

July 14, 2026

ADDENDUM NO. 4

**RE: Item #1, August 5, 2026 Letting - EM-P 0044(207)290, PCN 05X0, Charles Mix, Gregory
County - Structure (5770'-6" Steel Girder) & Approach Grading**

TO WHOM IT MAY CONCERN:

The following addenda to the plans shall be inserted and made a part of your proposal for the referenced project.

SPECIAL PROVISIONS: NO CHANGE

SDEBS BID PROPOSAL: *The electronic bid proposal for this contract has been revised to include the changes associated with this addendum. Bidders must log in to the SDEBS to retrieve and incorporate these changes into their bid.*

Bid Items were added:

Bid Item 465E0010 "Demonstration Drilled Shaft"

PLANS: Please destroy sheets A2, B31, E2 & E8 and replace with the enclosed sheets, dated 7/13/26. Sheet E27A was added.

Sheet A2: Bid Item 465E0010 "Demonstration Drilled Shaft" was added. Specifications note that was inadvertently added with Addendum #3 was removed.

Sheet B31: ESS-2 note was revised.

Sheets E2 & E8: Bid Item 465E0010 "Demonstration Drilled Shaft" was added.

Sheet E27A: Demonstration Drilled Shaft Details sheet was added.

Sincerely,

Sam Weisgram
Engineering Supervisor

SW/gp

CC: Travis Dressen, Mitchell Region Engineer
Jay Peppel, Mitchell Area Engineer

Section E – Structure
Structure No. 12-089-076

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E3310	Bridge Elevation Survey	Lump Sum	LS
009E5000	Concrete Penetrating Sealer	23,555.3	SqYd
250E0030	Incidental Work, Structure	Lump Sum	LS
410E0020	Structural Steel	Lump Sum	LS
410E0030	Structural Steel, Miscellaneous	Lump Sum	LS
410E1150	Disc Bearing Assembly	96	Each
410E2150	Modular Expansion Joint Assembly	195.0	Ft
411E0100	Bridge Painting	Lump Sum	LS
420E0100	Structure Excavation, Bridge	427	CuYd
430E0200	Bridge End Embankment	1,666	CuYd
430E0300	Granular Bridge End Backfill	173.1	CuYd
430E0510	Approach Slab Underdrain Excavation	2.7	CuYd
430E0700	Precast Concrete Headwall for Drain	4	Each
460E0030	Class A45 Concrete, Bridge Deck	7,268.8	CuYd
460E0050	Class A45 Concrete, Bridge	10,426.2	CuYd
460E0150	Concrete Approach Slab for Bridge	163.4	SqYd
460E0160	Concrete Approach Sleeper Slab for Bridge	39.9	SqYd
460E0500	Deck Drain, Girder Bridge	104	Each
465E0010	Demonstration Drilled Shaft	1	Each
465E0100	Class A45 Concrete, Drilled Shaft	25,274.3	CuYd
465E0200	Drilled Shaft Excavation	16,887.2	CuYd
465E0400	Crosshole Sonic Log (CSL) Test	38	Each
465E0406	Thermal Integrity Profiling (TIP) Test	38	Each
465E1144	144" Permanent Casing	5,299.0	Ft
480E0100	Reinforcing Steel	5,448,340	Lb
480E0200	Epoxy Coated Reinforcing Steel	3,600	Lb
480E0300	Stainless Reinforcing Steel	1,979,024	Lb
480E0511	No. 11 Rebar Splice	1,824	Each
480E0514	No. 14 Rebar Splice	6,768	Each
510E3521	HP 14x73 Steel Test Pile, Furnish and Drive	110	Ft
510E3525	HP 14x73 Steel Bearing Pile, Furnish and Drive	1,700	Ft
635E8020	2" Rigid Galvanized Steel Conduit	5,740	Ft
680E0040	4" Underdrain Pipe	363	Ft
680E2500	Porous Backfill	30.3	Ton
734E2022	Bridge Berm Slope Protection, Quarried Aggregate	2,764.4	SqYd
831E0100	Type A Drainage Fabric	2,832	SqYd

