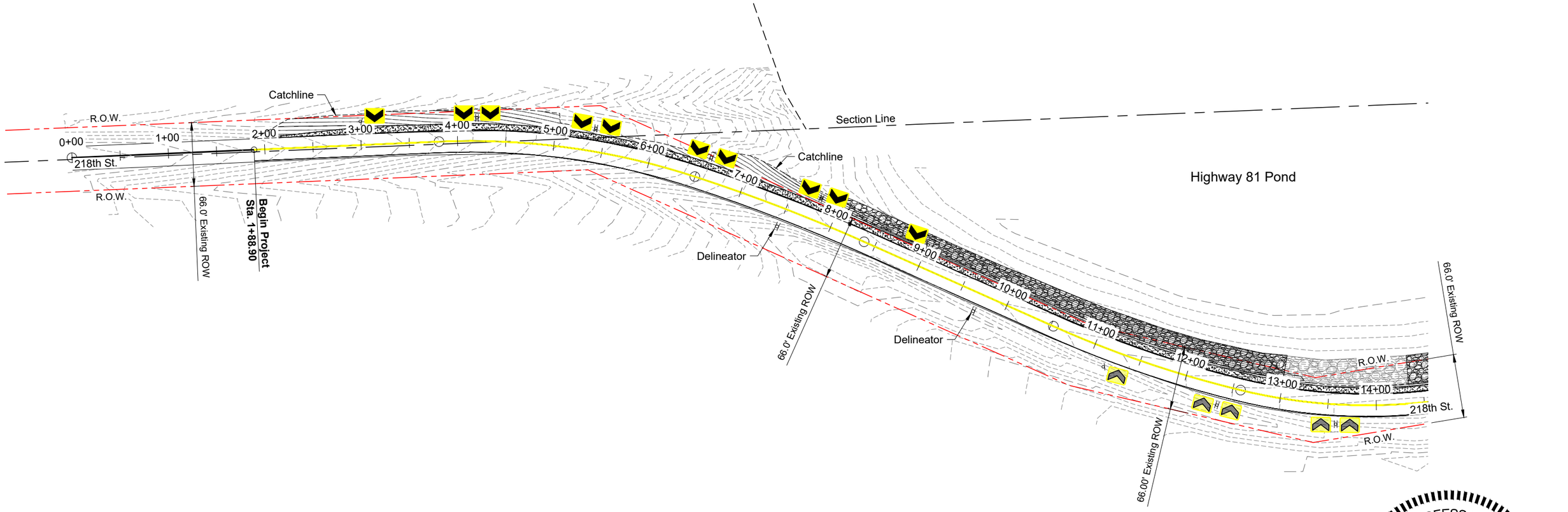
4" Pavement Marking Paint, Yellow (2" From CL; Solid EB Lane - 2,244 Ft)
Sta. 1+88.90 to 24+32.17 - 0.17' Rt

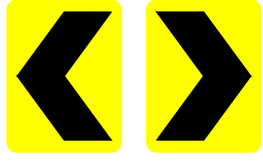
Grind 8" Rumble Stripe in Asphalt Concrete
Sta. 1+88.90 to 24+32.17 - 11.5' Lt (0.4 Miles)

NORTH

Scale: 1" = 100'

50 25 0 50 100





W1-8L
(24" x 30")

W1-8R
(24" x 30")

REGISTERED PROFESSIONAL ENGINEER
REG. NO.
12059
CHRIS J.
BROZIK
SOUTH DAKOTA

4/30/2026

STATE OF S.D.	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 6312(22)	34	58

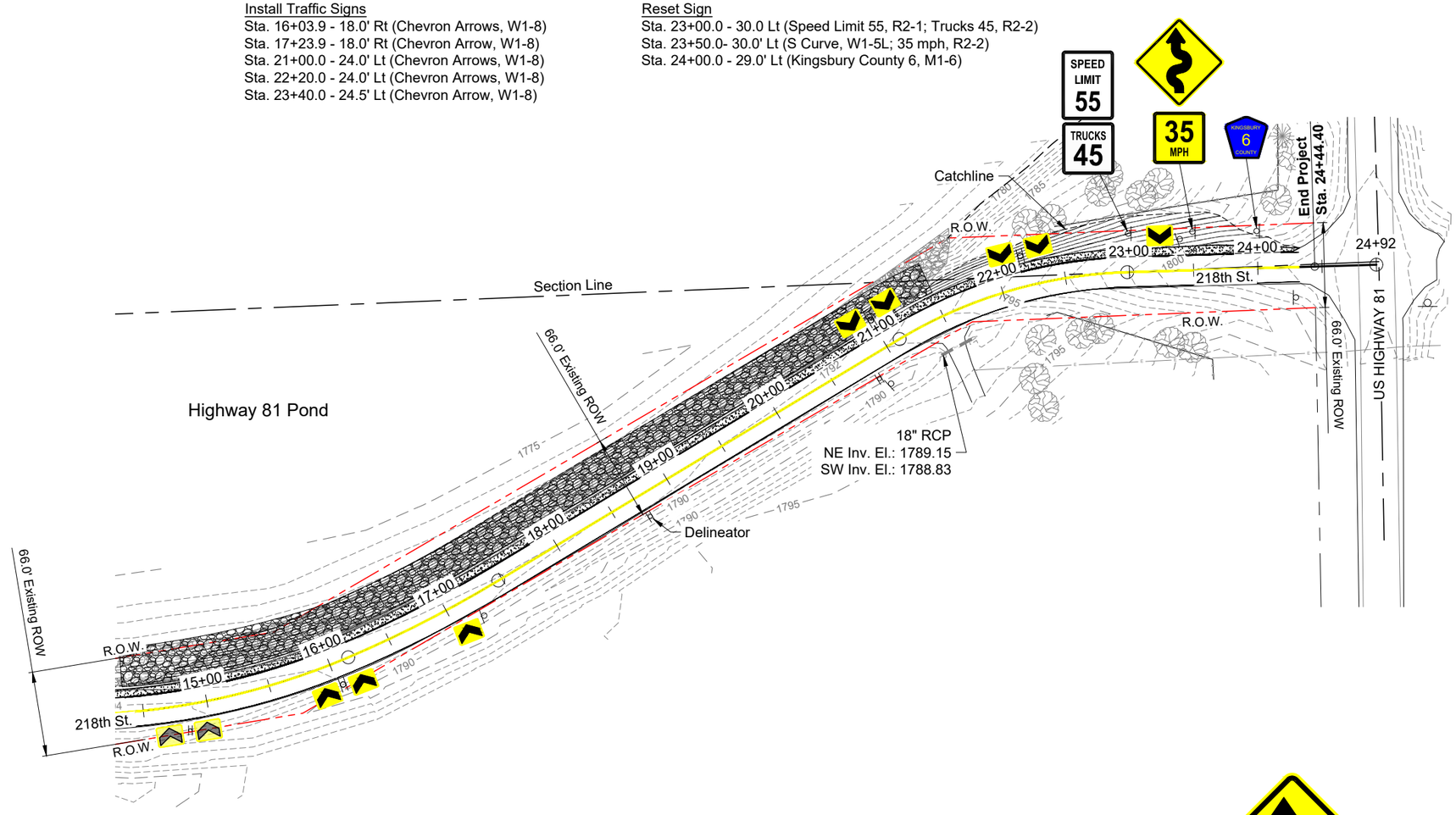
PERMANENT SIGNING & PAVEMENT MARKINGS

FOR BIDDING PURPOSES ONLY

(Sta 14+50 to 24+92)

Install Traffic Signs
Sta. 16+03.9 - 18.0' Rt (Chevron Arrows, W1-8)
Sta. 17+23.9 - 18.0' Rt (Chevron Arrow, W1-8)
Sta. 21+00.0 - 24.0' Lt (Chevron Arrows, W1-8)
Sta. 22+20.0 - 24.0' Lt (Chevron Arrows, W1-8)
Sta. 23+40.0 - 24.5' Lt (Chevron Arrow, W1-8)

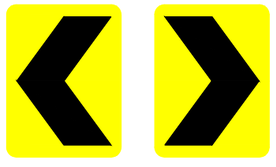
Reset Sign
Sta. 23+00.0 - 30.0 Lt (Speed Limit 55, R2-1; Trucks 45, R2-2)
Sta. 23+50.0- 30.0' Lt (S Curve, W1-5L; 35 mph, R2-2)
Sta. 24+00.0 - 29.0' Lt (Kingsbury County 6, M1-6)



NORTH

Scale: 1" = 100'

50 25 0 50 100

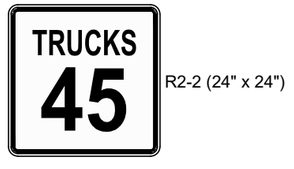


W1-8L (24" x 30")

W1-8R (24" x 30")



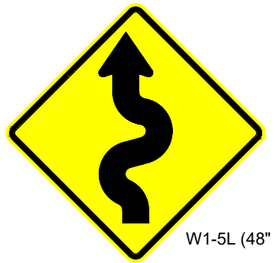
R2-1 (24" x 30")



R2-2 (24" x 24")



M1-6 (24" x 24")



W1-5L (48" x 48")

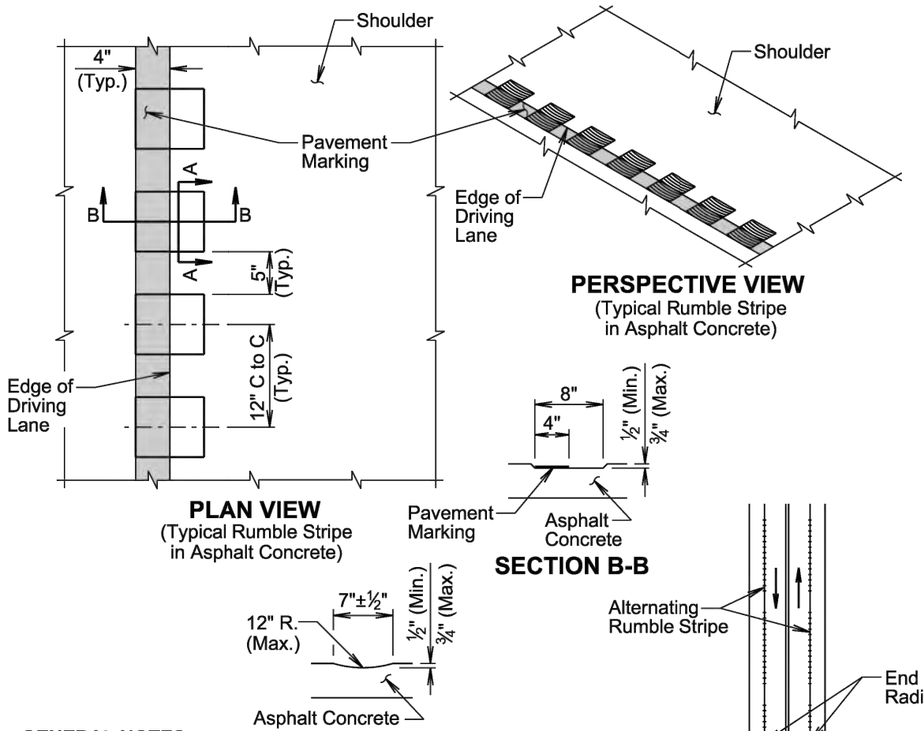


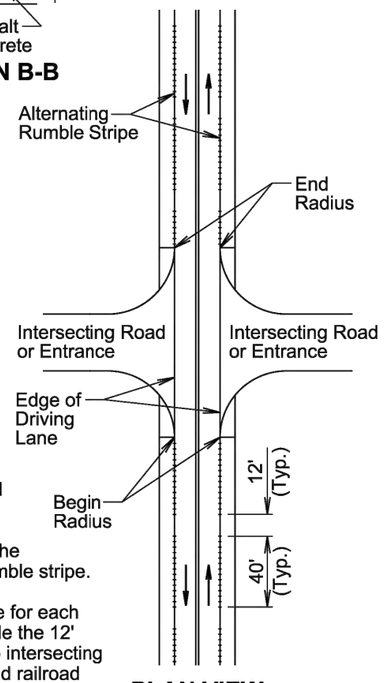
R2-2 (24" x 24")



4/30/2026

FOR BIDDING PURPOSES ONLY





GENERAL NOTES:

A rumble stripe will be constructed on all of the asphalt concrete shoulders by grinding alternating patterns of 40' continuous indentations in the asphalt concrete. The rumble stripe will receive a flush seal or asphalt surface treatment as specified in the plans.

A rumble stripe will not be constructed through intersecting roads, entrances, turnouts, bridge decks, bridge approach slabs, and railroad crossings. The lengths of the 40' segments with continuous indentations and the 12' segments without a rumble stripe adjacent to the intersecting roads, entrances, turnouts, bridge decks, bridge approach slabs, and railroad crossings will be adjusted as approved by the Engineer.

Prior to constructing the rumble stripe the Contractor will submit to the Engineer, for approval, the proposed method of constructing the rumble stripe.

Measurement of the rumble stripe will be to the nearest 0.1 of a mile for each shoulder. Measurement and payment of the rumble stripe will include the 12' long segments without rumble stripes and the segments adjacent to intersecting roads, entrances, turnouts, bridge decks, bridge approach slabs, and railroad crossings without rumble stripes. Payment for constructing the rumble stripe will be at the contract unit price per mile for "Grind 8" Rumble Strip or Stripe in Asphalt Concrete".

September 14, 2019

Published Date: 2026	SDDOT	8" RUMBLE STRIPE IN ASPHALT CONCRETE ON NONDIVIDED HIGHWAY SHOULDERS	PLATE NUMBER 320.20
			Sheet 1 of 1

TYPE AND DETAILS OF MGS

Type of MGS	W Beam Rail Single or Double (Nested)	Blockout Size	Blockout Material	Post Size	Post Material	Post Spacing
1	Single	6"x12"x14"	Wood	6"x8"x6'-0"	Wood	6'-3"
1C	Single	6"x12"x14"	Wood	6"x8"x7'-6"	Wood	6'-3"
2	Single	6"x12"x14"	Wood	6"x8"x6'-0"	Wood	3'-1½"
3	Single	6"x12"x14"	Wood	6"x8"x6'-0"	Wood	1'-6¾"
4	Double	6"x12"x14"	Wood	6"x8"x6'-0"	Wood	6'-3"

STANDARD PLATE REFERENCE

Type of MGS	See Standard Plate(s)
1	630.20, 630.22
1C	630.20, 630.25
2	630.20
3	630.20
4	630.20

GENERAL NOTES:

Asphalt concrete will be the same type used elsewhere on the project or will be as specified in the plans. If asphalt concrete is not specified in the plans, the asphalt concrete will conform to the Specifications for "Asphalt Concrete Composite".

Granular material will be the same type used elsewhere on the project or will be as specified in the plans. If granular material type is not specified in the plans, the material will conform to the Specifications for "Base Course". The granular material will be placed the same thickness as the mainline surfacing or as specified in the plans.

Topsoil is not shown in the transverse section drawing on sheet 2 of 6.

All W beam rail will be Type 1 and Class A (12 Ga.) unless specified otherwise in the plans.

W beam rail section lengths may be 12'-6" and/or 25'-0". The combination of section lengths used will be compatible with the total length of rail per site as shown in the plans.

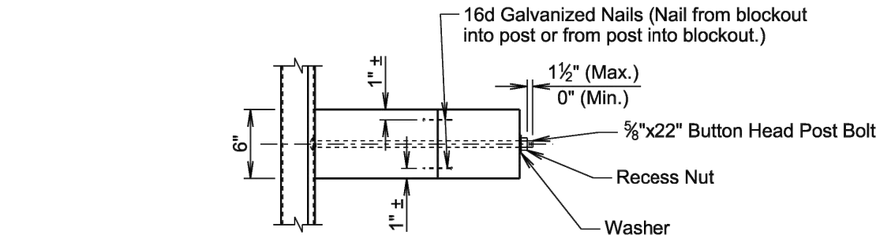
Slots in the rails will be provided as specified in the plans and by the manufacturer. A drilled hole through the rail is not allowed as a replacement for a slot. If the Contractor must create a slot, a cutting torch or plasma cutter is not allowed. The slot edges will be smooth and free of burrs or notches.

All costs for constructing the MGS including labor, equipment, and materials including all posts, blockouts, steel beam rail, and hardware will be incidental to the contract unit price per foot for the respective MGS contract item.

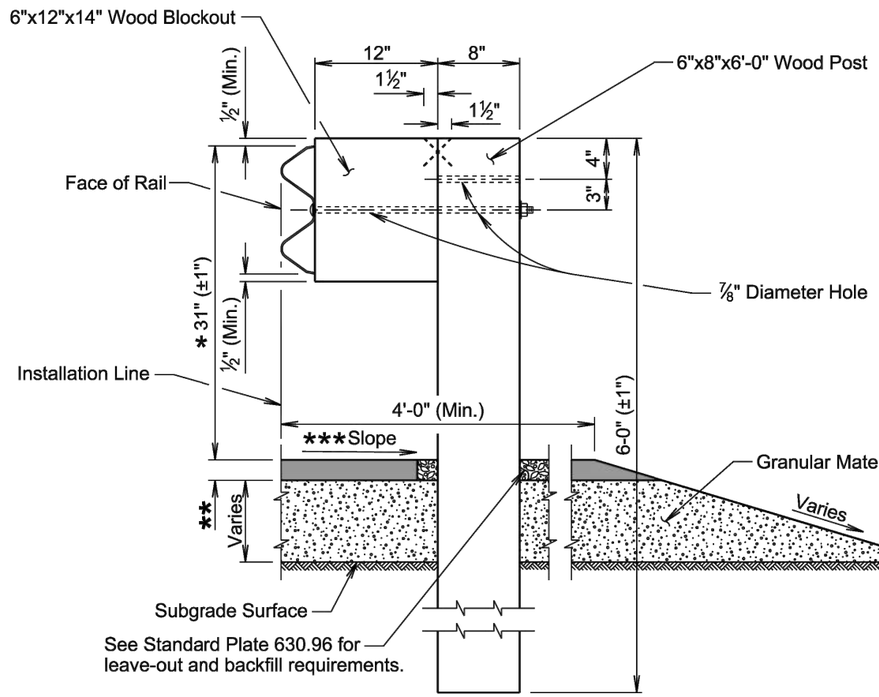
April 8, 2025

Published Date: 2026	SDDOT	MIDWEST GUARDRAIL SYSTEM (MGS)	PLATE NUMBER 630.20
			Sheet 1 of 6

FOR BIDDING PURPOSES ONLY



TOP VIEW
(Type 1, 2, or 3 MGS Installation)



TRANSVERSE SECTION
(Type 1, 2, or 3 MGS Installation)

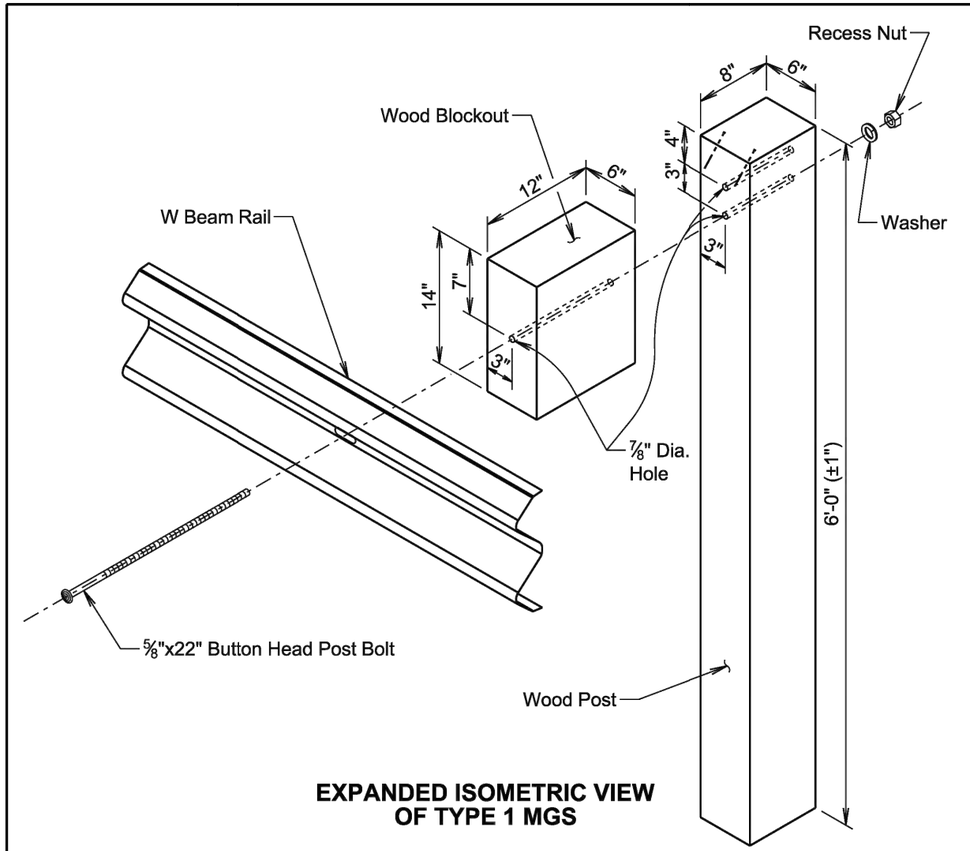
* See Standard Plate 630.99

** 2" asphalt concrete or as specified in the plans.

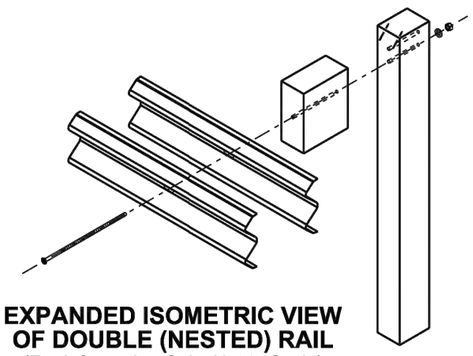
*** The cross slope will be as specified in the plans; however, the cross slope will not be steeper than a 10:1 slope.

