STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-B-CR 2292(101)3	1	968

Plotting Date: 11/15/2024

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION

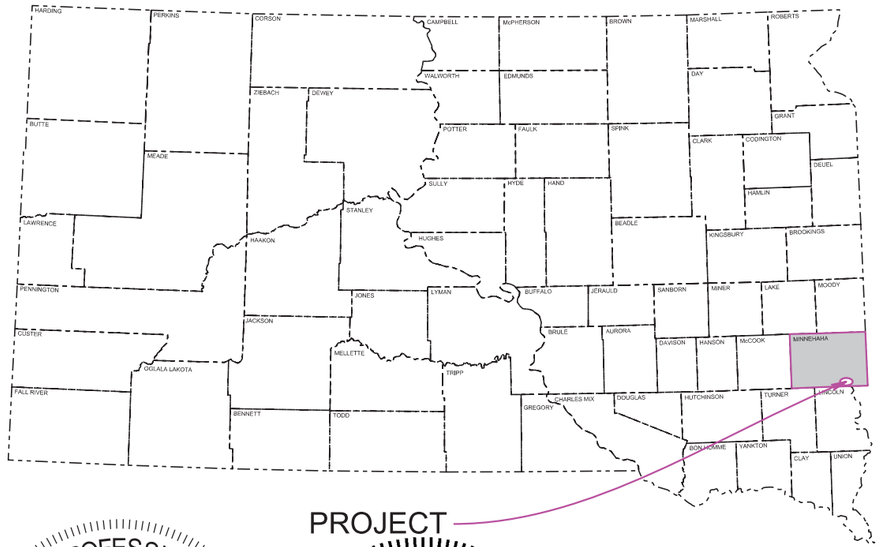
PLANS FOR PROPOSED

PROJECT IM-B-CR 2292(101)3
INTERSTATE 229
MINNEHAHA COUNTY

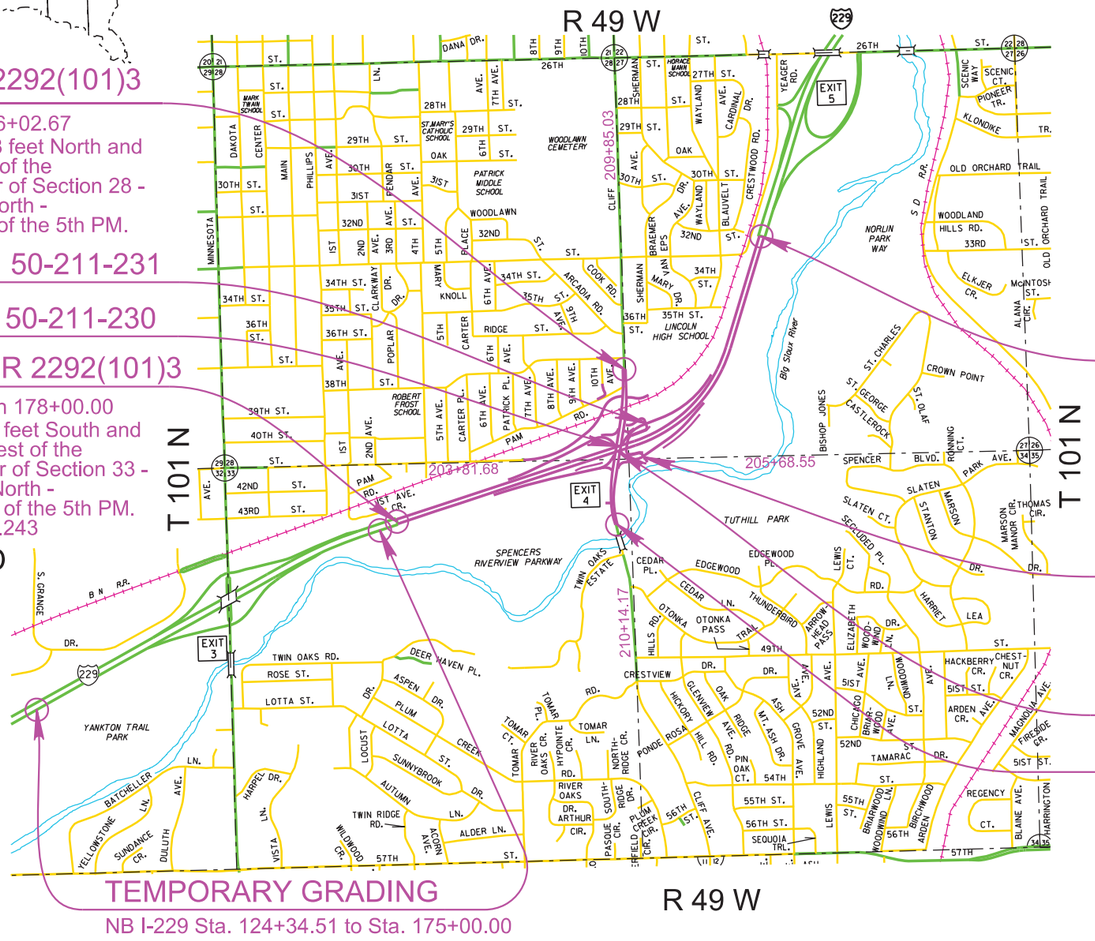
GRADING, PCC SURFACING, STRUCTURES, CURB & GUTTER, TRAFFIC SIGNALS, INTERCHANGE LIGHTING, AND PERMANENT SIGNING