Section F - Surfacing

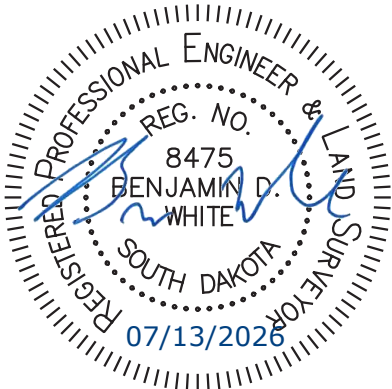
BID ITEM NUMBER	ITEM	QUANTITY	UNIT
120E6200	Water for Granular Material	343.9	MGal
260E1080	Base Course, Salvaged, State Furnished	28,658.8	Ton
320E1200	Asphalt Concrete Composite	1,797.2	Ton
330E0010	MC-70 Asphalt for Prime	34.4	Ton
330E0300	SS-1h or CSS-1h Asphalt for Fog Seal	4.7	Ton
330E1000	Blotting Sand for Prime	86.7	Ton
330E3000	Sand for Fog Seal	10.0	Ton
360E0020	AE150S Asphalt for Surface Treatment	29.5	Ton
360E1050	Type 3 Cover Aggregate	395.8	Ton

Section M - Pavement Marking

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
633E1200	High Build Waterborne Pavement Marking Paint, White	208	Gal
633E1205	High Build Waterborne Pavement Marking Paint, Yellow	94	Gal

Section S - Permanent Signing

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
110E0130	Remove Traffic Sign	25	Each
110E0135	Remove Delineator	47	Each
632E1320	2.0"x2.0" Perforated Tube Post	223.3	Ft
632E1330	2.25"x2.25" Perforated Tube Post	64.2	Ft
632E1340	2.5"x2.5" Perforated Tube Post	59.0	Ft
632E2022	4"x4" White Delineator Back to Back with 1.12 Lb/Ft Post	23	Each
632E2028	4" Tubular White Delineator with 1.12 Lb/Ft Post	24	Each
632E3203	Flat Aluminum Sign, Nonremovable Copy High Intensity	153.0	SqFt
632E3205	Flat Aluminum Sign, Nonremovable Copy Super/Very High Intensity	108.6	SqFt



931+77-215' R to 934+90-191' L
Install Class B Riprap (5378.5 tons)
and Type B Drainage Fabric (5132.0 SY)

933+28.08 to 935+37.78 L
Install Type 1 Guardrail Transition
& 100' Type 1 MGS Guardrail
& MGS Tangent End Terminal

933+28.08 to 934+50.30 R
Install Type 1 Guardrail Transition
& 12.5' Type 1 MGS Guardrail
& MGS Tangent End Terminal

Remove Steel Guardrail
at following locations:
932+69-246' R to 933+89-240' R
932+69-275' R to 933+50-284' R

932+76-279' R to 933+21-280' R
Take Out Concrete Curb and Gutter

932+77-253' R to 933+22-253' R
Take Out Concrete Curb and Gutter

932+83-275' R
Take Out Drop Inlet

932+83-326' R
Take Out 1 End Section
(Incidental Work, Grading)

932+83-326' R to 932+85-286' R
Fill 12" - 40" CMP
with Controlled Density Fill

932+83-247' R
Take Out Drop Inlet

933+20-213' R
Take Out 1 End Section
(Incidental Work, Grading)

932+85-245' R to 933+20-213' R
Fill 12" - 48" CMP
with Controlled Density Fill

933+36-85' R
Do Not Disturb
Environmental Sensor Station

934+07-103' R
Remove Wayside Chapel
(Remove Building)

937+90-117' L
Remove Septic Tank and
Drainfield
(Remove Building)

935+78-53' L to 936+28-54' L
Install Class B Riprap and
Type B Drainage Fabric
(Riprap Dimensions: 30'x50'x2'-3")

935+57-50' R to 936+07-51' R
Install Class B Riprap and
Type B Drainage Fabric
(Riprap Dimensions: 35'x50'x2'-3")