April 8, 2025

Published Date: 2026	SDDOT	MIDWEST GUARDRAIL SYSTEM (MGS)	PLATE NUMBER 630.20
			Sheet 2 of 6



EXPANDED ISOMETRIC VIEW OF TYPE 1 MGS

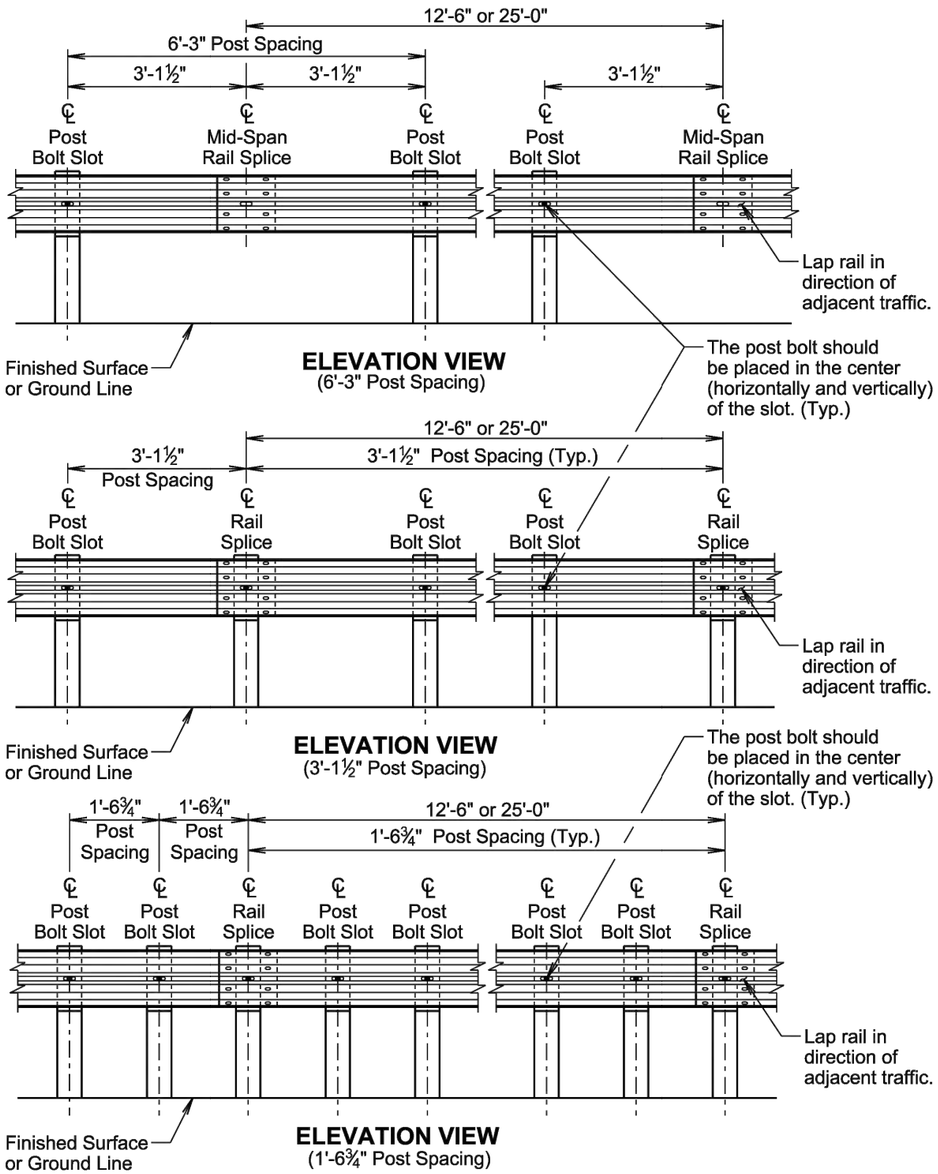


EXPANDED ISOMETRIC VIEW OF DOUBLE (NESTED) RAIL
(For Information Only, Not to Scale)

April 8, 2025

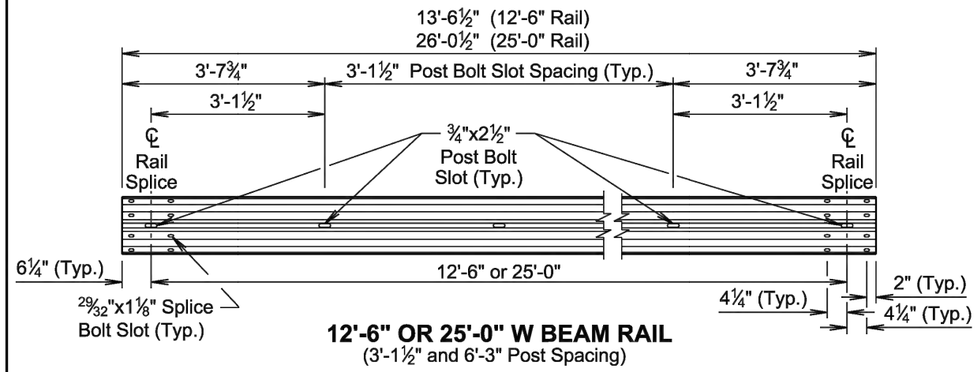
Published Date: 2026	SDDOT	MIDWEST GUARDRAIL SYSTEM (MGS)	PLATE NUMBER 630.20
			Sheet 3 of 6

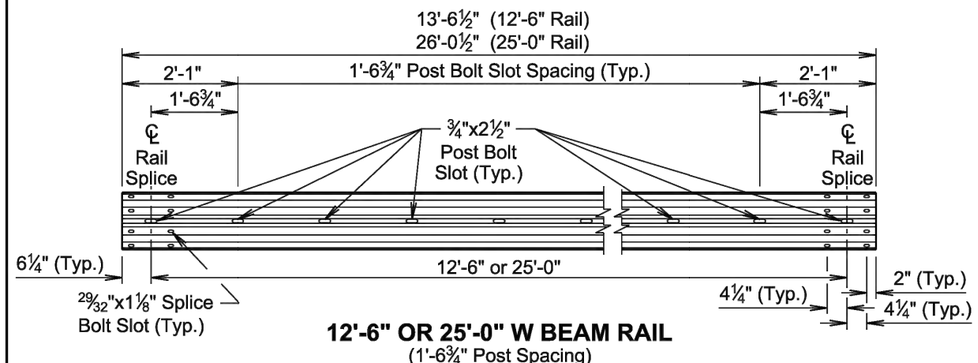
FOR BIDDING PURPOSES ONLY



April 8, 2025

Published Date: 2026	SDDOT	MIDWEST GUARDRAIL SYSTEM (MGS)	PLATE NUMBER 630.20
			Sheet 4 of 6



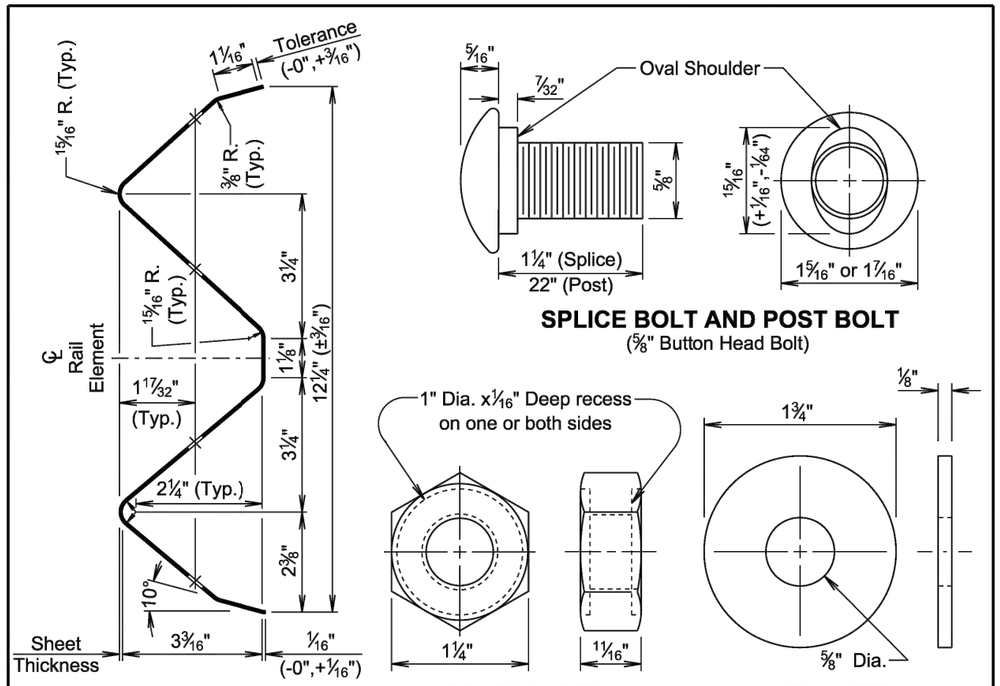


April 8, 2025

Published Date: 2026	SDDOT	MIDWEST GUARDRAIL SYSTEM (MGS)	PLATE NUMBER 630.20
			Sheet 5 of 6

FOR BIDDING PURPOSES ONLY

STATE OF S.D.	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 6312(22)	38	58



SECTION THROUGH W BEAM RAIL

SPLICE BOLT AND POST BOLT
(5/8" Button Head Bolt)

RECESS NUT
(At lap splices, the recess will be placed against the steel rail.)

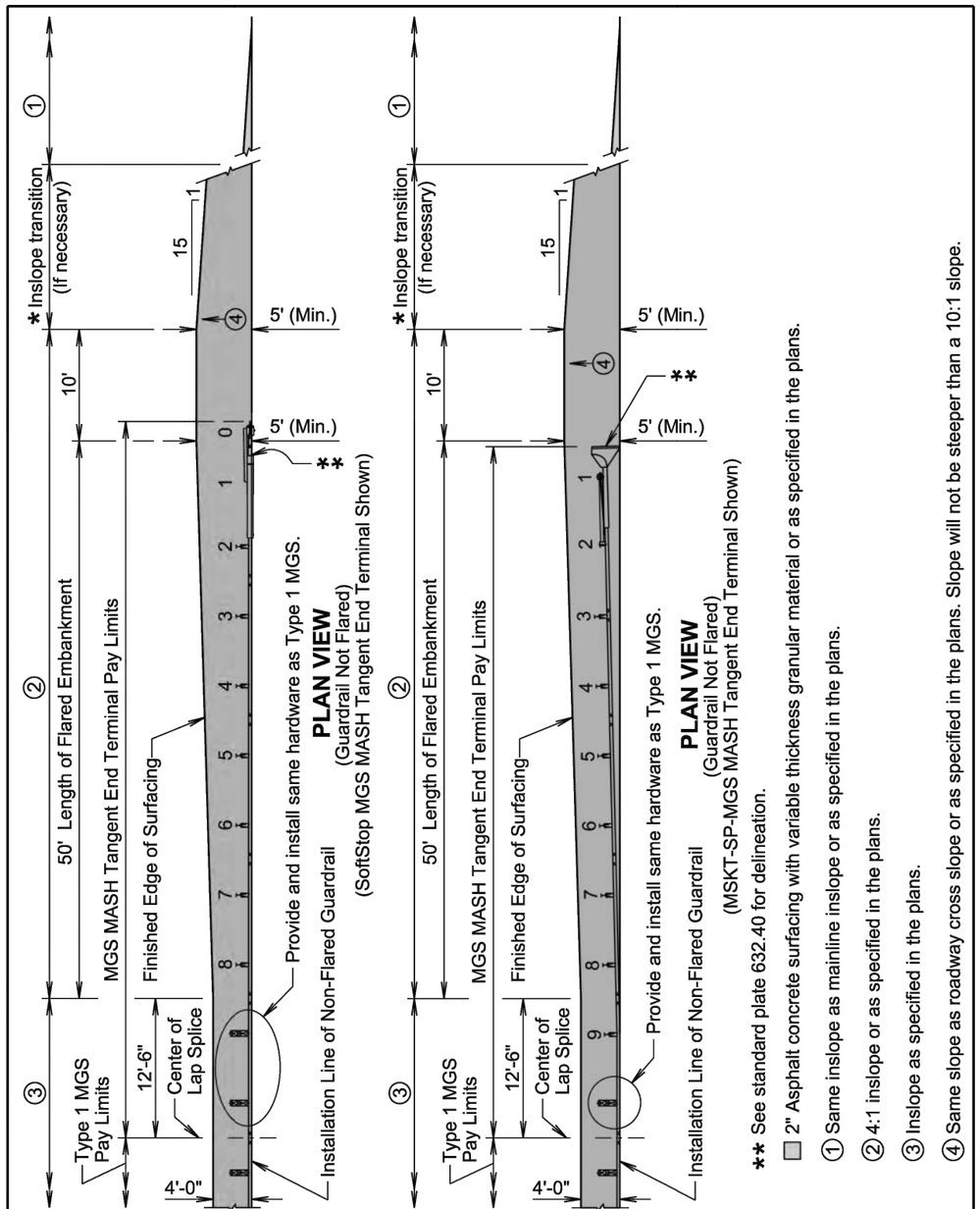
WASHER
(The washer will be placed between the back side of wood post and the recess nut, see sheet 2 and 3.)

PLAN VIEW
(Lap Splice)
(Lap rail in direction of adjacent traffic.)
(8 splice bolts and 8 recess nuts per splice, NO washers)

SECTION VIEW
(At Post Bolt)

April 8, 2025

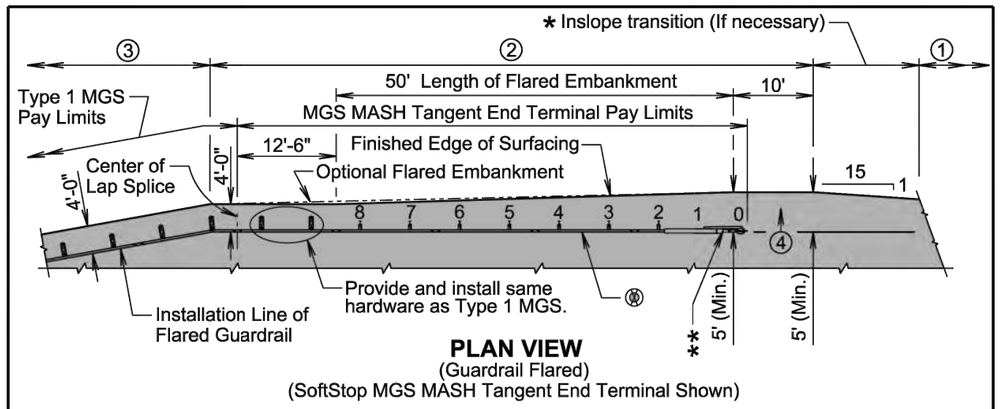
Published Date: 2026	SDDOT	MIDWEST GUARDRAIL SYSTEM (MGS)	PLATE NUMBER 630.20
			Sheet 6 of 6



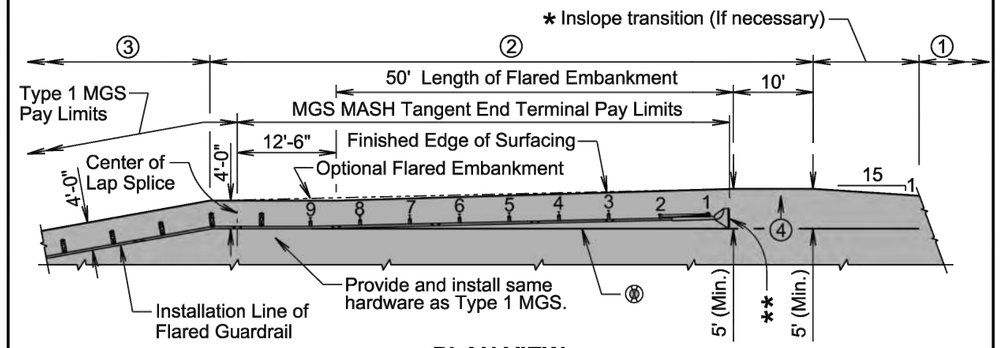
April 8, 2025

Published Date: 2026	SDDOT	EMBANKMENT, SURFACING, AND PAYMENT LIMITS FOR MGS MASH TANGENT END TERMINAL	PLATE NUMBER 630.89
			Sheet 1 of 3

FOR BIDDING PURPOSES ONLY



PLAN VIEW
(Guardrail Flared)
(SoftStop MGS MASH Tangent End Terminal Shown)



PLAN VIEW
(Guardrail Flared)
(MSKT-SP-MGS MASH Tangent End Terminal Shown)

GENERAL NOTES:

The MGS MASH tangent end terminals above are for illustrative purpose only. Pay limit length of the MGS MASH tangent end terminal is 62'-6".

* The length of inslope transition varies with the amount of change between inslopes. The length of the transition will change 100' for every whole number change in the inslope. For Example: If the inslope changes from a 5:1 to a 4:1 the length of the inslope transition would be 100'. If the inslope changes from a 6:1 to a 4:1 the length of the inslope transition would be 200'.

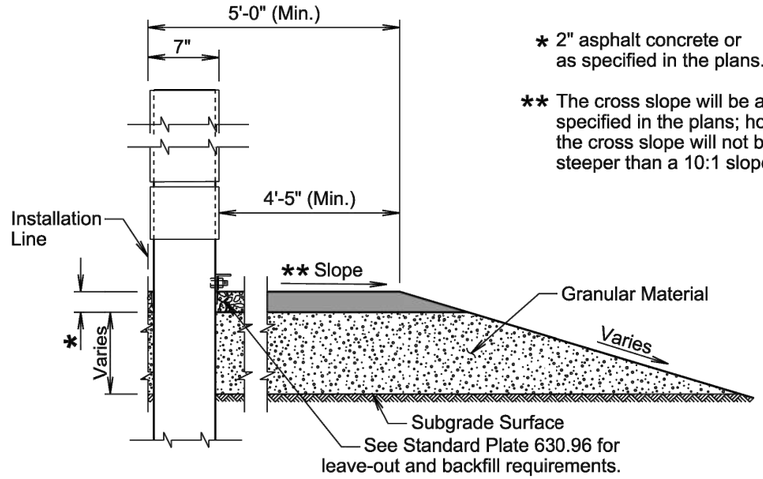
Ⓜ The installation reference line for MGS MASH tangent end terminals will always be parallel to the roadway.

Asphalt concrete will be the same type used elsewhere on the project or will be as specified in the plans. If asphalt concrete is not specified in the plans, the asphalt concrete will conform to the Specifications for "Asphalt Concrete Composite."

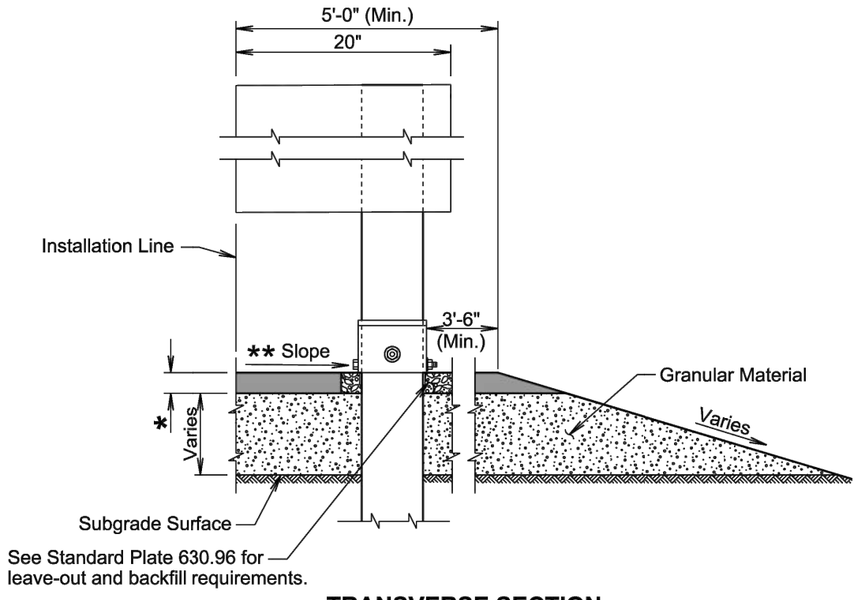
Granular material will be the same type used elsewhere on the project or will be as specified in the plans. If granular material type is not specified in the plans, the material will conform to the Specifications for "Base Course". The granular material will be placed the same thickness as the mainline surfacing or as specified in the plans.

