

STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P-PH-B-PT 0010(124)296	1	473

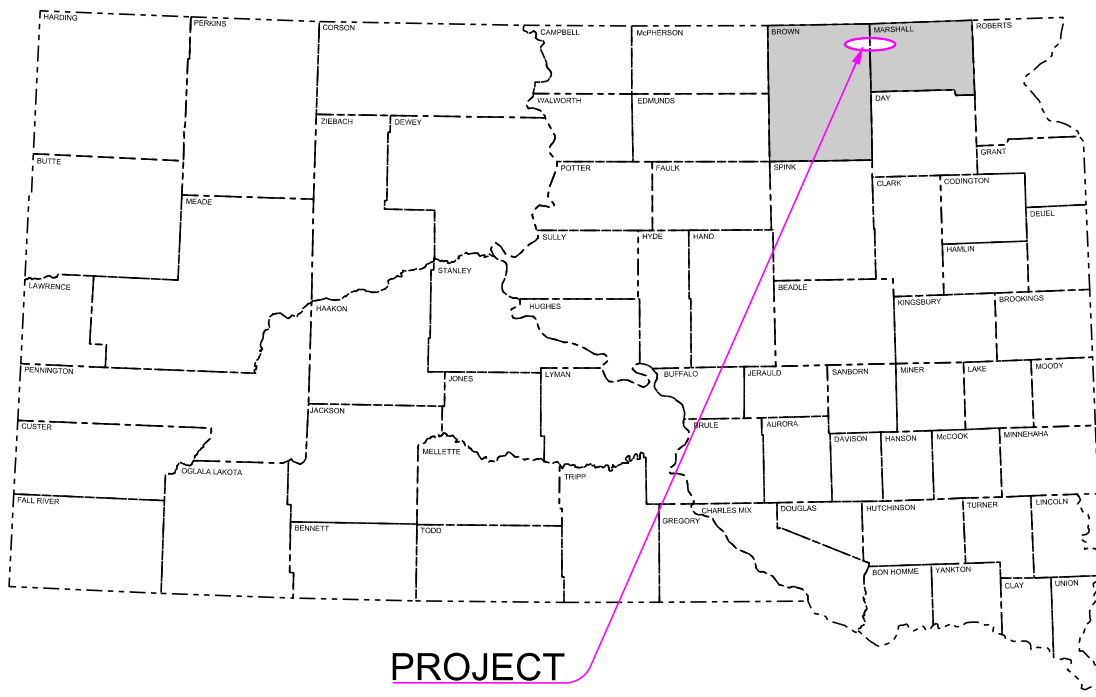
Plotting Date: 10/18/2023

PROJECT P-PH-B-PT 0010(124)296 SD HIGHWAY 10 BROWN & MARSHALL COUNTY

SHOULDER WIDENING, SPOT GRADING, STRUCTURE REPLACEMENT,
INTERSECTION IMPROVEMENTS & PIPE WORK

INDEX OF SECTIONS

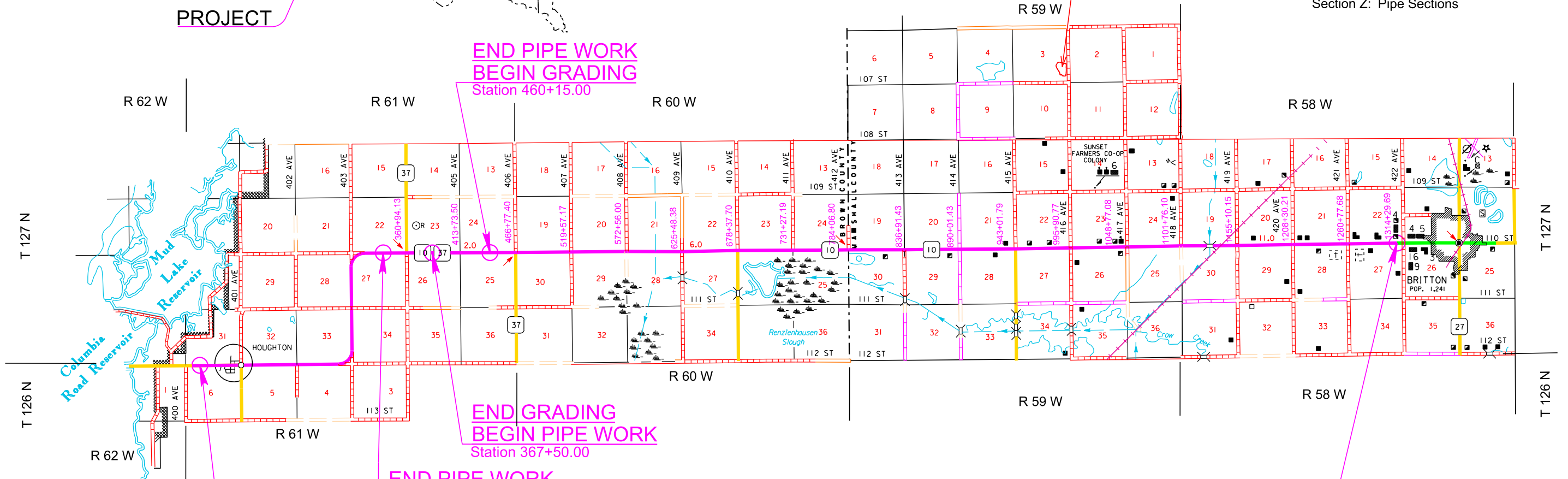
- Section A: Estimate of Quantities and Environmental Commitments
- Section B: Grading Plans
- Section C: Traffic Control Plans
- Section D: Erosion and Sediment Control Plans
- Section E: Structure Plans
- Section F: Surfacing Plans
- Section M: Pavement Marking Plans
- Section S: Permanent Signing Plans
- Section X: Cross Sections
- Section Z: Pipe Sections



PROJECT

PCN 05F4

BORROW PIT NO 1
SE 1/4 of
Section 3 - T127N - R59W



END PIPE WORK
BEGIN GRADING
Station 460+15.00

END GRADING
BEGIN PIPE WORK
Station 367+50.00

END PIPE WORK
BEGIN GRADING
Station 350+55.00 = Station 307+69.00
on Project F 142(04)

BEGIN P-PH-B-PT 0010(124)296
BEGIN PIPE WORK
Station 66+71.00 = Station 66+71.00
on Project F 142(4)
MRM 296.00+0.518

END P-PH-B-PT 0010(124)296
END GRADING
Station 1310+34.00 = Station 7+52.99
on Project P 0010(32)320
MRM 319.00 + 0.985

DESIGN DESIGNATION

AADT (2022)	670
AADT (2047)	902
DHV	100
D	50%
DHV T%	10.2%
AADT T%	22.4%
V	65 mph

STORM WATER PERMIT
Major Receiving
Body of Water: James River/Sand Lake Reservoir, Crow Creek
Area Disturbed: 135 acres
Total Project Area: 268 acres
Approx. Begin Lat,Long: 45.7628,-98.2278

Gross Length	124,363.00 Feet	23.554 Miles
Length of Exceptions	0.00 Feet	0.000 Miles
Net Length	124,363.00 Feet	23.554 Miles

Plot Scale: 1:200

Plotted From: TRPR17192

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ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P-PH-B-PT 0010(124)296	A1	A7

Plotting Date: 02/29/2024 Rev 02/29/2024 DRM

Section B - Grading

Section B - Grading (continued)