SEC. 15 - T99N-R70W

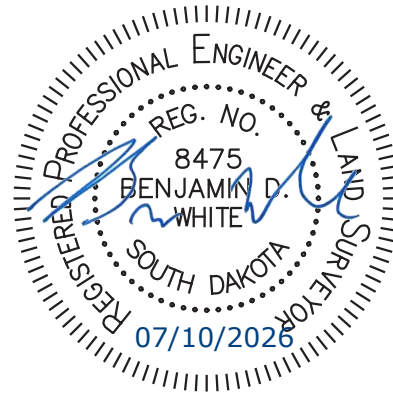
SW1/4

United States of America
(United States ACOE)

Parcel 5 & 5A

Sec. 16 - T99N - R70W

Government Lot 3

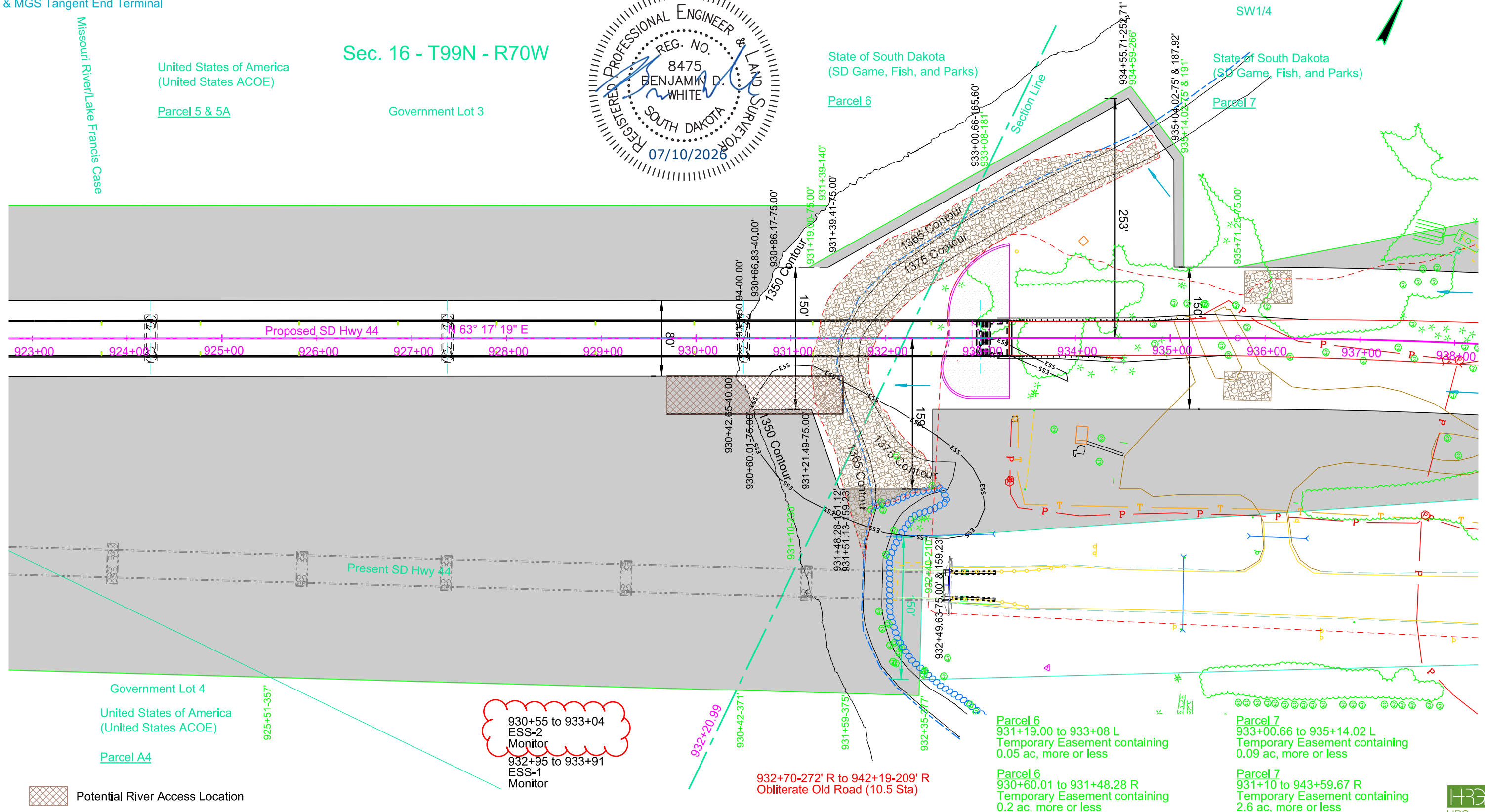


State of South Dakota
(SD Game, Fish, and Parks)