April 8, 2025

Published Date: 2026	SDDOT	EMBANKMENT, SURFACING, AND PAYMENT LIMITS FOR MGS MASH TANGENT END TERMINAL	PLATE NUMBER 630.89 Sheet 2 of 3



TRANSVERSE SECTION
(SoftStop MGS MASH Tangent End Terminal Shown)

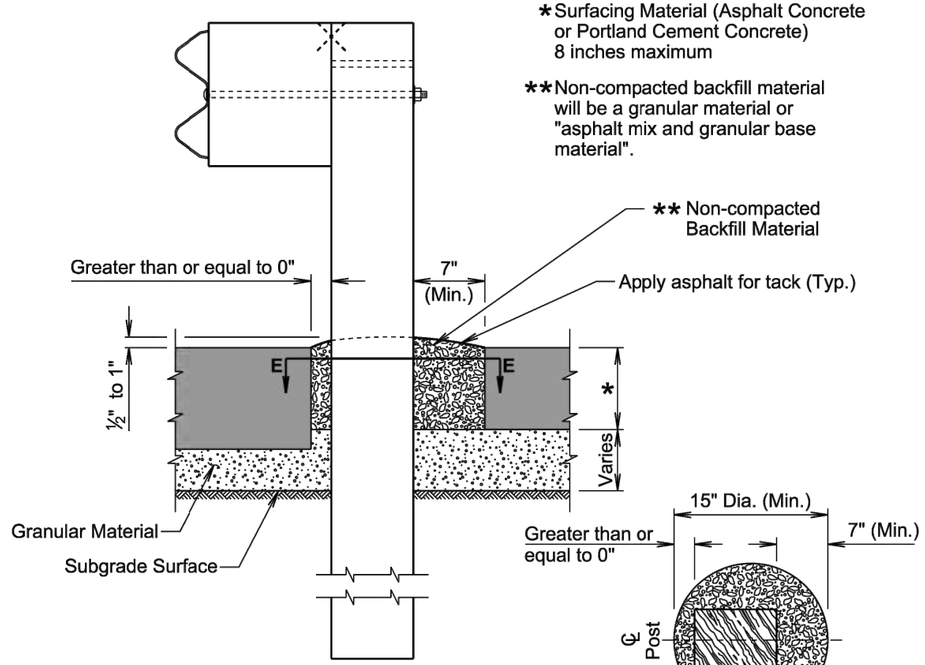


TRANSVERSE SECTION
(MSKT-SP-MGS MASH Tangent End Terminal Shown)

April 8, 2025

Published Date: 2026	SDDOT	EMBANKMENT, SURFACING, AND PAYMENT LIMITS FOR MGS MASH TANGENT END TERMINAL	PLATE NUMBER 630.89 Sheet 3 of 3

FOR BIDDING PURPOSES ONLY



GENERAL NOTES:

The leave-out limits may be increased to accommodate construction equipment and tolerances.

When posts are installed in augured or dug holes, the backfill material will be compacted to the bottom of the pavement surfacing material to the satisfaction of the Engineer. The backfill material for the thickness of the pavement surfacing material will be non-compacted.

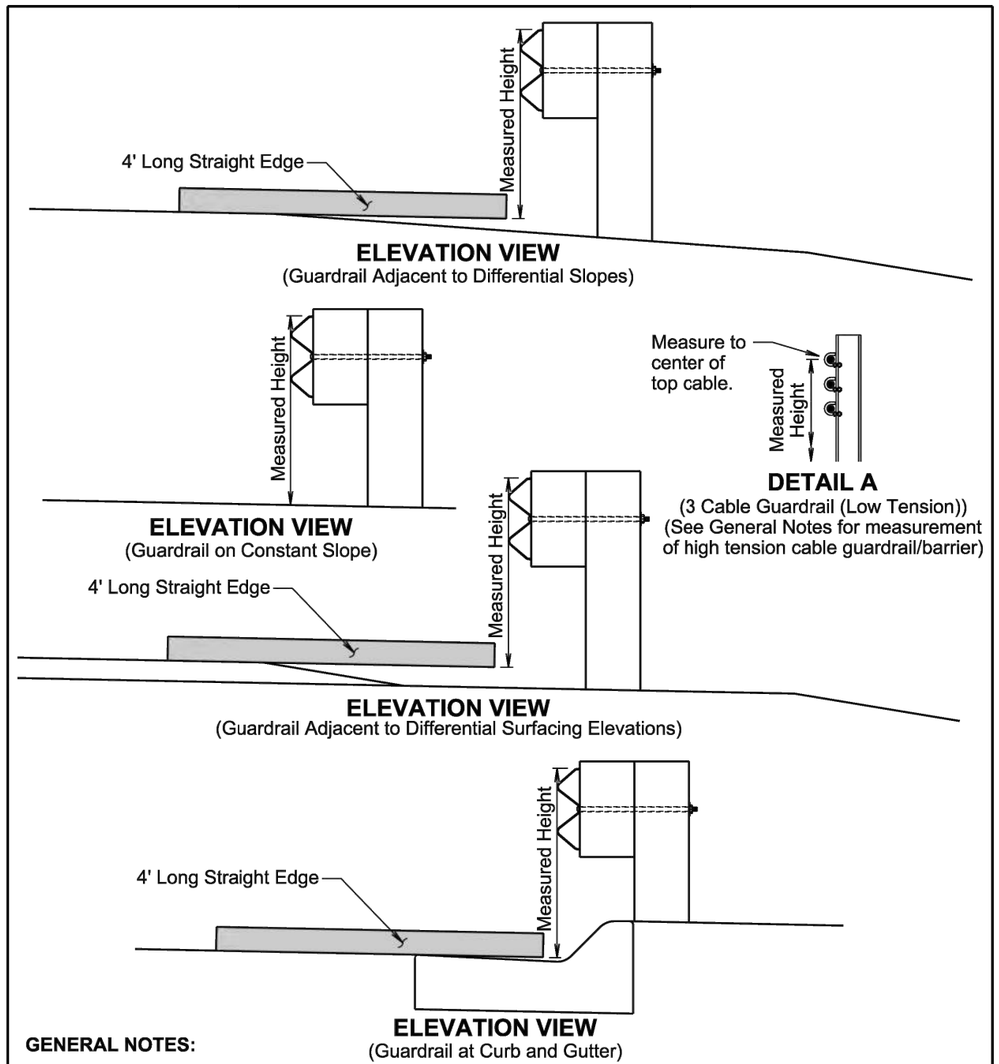
The backfill material will be mounded ½ inch to 1 inch above the top of the adjacent surfacing as illustrated above.

Asphalt for tack will be applied to the surface of the backfill material at the rate of 0.15 to 0.20 gallons per square yard.

All costs for constructing the leave-out including labor, equipment, and materials which includes the backfill material and tack coat will be incidental to the contract unit price for the respective guardrail contract item.

November 19, 2021

Published Date: 2026	SDDOT	GUARDRAIL POST INSTALLED IN ASPHALT CONCRETE OR PORTLAND CEMENT CONCRETE	PLATE NUMBER 630.96
			Sheet 1 of 1



GENERAL NOTES:

The W Beam guardrail shown is for illustrative purpose. The guardrail height for all types of guardrail systems except for high tension cable guardrail/barrier will be measured in accordance with this standard plate.

When measuring height of 3 cable guardrail (low tension) the height will be measured to the center of the top cable. See Detail A.

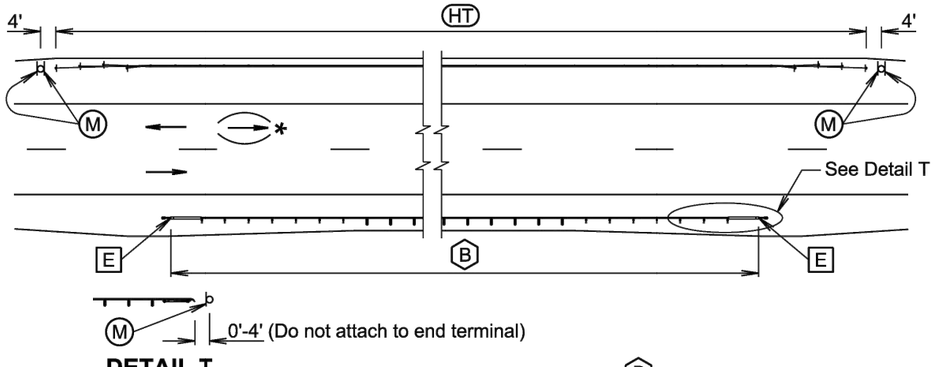
The height of high tension cable guardrail/barrier will be measured in accordance with the Manufacturer's installation instructions.

September 14, 2019

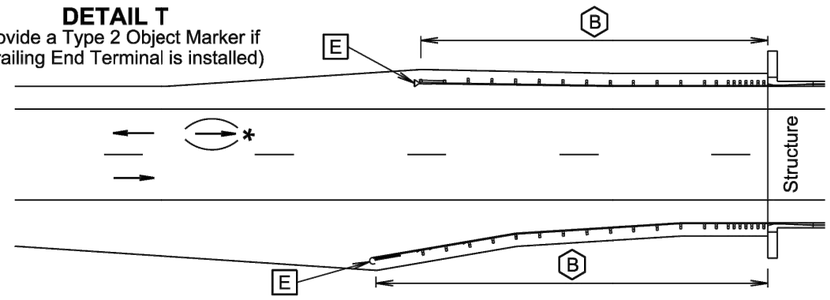
Published Date: 2026	SDDOT	MEASURING GUARDRAIL HEIGHT	PLATE NUMBER 630.99
			Sheet 1 of 1

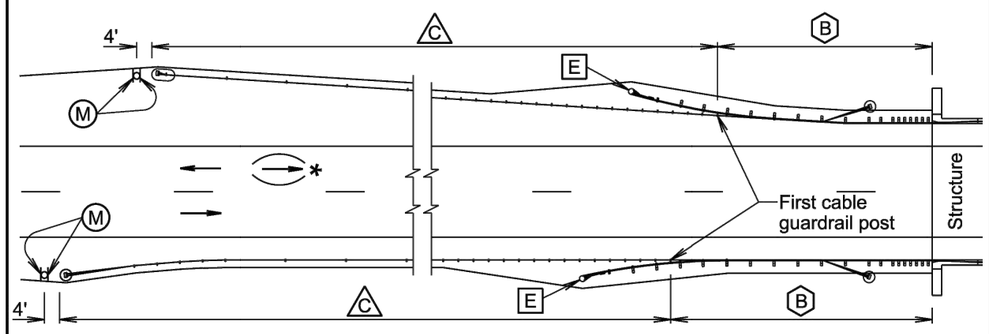
FOR BIDDING PURPOSES ONLY

STATE OF S.D.	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 6312(22)	41	58



DETAIL T
(Provide a Type 2 Object Marker if a Trailing End Terminal is installed)





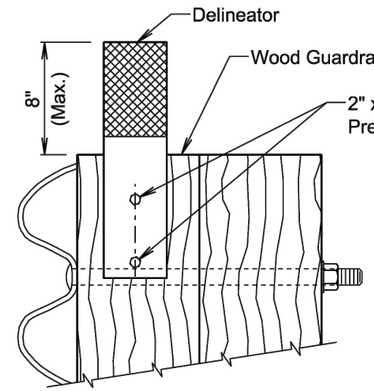
PLAN VIEW
(Typical Guardrail Layouts)

- (B) Steel Beam Guardrail Delineation
- [E] Guardrail End Terminal Object Marker
- <C> 3 Cable Guardrail (Low Tension) Delineation
- (HT) High Tension Cable Guardrail Delineation
- (M) Type 2 Object Marker

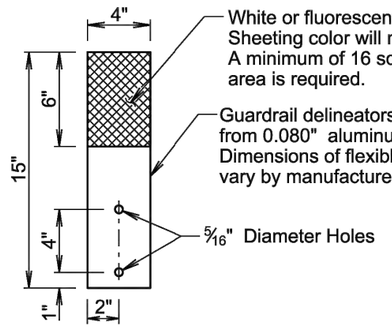
*For two-way traffic, install delineation at the opposite end of structure the same as shown. Back-to-back delineation is required for two-way traffic, single-sided delineation for one-way traffic.

April 8, 2025

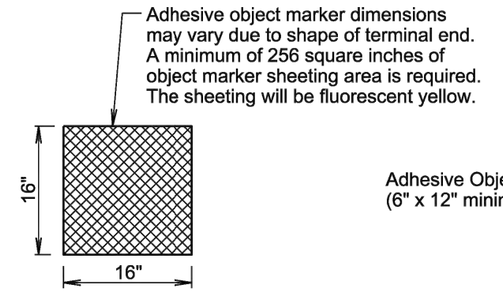
Published Date: 2026	SDDOT	DELINEATION OF GUARDRAIL	PLATE NUMBER 632.40
			Sheet 1 of 4



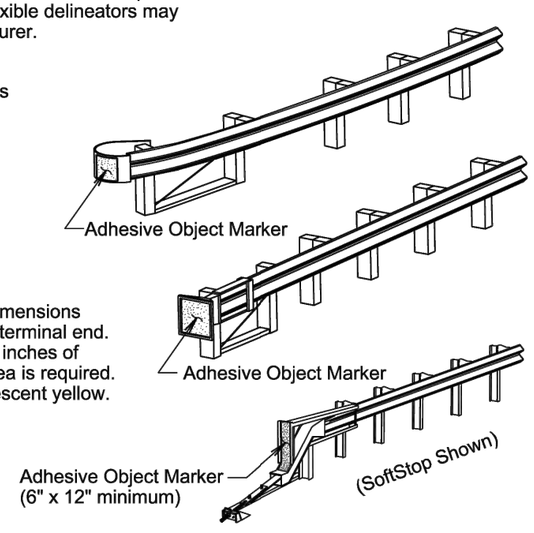
(B) STEEL BEAM GUARDRAIL DELINEATION



DELINEATOR
(For Steel Beam Guardrail)



ADHESIVE OBJECT MARKER

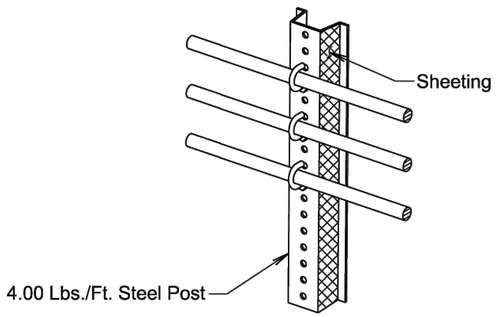


[E] GUARDRAIL END TERMINAL OBJECT MARKER

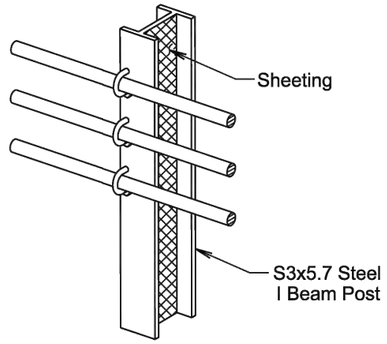
April 8, 2025

Published Date: 2026	SDDOT	DELINEATION GUARDRAIL	PLATE NUMBER 632.40
			Sheet 2 of 4

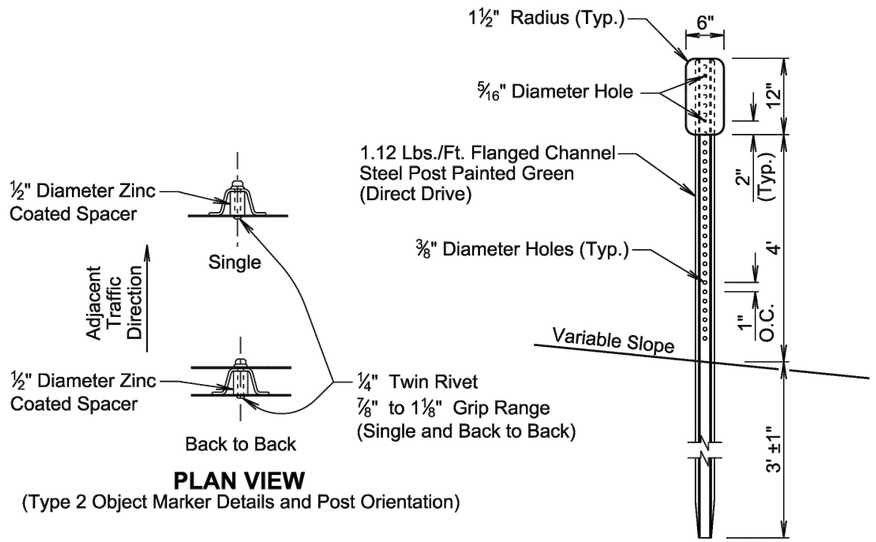
FOR BIDDING PURPOSES ONLY



Ⓒ **3 CABLE GUARDRAIL (LOW TENSION) DELINEATION**



Ⓒ **3 CABLE GUARDRAIL (LOW TENSION) DELINEATION**



PLAN VIEW
(Type 2 Object Marker Details and Post Orientation)

ELEVATION VIEW
Ⓜ (Type 2 Object Marker)
(For Marking 3 Cable Guardrail (Low Tension) Anchor, High Tension Cable Guardrail Anchor, and Trailing End Terminal)

April 8, 2025

Published Date: 2026	SDDOT	DELINEATION OF GUARDRAIL	PLATE NUMBER 632.40
			Sheet 3 of 4

GENERAL NOTES:

The delineation of high tension cable guardrail will be reflective sheeting placed back to back on every third post cap or cable spacer. Maximum spacing of delineation will not exceed 35 feet. The sheeting will be type XI in conformance with ASTM D4956. The color of the reflective sheeting will be the same as the nearest pavement marking.

The delineators for steel beam guardrail and sheeting on 3 cable guardrail (low tension) posts will be covered with a minimum of 16 square inches of reflective sheeting. The reflective sheeting will be type XI in conformance with ASTM D4956. Along two-way roadways the sheeting will be on both sides of the delineators and guardrail posts and will be white in color. For one-way roadways the sheeting will only be required on the side facing traffic and the color will be the same as the nearest pavement marking, yellow on the left side of the roadway and white on the right side.

When steel beam guardrail is attached to a bridge the first delineator will be attached to the post nearest the bridge.

At bridges with guardrail less than 200 feet in length, a minimum of 4 delineators will be placed in addition to the end terminal yellow object marker. The spacing between the delineators will be approximately one third of the length of the guardrail.

At bridges with guardrail 200 feet and greater in length, including bridges that have steel beam guardrail transitioning to 3 cable guardrail (low tension), the delineators will be placed at a spacing of approximately 50 feet. Delineation will extend throughout the length of the guardrail system.

Steel beam guardrail that is not attached to a bridge and is less than 200 feet in length, a minimum of 4 delineators will be placed in addition to the end terminal yellow object markers. The spacing between the delineators will be approximately one third of the length of the guardrail.

Steel beam guardrail that is not attached to a bridge and is 200 feet and greater in length, including steel beam guardrail transitioning to 3 cable guardrail (low tension), the delineators will be placed at a spacing of approximately 50 feet. Delineation will extend throughout the length of the guardrail system.

All costs for furnishing and installing single or back to back guardrail delineation on 3 cable guardrail and steel beam guardrail will be included in the contract unit price per each for "Guardrail Delineator".

All costs for furnishing and installing the reflective sheeting on the cable spacers or post caps for the high tension cable guardrail will be incidental to the respective high tension cable guardrail contract item.

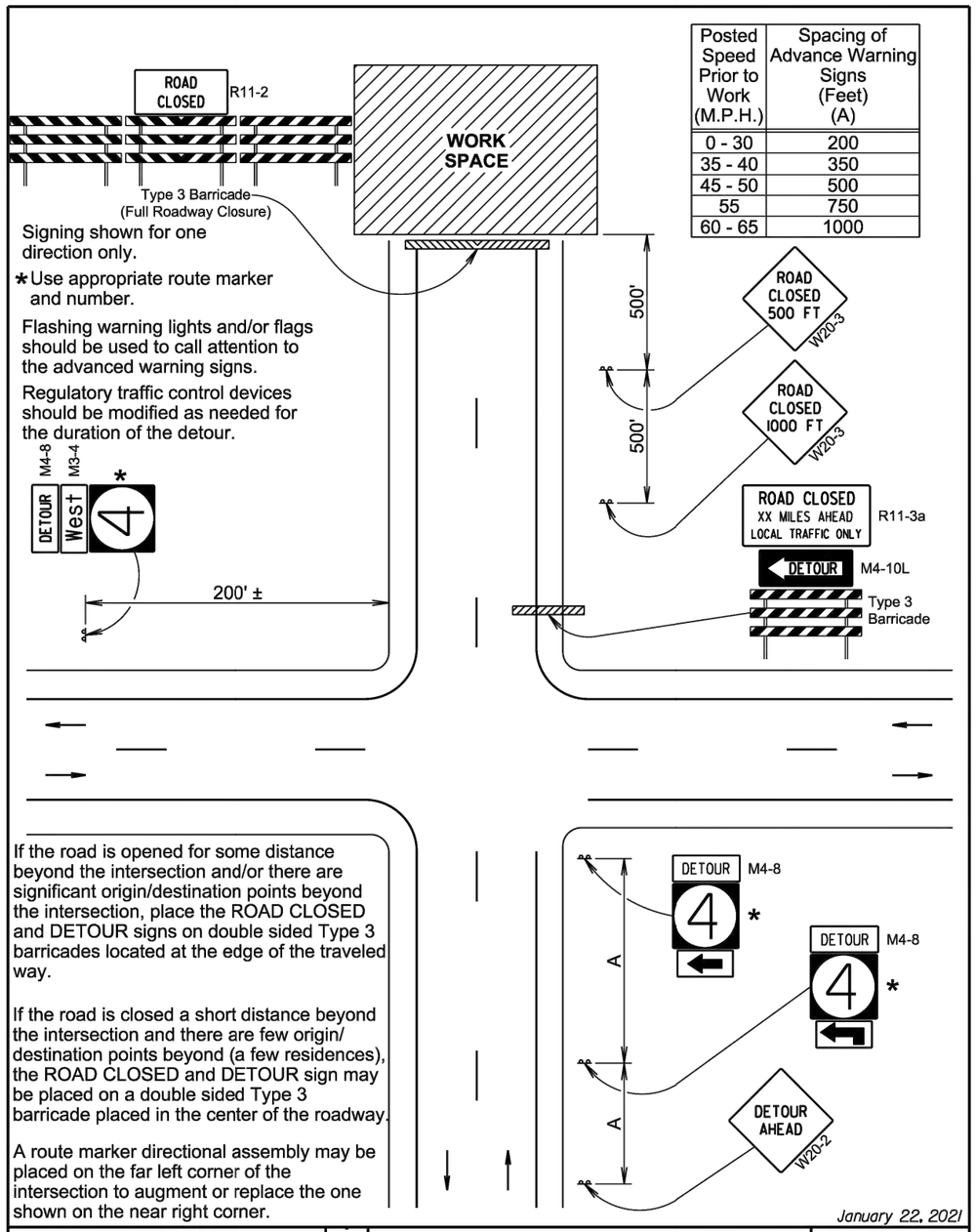
An adhesive object marker will be placed on the end of the W beam guardrail or MGS end terminal. The adhesive object marker dimensions may vary due to the shape of the terminal end. A minimum of 256 square inches of object marker reflective sheeting area is required on end terminals with sufficient surface area. Other end terminals (SoftStop) will require an adhesive object marker with a minimum size of 6" x 12". The reflective sheeting will be fluorescent yellow type XI sheeting in conformance with ASTM D4956. All costs for furnishing and installing the adhesive object marker will be incidental to various contract items.