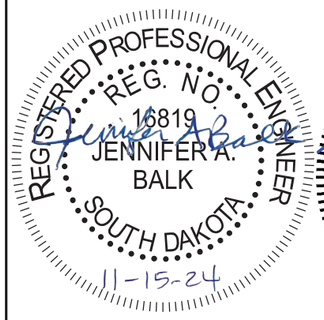
PCN 05HN

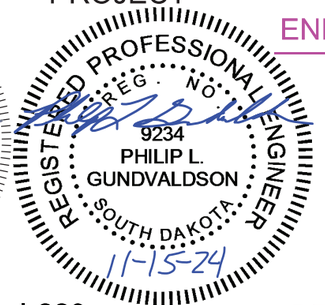
INDEX OF SECTIONS



PROJECT







END IM-B-CR 2292(101)3

NB Cliff Ave. 126+02.67
Located 1155.78 feet North and 36.79 feet West of the southeast corner of Section 28 - Township 101 North - Range 49 West of the 5th PM.

STR. NO. 50-211-231

STR. NO. 50-211-230

BEGIN IM-B-CR 2292(101)3

NB I-229 Station 178+00.00
Located 917.81 feet South and 3016.64 feet West of the northeast corner of Section 33 - Township 101 North - Range 49 West of the 5th PM.
MRM 003.26+0.243

END IM-B-CR 2292(101)3

NB I-229 Station 245+03.64
Located 2934.62 feet North and 1765.55 feet East of the southwest corner of Section 27 - Township 101 North - Range 49 West of the 5th PM.
MRM 004.37+0.465

STR. NO. 50-210-231

STR. NO. 50-210-230

BEGIN IM-B-CR 2292(101)3

NB Cliff Ave. Station 105+40.80
Located 890.68 feet South and 115.85 feet West of the northeast corner of Section 33 - Township 101 North - Range 49 West of the 5th PM.

TEMPORARY GRADING

NB I-229 Sta. 124+34.51 to Sta. 175+00.00

I-229

DESIGN DESIGNATION	West of Cliff Ave.	East of Cliff Ave.
AADT (2018)	57,802	53,518
AADT (2050)	90,500	84,900
DHV (two-way)	7,840	7,405
D (2018)	51%	50%
D (2050)	52%	55%
DHV T%	3.4%	3.4%
AADT T%	6.3%	6.3%
V	70 mph	70 mph

DESIGN DESIGNATION	Ramp A	Ramp B	Ramp C	Ramp D
AADT (2018)	3,569	3,870	6,004	6,330
AADT (2050)	7,820	5,050	9,070	8,335
DHV	910	615	930	840
D	100%	100%	100%	100%
DHV T%	3.4%	3.4%	3.4%	3.4%
AADT T%	6.3%	6.3%	6.3%	6.3%
V	50 mph	50 mph	50 mph	50 mph

S. Cliff Ave.

DESIGN DESIGNATION	South of I-229	North of I-229	41st St.
AADT (2018)	21,600	19,800	7,050
AADT (2050)	32,800	27,100	9,700
DHV (two-way)	3,475	3,405	960
D	65%	70%	55%
DHV T%	2%	2%	2%
AADT T%	2%	2%	2%
V	35 mph	35 mph	35 mph

STORM WATER PERMIT

Major Receiving
Body of Water: Big Sioux River
Area Disturbed: 66 Acres
Total Project Area: 77 Acres
Approx. Begin Lat,Long: 43.5129, -96.7222

	I-229			S. Cliff Ave.		
Gross Length	6703.64	Feet	1.270 Miles	2061.87	Feet	0.391 Miles
Length of Exceptions	0.00	Feet	0.000 Miles	0.00	Feet	0.000 Miles
Net Length	6703.64	Feet	1.270 Miles	2061.87	Feet	0.391 Miles