Parcel 6

State of South Dakota
(SD Game, Fish, and Parks)

Parcel 7



Potential River Access Location

Parcel 6
931+19.00 to 933+08 L
Temporary Easement containing
0.05 ac, more or less

Parcel 6
930+60.01 to 931+48.28 R
Temporary Easement containing
0.2 ac, more or less

Parcel 7
933+00.66 to 935+14.02 L
Temporary Easement containing
0.09 ac, more or less

Parcel 7
931+10 to 943+59.67 R
Temporary Easement containing
2.6 ac, more or less



SECTION E - ESTIMATE OF STRUCTURE QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E3310	Bridge Elevation Survey	Lump Sum	LS
009E5000	Concrete Penetrating Sealer	23,555.3	SqYd
250E0030	Incidental Work, Structure	Lump Sum	LS
410E0020	Structural Steel	Lump Sum	LS
410E0030	Structural Steel, Miscellaneous	Lump Sum	LS
410E1150	Disc Bearing Assembly	96	Each
410E2150	Modular Expansion Joint Assembly	195.0	Ft
411E0100	Bridge Painting	Lump Sum	LS
420E0100	Structure Excavation, Bridge	427	CuYd
430E0200	Bridge End Embankment	1,666	CuYd
430E0300	Granular Bridge End Backfill	173.1	CuYd
430E0510	Approach Slab Underdrain Excavation	2.7	CuYd
430E0700	Precast Concrete Headwall for Drain	4	Each
460E0030	Class A45 Concrete, Bridge Deck	7,268.8	CuYd
460E0050	Class A45 Concrete, Bridge	10,426.2	CuYd
460E0150	Concrete Approach Slab for Bridge	163.4	SqYd
460E0160	Concrete Approach Sleeper Slab for Bridge	39.9	SqYd
460E0500	Deck Drain, Girder Bridge	104	Each
465E0010	Demonstration Drilled Shaft	1	Each
465E0100	Class A45 Concrete, Drilled Shaft	25,274.3	CuYd
465E0200	Drilled Shaft Excavation	16,887.2	CuYd
465E0400	Crosshole Sonic Log (CSL) Test	38	Each
465E0406	Thermal Integrity Profiling (TIP) Test	38	Each
465E1144	144" Permanent Casing	5,299.0	Ft
480E0100	Reinforcing Steel	5,448,340	Lb
480E0200	Epoxy Coated Reinforcing Steel	3,600	Lb
480E0300	Stainless Reinforcing Steel	1,979,024	Lb
480E0511	No. 11 Rebar Splice	1,824	Each
480E0514	No. 14 Rebar Splice	6,768	Each
510E3521	HP 14x73 Steel Test Pile, Furnish and Drive	110	Ft
510E3525	HP 14x73 Steel Bearing Pile, Furnish and Drive	1,700	Ft
635E8020	2" Rigid Galvanized Steel Conduit	5,740	Ft
680E0040	4" Underdrain Pipe	363	Ft
680E2500	Porous Backfill	30.3	Ton
734E2022	Bridge Berm Slope Protection, Quarried Aggregate	2,764.4	SqYd
831E0100	Type A Drainage Fabric	2,832	SqYd