A type 2 object marker will be placed such that the edges of the type 2 object marker and the 3 cable guardrail (low tension) anchor, high tension cable guardrail anchor, or the trailing end terminal that are nearest to the roadway will be installed in line with the same lateral offset from the traveled way at the location as noted on sheet 1 of this standard plate. The type 2 object marker (6" x 12") will have fluorescent yellow type XI sheeting in conformance with ASTM D4956. All costs for furnishing and installing the type 2 object marker including the steel post, 6" x 12" reflective panel, and hardware will be included in the contract unit price per each for "Type 2 Object Marker" for single-sided and "Type 2 Object Marker Back to Back" for back to back type 2 object markers.

April 8, 2025

Published Date: 2026	SDDOT	DELINEATION OF GUARDRAIL	PLATE NUMBER 632.40
			Sheet 4 of 4

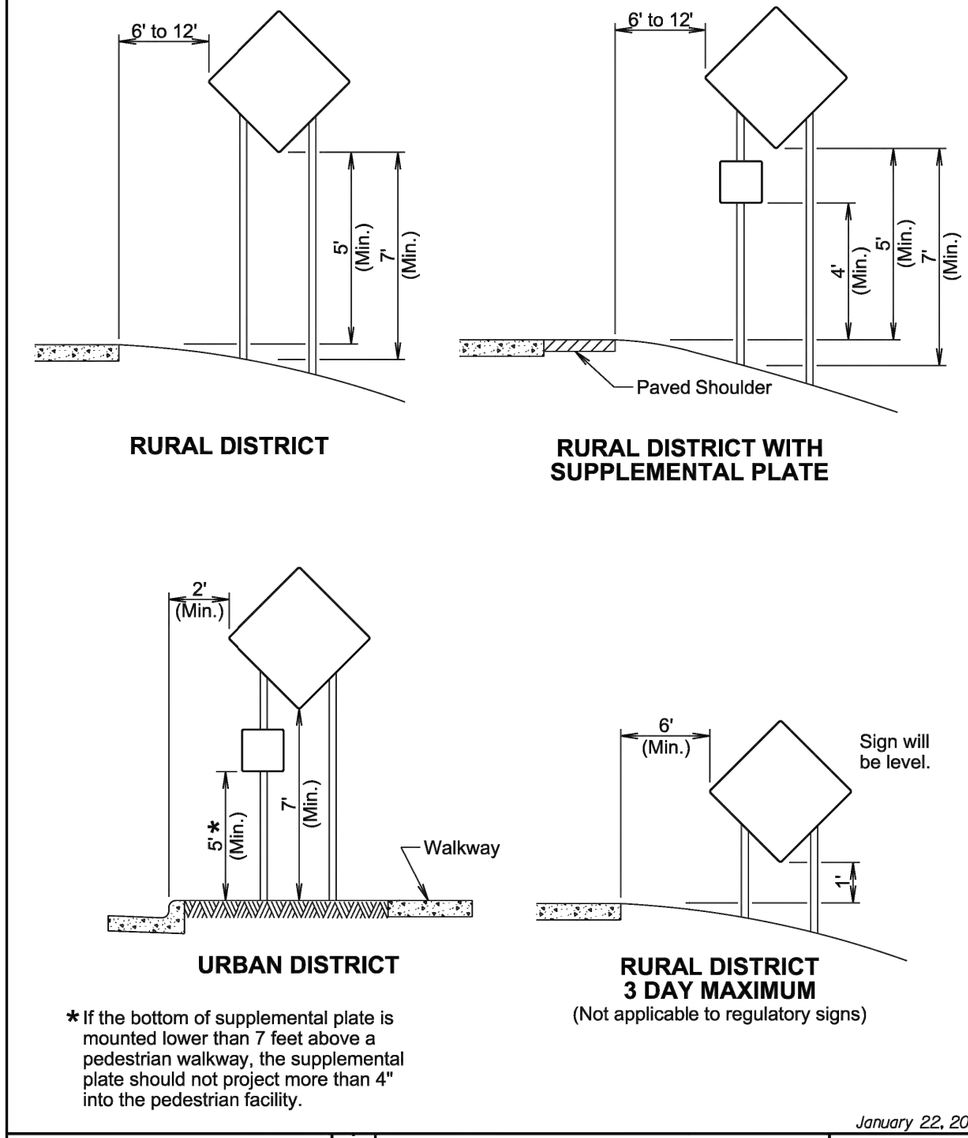
FOR BIDDING PURPOSES ONLY



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

January 22, 2021

Published Date: 2026	SDDOT	ROAD CLOSED WITH OFF-SITE DETOUR	PLATE NUMBER 634.29
			Sheet 1 of 1



RURAL DISTRICT

RURAL DISTRICT WITH SUPPLEMENTAL PLATE

URBAN DISTRICT

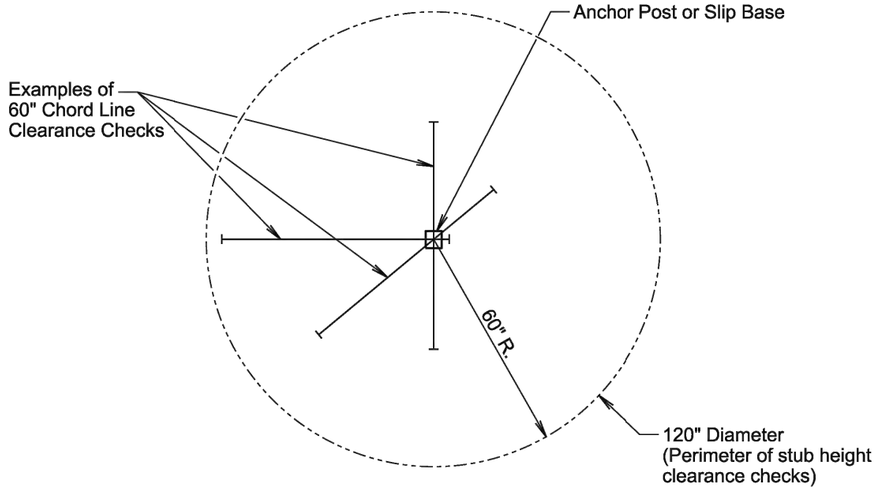
RURAL DISTRICT 3 DAY MAXIMUM
(Not applicable to regulatory signs)

* 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.

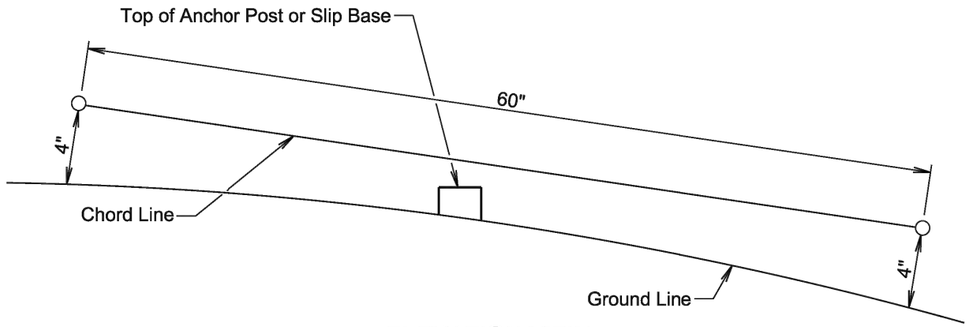
January 22, 2021

Published Date: 2026	SDDOT	CRASHWORTHY SIGN SUPPORTS (Typical Construction Signing)	PLATE NUMBER 634.85
			Sheet 1 of 1

FOR BIDDING PURPOSES ONLY



PLAN VIEW
(Examples of stub height clearance checks)



ELEVATION VIEW

GENERAL NOTES:

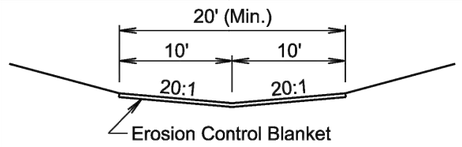
The top of anchor posts and slip bases WILL NOT extend above a 60" chord line within a 120" diameter circle around the post with ends 4" above the ground.

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.

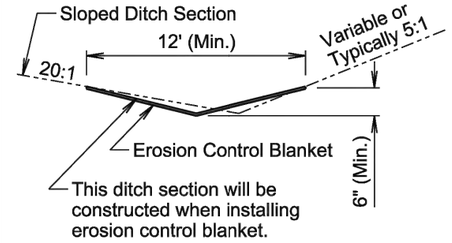
The 4" stub height clearance is not necessary for U-channel lap splices where the support is designed to yield (bend) at the base.

January 22, 2021

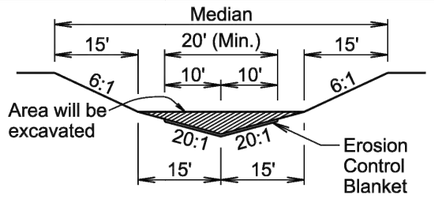
Published Date: 2026	SDDOT	***BREAKAWAY SUPPORT STUB CLEARANCE***	***PLATE NUMBER*** 634.99
			Sheet 1 of 1



STANDARD DITCH SECTION

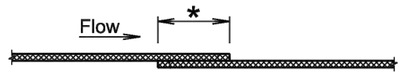


SLOPED DITCH SECTION



The median will be shaped to the limits shown in this detail where the erosion control blanket will be placed.

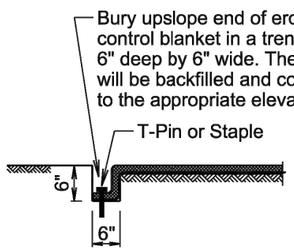
MEDIAN SECTION



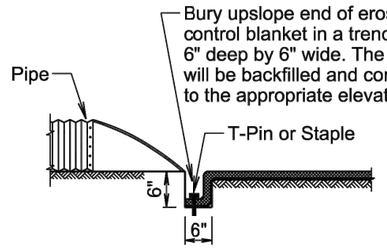
* Use a 4" (Min.) overlap wherever two widths of erosion control blanket are applied side by side.

* Use a 6" (Min.) overlap wherever one roll of erosion control blanket ends and another begins.

OVERLAP DETAIL



TRENCH DETAIL



PIPE END DETAIL

GENERAL NOTES:

Prior to placement of the erosion control blanket, the areas will be properly prepared, shaped, seeded, and fertilized.

Erosion control blanket will be unrolled in the direction of the flow of water when placed in ditches and on slopes. The upslope end of the erosion control blanket will be buried in a trench 6" wide by 6" deep. There will be at least a 6" overlap wherever one roll of erosion control blanket ends and another begins, with the upslope erosion control blanket placed on top of the downslope erosion control blanket.

The erosion control blanket will be pinned to the ground according to the manufacturer's installation recommendations.

After the placement of the erosion control blanket, the Contractor will fine grade along all edges of the blanket to maintain a uniform slope adjacent to the blanket and level any low spots which might prevent uniform and unrestricted flow of side drainage directly onto the erosion control blanket.

All ditch sections will be shaped when installing the erosion control blanket. All costs for shaping the ditches will be incidental to the contract unit price per foot for "Shaping for Erosion Control Blanket".

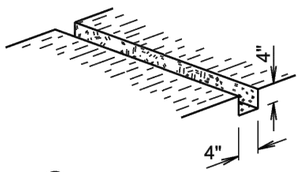
February 14, 2020

Published Date: 2026	SDDOT	***EROSION CONTROL BLANKET***	***PLATE NUMBER*** 734.01
			Sheet 1 of 1

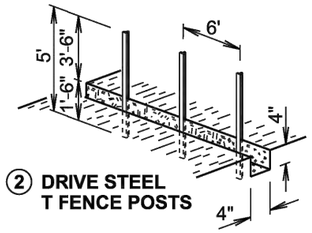
STATE OF S.D.	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 6312(22)	45	58

FOR BIDDING PURPOSES ONLY

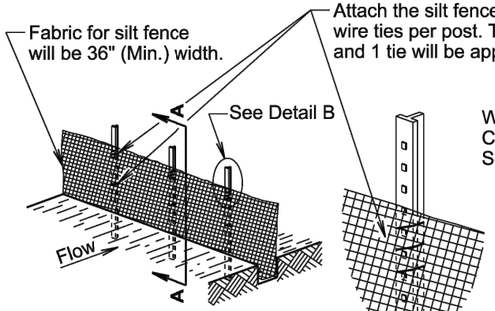
MANUAL HIGH FLOW SILT FENCE INSTALLATION



① EXCAVATE TRENCH

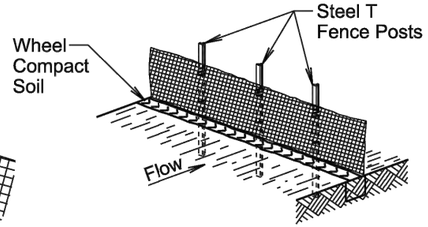


② DRIVE STEEL T FENCE POSTS

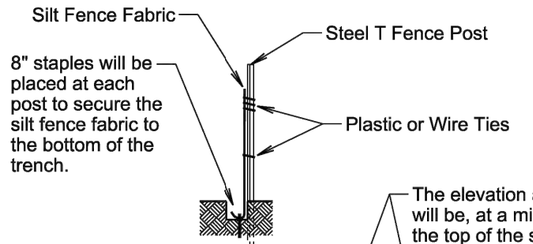


③ ATTACH SILT FENCE FABRIC

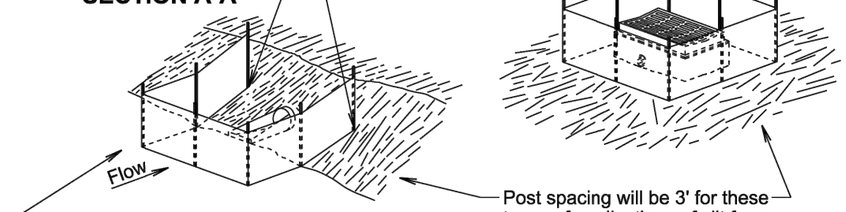
DETAIL B



④ BACKFILL TRENCH AND WHEEL COMPACT SOIL



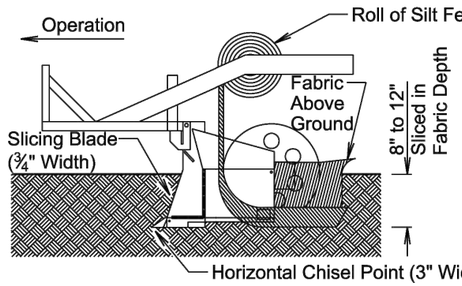
SECTION A-A



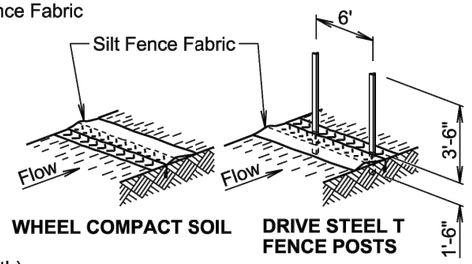
February 14, 2020

Published Date: 2026	SDDOT	HIGH FLOW SILT FENCE	PLATE NUMBER 734.05
			Sheet 1 of 2

MACHINE SLICED HIGH FLOW SILT FENCE INSTALLATION



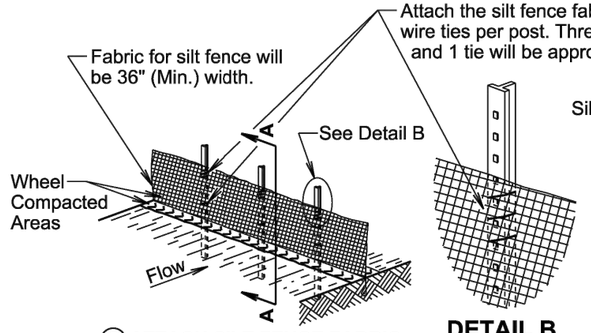
① INSTALL SILT FENCE FABRIC BY MACHINE SLICING METHOD.



WHEEL COMPACT SOIL

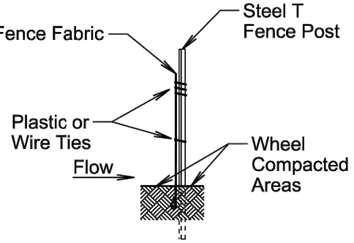
DRIVE STEEL T FENCE POSTS

② WHEEL COMPACT SOIL ABOVE SLICED IN PORTION OF FABRIC AND THEN DRIVE STEEL T FENCE POSTS.

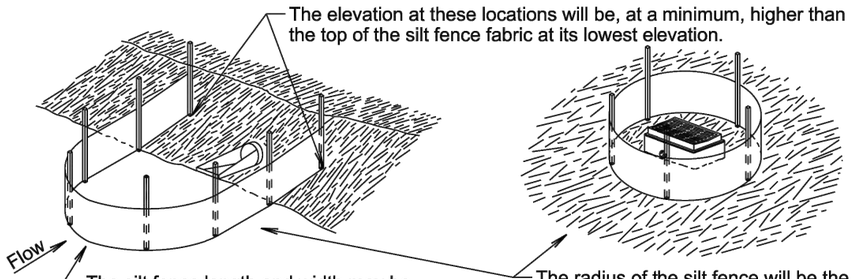


③ ATTACH SILT FENCE FABRIC

DETAIL B



SECTION A-A



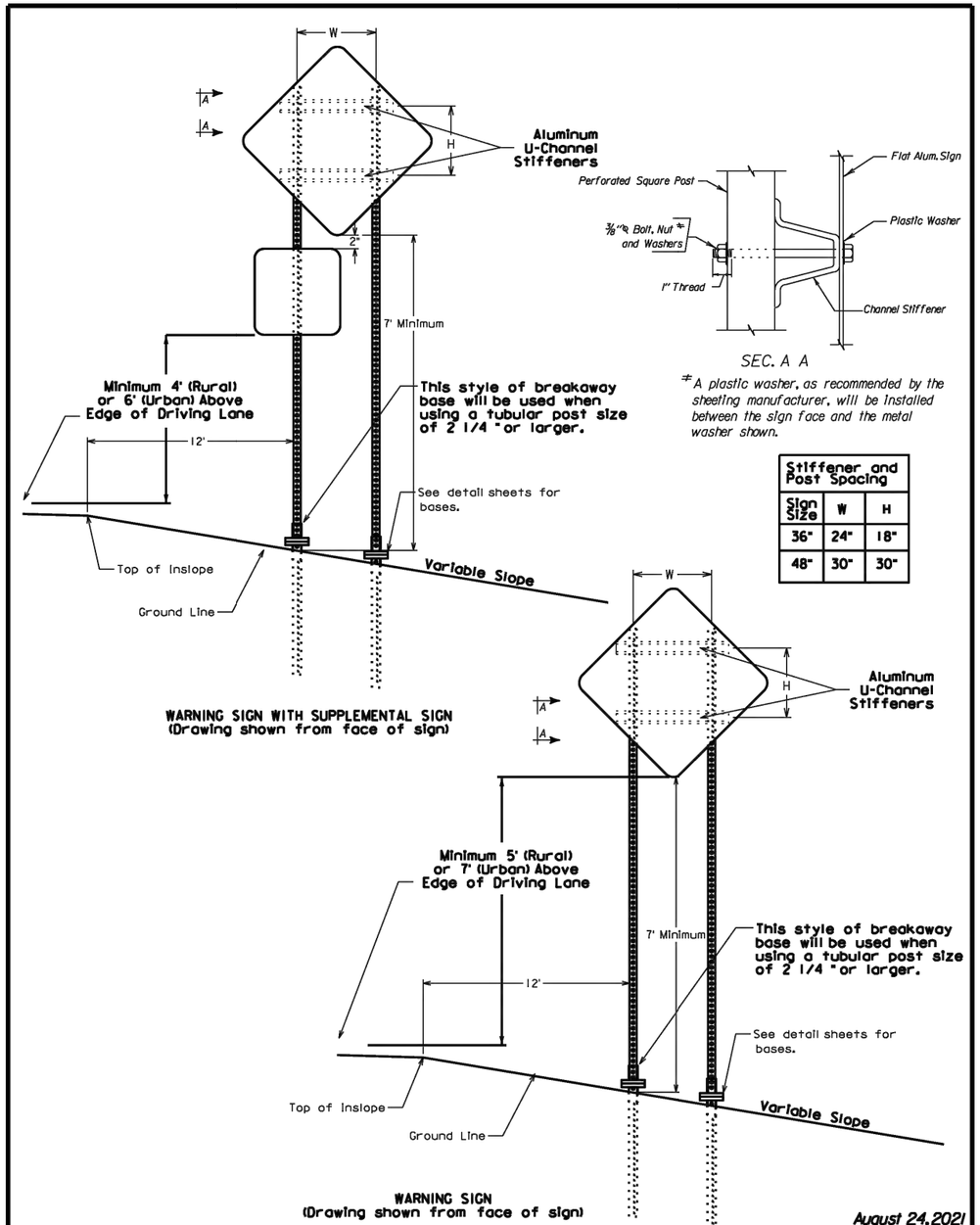
GENERAL NOTE:

If a trench can not be dug or the silt fence fabric can not be sliced in due to the type of earthen material (such as rock), then a row of 30 to 40 pound sandbags butted end to end will be provided on top of the extra length of silt fence fabric to prevent underflow.