1

February 19, 2025

Plot Scale - 1:2000

Plotted From - mjersvik

File - ...\Minn05HN\Plansheets\title.dgn

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-B-CR 2292(101)3	A1	A11

Revised Date: 01/15/2025
Initials: NBG

Section B – Grading

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
009E3220	Reestablish Right-of-Way and Property Corner	80	Each
009E3225	Reestablish Public Land Survey System Corner	2	Each
009E3230	Grade Staking	12.688	Mile
009E3250	Miscellaneous Staking	12.688	Mile
009E3280	Slope Staking	12.688	Mile
009E3290	Structure Staking	11	Each
009E3301	Engineer Directed Surveying/Staking	80.0	Hour
009E4300	Construction Schedule, Category III	Lump Sum	LS
009E4330	Project Management, Category III	Lump Sum	LS
100E0020	Clear and Grub Tree	79	Each
100E0100	Clearing	Lump Sum	LS
110E0300	Remove Concrete Curb and/or Gutter	4,134	Ft
110E0400	Remove Drop Inlet	20	Each
110E0460	Remove Manhole	2	Each
110E0605	Remove Chain Link Fence	13,448	Ft
110E0700	Remove 3 Cable Guardrail	3,280	Ft
110E0730	Remove Beam Guardrail	215.5	Ft
110E0740	Remove 3 Cable Guardrail Anchor Assembly	11	Each
110E0745	Remove 3 Cable Guardrail Slip Base Anchor Assembly	2	Each
110E0770	Remove W Beam Guardrail Breakaway Cable Terminal	4	Each
110E1010	Remove Asphalt Concrete Pavement	9,539.1	SqYd
110E1100	Remove Concrete Pavement	101,275.5	SqYd
110E1120	Remove Concrete Median Pavement	156.3	SqYd
110E1130	Remove Concrete Driveway Pavement	947.9	SqYd
110E1140	Remove Concrete Sidewalk	3,583.6	SqYd
110E7510	Remove Pipe End Section for Reset	1	Each
120E0010	Unclassified Excavation	192,134	CuYd
120E0300	Borrow Unclassified Excavation	55,639	CuYd
120E0910	Contaminated Material Excavation	200	Ton
120E1000	Muck Excavation	6,799	CuYd
120E2000	Undercutting	30,077	CuYd
120E6100	Water for Embankment	1,436.7	MGal
120E6200	Water for Granular Material	363.6	MGal
250E0020	Incidental Work, Grading	Lump Sum	LS
260E4500	Processed Subgrade Topping	49,478	CuYd
260E6010	Granular Material	200.0	Ton
380E4100	10.5" PCC Fillet Section	161.5	SqYd
421E0100	Pipe Culvert Undercut	620	CuYd
450E0102	12" RCP Class 2, Furnish	546	Ft
450E0110	12" RCP, Install	546	Ft
450E0112	15" RCP Class 2, Furnish	1,204	Ft
450E0120	15" RCP, Install	1,204	Ft

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 15735
JONATHAN R. HULTGREN
SOUTH DAKOTA
1-15-2025

Section B – Grading (continued)

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
450E0122	18" RCP Class 2, Furnish	2,282	Ft
450E0123	18" RCP Class 3, Furnish	292	Ft
450E0124	18" RCP Class 4, Furnish	14	Ft
450E0130	18" RCP, Install	2,588	Ft
450E0142	24" RCP Class 2, Furnish	740	Ft
450E0143	24" RCP Class 3, Furnish	162	Ft
450E0150	24" RCP, Install	902	Ft
450E0162	30" RCP Class 2, Furnish	164	Ft
450E0170	30" RCP, Install	164	Ft
450E0203	48" RCP Class 3, Furnish	126	Ft
450E0210	48" RCP, Install	126	Ft
450E0213	54" RCP Class 3, Furnish	42	Ft
450E0220	54" RCP, Install	42	Ft
450E0416	24" RCP Bend, Furnish	1	Each
450E0417	24" RCP Bend, Install	1	Each
450E2000	12" RCP Flared End, Furnish	5	Each
450E2001	12" RCP Flared End, Install	5	Each
450E2004	15" RCP Flared End, Furnish	5	Each
450E2005	15" RCP Flared End, Install	5	Each
450E2008	18" RCP Flared End, Furnish	16	Each
450E2009	18" RCP Flarod End, Install	16	Each
450E2016	24" RCP Flared End, Furnish	6	Each
450E2017	24" RCP Flared End, Install	6	Each
450E2024	30" RCP Flared End, Furnish	2	Each
450E2025	30" RCP Flared End, Install	2	Each
450E2040	54" RCP Flared End, Furnish	1	Each
450E2041	54" RCP Flared End, Install	1	Each
450E2200	24" RCP Sloped End, Furnish	4	Each
450E2201	24" RCP Sloped End, Install	4	Each
450E2204	30" RCP Sloped End, Furnish	1	Each
450E2205	30" RCP Sloped End, Install	1	Each
450E2220	54" RCP Sloped End, Furnish	1	Each
450E2221	54" RCP Sloped End, Install	1	Each
450E2308	24" RCP Safety End, Furnish	2	Each
450E2311	24" RCP Safety End, Install	2	Each
450E3012	24" RCP Arch Class 2, Furnish	158	Ft
450E3020	24" RCP Arch, Install	158	Ft
450E3022	30" RCP Arch Class 2, Furnish	104	Ft
450E3030	30" RCP Arch, Install	104	Ft
450E3052	48" RCP Arch Class 2, Furnish	92	Ft
450E3060	48" RCP Arch, Install	92	Ft
450E3062	54" RCP Arch Class 2, Furnish	124	Ft
450E3063	54" RCP Arch Class 3, Furnish	62	Ft