ESTIMATE OF STRUCTURE QUANTITIES

DESCRIPTION	QUANTITY	UNIT	REMARKS
Bridge Elevation Survey	Lump Sum	LS	
Concrete Penetrating Sealer	23,555.3	SqYd	See Special Provision
Incidental Work, Structure	Lump Sum	LS	
Structural Steel	Lump Sum	LS	
Structural Steel, Miscellaneous	Lump Sum	LS	
Disc Bearing Assembly	96	Each	See Special Provision
Modular Expansion Joint Assembly	195.0	Ft	See Special Provision
Bridge Painting	Lump Sum	LS	
Structure Excavation, Bridge	427	CuYd	
Bridge End Embankment	1,666	CuYd	
Granular Bridge End Backfill	173.1	CuYd	
Approach Slab Underdrain Excavation	2.7	CuYd	
Precast Concrete Headwall for Drain	4	Each	
Class A45 Concrete, Bridge Deck	7,268.8	CuYd	
Class A45 Concrete, Bridge	10,426.2	CuYd	
Concrete Approach Slab for Bridge	163.4	SqYd	
Concrete Approach Sleeper Slab for Bridge	39.9	SqYd	
Deck Drain, Girder Bridge	104	Each	
Demonstration Drilled Shaft	1	Each	See Special Provision
Class A45 Concrete, Drilled Shaft	25,274.3	CuYd	See Special Provision
Drilled Shaft Excavation	16,887.2	CuYd	See Special Provision
Crosshole Sonic Log (CSL) Test	38	Each	See Special Provision
Thermal Integrity Profiling (TIP) Test	38	Each	See Special Provision
144" Permanent Casing	5,299.0	Ft	See Special Provision
Reinforcing Steel	5,448,340	Lb	
Epoxy Coated Reinforcing Steel	3,600	Lb	
Stainless Reinforcing Steel	1,979,024	Lb	See Special Provision
No. 11 Rebar Splice	1,824	Each	
No. 14 Rebar Splice	6,768	Each	
HP 14x73 Steel Test Pile, Furnish and Drive	110	Ft	
HP 14x73 Steel Bearing Pile, Furnish and Drive	1,700	Ft	
2" Rigid Galvanized Steel Conduit	5,740	Ft	
4" Underdrain Pipe	363	Ft	
Porous Backfill	30.3	Ton	
Bridge Berm Slope Protection, Quarried Aggregate	2,764.4	SqYd	
Type A Drainage Fabric	2,832	SqYd	

BRIDGE SPECIFICATIONS

1. Design Specifications: AASHTO LRFD Bridge Design Specifications, 9th Edition.
2. Construction Specifications: South Dakota Standard Specifications for Roads and Bridges, 10-1-25 Version, Required Provisions, and Special Provisions as included in the proposal. The Standard Specifications for Roads and Bridges are available for download and viewing at: <https://dot.sd.gov/doing-business/contractors/standard-specifications>
3. All welding and welding inspections will be in conformance with the latest edition of AASHTO/AWS D1.5/D1.5M Bridge Welding Code unless noted otherwise in the plans.

BRIDGE DESIGN LOADING

1. AASHTO HL-93.
2. Dead Load includes 22 psf for future wearing surface on the roadway.

DESIGN MATERIAL STRENGTHS

Class A45 Concrete
Reinforcing Steel (ASTM A615, Gr. 60)
Stainless Steel (ASTM A955, Gr. 60)
Piling (ASTM A572 Grade 50)
Structural Steel (ASTM A709 Gr. 50WT2)
Structural Steel (ASTM A709 Gr. HPS 70WT2)
Structural Steel for Tie Rods (ASTM A709, Gr. 36)

f'c = 4,500 psi
fy = 60,000 psi
fy = 60,000 psi
fy = 50,000 psi
fy = 50,000 psi
fy = 70,000 psi
fy = 36,000 psi

