

	STATE	PROJECT	SHEET	TOTAL
	UF		NU.	SHEETS
SES ONLY	S.D.	BRO-B 8030(17)	1	37
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SHEET 1:	TITLE SHEET
SHEET 2-8:	ESTIMATE OF QUANTITIES & NOTES
SHEET 9-12:	SWPPP
SHEET 13-14:	TYPICAL SECTIONS
SHEET 15:	TRAFFIC CONTROL
SHEET 16:	EROSION CONTROL
SHEET 17:	SURVEY DATA & EASEMENTS
SHEET 18:	PLAN & PROFILE
SHEET 19-24:	STANDARD PLATES
SHEET 25-34:	STRUCTURE SHEETS
SHEET 35-37:	CROSS SECTIONS

ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
009E3230	Grade Staking	0.100	Mile
009E3250	Miscellaneous Staking	0.100	Mile
009E3280	Slope Staking	0.100	Mile
009E3290	Structure Staking	1	Each
100E0100	Clearing	Lump Sum	LS
110E5010	Salvage Delineator	3	Each
110E5020	Salvage Traffic Sign	2	Each
120E0010	Unclassified Excavation	3,643	CuYd
120E0600	Contractor Furnished Borrow Excavation	975	CuYd
230E0010	Placing Topsoil	550	CuYd
634E0110	Traffic Control Signs	143.0	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0275	Type 3 Barricade	8	Each
734E0010	Erosion Control	Lump Sum	LS
734E0102	Type 2 Erosion Control Blanket	2,750	SqYd
734E0154	12" Diameter Erosion Control Wattle	340	Ft
734E0325	Surface Roughening	0.4	Acre
734E0510	Shaping for Erosion Control Blanket	250	Ft
734E0604	High Flow Silt Fence	919	Ft
734E0610	Mucking Silt Fence	64	CuYd
734E0620	Repair Silt Fence	230	Ft

Structure Quantities - Structure No. 30-170-185

BID ITEM	ІТЕМ	QUANTITY	UNIT
250E0030	Incidental Work, Structure	Lump Sum	LS
420E0200	Structure Excavation, Box Culvert	145	CuYd
421E0200	Box Culvert Undercut	331	CuYd
460E0120	Class A45 Concrete, Box Culvert	302.7	CuYd
480E0100	Reinforcing Steel	39,174	Lb
700E0210	Class B Riprap	74.0	Ton
831E0110	Type B Drainage Fabric	92	SqYd

SPECIFICATIONS

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

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: <<u>https://dot.sd.gov/media/documents/EnvironmentalProceduresManual.pdf</u> >

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 A2: STREAMS

All efforts to avoid and minimize stream impacts from the project have resulted in approximately 0.04 acres of stream (includes temporary and permanent) becoming impacted.

Table of Impacted Streams

Stream Name	Station	Perm. Impact Left (Acres)	Perm. Impact Right (Acres)	Temp. Impact Left (Acres)	Temp. Impact Right (Acres)	Total Impact (Acres)
Wolf Creek	27+80 – 28+20	0.02	0.02	0.00	0.00	0.04

Action Taken/Required:

It has been determined that project impacts do not require mitigation. Temporary impacts identified in the Table of Impacted Streams will not be mitigated as the finished ground under the bridge will be shaped to match the upstream channel and flood plain and the existing low water channel will be maintained as near as practical to the existing location as designated in the plans.

The contractor will complete excavation after temporary diversion is in place, if required, with minimal standing water to create the profile of slope protection specified in plans. Once the instream work is completed, the removed material will be placed on top of the riprap to match the natural ground, proposed groundline, or specified shape and elevations shown in plans. When overburden extends into the streambed it will form the channel bottom and profile as specified in plans. The finished ground under the bridge will be shaped to match the upstream and downstream channel and flood plain. See Overburden Excavation for Riprap note within structure sheets.

The Contractor will notify the Project Engineer if additional easement is needed to complete work adjacent to any stream. The Project Engineer will obtain an appropriate course of action from the Environmental Office before proceeding with construction activities that affect any streams beyond the work limits and easements shown in the plans. The Contractor will notify the Project Engineer if additional easement is needed to complete work adjacent to any stream. The Project Engineer will obtain an appropriate course of action from the Environmental Office before proceeding with construction activities that affect any streams 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 B5: NORTHERN LONG-EARED BAT

This project is within the range of suitable habitat for the Northern Long-Eared Bat (NLEB) and project work will avoid conflicts with NLEB roosting habitat.