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
004E0030	Maintenance of Traffic Diversion(s)	Lump Sum	LS
004E0050	Remove Traffic Diversion(s)	Lump Sum	LS
009E0010	Mobilization	Lump Sum	LS
009E3220	Reestablish Right-of-Way and Property Corner	152	Each
009E3225	Reestablish Public Land Survey System Corner	38	Each
009E3230	Grade Staking	16,423	Mile
009E3245	Final Cross Section Survey	16,423	Mile
009E3250	Miscellaneous Staking	16,423	Mile
009E3280	Slope Staking	16,423	Mile
009E3290	Structure Staking	4	Each
009E3301	Engineer Directed Surveying/Staking	40.0	Hour
100E0100	Clearing	Lump Sum	LS
110E0600	Remove Fence	47,665	Ft
110E0700	Remove 3 Cable Guardrail	344	Ft
110E0730	Remove Beam Guardrail	583.0	Ft
110E0740	Remove 3 Cable Guardrail Anchor Assembly	1	Each
110E0745	Remove 3 Cable Guardrail Slip Base Anchor Assembly	1	Each
110E1010	Remove Asphalt Concrete Pavement	4,164.8	SqYd
110E5451	Salvage Riprap	3,992.0	Ton
110E7500	Remove Pipe for Reset	58	Ft
110E7510	Remove Pipe End Section for Reset	38	Each
120E0010	Unclassified Excavation	512,648	CuYd
120E0500	Option Borrow Excavation	284,420	CuYd
120E1000	Muck Excavation	65,177	CuYd
120E2000	Undercutting	160,298	CuYd
120E6100	Water for Embankment	5,685.0	MGal
205E0010	Dust Control Chloride	683,280	Lb
250E0020	Incidental Work, Grading	Lump Sum	LS
260E6010	Granular Material	2,495.1	Ton
270E0040	Salvage and Stockpile Asphalt Mix and Granular Base Material	50,755.0	Ton
421E0100	Pipe Culvert Undercut	1,320	CuYd
450E0142	24" RCP Class 2, Furnish	1,098	Ft
450E0150	24" RCP, Install	1,098	Ft
450E0162	30" RCP Class 2, Furnish	920	Ft
450E0170	30" RCP, Install	920	Ft
450E0192	42" RCP Class 2, Furnish	172	Ft
450E0200	42" RCP, Install	172	Ft
450E0202	48" RCP Class 2, Furnish	240	Ft
450E0210	48" RCP, Install	240	Ft
450E0222	60" RCP Class 2, Furnish	96	Ft
450E0230	60" RCP, Install	96	Ft
450E2008	18" RCP Flared End, Furnish	3	Each

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
450E2009	18" RCP Flared End, Install	3	Each
450E2016	24" RCP Flared End, Furnish	4	Each
450E2017	24" RCP Flared End, Install	4	Each
450E2032	42" RCP Flared End, Furnish	4	Each
450E2033	42" RCP Flared End, Install	4	Each
450E2036	48" RCP Flared End, Furnish	6	Each
450E2037	48" RCP Flared End, Install	6	Each
450E2044	60" RCP Flared End, Furnish	2	Each
450E2045	60" RCP Flared End, Install	2	Each
450E2200	24" RCP Sloped End, Furnish	24	Each
450E2201	24" RCP Sloped End, Install	24	Each
450E2204	30" RCP Sloped End, Furnish	18	Each
450E2205	30" RCP Sloped End, Install	18	Each
450E3012	24" RCP Arch Class 2, Furnish	64	Ft
450E3020	24" RCP Arch, Install	64	Ft
450E3022	30" RCP Arch Class 2, Furnish	196	Ft
450E3030	30" RCP Arch, Install	196	Ft
450E3032	36" RCP Arch Class 2, Furnish	246	Ft
450E3040	36" RCP Arch, Install	246	Ft
450E3042	42" RCP Arch Class 2, Furnish	188	Ft
450E3050	42" RCP Arch, Install	188	Ft
450E4512	36" RCP Arch Flared End, Furnish	7	Each
450E4513	36" RCP Arch Flared End, Install	7	Each
450E4516	42" RCP Arch Flared End, Furnish	6	Each
450E4517	42" RCP Arch Flared End, Install	6	Each
450E4600	24" RCP Arch Sloped End, Furnish	2	Each
450E4601	24" RCP Arch Sloped End, Install	2	Each
450E4604	30" RCP Arch Sloped End, Furnish	6	Each
450E4605	30" RCP Arch Sloped End, Install	6	Each
450E4759	18" CMP 16 Gauge, Furnish	2,290	Ft
450E4760	18" CMP, Install	2,290	Ft
450E4769	24" CMP 16 Gauge, Furnish	422	Ft
450E4770	24" CMP, Install	422	Ft
450E4779	30" CMP 16 Gauge, Furnish	602	Ft
450E4780	30" CMP, Install	602	Ft
450E4789	36" CMP 16 Gauge, Furnish	64	Ft
450E4790	36" CMP, Install	64	Ft
450E5318	36" CMP Sloped End, Furnish	1	Each
450E5319	36" CMP Sloped End, Install	1	Each
450E5406	18" CMP Safety End, Furnish	68	Each
450E5407	18" CMP Safety End, Install	68	Each
450E5410	24" CMP Safety End, Furnish	14	Each
450E5411	24" CMP Safety End, Install	14	Each