INDEX OF SHEETS

Section B – Grading (continued)

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
450E3070	54" RCP Arch, Install	186	Ft
450E3082	72" RCP Arch Class 2, Furnish	548	Ft
450E3090	72" RCP Arch, Install	548	Ft
450E3092	84" RCP Arch Class 2, Furnish	252	Ft
450E3100	84" RCP Arch, Install	252	Ft
450E4504	24" RCP Arch Flared End, Furnish	2	Each
450E4505	24" RCP Arch Flared End, Install	2	Each
450E4508	30" RCP Arch Flared End, Furnish	1	Each
450E4509	30" RCP Arch Flared End, Install	1	Each
450E4520	48" RCP Arch Flared End, Furnish	2	Each
450E4521	48" RCP Arch Flared End, Install	2	Each
450E4524	54" RCP Arch Flared End, Furnish	1	Each
450E4525	54" RCP Arch Flared End, Install	1	Each
450E4532	72" RCP Arch Flared End, Furnish	4	Each
450E4533	72" RCP Arch Flared End, Install	4	Each
450E4536	84" RCP Arch Flared End, Furnish	2	Each
450E4537	84" RCP Arch Flared End, Install	2	Each
450E4748	15" CMP 14 Gauge, Furnish	286	Ft
450E4750	15" CMP, Install	286	Ft
450E4759	18" CMP 16 Gauge, Furnish	132	Ft
450E4760	18" CMP, Install	132	Ft
450E4768	24" CMP 14 Gauge, Furnish	222	Ft
450E4770	24" CMP, Install	222	Ft
450E5010	18" CMP Elbow, Furnish	4	Each
450E5011	18" CMP Elbow, Install	4	Each
450E5015	24" CMP Elbow, Furnish	4	Each
450E5016	24" CMP Elbow, Install	4	Each
450E5207	15" CMP Flared End, Furnish	2	Each
450E5208	15" CMP Flared End, Install	2	Each
450E5215	24" CMP Flared End, Furnish	2	Each
450E5216	24" CMP Flared End, Install	2	Each
450E5402	15" CMP Safety End, Furnish	2	Each
450E5403	15" CMP Safety End, Install	2	Each
450E5414	30" CMP Safety End, Furnish	1	Each
450E5417	30" CMP Safety End, Install	1	Each
450E6119	15" Slotted CMP 16 Gauge, Furnish	160	Ft
450E6120	15" Slotted CMP, Install	160	Ft
450E9001	Reset Pipe End Section	1	Each
462E0100	Class M6 Concrete	307.7	CuYd
462E0250	Cellular Grout	109.6	CuYd
464E0100	Controlled Density Fill	28.9	CuYd
480E0100	Reinforcing Steel	46,562	Lb
600E0300	Type III Field Laboratory	1	Each

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-B-CR 2292(101)3	A2	A11

Revised Date: 01/15/2025
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Section B – Grading (continued)