Action Taken/Required:

Project activities that include tree removal, structure work, and/or work within one-quarter mile of a known hibernacula or 150 feet of a known maternity roost tree, or suitable habitat should not occur within the location(s) listed below during the NLEB seasonal work restriction timeframe without approval from the SDDOT Environmental Office.

Station	NLEB Seasonal Work Restriction
27+80 – 28+20 (L/R)	April 15 to October 31

The following avoidance, minimization, and mitigation measures are required:

<u>General AMM 1.</u> Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable AMMs.

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COMMITMENT C: WATER SOURCE

The Contractor will not withdraw water with equipment previously used outside the State of South Dakota or previously used in aquatic invasive species (AIS) positive waters within South Dakota without prior approval from the 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.

Action Taken/Required:

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

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

Wolf Creek is classified as warm water, marginal fishery with a total suspended solids standard of less than 150 mg/L 30-day average, less than 263 mg/L daily maximum.

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 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 cold water permanent fish life propagation waters according to the ARSD 74:51:01:45. For discharges to waters of the state classified as cold water 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 not required to be covered under a General Permit for Stormwater Discharges Associated with Construction Activities, the Contractor will obtain the General Permit for Temporary Discharge Activities from the DANR Surface Water Program. 605-773-3351.

https://danr.sd.gov/OfficeOfWater/SurfaceWaterQuality/docs/DANR Tempor aryDischargeNOI2018Fillable.pdf >

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 SDDANR using the following form:

https://danr.sd.gov/OfficeOfWater/SurfaceWaterQuality/docs/DANR AddTe mpInfoFillable.pdf >

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

FOR BIDDING PURPO

The Contractor will complete the DANR Contractor Certification 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 CGPAp pendixCCA2023Fillable.pdf >

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:

DANR:< spx >

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

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

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

https://danr.sd.gov/OfficeOfWater/SurfaceWaterQuality/stormwater/default.a



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 or THPO) for all work included within the project limits and all department designated sources and designated option material sources, stockpile sites, storage areas, and waste sites provided within the plans.

Action Taken/Required:

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

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

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

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

In the event of an inadvertent discovery of human remains, funerary objects, or if evidence of cultural resources is identified during project construction activities, then such activities within 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 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 7.21 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
27+80 – 28+20	Wolf Creek	1441.11

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.

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COMMITMENT M: SECTION 4(f)/6(f) RESOURCES

COMMITMENT M1: SECTION 4(f) PROPERTY

A Section 4(f) Evaluation concluded there are no feasible and prudent alternatives to avoiding Section 4(f) property located within the project.

Station	Section 4(f) Property
27+80 - 28+20	Str. No. 30-170-185 – NRHP Eligible

Action Taken/Required:

The following measures are required to minimize harm to the above Section 4(f) property:

The replacement of structure 30-170-185 will result in an Adverse Effect to historic properties. A Memorandum of Agreement was signed and MOA stipulations must be fulfilled prior to construction. The South Dakota SHPO confirmed that MOA stipulations I-III have been completed on 09/27/2024.

A programmatic Section 4(f) Evaluation for Use of Historic Bridge 30-170-185 was approved by FHWA.

The Contractor will notify the Project Engineer if additional easement is needed to complete the work adjacent to any Section 4(f) property. The Project Engineer will obtain an appropriate course of action from the Environmental Office before proceeding with construction activities that affect any Section 4(f) property.

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.

SEQUENCE OF OPERATIONS

The Contractor will use the following sequence of operations:

- 1. Install traffic control signs as shown on the plans.
- 2. Install erosion control procedures.
- 3. Deconstruct and remove existing structure.
- 4. Undercut box culvert.
- 5. Construct new structure.
- 6. Grading operations.
- 7. Notify County to install final surfacing and permanent signing.
- 8. Open the roadway to through traffic.
- 9. Permanent seeding.
- 10. Complete miscellaneous cleanup under traffic.