February 14, 2020

Published Date: 2026	SDDOT	HIGH FLOW SILT FENCE	PLATE NUMBER 734.05
			Sheet 2 of 2

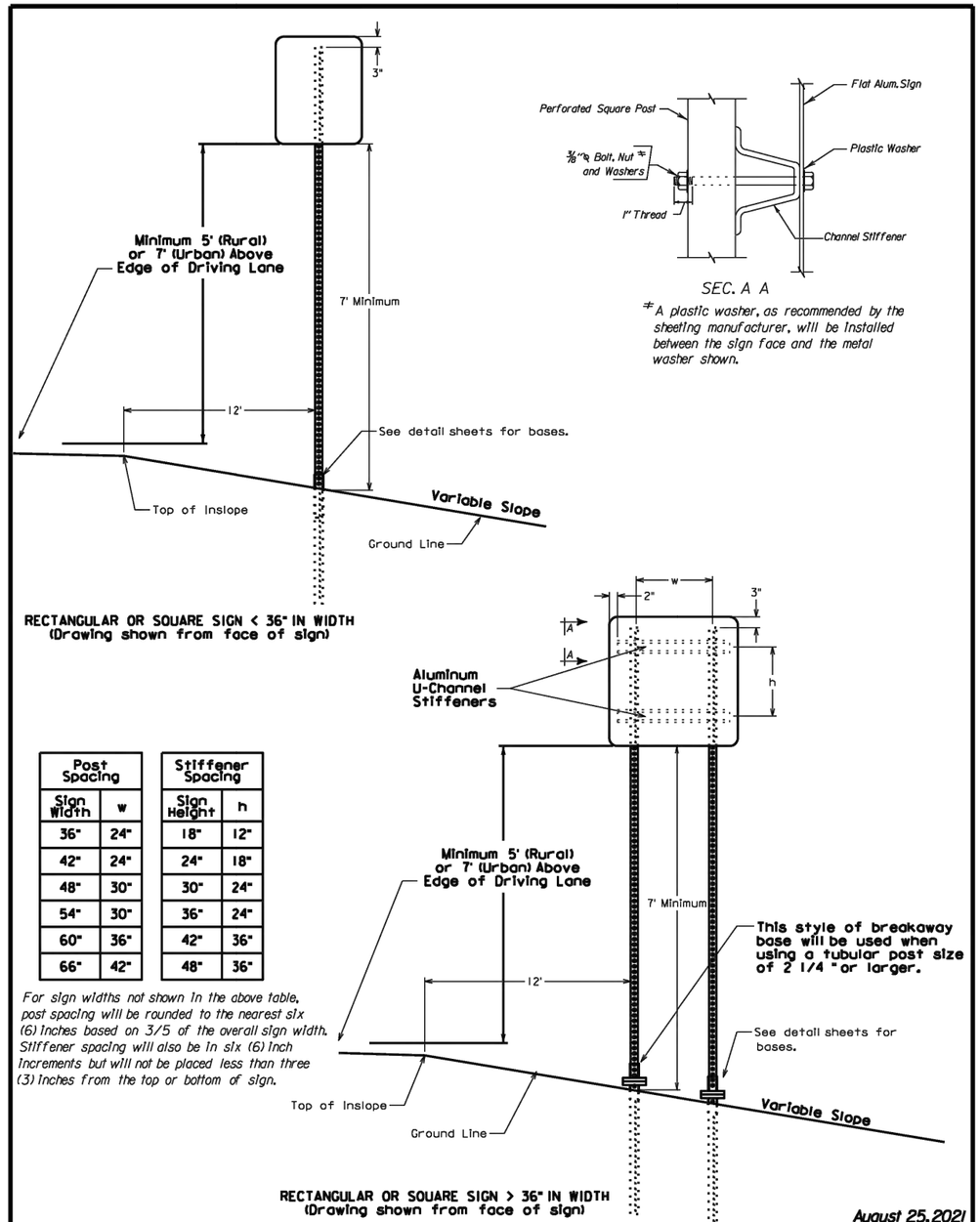
FOR BIDDING PURPOSES ONLY



Stiffener and Post Spacing		
Sign Size	W	H
36"	24"	18"
48"	30"	30"

August 24, 2021

SDDOT	36" AND 48" WARNING SIGNS (Typical Sign and Stiffener Detail)	SPECIAL DETAIL LO2
		Sheet 1 of 1



Post Spacing	
Sign Width	w
36"	24"
42"	24"
48"	30"
54"	30"
60"	36"
66"	42"

Stiffener Spacing	
Sign Height	h
18"	12"
24"	18"
30"	24"
36"	24"
42"	36"
48"	36"

For sign widths not shown in the above table, post spacing will be rounded to the nearest six (6) inches based on 3/5 of the overall sign width. Stiffener spacing will also be in six (6) inch increments but will not be placed less than three (3) inches from the top or bottom of sign.

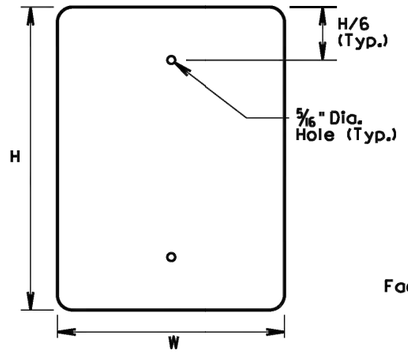
August 25, 2021

SDDOT	SQUARE OR RECTANGULAR SIGNS (Typical Sign and Stiffener Details)	SPECIAL DETAIL LO3
		Sheet 1 of 1

FOR BIDDING PURPOSES ONLY

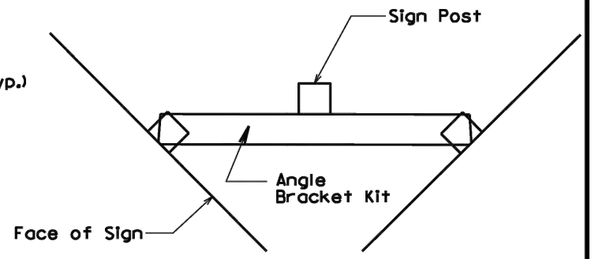
W1-8 Single Mount Detal

View from Face

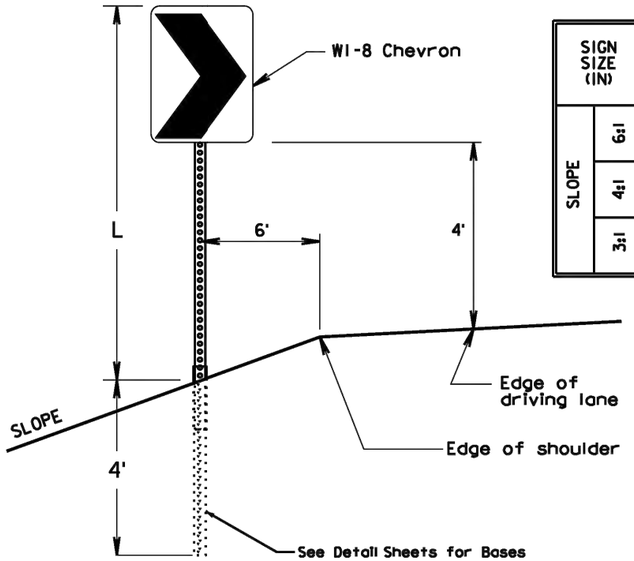


W1-8 Double Mount Detal

View from Top



NOTE: Chevrons will be installed on all curves where the difference between the speed limit and the advisory speed is 10 mph or greater. The first Chevron will be placed within 50' of begining of curve from each direction of travel and will be mounted as a single mount installation. All intermediate installations will be mounted as a double mount installation with approach angle adjusted such that 3 sign faces are visible at all times when traveling through the curve.

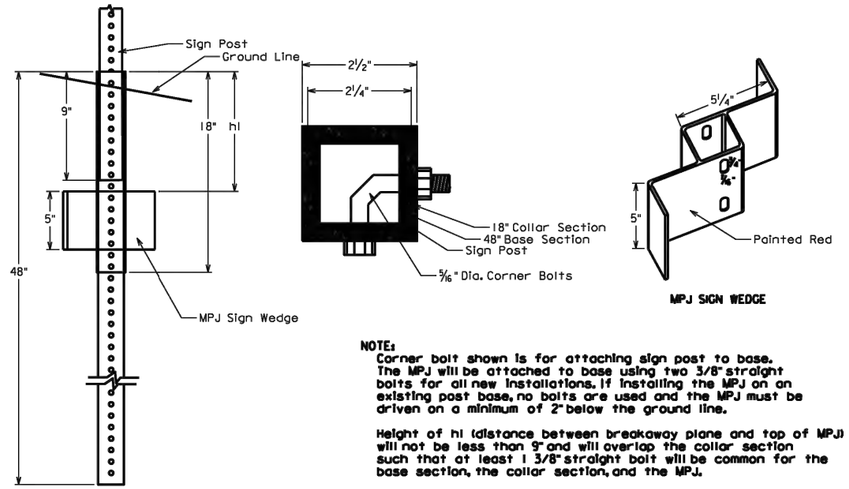


SIGN SIZE (IN)		12x18	18x24	24x30	30x36	36x48
		POST LENGTH L (FT)				
SLOPE	6:1	6½	7	7½	8	9
	4:1	7	7½	8	8½	9½
	3:1	7½	8	8½	9	10

August 25, 2021

	SDDOT	CHEVRON SIGN (Typical Erection Details)	SPECIAL DETAIL L09 Sheet 1 of 1

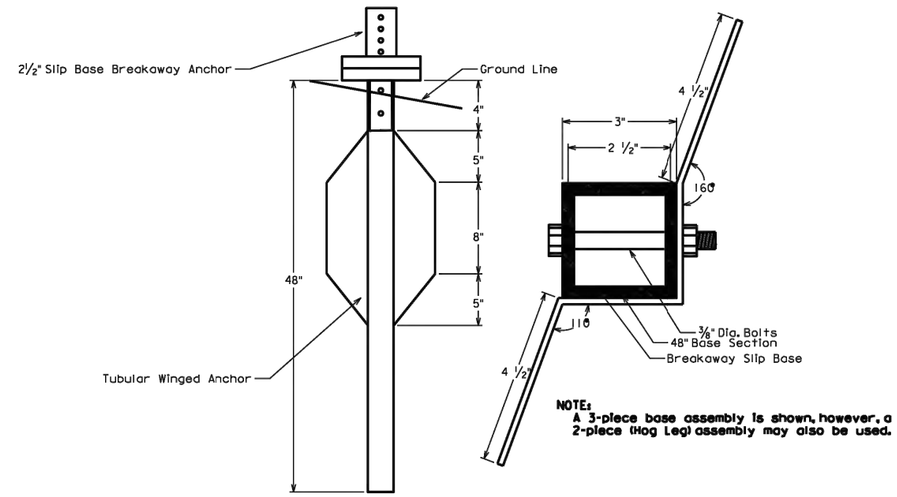
SIGN BASE DETAILS FOR A 2" SIGN POST



NOTE:
Corner bolt shown is for attaching sign post to base. The MPJ will be attached to base using two 3/8" straight bolts for all new installations. If installing the MPJ on an existing post base, no bolts are used and the MPJ must be driven on a minimum of 2" below the ground line.

Height of h1 (distance between breakaway plane and top of MPJ) will not be less than 9" and will overlap the collar section such that at least 1 3/8" straight bolt will be common for the base section, the collar section, and the MPJ.

SIGN BASE DETAILS FOR A 2½" SIGN POST



NOTE:
A 3-piece base assembly is shown, however, a 2-piece (Hog Leg) assembly may also be used.

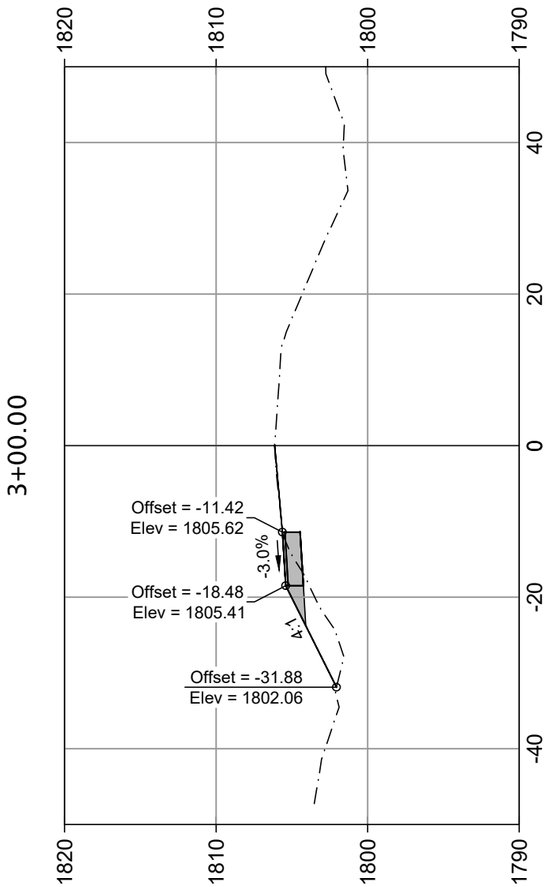
August 25, 2021

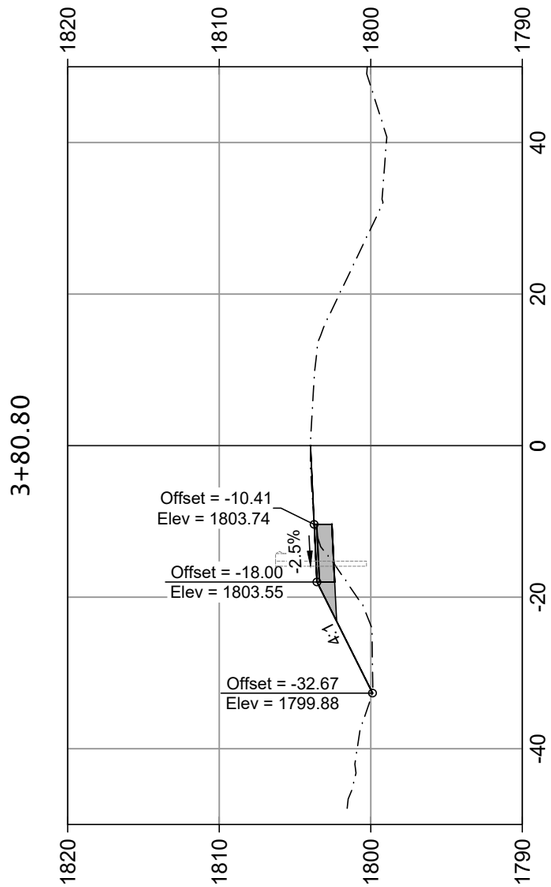
	SDDOT	TUBULAR POST BASE DETAILS (Typical Soil Installation)	SPECIAL DETAIL L21 Sheet 1 of 1

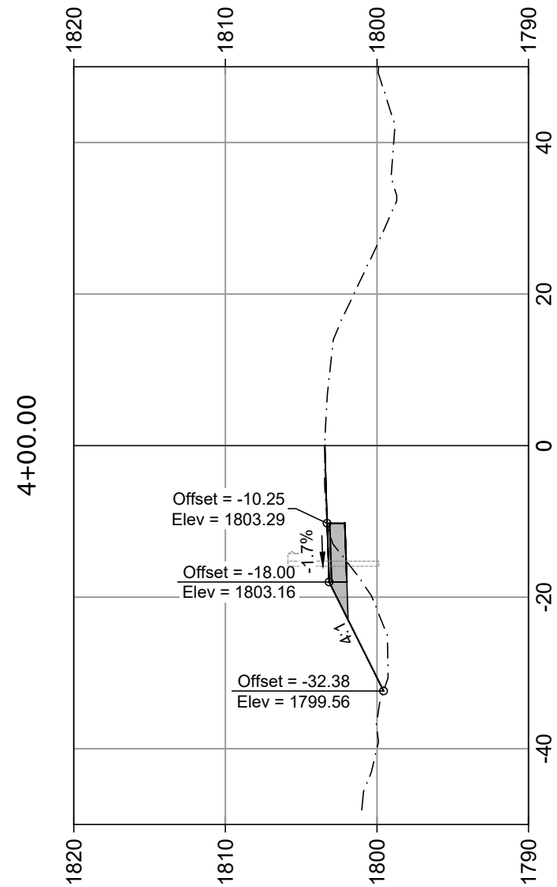
CROSS SECTIONS

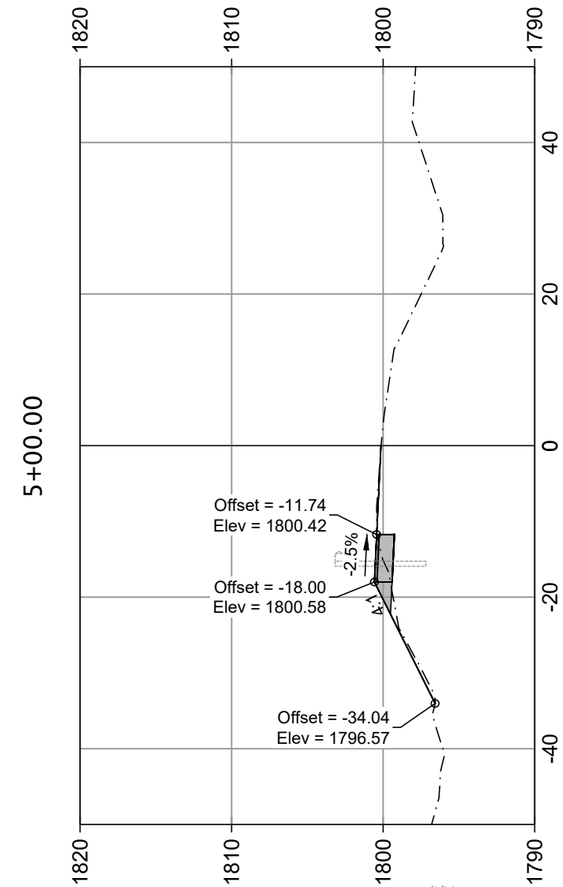
FOR BIDDING PURPOSES ONLY

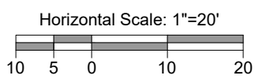
STATE OF S.D.	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 6312(22)	48	58