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
621E0160	6' Chain Link Fence with Tension Wired Top	13,739	Ft
628E1100	Movable F Shape Concrete Barrier, Interior Section	91	Each
628E1500	Concrete Barrier End Protection	6	Each
628E1510	Concrete Barrier End Protection Module Set or Repair Kit	2	Each
629E0110	High Tension 4 Cable Guardrail	5,619	Ft
629E0290	High Tension Cable Guardrail Anchor Assembly	4	Each
629E1109	Furnish High Tension Cable Guardrail Post and Sleeve	50	Each
629E9000	Crossover Closure	178	Ft
630E0500	Type 1 MGS	4,049.0	Ft
630E0530	Type 3 MGS	150.0	Ft
630E1005	18'-9" Longspan MGS	1	Each
630E1500	Type 1 Guardrail Transition	2	Each
630E2017	MGS MASH Flared End Terminal	3	Each
630E2018	MGS MASH Tangent End Terminal	7	Each
630E2065	MGS Trailing End Terminal	6	Each
630E2200	W Beam Guardrail End Block Adapter	3	Each
634E0525	Linear Delineation System Panel, Barrier Mounted	91	Each
650E0060	Type B66 Concrete Curb and Gutter	1,813	Ft
650E0085	Type B68.5 Concrete Curb and Gutter	3,281	Ft
650E0105	Type B610.5 Concrete Curb and Gutter	9,970	Ft
650E0120	Type B612 Concrete Curb and Gutter	60	Ft
651E0040	4" Concrete Sidewalk	1,219	SqFt
651E0060	6" Concrete Sidewalk	60,159	SqFt
651E7000	Type 1 Detectable Warnings	718	SqFt
670E0200	Type A Frame and Grate	10	Each
670E1010	2' x 3' Type B Drop Inlet	10	Each
670E2200	Type C Frame and Grate	4	Each
670E4200	Type M Median Drain	8	Each
670E4205	Type M Frame and Grate Assembly	8	Each
670E5200	Special Frame and Grate Assembly	45	Each
670E5200	Special Frame and Grate Assembly	5	Each
670E5200	Special Frame and Grate Assembly	5	Each
670E5200	Special Frame and Grate Assembly	5	Each
670E5400	Precast Drop Inlet Collar	4	Each
670E6000	Adjust Drop Inlet	1	Each
671E0050	5' x 5' Junction Box	1	Each
671E6008	Type A8 Manhole Frame and Lid	4	Each
671E6035	Special Manhole Frame and Lid	5	Each
671E6040	Manhole Frame	1	Each
671E6050	Manhole Lid	1	Each
671E7020	Connect Into Existing Manhole	1	Each
700E0210	Class B Riprap	651.0	Ton
831E0110	Type B Drainage Fabric	922	SqYd

Section C – Traffic Control

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
633E0040	Cold Applied Plastic Pavement Marking, Arrow	9	Each
634E0010	Flagging	500.0	Hour
634E0110	Traffic Control Signs	3,014.0	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0135	Traffic Control Supervisor	Lump Sum	LS
634E0275	Type 3 Barricade	63	Each
634E0330	Temporary Raised Pavement Markers	12,673	Ft
634E0380	Tubular Marker	24	Each
634E0390	Replace Tubular Marker	2	Each
634E0420	Type C Advance Warning Arrow Board	3	Each
634E0525	Linear Delineation System Panel, Barrier Mounted	374	Each
634E0560	Remove Pavement Marking, 4" or Equivalent	60,593	Ft
634E0565	Remove Pavement Marking, Arrow	5	Each
634E0640	Temporary Pavement Marking	125,212	Ft
634E0700	Traffic Control Movable Concrete Barrier	521	Each
634E0705	Remove and Reset Traffic Control Movable Concrete Barrier	534	Each
634E0750	Temporary Concrete Barrier End Protection	4	Each
634E0755	Remove and Reset Temporary Concrete Barrier End Protection	5	Each
634E0760	Temporary Concrete Barrier End Protection Module Set or Repair Kit	1	Each
634E0915	Short Term Temporary Traffic Control Signal	1	Site
634E1002	Detour and Restriction Signing	1,774.2	SqFt
634E1020	Temporary Business Signing	379.8	SqFt
634E1215	Contractor Furnished Portable Changeable Message Sign	12	Each
634E1235	Queue Detection System	18.0	Mth
634E1245	Maintenance of Queue Detection System	376	Hour
634E1255	Contractor Furnished Speed Monitoring Radar Trailer	2	Each
634E2000	Longitudinal Pedestrian Barricade	8	Ft
634E2020	Temporary Curb Ramp	2	Each
634E2025	Longitudinal Pedestrian Barrier	308	Ft
634E2050	Temporary Sidewalk	600	SqFt
635E7600	Maintenance of Traffic Signal(s)	40	Hour
900E1080	Orange Plastic Safety Fence	1,600	Ft