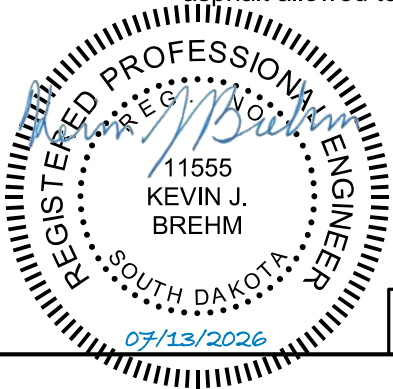
GENERAL CONSTRUCTION

1. All lap splices shown are contact lap splices unless noted otherwise.
2. All exposed concrete corners and edges will be chamfered 3/4-inch unless noted otherwise.
3. Use 2-inch clear cover on all reinforcing steel except as shown otherwise on plans.
4. The Contractor will imprint on the structure the date of new construction as specified and detailed on Standard Plate 460.02.
5. Barrier curbs and end blocks will be built perpendicular to the roadway grade line.
6. Requests for construction joints or reinforcing steel splices at points other than those shown, must be submitted to the Engineer for prior approval. If additional splices are approved, no payment will be allowed for the added quantity of reinforcing steel.
7. Bridge berms will be constructed to the plans template prior to any pile driving or construction of abutment footings. See Standard Plate 120.11. Berm slopes will not be disturbed after construction. Any alterations to the berm or slopes after berm construction will be submitted to the Bridge Construction Engineer for approval. Allow 30 days for review of proposals.
8. Berm slope and embankments will be compacted to the Specified Density Method in accordance with Section 120.3.a of the Construction Specifications.

9. The elevation of the bridge deck is 18 inches above subgrade elevation.
10. The Contractor will submit a safety plan to help ensure the safety of workers and the public throughout construction of the new bridge and demolition of the existing bridge. At a minimum, the plan will include details of construction signage, temporary lighting of any potential hazards such as barges and partially completed bridge construction, and temporary navigational lighting, all in accordance with US Coast Guard requirements and regulations.

INCIDENTAL WORK, STRUCTURE

1. In place centerline Sta. 876+16.57, 102.7' RT to centerline Sta. 932+69.81, 262.6' RT is a 5655.5-foot, 7-unit, 28 span continuous steel girder bridge with a 28'-0" clear roadway. The superstructure consists of a reinforced concrete slab with New Jersey style concrete railings across the bridge. The deck has been overlaid with 0.125 inches of epoxy. The substructure consists of 2 column reinforced concrete bents with a pile cap supported on a 4'-0" diameter prestressed concrete piling and reinforced concrete vertical abutments supported on steel H-piling.
2. Break down and remove the existing bridge, and approach/sleeper slabs if applicable, to 1-foot below finished groundline, or as required to construct the new structure in accordance with Section 110 of the Construction Specifications. One exception is the existing concrete piles supporting the bents will be removed to 2-feet below the existing stream bed elevation. All portions of the existing bridge will be removed and disposed of by the Contractor on a site obtained by the Contractor and approved by the Engineer. This includes any sand/fill material contained within the existing concrete piles that spills into the river during the removal operation. An appropriate site will be as described in the Environmental Commitments Notes in Section A.
3. The Contractor will submit a detailed bridge removal plan at least 6 months prior to the start of bridge demolition. The plan will include a description of the removal procedures and equipment to be used, complete sequencing details, pick point locations, temporary shoring details, temporary bracing details, supporting analysis, and restoration details for existing riprap slope protection and stream bed. The bridge removal plan will be stamped by a Professional Engineer registered in the State of South Dakota. The Engineer will submit documentation to the US Corps of Engineers and US Coast Guard for approval. Demolition of the existing bridge may not begin until bridge removal plan approvals are obtained by the Engineer.
4. During demolition of the structure, efforts will be taken to prevent material from falling into the river. Under no circumstances is asphalt allowed to fall into the river.



ESTIMATE OF STRUCTURE QUANTITIES AND NOTES
FOR

5770' - 6" CONT. COMP. GIRDER BRIDGE

STR. NO. 12-089-076

DECEMBER 2023

6 OF 84

DESIGNED BY KJB	CK. DES. BY JL	DRAFTED BY EM	BRIDGE ENGINEER
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REINFORCING SCHEDULE