INDEX OF SHEETS	
A1 to A3	Estimate of Quantities for Sections B, C, D, E, F, M, and S
A4 to A7	Environmental Commitments

Section B - Grading (continued)

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
450E5414	30" CMP Safety End, Furnish	20	Each
450E5417	30" CMP Safety End, Install	20	Each
450E5529	30" CMP Arch 16 Gauge, Furnish	122	Ft
450E5530	30" CMP Arch, Install	122	Ft
450E5599	84" CMP Arch 14 Gauge, Furnish	162	Ft
450E5600	84" CMP Arch, Install	162	Ft
450E5910	30" CMP Arch Sloped End, Furnish	4	Each
450E5911	30" CMP Arch Sloped End, Install	4	Each
450E6014	30" CMP Arch Safety End, Furnish	2	Each
450E6017	30" CMP Arch Safety End, Install	2	Each
450E8300	Culvert Joint Cleaning	47.0	Ft
450E8305	Repair Culvert Joint	47.0	Ft
450E8310	Chemical Grout Void Fill	57.1	Gal
* 450E8900	Cleanout Pipe Culvert	24	Each
450E9000	Reset Pipe	58	Ft
450E9001	Reset Pipe End Section	38	Each
451E0012	12" PVC Encasement Pipe	24	Ft
462E0100	Class M6 Concrete	17.4	CuYd
464E0100	Controlled Density Fill	262.9	CuYd
600E0300	Type III Field Laboratory	1	Each
620E0020	Type 2 Right-of-Way Fence	13,190	Ft
620E0030	Type 3 Right-of-Way Fence	8,819	Ft
620E0060	Type 6 Right-of-Way Fence	4,446	Ft
620E0515	Type 1A Temporary Fence	13,820	Ft
620E0520	Type 2 Temporary Fence	1,080	Ft
620E1020	2 Post Panel	39	Each
620E1030	3 Post Panel	64	Each
620E2016	16' Tubular Gate	2	Each
700E2010	Place Riprap	3,992.0	Ton
831E0110	Type B Drainage Fabric	13,073	SqYd
831E0300	Reinforcement Fabric (MSE)	8,750	SqYd
900E0010	Refurbish Single Mailbox	15	Each
900E1150	Right of Way Marker	161	Each
998E0100	Railroad Protective Insurance	Lump Sum	LS

* - Denotes Non-Participating

Plot Scale - 1:200

Plotted From - TRPR17189

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ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

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Section C - Traffic Control

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
633E1200	High Build Waterborne Pavement Marking Paint, White	1,826	Gal
634E0010	Flagging	4,100.0	Hour
634E0020	Pilot Car	2,000.0	Hour
634E0110	Traffic Control Signs	2,558.4	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0135	Traffic Control Supervisor	Lump Sum	LS
634E0275	Type 3 Barricade	24	Each
634E0330	Temporary Raised Pavement Markers	4,246	Ft
634E0600	4" Temporary Pavement Marking Tape Type I	70,320	Ft
634E1002	Detour and Restriction Signing	1,892.0	SqFt