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

COUNTY RESPONSIBILITIES

Hand County will be responsible for the following at no cost to the Contractor:

- 1. Right of way temporary and permanent easements.
- 2. Coordination of any utility adjustments.
- 3. Removal of existing fencing, Furnish and install temporary and/or permanent fencing.
- 4. Furnish and install final surfacing.
- 5. Furnish and install new permanent signing of structure according to MUTCD standards.
- 6. Remove silt fence and erosion control wattles in permanently seeded areas.

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 utility contact information is provided elsewhere in the plans or bidding documents.

CLEARING

Before clearing activities begin, the Contractor will contact the Engineer to determine the limits of clearing for the project. Trees or shrubs that are to be removed will be marked but all others are to be protected during construction. If the trees or shrubs that are supposed to remain within the limits of work are damaged or destroyed by the Contractor, the Contractor will replace them with the same size and type at the Contractor's expense.

GRADING OPERATIONS

Water for Embankment is estimated at the rate of 10 gallons of water per cubic yard of Embankment minus Waste. The estimated quantity of Water for Embankment is 9 MGal. No separate payment will be made for the Water for Embankment and all costs associated will be incidental to the contract unit price per cubic yard of "Unclassified Excavation".

Compaction of earth and road embankment material will be governed by the Ordinary Compaction Method.

FOR BIDDING PURPO

The estimated cubic yards of excavation and/or embankment required to construct outlet ditches, ditch blocks, and approaches are included in the earthwork balance notes on the profile sheets.

Special ditch grades and other sections of the roadway different than the typical section 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.

Generally, all shallow inlet and outlet ditches as noted on the plan sheets will be cut with a 10-foot wide bottom with 5:1 backslopes. However, the Engineer may direct the Contractor to adjust the ditch width for proper alignment with the drainage structure.

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

SHRINKAGE FACTOR:

Embankment plus 35%

EARTHWORK BALANCE:

Excavation is the quantity of Unclassified Excavation less the quantity of topsoil, excavation for RCBC installation, and gravel surfacing.

Box Culvert Undercut (331 CuYd).

Excavation	679	CuYd	Embankment	599	CuYd
Contractor Furnished Borrow Excavation	130	CuYd	35% Shrinkage	210	CuYd
Total	809	CuYd		809	CuYd

The Contractor may, at the discretion of the Engineer, use the material from other excavation in the inslopes and as sub-base with the condition that said material meets all requirements as set forth in the Standard Specifications for Roads and Bridges, 2015 Edition.

It is assumed (for the purpose of earthwork balance) that the Contractor will not be able to use any of the material from Other Excavation and will have to waste the material at (a) site(s) provided by the Contractor and approved by the Engineer. All cost for labor, materials, and equipment necessary to waste material as well as restoration of the waste site(s) will be incidental to the contract unit price per cubic vard of "Unclassified Excavation."

TABLE OF UNCLASSIFIED EXCAVATION

Excavation Topsoil Excavation for RC **Total Unclassified**



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Other excavation includes the excavation for Class B Riprap (54 CuYd) and

These quantities are for informational purposes only, compensation for these is accounted for within the various bid items.

	(CuYd)
	679
	550
CBC Installation	2414
d Excavation:	3643

FOR BIDDING PURPOSES ONLY DAKOTA

PROCEDURES FOR DETERMINING UNCLASSIFIED EXCAVATION QUANTITY

The plans quantity for "Unclassified Excavation" as shown in the Estimate of Quantities will be the basis of payment for this item. No field measurements will be made.

SALVAGED ITEMS

All signs and delineators listed for salvage in the Table of Salvage Delineators and Signs will have the existing posts, bases, and signs dismantled and stockpiled within the right-of-way. The Contractor will contact the Hand County Highway Superintendent for pick-up of salvaged materials. All bolts, nuts, and washers will be placed in individual containers. Wooden posts will be stockpiled separately from steel posts. All signs listed for salvage will be handled with care so that the signs are not damaged during removal or transport. The Contractor will replace and pay for any salvaged signs damaged in their care.