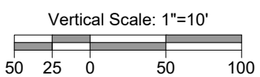












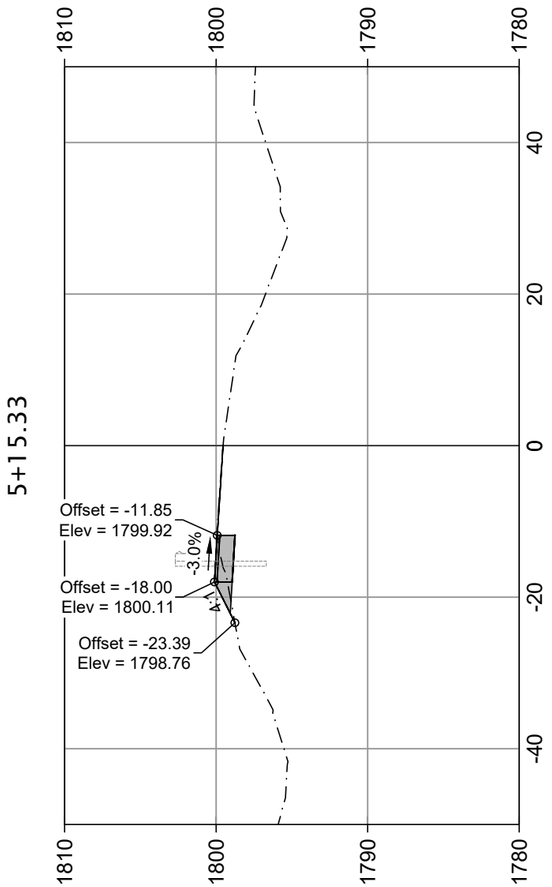


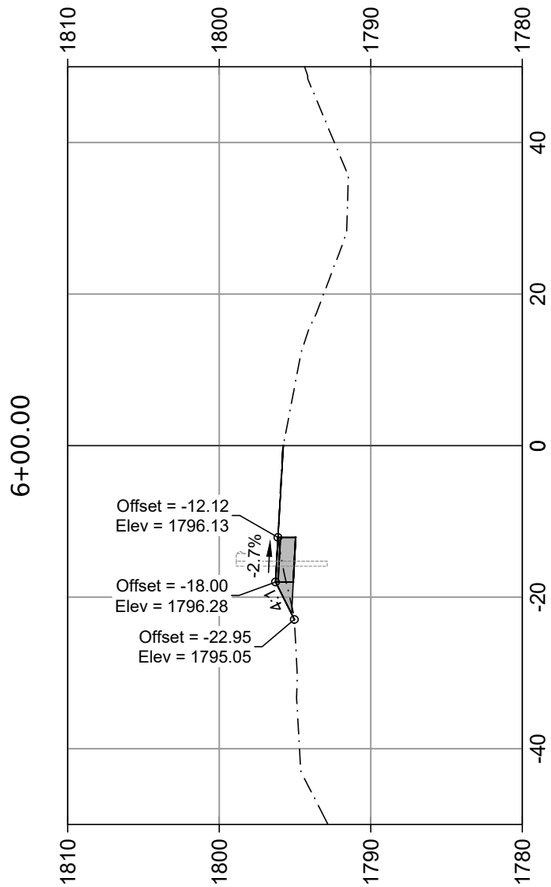
4/30/2026

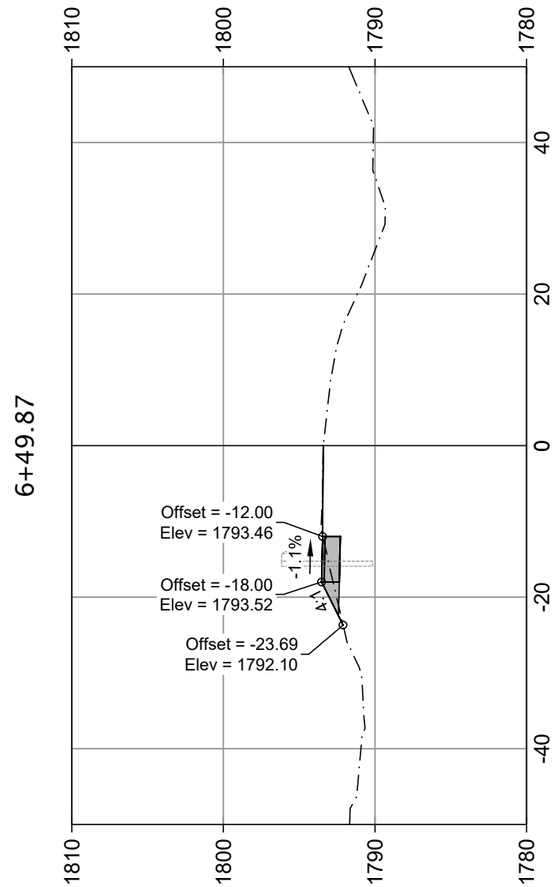
CROSS SECTIONS

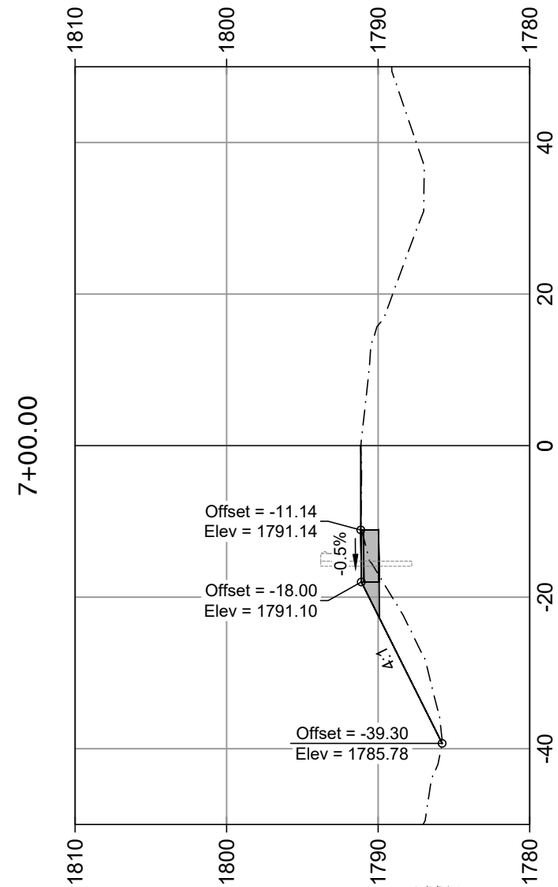
FOR BIDDING PURPOSES ONLY

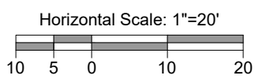
STATE OF S.D.	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 6312(22)	49	58

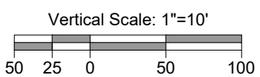












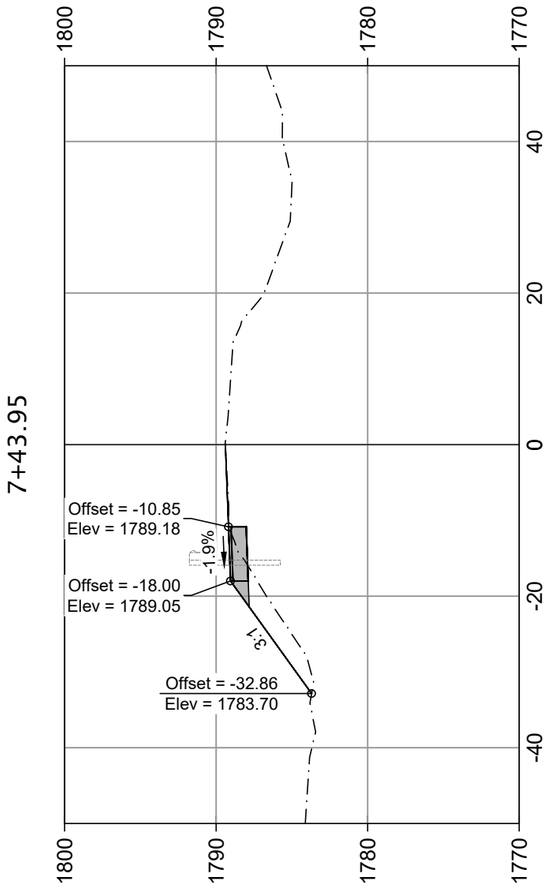


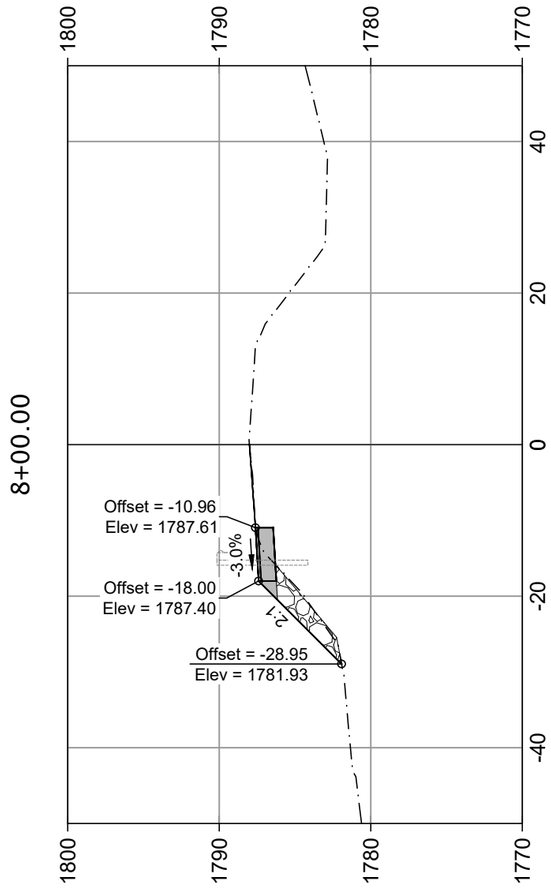
4/30/2026

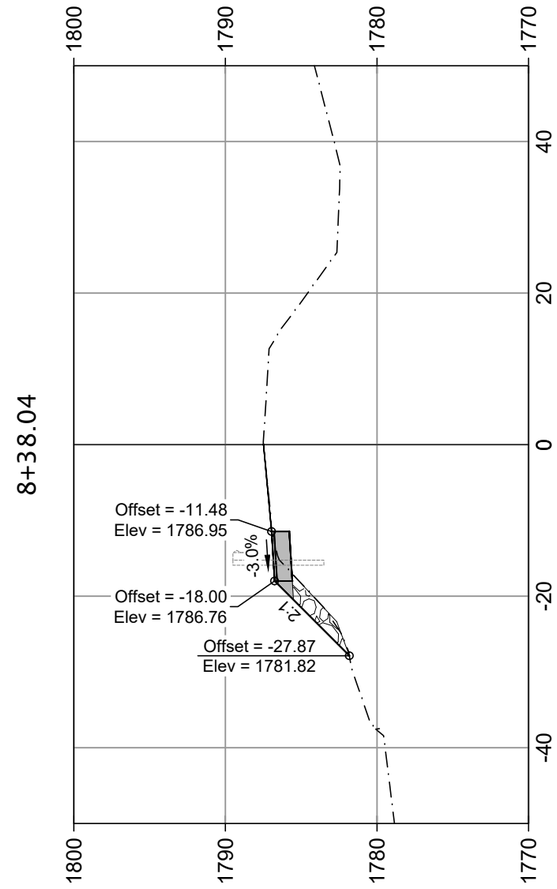
CROSS SECTIONS

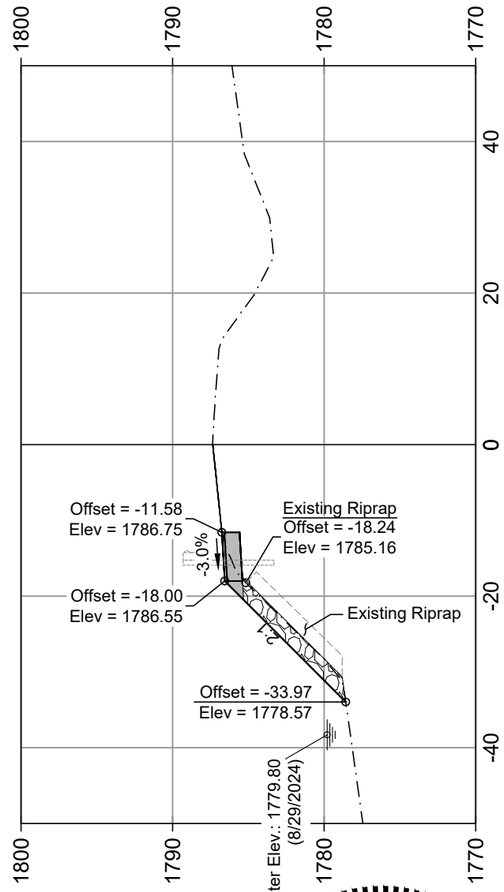
FOR BIDDING PURPOSES ONLY

STATE OF S.D.	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 6312(22)	50	58









Horizontal Scale: 1"=20'

10 5 0 10 20

Vertical Scale: 1"=10'

50 25 0 50 100

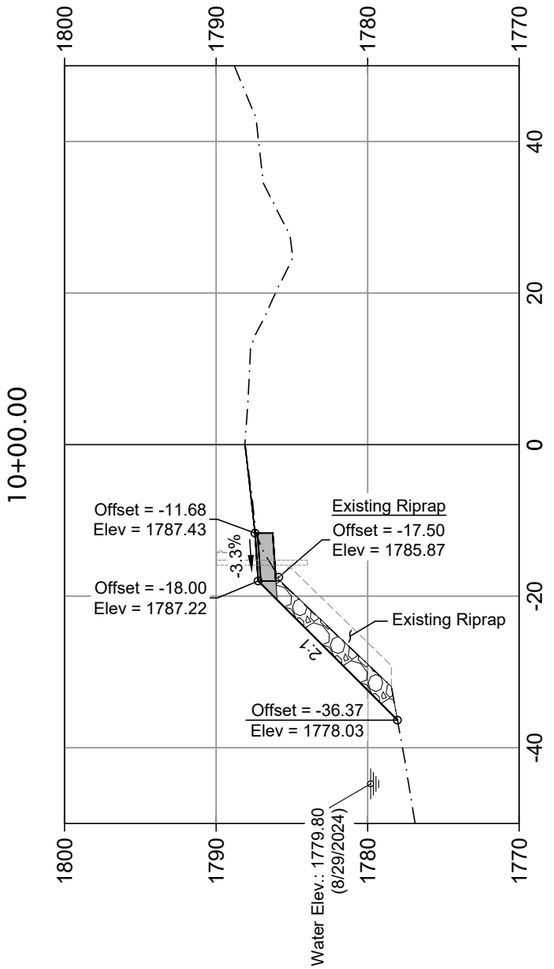
REGISTERED PROFESSIONAL ENGINEER
REG. NO.
12059
CHRIS J.
BROZIK
SOUTH DAKOTA

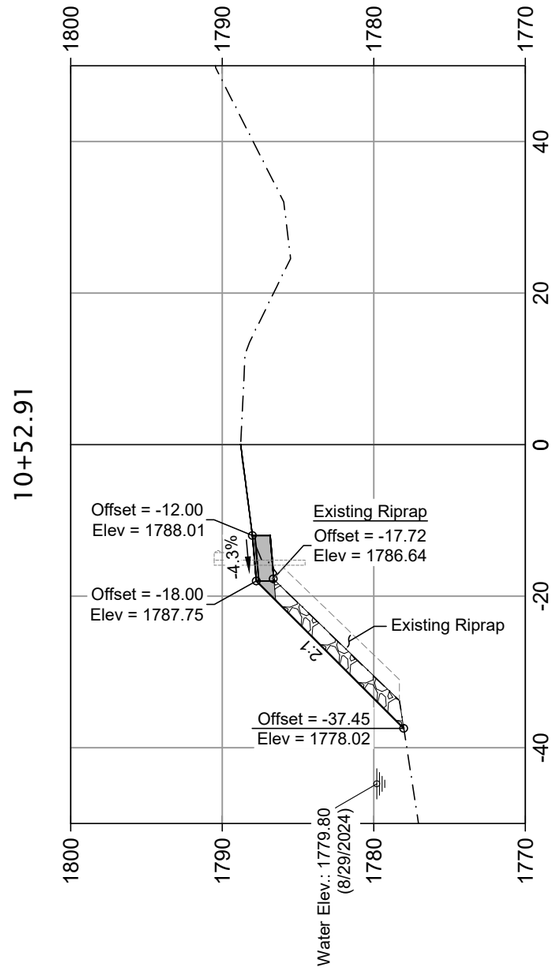
4/30/2026

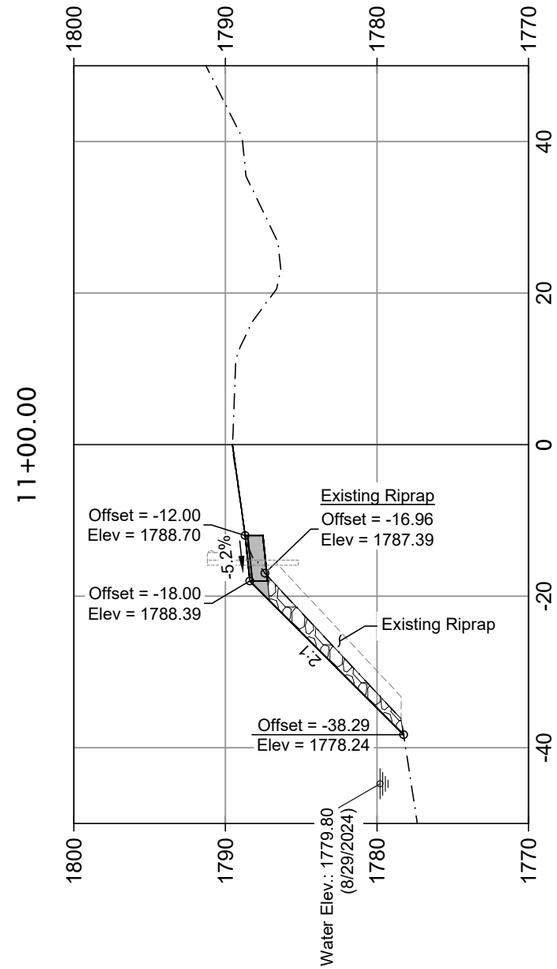
CROSS SECTIONS

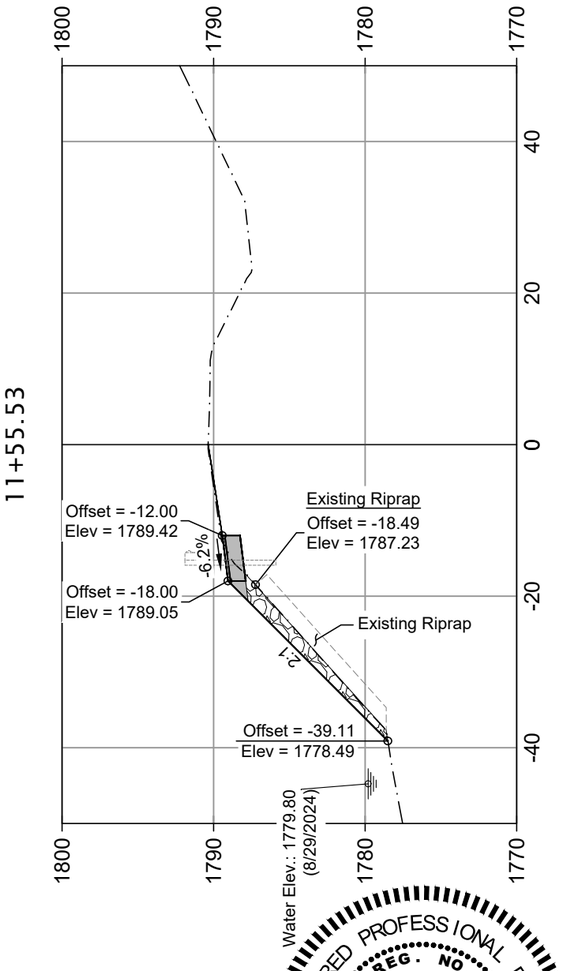
FOR BIDDING PURPOSES ONLY

STATE OF S.D.	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 6312(22)	51	58









Horizontal Scale: 1"=20'

10 5 0 10 20

Vertical Scale: 1"=10'