Section E – Structure

Structure No. 46-057-100

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
420E0200	Structure Excavation, Box Culvert	69	CuYd
421E0200	Box Culvert Undercut	217	CuYd
560E2136	2-11'x4' Precast Concrete Box Culvert, Furnish	80.0	Ft
560E2137	2-11'x4' Precast Concrete Box Culvert, Install	80.0	Ft
560E3136	2-11'x4' Precast Concrete Box Culvert End Section, Furnish	2	Each
560E3137	2-11'x4' Precast Concrete Box Culvert End Section, Install	2	Each
700E0210	Class B Riprap	49.2	Ton
831E0110	Type B Drainage Fabric	64	SqYd

Section E – Structure (continued)

Structure No. 42-082-100 Alternate B

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
420E0200	Structure Excavation, Box Culvert	37	CuYd
421E0200	Box Culvert Undercut	137	CuYd
560E0156	11'x5' Precast Concrete Box Culvert, Furnish	80.0	Ft
560E0157	11'x5' Precast Concrete Box Culvert, Install	80.0	Ft
560E1156	11'x5' Precast Concrete Box Culvert End Section, Furnish	2	Each
560E1157	11'x5' Precast Concrete Box Culvert End Section, Install	2	Each
700E0210	Class B Riprap	29.1	Ton
831E0110	Type B Drainage Fabric	41	SqYd

Section D - Erosion and Sediment Control

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
110E1690	Remove Sediment	7.1	CuYd
110E1700	Remove Silt Fence	11,808	Ft
230E0010	Placing Topsoil	193,849	CuYd
730E0100	Cover Crop Seeding	100.0	Bu
730E0212	Type G Permanent Seed Mixture	4,808	Lb
730E0251	Special Permanent Seed Mixture 1	405	Lb
731E0200	Fertilizing	101.70	Ton
732E0100	Mulching	436.6	Ton
734E0044	Soil Stabilizer	30.0	Acre
734E0103	Type 3 Erosion Control Blanket	8,475	SqYd
734E0154	12" Diameter Erosion Control Wattle	3,100	Ft
734E0165	Remove and Reset Erosion Control Wattle	775	Ft
734E0325	Surface Roughening	40.0	Acre
734E0510	Shaping for Erosion Control Blanket	2,550	Ft
734E0602	Low Flow Silt Fence	41,210	Ft
734E0604	High Flow Silt Fence	6,022	Ft
734E0610	Mucking Silt Fence	3,278	CuYd
734E0620	Repair Silt Fence	11,808	Ft
734E0630	Floating Silt Curtain	3,720	Ft
734E0635	Remove and Reset Floating Silt Curtain	930	Ft
900E1310	Concrete Washout Facility	1	Each
900E1320	Construction Entrance	2	Each

Structure No. 46-065-100

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
250E0030	Incidental Work, Structure	Lump Sum	LS
420E0200	Structure Excavation, Box Culvert	251	CuYd
421E0200	Box Culvert Undercut	738	CuYd
460E0120	Class A45 Concrete, Box Culvert	579.1	CuYd
480E0100	Reinforcing Steel	82,601	Lb
700E0210	Class B Riprap	229.6	Ton
831E0110	Type B Drainage Fabric	283	SqYd