Section D – Erosion and Sediment Control

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
110E1690	Remove Sediment	35.0	CuYd
110E1693	Remove Erosion Control Wattle	1,359	Ft
110E1695	Remove Sediment Filter Bag	2,516	Ft
110E1700	Remove Silt Fence	3,240	Ft
120E6300	Water for Vegetation	11,985.0	MGal
230E0010	Placing Topsoil	23,080	CuYd
730E0202	Type B Permanent Seed Mixture	133	Lb
730E0206	Type D Permanent Seed Mixture	12,585	Lb
731E0200	Fertilizing	34.31	Ton
732E0200	Fiber Mulching	14.5	Ton
732E0300	Bonded Fiber Matrix	80.5	Ton
734E0044	Soil Stabilizer	41.3	Acre
734E0102	Type 2 Erosion Control Blanket	10,567	SqYd
734E0133	Type 3 Turf Reinforcement Mat	997.0	SqYd
734E0154	12" Diameter Erosion Control Wattle	6,059	Ft
734E0160	20" Diameter Erosion Control Wattle	216	Ft
734E0165	Remove and Reset Erosion Control Wattle	1,569	Ft
734E0180	Sediment Filter Bag	2,516	Ft
734E0325	Surface Roughening	2.0	Acre
734E0510	Shaping for Erosion Control Blanket	4,093	Ft
734E0602	Low Flow Silt Fence	14,820	Ft
734E0610	Mucking Silt Fence	900	CuYd
734E0620	Repair Silt Fence	3,240	Ft
734E0630	Floating Silt Curtain	600	Ft
734E0845	Sediment Control at Inlet with Frame and Grate	29	Each
734E0847	Sediment Control at Type S Reinforced Concrete Drop Inlet	485	Ft
734E5005	Dewatering	Lump Sum	LS
734E5010	Sweeping	80	Hour
900E1310	Concrete Washout Facility	4	Each
900E1320	Construction Entrance	8	Each

REGISTERED PROFESSIONAL ENGINEER
REG. NO.
15735
JONATHAN R.
HULTGREN
SOUTH DAKOTA
1-15-2025

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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-B-CR 2292(101)3	A3	A11

Revised Date: 01/15/2025
Initials: NBG

Section E – Structures

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
250E0030	Incidental Work, Structure	Lump Sum	LS
380E2450	Concrete Barrier and 10' Continuously Reinforced Concrete Shoulder	1,934	Ft
420E0200	Structure Excavation, Box Culvert	125	CuYd
420E0300	Structure Excavation, Retaining Wall	9,113	CuYd
420E0400	Structure Excavation, Miscellaneous	178	CuYd
420E1000	Foundation Preparation, Retaining Wall	1,343	CuYd
421E0200	Box Culvert Undercut	275	CuYd
430E0700	Precast Concrete Headwall for Drain	8	Each
460E0120	Class A45 Concrete, Box Culvert	289.3	CuYd
460E0204	Anti-Graffiti Coating	8,751.0	SqFt
460E0300	Breakout Structural Concrete	28.0	CuYd
460E0380	Install Dowel in Concrete	32	Each
460E0382	Install Dowel in Rock	8.0	Ft
462E0100	Class M6 Concrete	32.0	CuYd
465E0100	Class A45 Concrete, Drilled Shaft	15.8	CuYd
465E0200	Drilled Shaft Excavation	15.8	CuYd
480E0100	Reinforcing Steel	54,508	Lb
480E0200	Epoxy Coated Reinforcing Steel	5,268	Lb
530E0420	MSE Large Panel Wall, Furnish	19,109	SqFt
530E0422	MSE Large Panel Wall, Install	19,109	SqFt
530E0470	Gravity Large Concrete Block Wall	1,271	SqFt
530E0702	Granular Backfill for MSE Large Panel Wall	9,548.0	CuYd
530E0718	Granular Backfill for Gravity Large Concrete Block Wall	288.7	CuYd
560E0068	7'x3' Precast Concrete Box Culvert, Furnish	28.0	Ft
560E0069	7'x3' Precast Concrete Box Culvert, Install	28.0	Ft
560E0130	10'x4' Precast Concrete Box Culvert, Furnish	30.0	Ft
560E0131	10'x4' Precast Concrete Box Culvert, Install	30.0	Ft
560E1068	7'x3' Precast Concrete Box Culvert End Section, Furnish	1	Each
560E1069	7'x3' Precast Concrete Box Culvert End Section, Install	1	Each
560E1130	10'x4' Precast Concrete Box Culvert End Section, Furnish	1	Each
560E1131	10'x4' Precast Concrete Box Culvert End Section, Install	1	Each
632E0072	4' Diameter Fixed Support Concrete Footing	38.0	Ft
650E4060	Type C6 Concrete Gutter	321	Ft
680E0040	4" Underdrain Pipe	3,097	Ft
680E2500	Porous Backfill	630.0	Ton
734E2022	Bridge Berm Slope Protection, Quarried Aggregate	143.2	SqYd
831E0110	Type B Drainage Fabric	2,771	SqYd
831E0400	Impermeable Plastic Membrane	15	SqYd

Structure No. 50-201-233T

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
004E0060	Temporary Detour Structure	1	Each
420E0100	Structure Excavation, Bridge	57	CuYd
460E0050	Class A45 Concrete, Bridge	64.6	CuYd
480E0100	Reinforcing Steel	4,638	Lb
510E3120	HP 10 Pile Tip Reinforcement	16	Each
510E3365	HP 10x42 Steel Bearing Pile, Furnish and Drive	800	Ft