50 25 0 50 100

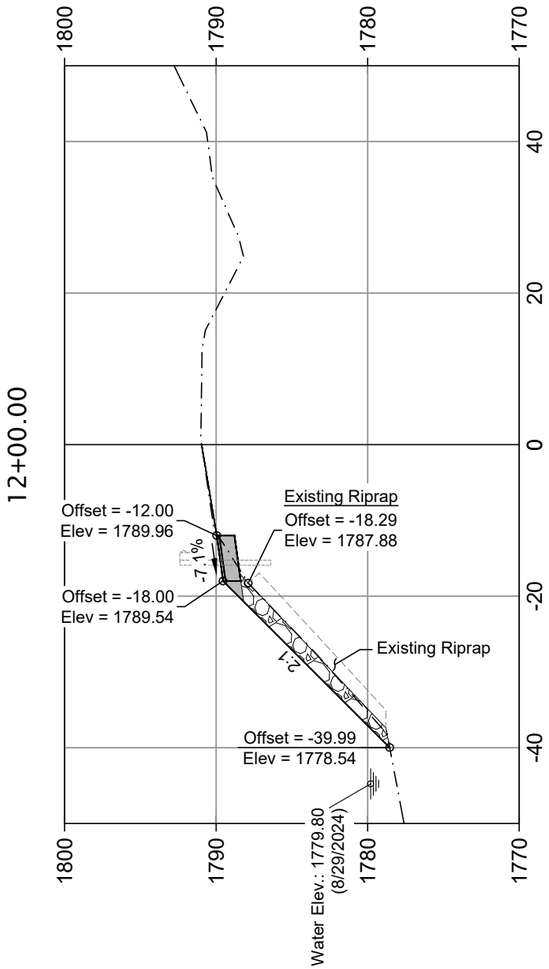
REGISTERED PROFESSIONAL ENGINEER
REG. NO. 12059
CHRIS J. BROZIK
SOUTH DAKOTA

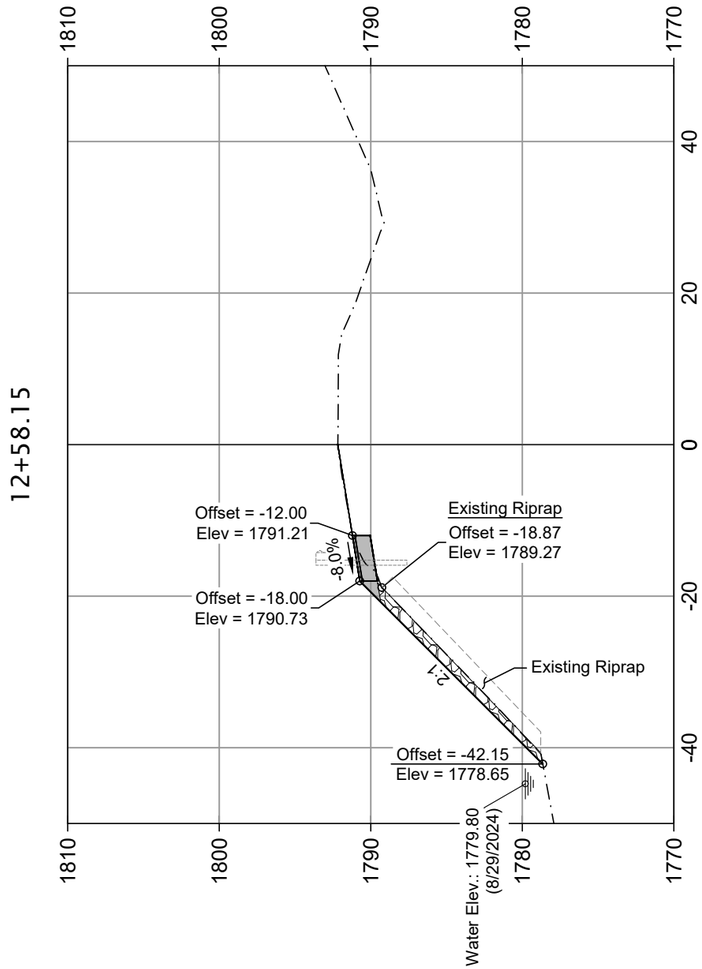
4/30/2026

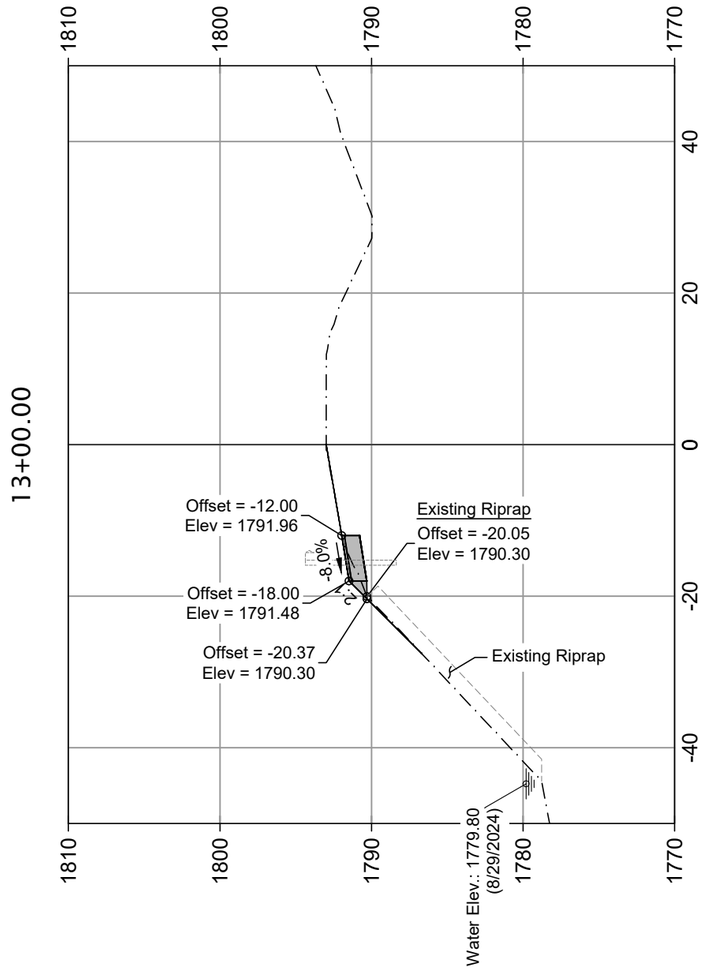
CROSS SECTIONS

FOR BIDDING PURPOSES ONLY

STATE OF S.D.	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 6312(22)	52	58







Horizontal Scale: 1"=20'

10 5 0 10 20

Vertical Scale: 1"=10'

50 25 0 50 100

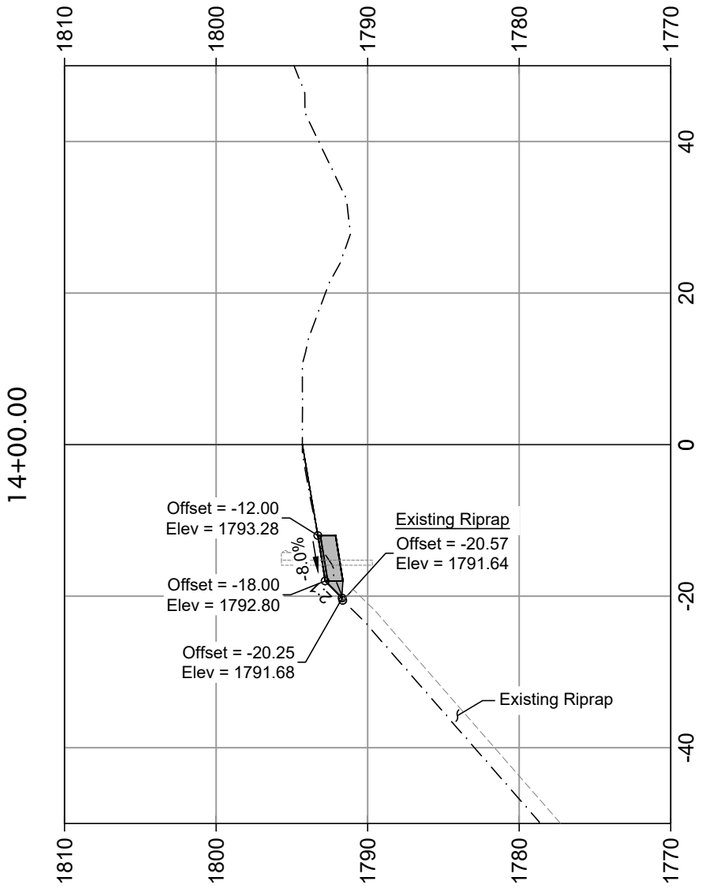
REGISTERED PROFESSIONAL ENGINEER
REG. NO.
12059
CHRIS J.
BROZIK
SOUTH DAKOTA

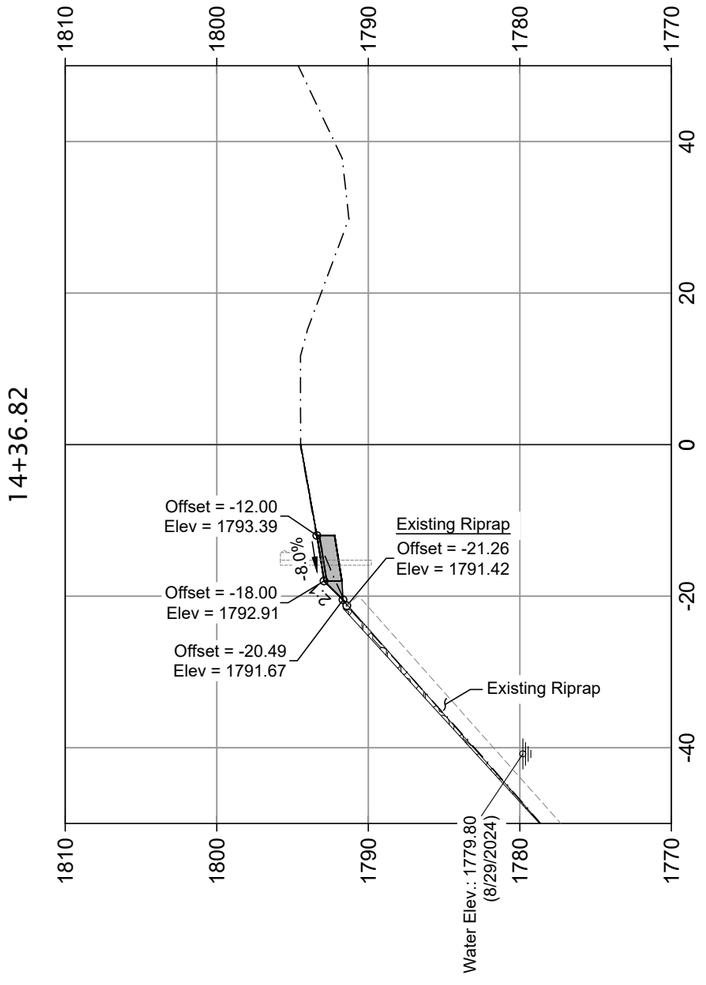
4/30/2026

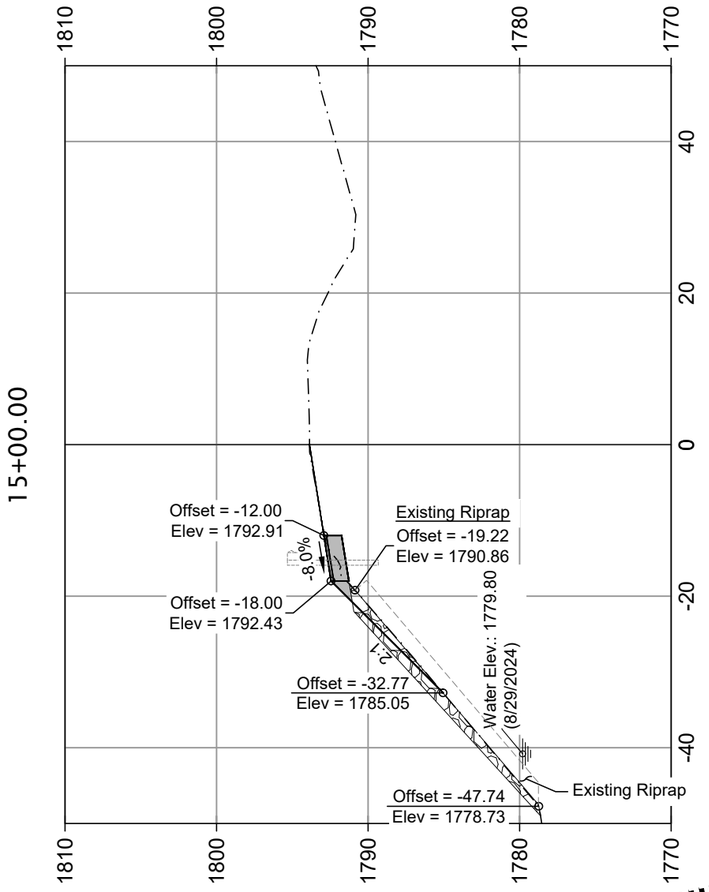
CROSS SECTIONS

FOR BIDDING PURPOSES ONLY

STATE OF S.D.	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 6312(22)	53	58







Horizontal Scale: 1"=20'

10 5 0 10 20

Vertical Scale: 1"=10'

50 25 0 50 100

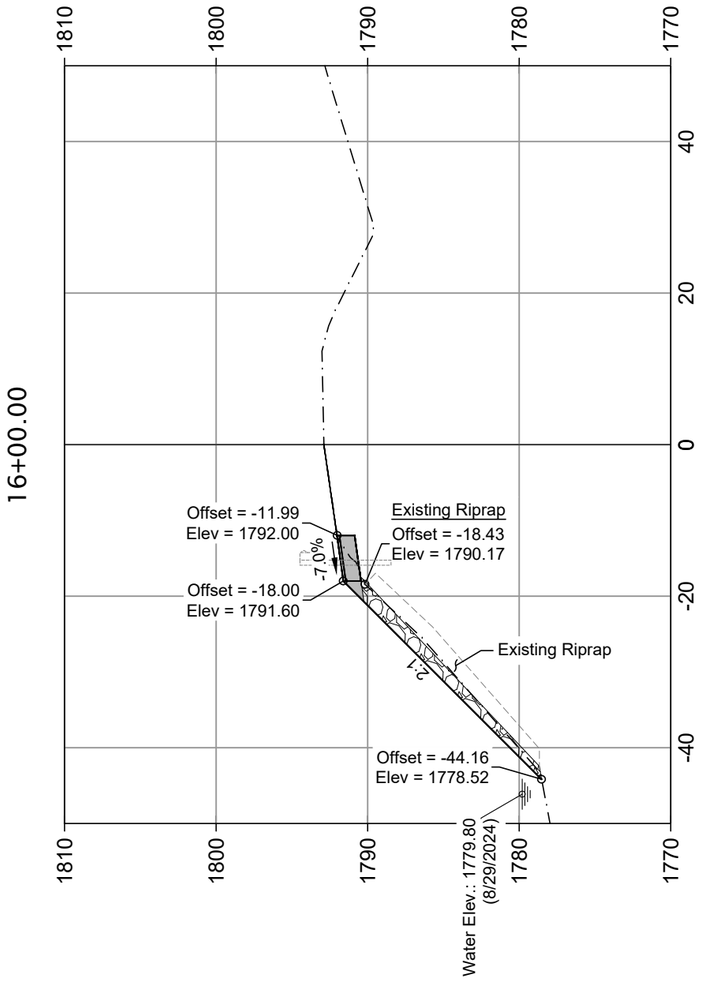
REGISTERED PROFESSIONAL ENGINEER
REG. NO.
12059
CHRIS J.
BROZIK
SOUTH DAKOTA

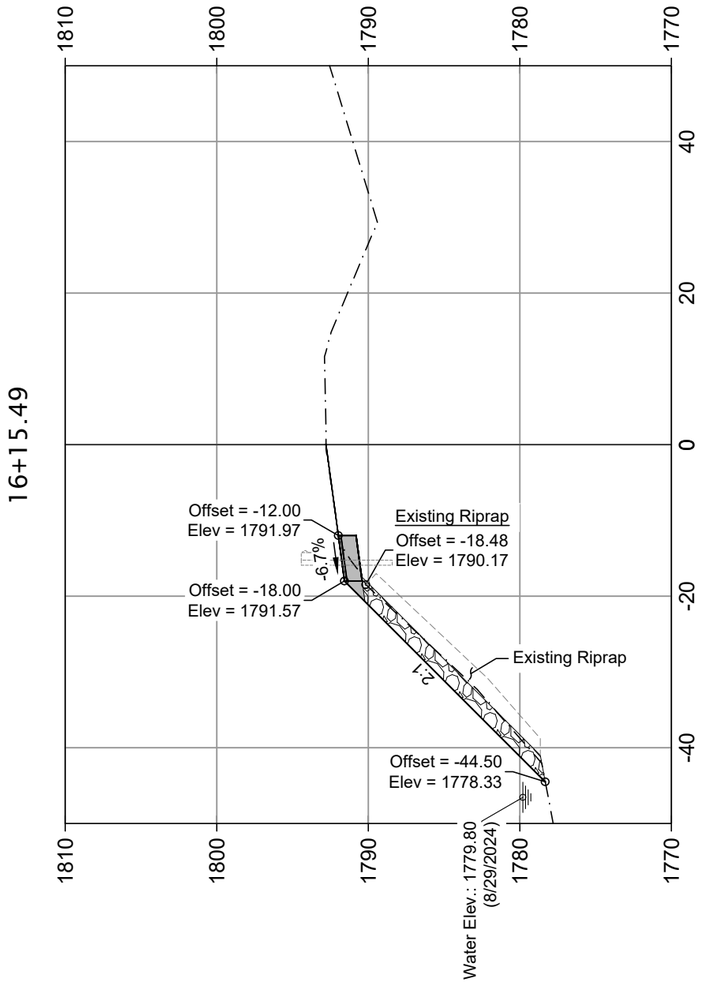
4/30/2026

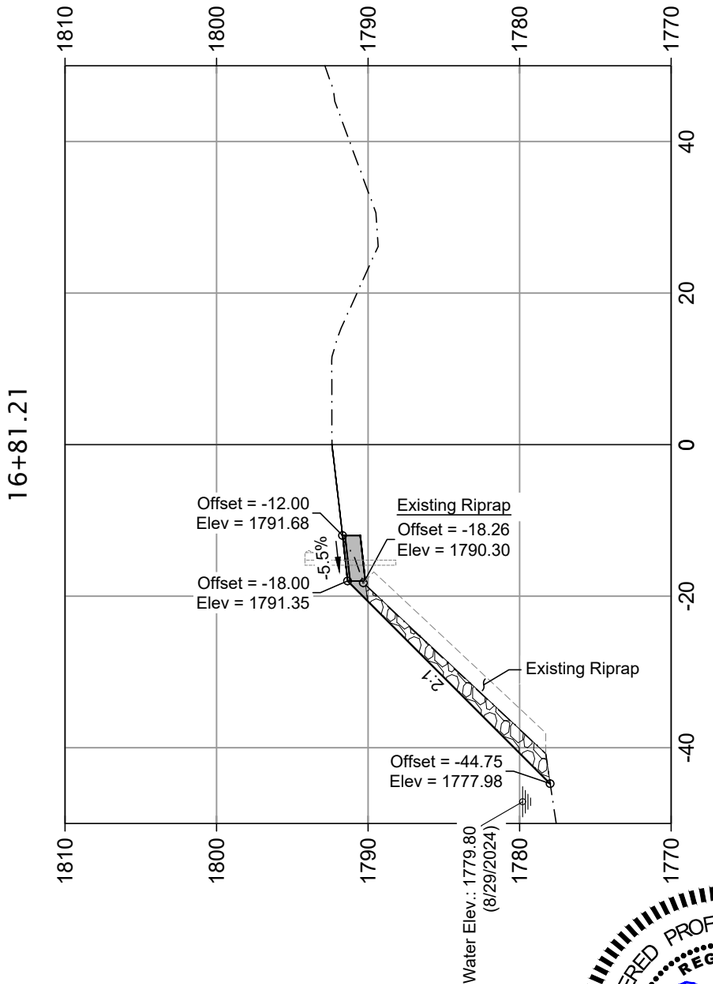
CROSS SECTIONS

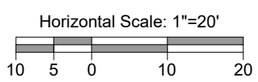
FOR BIDDING PURPOSES ONLY

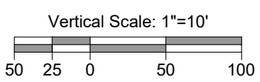
STATE OF S.D.	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 6312(22)	54	58











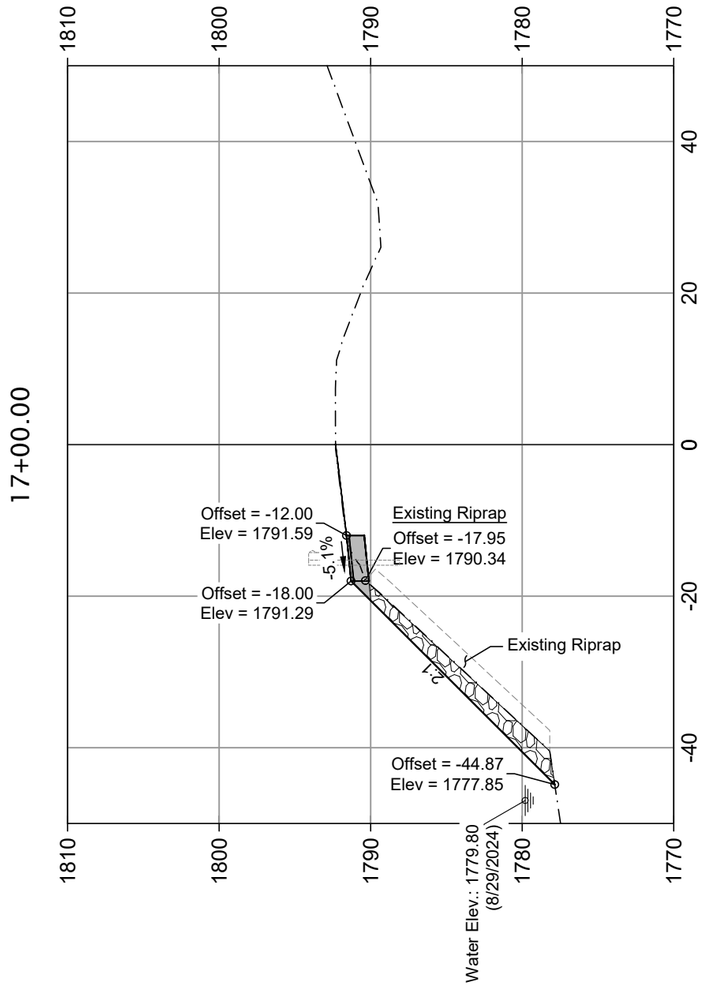


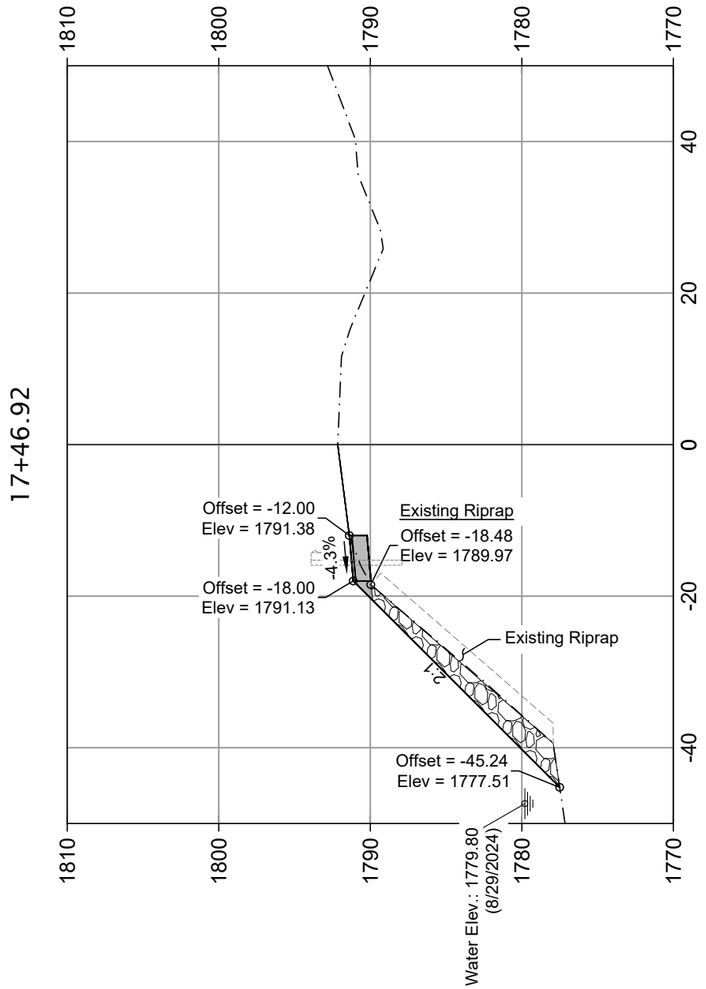
4/30/2026

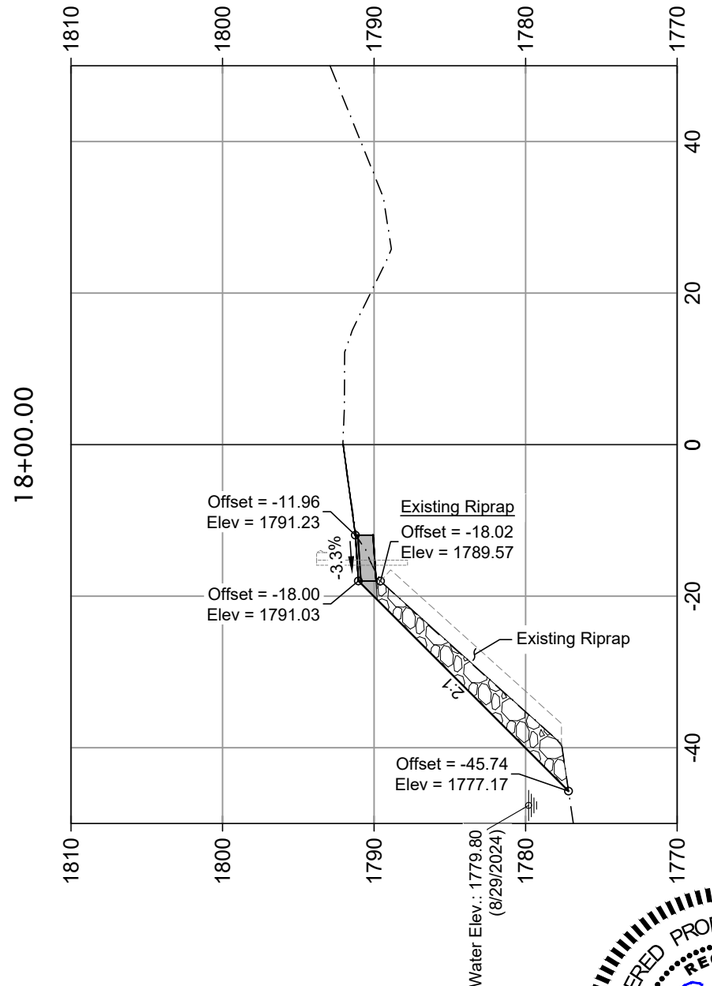
CROSS SECTIONS

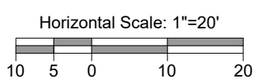
FOR BIDDING PURPOSES ONLY

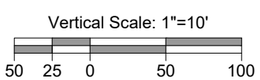
STATE OF S.D.	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 6312(22)	55	58