All costs for labor and equipment necessary to remove, dismantle, and stockpile signs and delineators within the right-of-way will be incidental to the contract unit price per each for Salvage Delineator and Salvage Traffic Sign. The quantity of signs and delineators to be salvaged is shown in the Table of Salvage Delineators and Signs. The plans quantity is shown as per assembly. Payment for salvaging delineators will be paid per assembly at the contract unit price per each for "Salvage Delineator" and "Salvage Traffic Sign".

TABLE OF SALVAGED DELINEATORS & SIGNS

Location	Work Item	Salvage Delineator	Salvage Traffic Sign
27+08 – 21' Rt.	Salvage Weight Limit	Sign	1
27+69 – 10' Rt.	Salvage Object Marke	ər 1	
28+14 – 9' Lt.	Salvage Object Marke	er 1	
28+16 – 10' Rt.	Salvage Object Marke	er 1	
29+05 – 18' Lt.	Salvage Weight Limit	Sign	1
	Tot	al 3	2

CONTRACTOR FURNISHED BORROW EXCAVATION

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

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

Included in the quantity of Contractor Furnished Borrow Excavation are 845 cubic yards of borrow for the 35% shrinkage for the box culvert trench excavation.

EXCAVATION FOR REINFORCED CONCRETE BOX CULVERT INSTALLATION

Included in the quantity of "Unclassified Excavation" are 2414 cubic yards of excavation for installation of reinforced concrete box culverts.

All work necessary to excavate a trench for installation of reinforced concrete box culverts including labor, equipment, and incidentals will be incidental to the contract unit price per cubic yard for "Unclassified Excavation". Payment for excavation of reinforced concrete box culverts will be based only on plans quantity and measurement of these excavation quantities during construction will not be performed.

The excavation quantities for installation of reinforced concrete box culverts are not included with the earthwork balance quantities on the plans profile sheets. The quantities computed for excavation of the reinforced concrete box culverts are based on the limits shown in the drawing below.

The lowest elevation of original ground, undercut line, or bottom of removed or salvaged surfacing



INSTALLATI	<u>ON</u>	
Station		Quantity (CuYd)
27+95.69	9	2414
	Total:	2414

PLACING TOPSOIL

The thickness will be approximately 4 inches within the R.O.W. limits and 6 inches outside R.O.W. limits.

TABLE OF EXCAVATION FOR REINFORCED CONCRETE BOX CULVERT

The estimated amount of topsoil to be placed is as follows:

			Topsoil
Station	to	Station	(CuYd)
25+50 L		30+05 L	250
25+50 R		30+05 R	300
		Tatalı	
		TOLAI.	550

All cost associated with placing the topsoil along areas to be resurfaced will be incidental to the contract unit price per cubic yard for "Placing Topsoil."

The plans quantity for "Placing Topsoil" as shown in the estimate of quantities will be the basis for payment for this item.

EROSION CONTROL

The estimated area requiring erosion control is 0.80 acres. All costs for the erosion control work for furnishing, placing, and maintaining erosion control including equipment, labor, seeding, mulching, and mycorrhizal inoculum will be incidental to the contract lump sum price for "Erosion Control".

If the Contractor uses a no-till drill, mulch may be applied prior to seeding and the mulch can then be punched into the soil by the no-till drill. If the Contractor uses this process, the no-till drill seeding will be completed immediately following the mulch application and the mulch will be punched at a 3 inch depth at the rate of 2 tons per acre on all newly seeded areas.

The estimated area of Erosion Control is calculated from neat line dimensions of disturbed areas. Additional seeding and mulching of disturbed areas from the Contractor's operations are not eligible for additional payment.

SURFACE ROUGHENING

734.25 for details.

TABLE OF SURFACE ROUGHENING

Station 27+75 to 28+25 27+25 to 28+25

PERMANENT SEEDING

Permanent Seed Mixture will consist of the following:

Grass Species Western Wheatgra Canada Wildrye

Application of fertilizer will not be required on this project



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Surface roughening will be done after topsoil placement and before permanent seeding and mulching applications. Refer to Standard Plate

		Area
	Location	(Acre)
R	Inslope/Backslope/Channel	0.1
L	Inslope/Backslope/Ditch	0.1
	Additional Quantity:	0.2
	Total:	0.4

	Variety	Pure Live Seed (PLS) (Pounds/Acre)
ss	Arriba, Flintlock, Rodan, Rosana, Walsh	16
	Mandan	2
	Total:	18



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 lump sum for "Erosion Control".