Mk.	No.	Size	Length	Type
D1	36	14	208' - 3"	Str.
Z1	1	5	14059' - 2"	Spiral

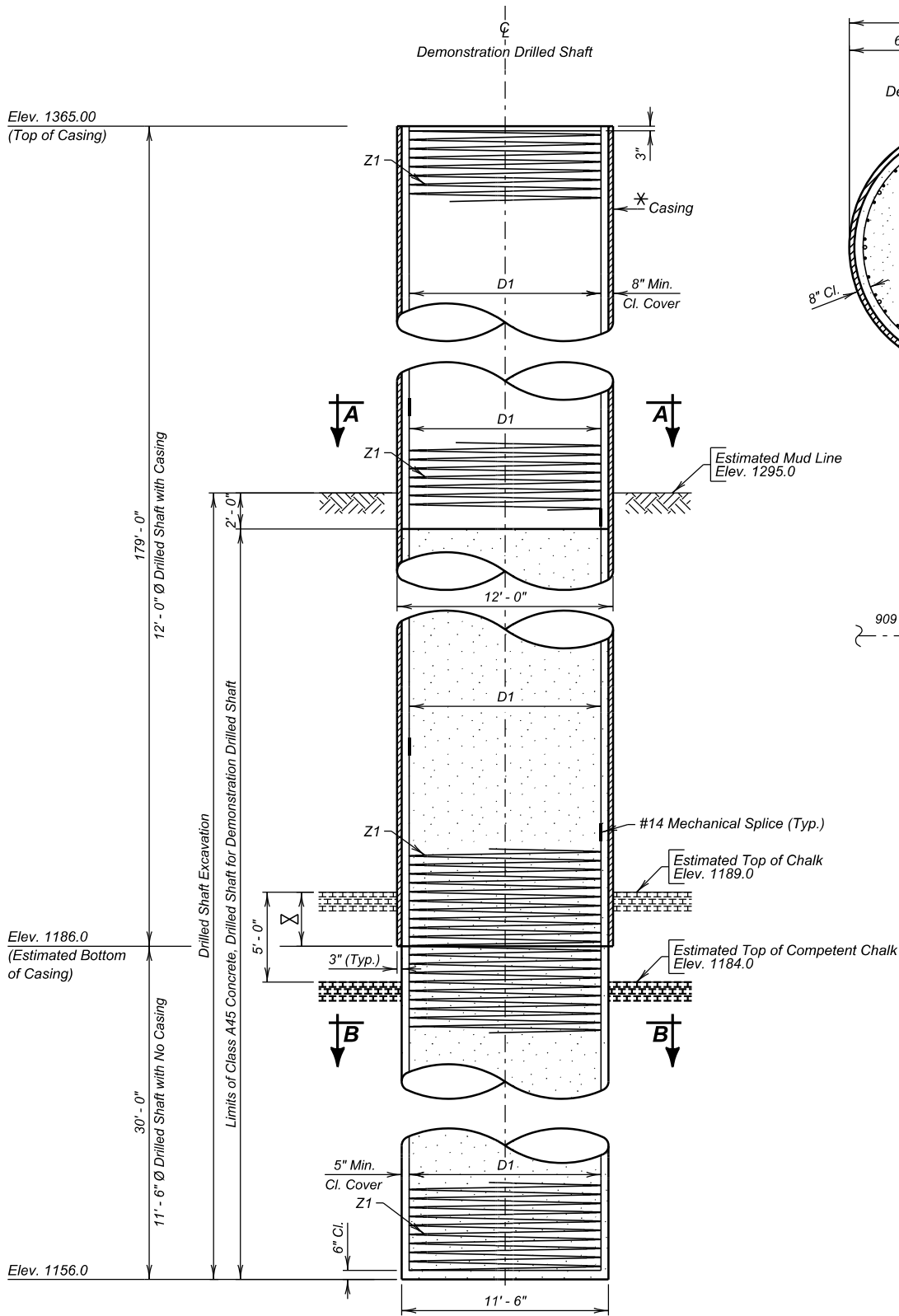
NOTES:

- All dimensions are out to out of bars.
- Spirals - Use 6" pitch and 1½ extra turns at each end. Use 1½ turns for lap at splice as required, or weld as approved by the Engineer of Record. Use 6 vertical spacer bars per column.
- Bar Length does not include Splices.
- The length shown for the D1 bar is the full length required. The Contractor must submit a splice plan for approval. Mechanical splices must be staggered (a minimum of 5' - 0") and not placed side by side.
- Place D1 bars as required to maintain 3" minimum clearance between bars and CSL tubes.