Structure No. 50-210-230

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E3310	Bridge Elevation Survey	Lump Sum	LS
009E5000	Concrete Penetrating Sealer	2,494.0	SqYd
120E7000	Select Granular Backfill	28.0	Ton
250E0030	Incidental Work, Structure	Lump Sum	LS
410E0020	Structural Steel	Lump Sum	LS
410E2600	Membrane Sealant Expansion Joint	128.8	Ft
420E0100	Structure Excavation, Bridge	726	CuYd
430E0200	Bridge End Embankment	2,653	CuYd
430E0300	Granular Bridge End Backfill	223.3	CuYd
430E0510	Approach Slab Underdrain Excavation	4.6	CuYd
430E0700	Precast Concrete Headwall for Drain	2	Each
460E0030	Class A45 Concrete, Bridge Deck	739.0	CuYd
460E0050	Class A45 Concrete, Bridge	641.8	CuYd
460E0150	Concrete Approach Slab for Bridge	372.5	SqYd
460E0160	Concrete Approach Sleeper Slab for Bridge	93.9	SqYd
480E0100	Reinforcing Steel	141,776	Lb
480E0200	Epoxy Coated Reinforcing Steel	4,314	Lb
480E0300	Stainless Reinforcing Steel	192,357	Lb
510E0300	Preboring Pile	180	Ft
510E3140	HP 14 Pile Tip Reinforcement	138	Each
510E3521	HP 14x73 Steel Test Pile, Furnish and Drive	190	Ft
510E3525	HP 14x73 Steel Bearing Pile, Furnish and Drive	5,090	Ft
635E8020	2" Rigid Galvanized Steel Conduit	1,817	Ft
680E0040	4" Underdrain Pipe	149	Ft
680E2500	Porous Backfill	8.2	Ton
734E2022	Bridge Berm Slope Protection, Quarried Aggregate	582.0	SqYd
831E0100	Type A Drainage Fabric	582	SqYd
831E0110	Type B Drainage Fabric	89	SqYd
831E1030	Perforated Geocell	800	SqFt

Structure No. 50-211-230

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E3310	Bridge Elevation Survey	Lump Sum	LS
009E5000	Concrete Penetrating Sealer	2,494.0	SqYd
120E7000	Select Granular Backfill	28.0	Ton
250E0030	Incidental Work, Structure	Lump Sum	LS
410E0026	Structural Steel, Install	Lump Sum	LS
410E2600	Membrane Sealant Expansion Joint	122.3	Ft
420E0100	Structure Excavation, Bridge	730	CuYd
430E0200	Bridge End Embankment	3,269	CuYd
430E0300	Granular Bridge End Backfill	215.7	CuYd
430E0510	Approach Slab Underdrain Excavation	4.6	CuYd
430E0700	Precast Concrete Headwall for Drain	2	Each
460E0030	Class A45 Concrete, Bridge Deck	739.0	CuYd
460E0050	Class A45 Concrete, Bridge	643.6	CuYd
460E0150	Concrete Approach Slab for Bridge	380.0	SqYd
460E0160	Concrete Approach Sleeper Slab for Bridge	90.3	SqYd
480E0100	Reinforcing Steel	141,776	Lb
480E0200	Epoxy Coated Reinforcing Steel	4,314	Lb
480E0300	Stainless Reinforcing Steel	192,379	Lb
510E0300	Preboring Pile	180	Ft
510E3140	HP 14 Pile Tip Reinforcement	138	Each
510E3521	HP 14x73 Steel Test Pile, Furnish and Drive	175	Ft
510E3525	HP 14x73 Steel Bearing Pile, Furnish and Drive	4,205	Ft
635E8020	2" Rigid Galvanized Steel Conduit	1,817	Ft
680E0040	4" Underdrain Pipe	153	Ft
680E2500	Porous Backfill	8.2	Ton
734E2022	Bridge Berm Slope Protection, Quarried Aggregate	603.3	SqYd
831E0100	Type A Drainage Fabric	604	SqYd
831E0110	Type B Drainage Fabric	89	SqYd
831E1030	Perforated Geocell	799	SqFt

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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-B-CR 2292(101)3	A4	A11