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

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

EROSION CONTROL WATTLE

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

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

Erosion control wattles will remain on the project until vegetation has been established and then they will be removed by Hand County.

An additional quantity of 12" Diameter Erosion Control Wattles has been added to the Estimate of Quantities for temporary erosion and sediment control in highway ditch channels and as an alternative to low flow or high flow silt fence at wetland areas adjacent to the highway.

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

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

TABLE OF EROSION CONTROL WATTLE

Station	Location	Diameter (Inch)	Quantity (Ft)
27+71.15	Lt	12	40
27+78.93	Rt	12	80
28+13.76	Lt	12	80
28+20.33	Rt	12	40
	Additional Quantity:	12	100
		Total:	340

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.

O

TABLE OF HIGH FLOW SILT FENCE

Station			(Ft)
25+48.50 to 26+47.15	Lt		137
25+49.99 to 27+71.55	Rt		307
28+50.00 to 30+04.76	Lt		202
28+22.67 to 30+05.00	Rt		173
		Additional Quantity:	100
	Total:		919

SHAPING FOR EROSION CONTROL BLANKET

The ditches will be shaped for the erosion control blanket as specified on Standard Plate 734.01.

TABLE OF SHAPING FOR EROSION CONTROL BLANKET

Station	Location	(Ft)	
26+75 to 27+50	Lt	75	
27+00 to 27+50	Rt	50	
28+25 to 28+75	Lt	50	
28+25 to 29+00	Rt	75	
	Total:	250	

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 2 Erosion Control Blanket has been added to the Estimate of Quantities for temporary erosion control.

TABLE OF EROS

Station 25+48.50 to 27+7 25+49.99 to 27+7 26+14.75 to 30+0 28+18.60 to 30+0

GENERAL TRAFFIC CONTROL

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

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

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

Engineer.

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.

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SES ONL	YDAKOTA	BRO-B 8030)(17)	7	37
		REV BDS 6/27		27/2025	
<u>ION CONTRO</u>	<u>DL BLAN</u>	<u>KET</u>			
				Quant	ity
	Locatior	า	Туре	(SqYd)
/2.82	Lt		2	57	'9
78.15	Rt		2	939	
04.76	Lt		2	65	50
05.00	Rt		2	48	32
	Addition	al Quantity:	2	10	00
Total Type 2 Erosion Control Blanket: 2750					

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

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



GENERAL TRAFFIC CONTROL (CONTINUED)

The Contractor will maintain access to any field and farm entrances within the project limits throughout the duration of construction. All costs associated with the foregoing work will be incidental to the contract lump sum price for "Traffic Control, Miscellaneous".

TABLE OF CONSTRUCTION STAKING

					Grade S	Staking					
Roadway and Description	Begin Station	End Station	Number of Lanes	Length (Ft)	Length (Mile)	Lane Factor	*Sets of Stakes	**Grade Staking Quantity (Mile)	Miscellaneous Staking Quantity (Mile)	Slope Staking Quantity (Mile)	Structure Staking Quantity (Each)
361st Ave (2 Lanes Gravel)	25+50.00	30+05.00	2	455	0.1	1	1	0.1	0.1	0.1	1
							Totals:	0.1	0.1	0.1	1

(See Special Provisions for Contractor Staking)

* 1 = Blue Top Stakes Only (Gravel Surfacing)
2 = Blue Top and Paving Hub Stakes (PCC Pavement)

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



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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 Sheet)
- > 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) \geq
 - Clearing and grubbing .
 - Excavation/borrow .
 - Grading and shaping .
 - Filling
 - Other (describe):
- 5.3 (3b): Total Project Area 1.54 Acres
- 5.3 (3b): Total Area to be Disturbed 1.05 Acres
- 5.3 (3c): Maximum Area Disturbed at One Time 1.05 Acres
- 5.3 (3d): Existing Vegetative Cover (%) 80% \geq
- > 5.3 (3d): Description of Vegetative Cover Native Grasses and Crop Lands
- > 5.3 (3e): Soil Properties: USDA-NRCS Soil Series Classification stratified loam to loamy fine sand to fine sandy loam to silty clay loam to clay loam to silt loam to sandy clay loam, AASHTO Soil Classification A-6
- > 5.3 (3f): Name of Receiving Water Body/Bodies Wolf Creek
- 5.3 (3g): Location of Construction Support Activity Areas Hand \geq County

5.3 (3h): ORDER OF CONSTRUCTION ACTIVITIES

The Contractor will enter the Estimated Start Date.