ESTIMATED QUANTITIES

ITEM	UNIT	QUANTITY
Demonstration Drilled Shaft	Each	1

- 834.3 Cu. Yd. Class A45 Concrete, Drilled Shaft
 - 72016 Lb. Reinforcing Steel
 - 572.0 Cu. Yd. Drilled Shaft Excavation
 - 1 Each Crosshole Sonic Log (CSL) Test
 - 1 Each Thermal Integrity Profiling (TIP) Test
 - 179 Ft. 144" Casing
 - 108 Each No. 14 Rebar Splice
- Items 1 thru 7 are approximate quantities contained in the above bid items and are for information only.



Penetration into the chalk formation necessary to prevent intrusion of soil or other materials is anticipated to be a minimum of 3'-0". The penetration depth may be modified as required to satisfactorily prevent intrusion of soil or other materials into the excavation. Modifications to the penetration depth may be proposed by the Contractor and accepted by the Engineer, but the penetration into the chalk formation must in no case be less than 1'-0". The Contractor will be responsible for the performance of the modified penetration depth.

DRILLED SHAFT

SEC. A - A

SEC. B - B

DEMONSTRATION DRILLED SHAFT LAYOUT

NOTES:

- The Contractor will demonstrate equipment and methods prior to construction of the first production drilled shaft by installing a non-production drilled shaft (Demonstration Drilled Shaft).
- Additional reinforcing steel required by the Contractor to support the CSL access tubes, TIP testing wires or to facilitate placement of the cage will be shown in the Drilled Shaft Installation Plan and will be incidental to the contract unit price per each for DEMONSTRATION DRILLED SHAFT.
- Construct the demonstration drilled shaft according to the requirements of the Special Provision for Drilled Shaft Construction with special emphasis on seating the casing in the chalk formation to prevent intrusion of soil or other materials into the excavation, slurry control and disposal, method of scouring, air lift pump usage, concrete delivery and coordination with the batch plant, concrete slump at the point of delivery, and concrete placement.
- If the demonstration drilled shaft installation demonstrates the equipment and methods used to construct drilled shafts to the requirements of this specification are inadequate, the demonstration drilled shaft will be considered unsuccessful and the Engineer will require appropriate alterations in equipment or methods, or both, to eliminate the unsatisfactory results. The Contractor may be required to perform additional demonstration drilled shafts at their own expense until an adequate procedure is demonstrated, deemed successful and approved by the Engineer.
- Do not begin constructing production drilled shafts until the Engineer approves the methodology and reviews the CSL and TIP reports. The Engineer will complete the review process within 5 working days.
- The demonstration drilled shaft must be removed to a depth 2' below the mudline of the reservoir. This work can be accomplished at the same time as demolition of the existing bridge.
- A demonstration drilled shaft will be unsuccessful if any of the following occur:
 - Inability to meet the performance criteria defined in 465.4.D;
 - Inability to deliver and place concrete at a rate necessary to meet the specifications;
 - Failure of CSL or TIP testing;
 - Failure of concrete tests;
 - Inability to clean the rock socket in accordance with the Special Provision for Drilled Shaft Construction.
- The accepted successful demonstration drilled shaft will be paid for at the contract unit price per each. Payment will be full compensation for labor, equipment, tools, materials and all incidentals, including all costs for advancing the casing through the alluvium and into the chalk formation, drilled shaft excavation including cleaning of the rock socket, SQUID testing, furnishing and placing reinforcing bars, furnishing and placing concrete, CSL pipe and testing, TIP testing and disposal of all excavated materials and water.



DEMONSTRATION DRILLED SHAFT DETAILS

FOR

5770' - 6" CONT. COMP. GIRDER BRIDGE

36' - 0" ROADWAY 0° SKEW
OVER MISSOURI RIVER SEC. 16/20/21-T99N-R70W
(LAKE FRANCIS CASE) P 0044(207)290
STA. 875 + 39.75 TO STA. 933 + 10.25 HL-93
STR. NO. 12-089-076

GREGORY & CHARLES MIX COUNTIES

S. D. DEPT. OF TRANSPORTATION

DECEMBER 2023

25A OF 84

DESIGNED BY AMB	CK. DES. BY MJK	DRAFTED BY NTF	BRIDGE ENGINEER
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