Section F - Surfacing

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E3320	Checker	Lump Sum	LS
120E6200	Water for Granular Material	1,796.6	MGal
260E1010	Base Course	98,955.8	Ton
260E1030	Base Course, Salvaged	50,754.8	Ton
260E3050	Gravel Surfacing, Salvaged Asphalt Mix	70.0	Ton
320E0005	PG 58-34 Asphalt Binder	1,191.9	Ton
320E1050	Class E Asphalt Concrete	20,536.9	Ton
320E1200	Asphalt Concrete Composite	1,571.9	Ton
320E3000	Compaction Sample	12	Each
320E5020	Saw Joint in Asphalt Concrete	165,038	Ft
320E7012	Grind 12" Rumble Strip or Stripe in Asphalt Concrete	32.8	Mile
330E0010	MC-70 Asphalt for Prime	230.2	Ton
330E0100	SS-1h or CSS-1h Asphalt for Tack	52.3	Ton
330E0210	SS-1h or CSS-1h Asphalt for Flush Seal	37.7	Ton
330E1000	Blotting Sand for Prime	83.3	Ton
330E2000	Sand for Flush Seal	89.6	Ton

Structure No. 46-079-100

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
420E0200	Structure Excavation, Box Culvert	106	CuYd
421E0200	Box Culvert Undercut	278	CuYd
460E0120	Class A45 Concrete, Box Culvert	222.7	CuYd
480E0100	Reinforcing Steel	34,252	Lb
700E0210	Class B Riprap	50.8	Ton
831E0110	Type B Drainage Fabric	66	SqYd

Structure No. 42-082-100 Alternate A

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
420E0200	Structure Excavation, Box Culvert	46	CuYd
421E0200	Box Culvert Undercut	170	CuYd
460E0120	Class A45 Concrete, Box Culvert	105.2	CuYd
480E0100	Reinforcing Steel	17,193	Lb
700E0210	Class B Riprap	27.4	Ton
831E0110	Type B Drainage Fabric	40	SqYd

Plot Scale - 1:200

Plotted From - TRPR17189

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ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P-PH-B-PT 0010(124)296	A3	A7

Plotting Date: 01/23/2024

Section M - Pavement Marking

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
633E0030	Cold Applied Plastic Pavement Marking, 24"	360	Ft
633E0040	Cold Applied Plastic Pavement Marking, Arrow	6	Each
633E0055	Cold Applied Plastic Pavement Marking, Railroad Crossing	2	Each
633E1200	High Build Waterborne Pavement Marking Paint, White	1,069	Gal
633E1205	High Build Waterborne Pavement Marking Paint, Yellow	257	Gal
633E5015	Grooving for Cold Applied Plastic Pavement Marking, 24"	360	Ft
633E5025	Grooving for Cold Applied Plastic Pavement Marking, Arrow	6	Each
633E5040	Grooving for Cold Applied Plastic Pavement Marking, Railroad Crossing	2	Each
633E6020	Pavement Marking Masking, 25"	360	Ft
633E6030	Pavement Marking Masking, Arrow	6	Each
633E6045	Pavement Marking Masking, Railroad Crossing	2	Each

Section S - Permanent Signing

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
110E0130	Remove Traffic Sign	237	Each
632E1320	2.0"x2.0" Perforated Tube Post	1,497.5	Ft
632E2510	Type 2 Object Marker Back to Back	194	Each
632E3203	Flat Aluminum Sign, Nonremovable Copy High Intensity	514.7	SqFt
632E3205	Flat Aluminum Sign, Nonremovable Copy Super/Very High Intensity	340.1	SqFt

SPECIFICATIONS

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

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P-PH-B-PT 0010(124)296	A4	A7

Plotting Date: 03/07/2024 Rev 03/07/2024 DRM

ENVIRONMENTAL COMMITMENTS

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

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

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

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

COMMITMENT A: AQUATIC RESOURCES

COMMITMENT A1: WETLANDS

All efforts to avoid and minimize wetland impacts from the project have resulted in approximately 8.33 acre(s) of wetlands (includes temporary and permanent) becoming impacted. Refer to Section B – Grading Plans/plans for location and boundaries of the impacted wetlands.