Description	Estimated Start Date
Install traffic control signs as shown on the plans.	
Install erosion control procedures.	
Deconstruct and remove existing structure.	
Undercut box culvert.	
Construct new structure.	
Grading Operations.	
Notify County to install final surfacing and permanent signing.	
Open the roadway to through traffic.	
Permanent seeding.	
Complete miscellaneous cleanup under traffic.	

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	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:	

	🗌 Tarps & Wind
	U Watering
	Stockpile loca
	Dust Control
	Other
i	
	🗌 Sediment Ba
	Dewatering b
	Weir tanks
	Temporary D
	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))

□Vegetation B
Temporary S
Permanent S
Sodding
Planting (Wo
Mulching (Gr
Fiber Mulchir
Soil Stabilize
Bonded Fibe
Fiber Reinfor
Erosion Cont
Surface Roug
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.



SHEET

9

Dust Controls	
Description	Estimated Start Date
impervious fabrics	
tion/orientation	
Chlorides	

Dewatering BMPs	_
Description	Estimated Start Date
ins	
ags	
version Channel	

Description	Estimated Start Date
ffer Strips	
eeding (Cover Crop Seeding)	
eeding	
ody Vegetation for Soil Stabilization)	
ass Hay or Straw)	
g (Wood Fiber Mulch)	
Matrix	
ced Matrix	
ol Blankets	
hening (e.g. tracking)	

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 1/3 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 $\frac{1}{2}$ 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.

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.

\geq **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.

- site.
- - response materials.

5.3 (8b): WASTE MANAGEMENT PROCEDURES

> Waste Disposal

> Hazardous Waste

> Sanitary Waste

regulations.

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• 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

 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

Spill response equipment will be inspected and maintained as necessary to replace any materials used in spill response activities.

• 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.

 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.

• 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

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
- ➤ X 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.

<u>Fertilizers</u>

Fertilizers will be applied only in the amounts specified by the SDDOT. 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.

<u>Concrete Trucks</u>

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.
- Incontaminated 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.

7.0: 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.

		STATE OF	PROJECT	SHEET	TOTAL
SES	ONL		BRO-B 8030(17)	11	37
		·	<u>·</u>		

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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 gualified 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

 - 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

- - 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.

 - site.

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 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 Project Engineer in accordance with the DOT 298 Form.



 Surface Water Quality Program (605) 773-3351 5.5: 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.

- 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

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.

TYPICAL SECTIONS

FOR BIDDING PURPO



TYPICAL GRADING SECTION

Sta. 25+50.00 to Sta. 26+55.00



TYPICAL GRADING SECTION Sta. 26+55.00 to Sta. 29+15.63 FIELD APPROACH ON RIGHT SIDE AT Sta. 26+55.00 TO Sta. 27+00.00.

	STATE	PROJECT	SHEET	TOTAL
SES ONL	S.D.	BRO-B 8030(17)	13	37
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TYPICAL SECTIONS



TYPICAL GRADING SECTION

Sta. 29+15.63 to Sta. 30+05.00

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TRAFFIC CONTROL

FOR BIDDING PURPOSES ONLY



	ITEMIZED LIST FOR TRAFFIC COI	NTROL SI	GNS		
			CONVENTIO	ONAL ROAD)
SIGN CODE	SIGN DESCRIPTION	NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
R11-2	ROAD CLOSED	2	48 x 30	10.0	20.0
R11-3a	ROAD CLOSED X MILES AHEAD LOCAL TRAFFIC ONLY	2	60 x 30	12.5	25.0
W1-2R	CURVE RIGHT	1	30 x 30	6.25	6.3
W1-2L	CURVE LEFT	3	30 x 30	6.25	18.8
W13-1	ADVISORY SPEED PLATE 15 MPH	4	18 x 18	2.25	9.0
W20-3	ROAD CLOSED XXX FEET	4	48 x 48	16.0	64.0
	CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT		143.0		