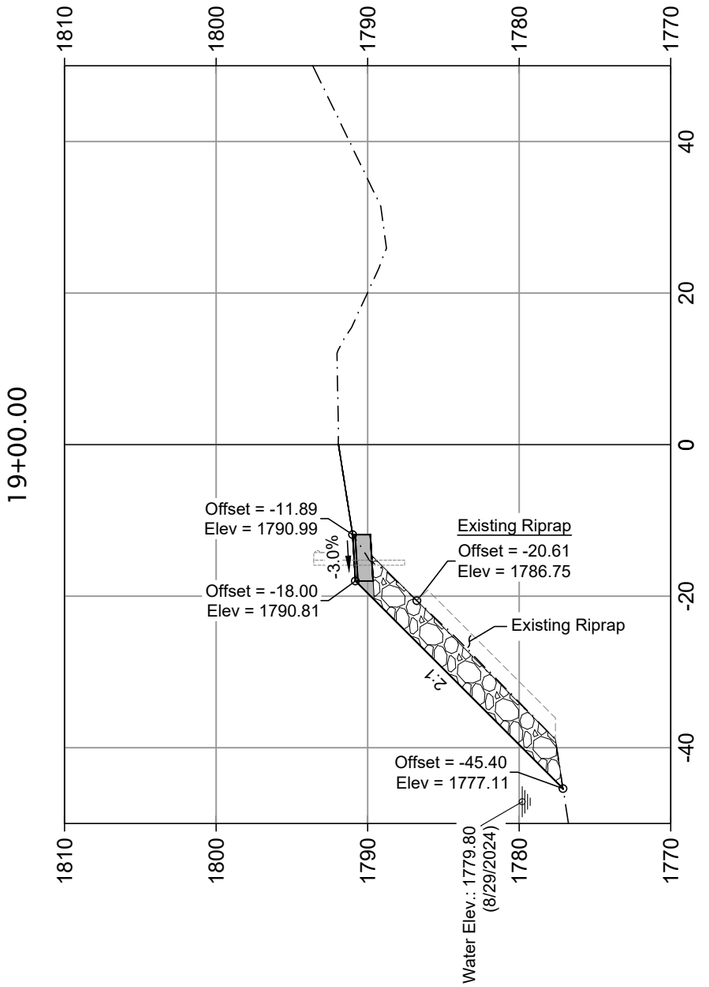


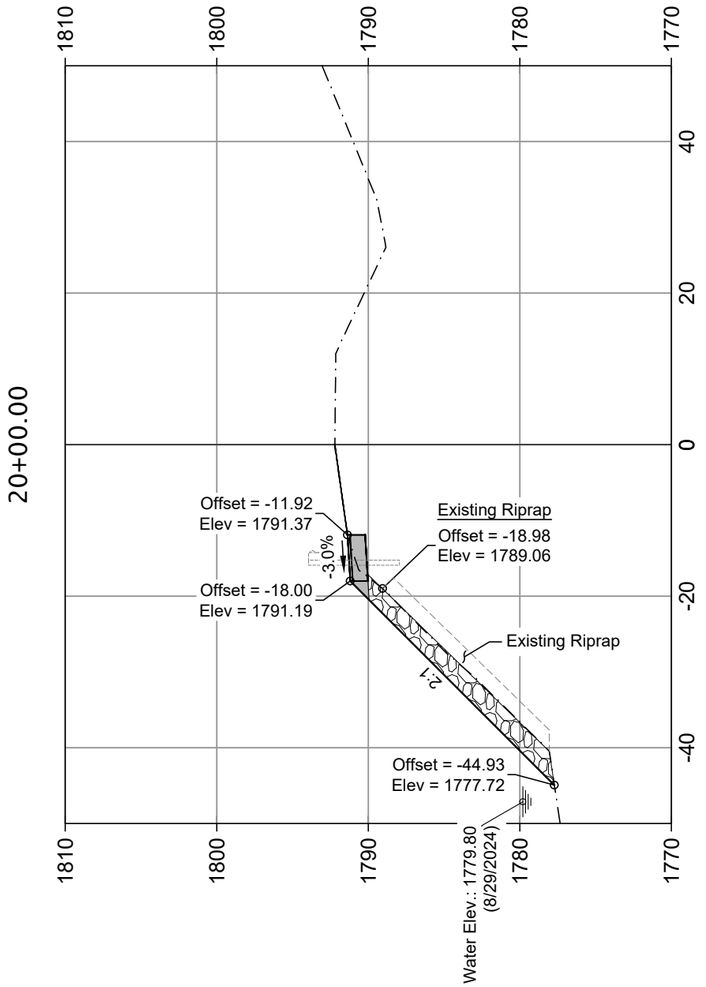
4/30/2026

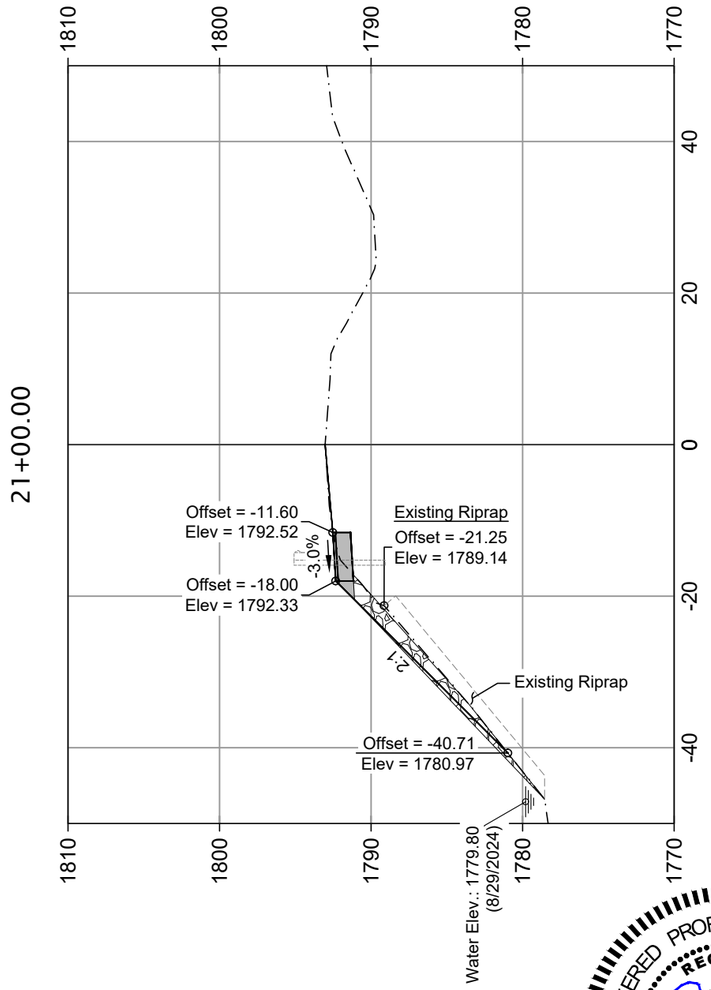
CROSS SECTIONS

FOR BIDDING PURPOSES ONLY

STATE OF S.D.	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 6312(22)	56	58







Horizontal Scale: 1"=20'

10 5 0 10 20

Vertical Scale: 1"=10'

50 25 0 50 100

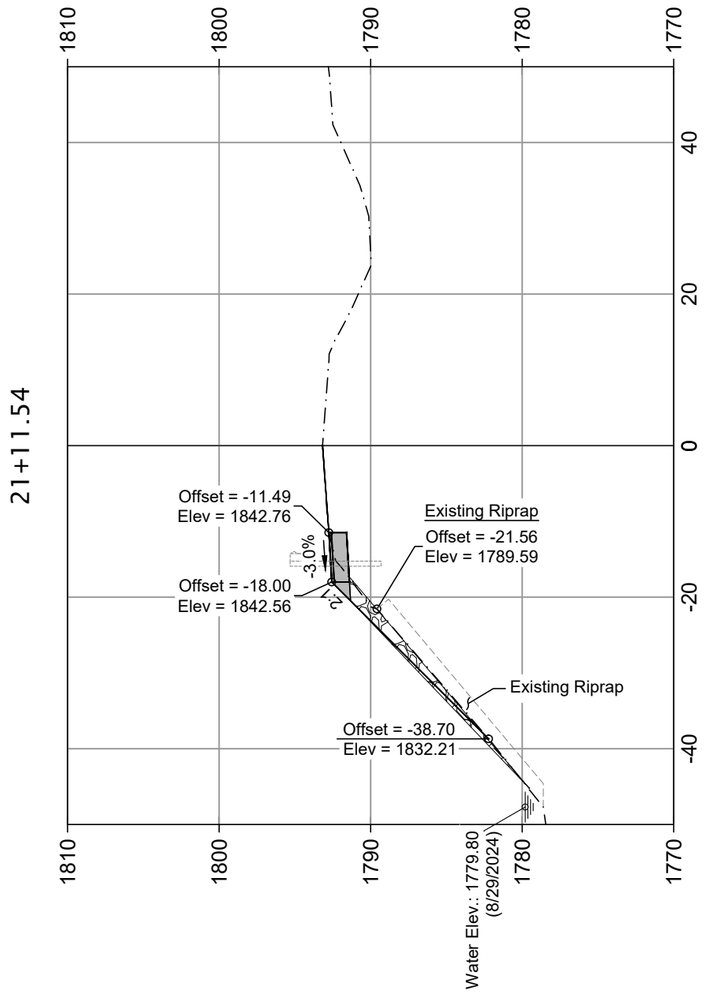


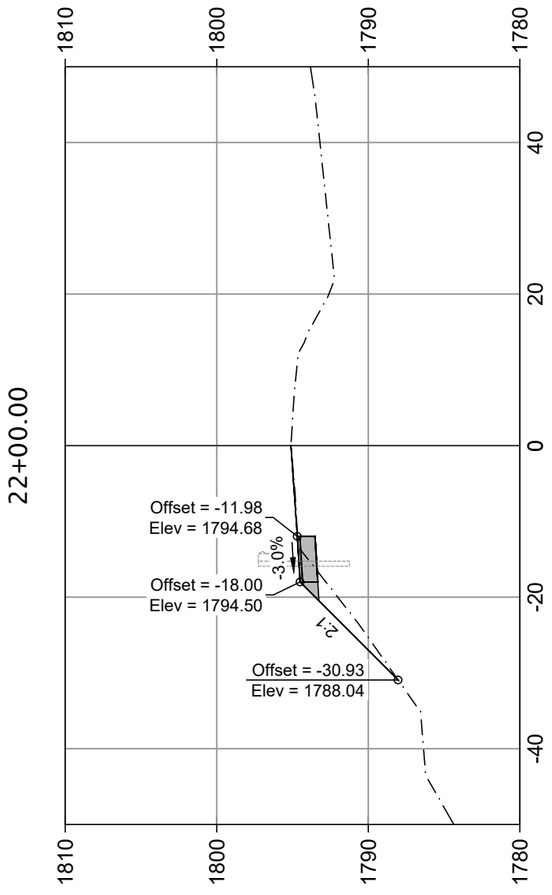
4/30/2026

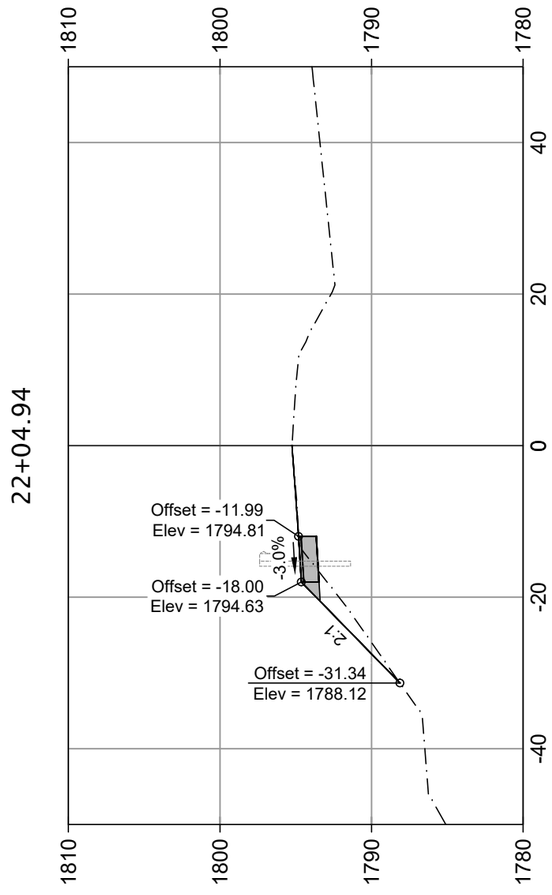
CROSS SECTIONS

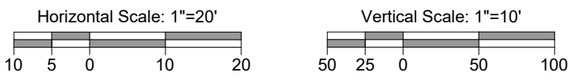
FOR BIDDING PURPOSES ONLY

STATE OF S.D.	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 6312(22)	57	58









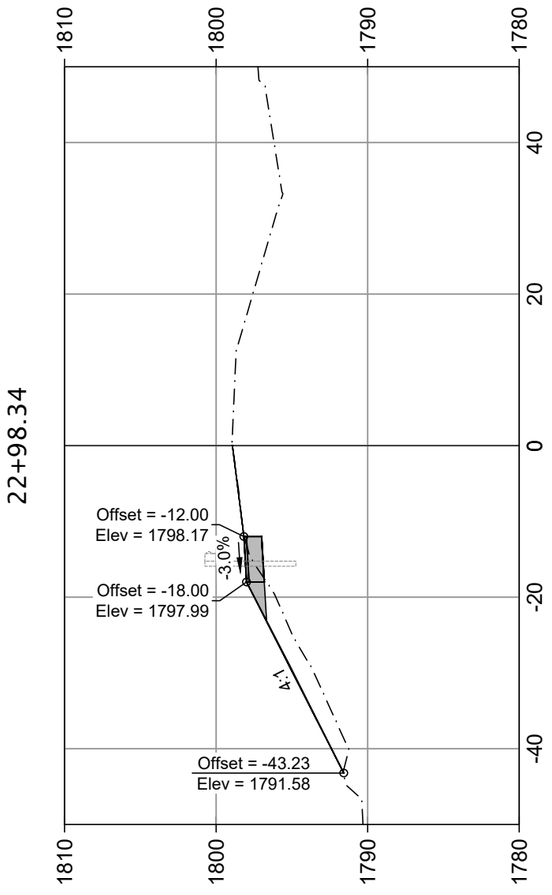


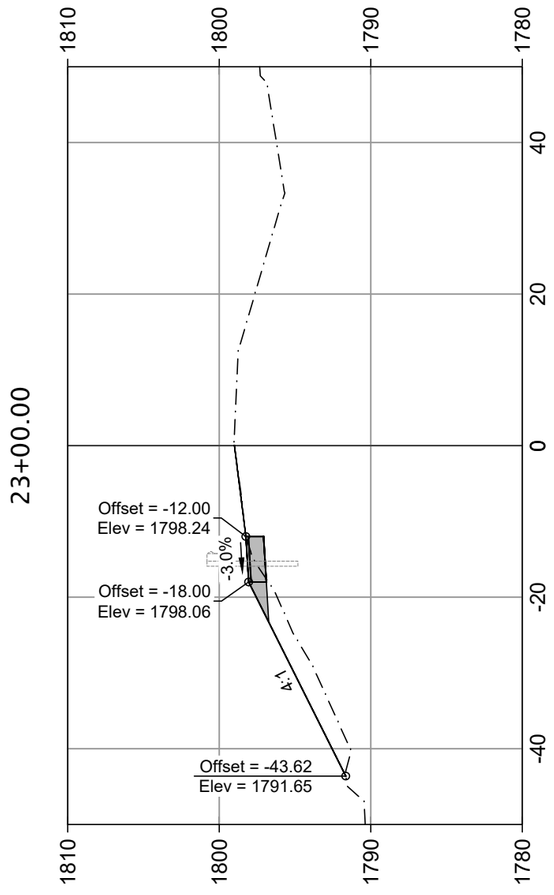
4/30/2026

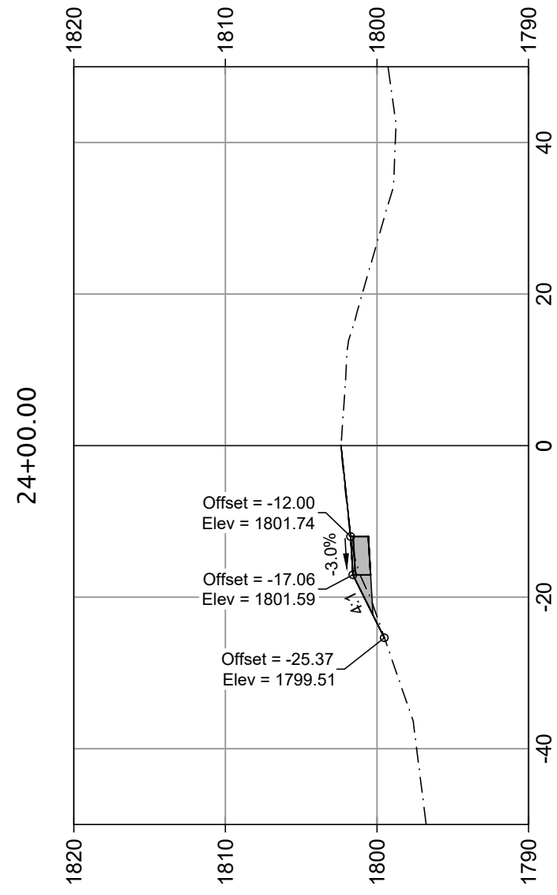
CROSS SECTIONS

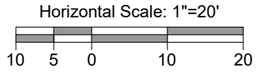
FOR BIDDING PURPOSES ONLY

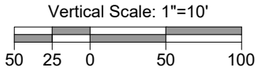
STATE OF S.D.	PROJECT	SHEET NO.	TOTAL SHEETS
	PH 6312(22)	58	58

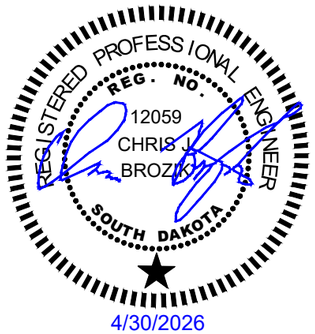












4/30/2026