Table of Impacted Wetlands

Wetland No.	Station	Perm. Impact Left (Acres)	Perm. Impact Right (Acres)	Temp. Impact Left (Acres)	Temp. Impact Right (Acres)	Total Impact (Acres)
2	470+00 to 485+00	0.044	0.000	0.000	0.000	0.044
6	511+00 to 519+00	0.012	0.023	0.000	0.008	0.043
14	600+00	0.016	0.010	0.023	0.025	0.074
15	609+00 to 619+00	0.014	0.002	0.000	0.000	0.016
16	623+00 to 625+00	0.000	0.004	0.000	0.000	0.004
18	657+00 to 660+00	0.037	0.022	0.000	0.000	0.059
19	676+00 to 678+00	0.030	0.034	0.000	0.028	0.092

22	691+00 to 800+00	1.147	1.521	0.720	0.254	3.642
24	827+00 to 833+00	0.028	0.015	0.314	0.001	0.358
26	859+00 to 891+00	0.595	0.734	0.033	0.291	1.653
30	917+00 to 920+00	0.000	0.087	0.000	0.055	0.142
31	928+00 to 933+00	0.074	0.062	0.000	0.004	0.140
32	938+00 to 941+00	0.085	0.038	0.000	0.000	0.123
33	943+00 to 945+00	0.035	0.000	0.077	0.000	0.112
35	960+00 to 962+00	0.093	0.000	0.000	0.000	0.093
37	962+00 to 969+00	0.014	0.009	0.000	0.000	0.023
39	978+00 to 995+00	0.260	0.107	0.000	0.954	1.321
Pipework	66+71.00 to 350+55.00	0.000	0.000	0.014	0.014	0.028

Action Taken/Required:

SDDOT will acquire a maximum of 30.84 credits from Ducks Unlimited SD ILF to mitigate permanent impacts.

Temporary impacts identified in the Table of Impacted Wetlands will not be mitigated as original contours and elevations will be re-established. Prior to initiating temporary work in wetlands, the Contractor will submit a plan to the Project Engineer in accordance with Section 7.21 D of the Specifications.

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

COMMITMENT B: FEDERALLY THREATENED, ENDANGERED, AND PROTECTED SPECIES

COMMITMENT B2: WHOOPING CRANE

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

Action Taken/Required:

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

COMMITMENT B4: BALD EAGLE

Bald eagles are known to occur in this area.

Action Taken/Required:

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

COMMITMENT B6: MIGRATORY BIRDS WORK RESTRICTION

Migratory birds are known to use the project area for nesting, which primarily occurs from April 1st to July 15th.

Action Taken/Required:

The Contractor is responsible for contracting the services of a qualified biologist for conducting preconstruction migratory bird surveys in suitable areas that have not been mowed or cleared prior to April 1st to determine if there are current nests and to determine offsetting measures to compensate for impacts to migratory birds. A survey will be conducted annually for each year of construction. Contractor will coordinate the survey findings with the Project Engineer. If any nests are found, appropriate minimization measures will need to be developed in cooperation with the Environmental Office.

Construction activities should not occur in the locations listed in the table below during the migratory bird work restriction without prior approval from the SDDOT Environmental Office to avoid conflicts with nesting migratory birds.

Station	Migratory Bird Restriction
735+00 to 758+00 (R)	April 1 to July 15

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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](https://sdlegislature.gov/rules/DisplayRule.aspx?Rule=41:10:04) >

COMMITMENT D: WATER QUALITY STANDARDS

COMMITMENT D1: SURFACE WATER QUALITY

The Renzienhausen Slough is classified as a warm water semi-permanent fishery with a total suspended solids standard of less than 90 mg/L 30-day average, less than 158 mg/L daily maximum.

The Renzienhausen Slough is classified as fish and wildlife propagation, recreation, and stock watering waters. Because of these beneficial uses, special construction measures may have to be taken to ensure that this water body is not impacted.

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 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_AddTemplInfoFillable.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/Ereporting.aspx> >

COMMITMENT E: STORM WATER

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

Action Taken/Required:

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

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

The Contractor will complete the DANR Contractor 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_CGPApendixCCA2018Fillable.pdf >

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

Storm Water Pollution Prevention Plan

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

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

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

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

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

DANR:<

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

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

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P-PH-B-PT 0010(124)296	A6	A7

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COMMITMENT H: WASTE DISPOSAL SITE

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

Action Taken/Required:

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

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

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

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

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

2. Concrete and asphalt concrete debris may be stockpiled within view of the ROW for a period not to exceed the duration of the project. Prior to project completion, the waste will be removed from view of the ROW or buried, and the waste disposal site reclaimed as noted above.