TYPE 3 BARRICADES		
ITEM DESCRIPTION	QUANTITY	
Type 3 Barricade	8 Each	







12" Diameter Wattle				
Station	L/R	Diameter (Inch)	Quantity (Ft)	
27+71.15	LT	12	40	
27+78.93	RT	12	80	
28+13.76	LT	12	80	
28+20.33	RT	12	40	
Miscellaneous			100	
	340			

	Type 2 Erosion Control Blanket						
Station		Station	L/R	Туре	Quantity (SqYd)		
25+48.50	То	27+72.82	LT	2	579		
25+49.99	То	27+78.15	RT	2	939		
26+14.75	То	30+04.76	LT	2	650		
28+18.60	То	30+05.00	RT	2	482		
Miscellaneous					100		
Total 2750							

High Flow Silt Fen				
Station		Station	L/R	
25+48.50	То	26+47.15	LT	
25+49.99	То	27+71.55	RT	
28+50.00	То	30+04.76	LT	
28+22.67	То	30+05.00	RT	
		Miscella	neou	
			Tota	



/1450

GRADING LIMITS

XXO

-CLASS B RIPRAP - (SEE STRUCTURE SHEETS) TYPE B DRAINAGE FABRIC - (SEE STRUCTURE SHEETS)

753



 $\mathcal{O}_{\mathcal{A}}$

STA. 27+95.69

CAST/IN-PLACE

UTILITIES:

HURON, SD 57350

(605) 352-8591

INSTALL 46 3-12 × 11'

STA 25+50 TO STA 30+05 INSTALL 4" GRAVEL SURFACING

HAND COUNTY RESPONSIBILITY

/ DAKOTA ENERGY COOPERATIVE PO BOX 830

STA 26+54.54 TO STA 26+94.20 INSTALL 16' FIELD APPROACH WITH 18' RADIUS





FOR BIDDING PURPOSES ONL



PLAN VIEW







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EROSION CONTROL

FOR BIDDING PURPOSES ONL





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EROSION CONTROL

FOR BIDDING PURPO

Published Date: 2026		Sheet 2 of 2 Published Date: 2026	Published Date: 2026	
S D D EROSION CONT	ROL WATTLE	plate number 734.06		S D D SURFACE
		February 14, 2020	to the contract unit price pe	er acre for "Surface Roughening".
			Measurement for surface re All costs associated with su	ougnening will be to the nearest ten urface roughening including labor, e
			be approved by the Engine	er.
			The equipment used for su	rface roughening will be equipped very
			Where practical, surface ro necessary by the Engineer	bughening will be done on slopes 3:
All costs for removing the erosion control wattle from the project inclu be incidental to the contract unit price per foot for "Remove Erosion C	iding labor, equipment, and Control Wattle".	materials will	GENERAL NOTES:	
All costs for furnishing and installing the erosion control wattles include be incidental to the contract unit price per foot for the corresponding of	ding labor, equipment, and r erosion control wattle contra	naterials will ict item.		
removing accumulated sediment, disposal of sediment, and necessar contract unit price per cubic yard for "Remove Sediment".	ry shaping will be incidental	to the		
permit. The Contractor will remove, dispose, or reshape the accumula determined by the Engineer.	ated sediment when necess	ary as		
The Contractor and Engineer will inspect the erosion control wattles i	n accordance with the storn	n water		
Where installing running lengths of wattles, the Contractor will butt the	e second wattle tightly agair	nst the first		900
The stakes will be 1"x2" or 2"x2" wood stakes, however, other types only if approved by the Engineer. The stakes will be placed 6" from the of the stakes along the wattles will be 3' to 4'.	of stakes such as rebar may ne ends of the wattles and th	v be used ne spacing		Or Siegoer Sig
The Contractor will dig a 3" to 5" trench, install the wattle tightly in the under the wattle, and then compact the soil excavated from the trenc See Detail B.	e trench so that daylight can h against the wattle on the ι	not be seen uphill side.		37
At ditch installations, point A must be higher than point B to ensure th around the ends.	nat water flows over the wat	le and not		And the second se
At cut or fill slope installations, wattles will be installed along the cont	our and perpendicular to the	e water flow.		
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SPECIFICATIONS-

- - in the Proposal.

GENERAL NOTES-

- 3. Design Material Strengths: Concrete fc = 4500 p.s.i.

- Plate No. 460.02.

 - SDDOT Materials Manual)

- Compaction Method.





	ESTIMATED QUANTITIES					
	ITEM	UNIT	QUANTITY			
ø	Box Culvert Undercut	Cu.Yd.	331.0			

For payment, quantity is based on plan shown undercut dimensions and will not be measured unless the Engineer orders a change.

INCIDENTAL WORK, STRUCTURE

In place is a 40' long by 18' wide, steel pony truss bridge with a timber deck and concrete abutments with concrete wingwalls

The Contractor will remove the in-place structure to 1' below the bottom of the undercut or as required to construct the new structure in accordance with section 110 of the South Dakota Standard Specifications.

The Contractor will salvage the two (2) cast dated plates from the structure that identify the manufacturer of the trusses and return to the County. All other portions of the existing bridge will become the property of the Contractor and will be removed and disposed of by the Contractor on a site obtained by the Contractor and approved by the Engineer.

The foregoing is a general description of the in-place bridge and should not be construed to be complete in all details. Before preparing the bid it will be the responsibility of the Contractor to make a visual inspection of the structure to verify the extent of the work and materials involved. All costs involved in this removal will be incidental to the contract lump sum price for "Incidental Work, Structure"

	PROJECT	SHEET NO.	TOTAL SHEETS
S.D.	BRO-B 8030(17)	26	37

1. Design Specifications: AASHTO LRFD Bridge Design Specifications, 9th Edition.

2. Construction Specifications: South Dakota Standard Specifications for Roads and Bridges, 2015 Edition and required Provisions, Supplemental Specifications, and Special Provisions as included

1. Design Live Load: HL-93. No construction loading in excess of legal load was considered.

2. The design of the barrel section is based on a minimum fill height of 0 feet and includes all subsequent fill heights up to and including the maximum fill height of 5 ft. (S1).

Reinforcing Steel fy = 60000 p.s.i.

4. All concrete will be Class A45 conforming to Section 460.

5. All reinforcing steel will conform to ASTM A615 Grade 60.

6. All lap splices shown are contact lap splices unless noted otherwise

7. All exposed edges will be chamfered 3/4 inch unless noted otherwise in the plans

8. Use 1 inch clear cover on all reinforcing steel EXCEPT as shown

9. The Contractor will imprint on the structure the date of construction as specified and detailed on Standard

10. Care will be taken to establish Working Points (W.P.) as shown on the wings.

11. Circled numbers in PLAN and ELEVATION views on the General Drawing are section I.D. Numbers (see

12. Cost of Preformed Expansion Joint Filler used in apron construction will be incidental to the other contract

13. Groundwater was encounted at an elevation of 1442.04 feet in the borings during the subsurface investigation conducted in August 2022. Dewatering will be required to construct the box culvert. All cost incurred for dewatering will be incidental to other contract items.

14. Compaction of earth embankment and box culvert backfill material will be governed by the Ordinary

15. Soils below the bottom of the proposed RCBC consist of gray brown sand with gravel.





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(At Bottom Slab)

ESTIMATED QUANTITIES							
ltem	Class A45 Concrete, Box Culvert	Reinforcing Steel	Structur Excavatio Box Culv				
Unit	Cu.Yd.	Lb	Cu.Yd				
1 - F5 Barrel Section	185.1	24,900	65.9				

- The fence shall be as specified elsewhere in the plans.
- Eyebolts shall be ⁵/₈ inch diameter and shall conform to ASTM A307.
- resistant material need not be galvanized.
- length and shall be embedded such that the eye of the bolt is flush with the concrete surface. (See Eyebolt Details) As an alternate, cast-inplace concrete inserts, capable of developing the full strength of the $\frac{5}{8}$ inch diameter threaded evebolt, may be used and shall be set in the concrete in accordance with the manufacturer's recommendations. The eyebolt

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CROSS SECTIONS FOR BIDDING PURPC

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CROSS SECTIONS

FOR BIDDING PURPOSES ONL

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PROJECT