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

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

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

COMMITMENT I: HISTORIC PRESERVATION OFFICE CLEARANCES

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

Action Taken/Required:

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

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

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

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

In the event of an inadvertent discovery of human remains, funerary objects, or if evidence of cultural resources is identified during project construction activities, then such activities within 150 feet of the inadvertent discovery will immediately cease and the Project Engineer will be immediately notified. The Project Engineer will contact the SDDOT Environmental Office, who will contact the appropriate SHPO/THPO within 48 hours of the discovery to determine an appropriate course of action.

SHPO 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 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	Offset (Ft.)	L/R	Section 4(f) Property
705+00 to 784+00	0	R	Reinziehausen Game Production Area
1139+00 to 1141+00	0	L and R	ESS-1
1128+00 to 1129+00	0	L and R	ESS-2

Action Taken/Required:

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

Reinziehausen Game Production Area (Station 705+00 and 784+00): The occupancy of Reinziehausen Game Production Area will be temporary, the scope of the work is minor, there are no anticipated permanent adverse physical impacts, and the land disturbed will be fully restore and returned to the condition which existed prior to the project.

ESS-1 (Station 1139+00 to 1141+00). All work, including staging and stockpiling, will be confined to the existing SD10 ROW.

Ess-2 (1128+00 to 1129+00). The replacement structure at this location will mimic the footprint of the existing bridge and grading will re-establish the contours of ESS-2 following construction.

The Contractor is not permitted to stage equipment or materials within the Reinziehausen Game Production Area, ESS-1, or ESS-2. 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.

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P-PH-B-PT 0010(124)296	A7	A7

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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.

COMMITMENT Q: ARCHAEOLOGICAL COORDINATION

As a result of a Cultural Resources Survey, historic properties have been identified within and/or adjacent to the project rights-of-way.

The following historic properties have been identified that require avoidance of construction activities:

Table of Historic Properties

Station	Offset (Ft.)	L/R	Environmental Sensitive Site	Action
1139+00 to 1141+00	0	L and R	ESS-1	All work, including staging and stockpiling, will be confined to the existing SD10 ROW.
1128+00 to 1129+00	0	L and R	ESS-2	The replacement structure will mimic the footprint of the existing bridge and grading will re-establish the contours of ESS-2 following construction.

The locations and boundaries of the site(s) for avoidance are shown in Section B - Grading Plans.

Action Taken/Required:

If evidence for cultural resources is uncovered 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 consult with the Archaeological Research Center (ARC), the SHPO, and FHWA, to determine the appropriate course of action.

All artifacts, features, or other items of interest uncovered by project construction activities will not be displaced unless the landowner and the SHPO consent to it.

COMMITMENT T: Rufa Red Knot

The Rufa Red Knot has been identified as a species that may have habitat in the project area. The Rufa Red Knot is a federally threatened species.

Actions Taken/Required:

The Contractor is responsible for contracting the services of a qualified biologist for conducting preconstruction migratory bird surveys in suitable areas that have not been mowed or cleared prior to April 1st to determine if there are current nests and to determine offsetting measures to compensate for impacts to the Rufa Red Knot. A survey will be conducted annually for each year of construction. Contractor will coordinate the survey findings with the Project Engineer. If any nests are found, appropriate minimization measures will need to be developed in cooperation with the Environmental Office.

Construction activities should not occur in the locations listed in the table below during the Rufa Red Knot work restriction without prior approval from the SDDOT Environmental Office to avoid conflicts with nesting Rufa Red Knots.

Station	Restriction
712+00 to 760+00 (R)	April 1 to July 15