Revised Date: 01/15/2025
Initials: NBG

Section F – Surfacing

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
120E6200	Water for Granular Material	666.9	MGal
120E9000	Pit Run	1,202.3	Ton
260E1010	Base Course	13,119.8	Ton
260E2010	Gravel Cushion	41,250.0	Ton
320E1200	Asphalt Concrete Composite	8,129.3	Ton
320E5020	Saw Joint in Asphalt Concrete	175	Ft
380E0060	8.5" Nonreinforced PCC Pavement	7,080.9	SqYd
380E0100	10.5" Nonreinforced PCC Pavement	32,434.2	SqYd
380E0150	13" Nonreinforced PCC Pavement	57,137.3	SqYd
380E3040	8" PCC Driveway Pavement	405.8	SqYd
380E3042	8" Fast Track Concrete Driveway Pavement	101.4	SqYd
380E6000	Dowel Bar	91,133	Each
380E6110	Insert Steel Bar in PCC Pavement	207	Each
380E6450	Saw Joint in PCC Pavement	2,647.3	Ft
410E2600	Membrane Sealant Expansion Joint	224.0	Ft
831E0210	Non-woven Separator Fabric	1,674	SqYd

Section H – Landscaping

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
120E6300	Water for Vegetation	22.0	MGal
230E0020	Contractor Furnished Topsoil	2,178	CuYd
380E0200	Colored Nonreinforced PCC Pavement	1,614.0	SqYd
380E2566	6" Barrier Type Colored Median PCC Pavement	1,756.0	SqYd
530E0490	Boulder Retaining Wall	587	SqFt
680E0206	6" Perforated PVC Drain Pipe with Sleeve	576	Ft
680E0226	6" PVC Outlet Pipe	263	Ft
680E2500	Porous Backfill	121.0	Ton
731E0100	Fertilizing	600	Lb
734E2022	Bridge Berm Slope Protection, Quarried Aggregate	1,076.0	SqYd
735E1000	Shrub, Furnish and Plant	257	Each
735E1360	6' Coniferous Evergreen, Furnish and Plant	21	Each
735E2220	2" Caliper Deciduous Tree, Furnish and Plant	48	Each
735E2225	2.5" Caliper Deciduous Tree, Furnish and Plant	94	Each
735E5010	1 Gallon Ornamental Grass, Furnish and Plant	741	Each
831E0100	Type A Drainage Fabric	1,076	SqYd
900E5150	Landscape Edging	240	Ft
900E5151	Ornamental Landscaping Boulders	33	Each
900E5152	Weed Barrier Fabric	1,088	SqYd
900E5157	4" Depth Shredded Bark Mulch	1,830.0	SqYd
900E5163	Ornamental Landscape Feature	4	Each
900E5430	Irrigation System	Lump Sum	LS

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	IM-B-CR 2292(101)3	A5	A11

Revised Date: 01/15/2025
Initials: NBG

Section L – Signal & Lighting

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
110E1530	Remove Signal Pole Footing	9	Each
110E1540	Remove Luminaire Pole Footing	18	Each
110E1550	Remove Light Tower	5	Each
110E5100	Salvage Luminaire Pole	15	Each
110E5105	Salvage Luminaire	23	Each
110E5110	Salvage Signal Equipment	Lump Sum	LS
110E7200	Remove Luminaire Pole for Reset	4	Each
635E0030	Breakaway Base Luminaire Pole with Arm, 30' Mounting Height	1	Each
635E0040	Breakaway Base Luminaire Pole with Arm, 40' Mounting Height	35	Each
635E0050	Breakaway Base Luminaire Pole with Arm, 50' Mounting Height	29	Each
635E0150	Breakaway Base Luminaire Pole with Twin Arms, 50' Mounting Height	28	Each
635E0650	Fixed Base Luminaire Pole with Arm, 50' Mounting Height	4	Each
635E2000	Pedestal Signal Pole	15	Each
635E2025	Signal Pole with 25' Mast Arm	1	Each
635E2030	Signal Pole with 30' Mast Arm	1	Each
635E2135	Signal Pole with 35' Mast Arm and Luminaire Arm	1	Each
635E2145	Signal Pole with 45' Mast Arm and Luminaire Arm	1	Each
635E2150	Signal Pole with 50' Mast Arm and Luminaire Arm	2	Each
635E2155	Signal Pole with 55' Mast Arm and Luminaire Arm	2	Each
635E3545	Under Bridge Deck Luminaire, LED	8	Each
635E3585	Tunnel Luminaire, LED	11	Each
635E3700	Roadway Luminaire, LED with Photoelectric Cell	127	Each
635E4030	3 Section Vehicle Signal Head	39	Each
635E4040	4 Section Vehicle Signal Head	17	Each
635E5020	2' Diameter Footing	580.0	Ft
635E5025	2.5' Diameter Footing	13.3	Ft
635E5030	3' Diameter Footing	52.0	Ft
635E5040	4' Diameter Footing	9.0	Ft
635E5310	Special Electrical Junction Box	84	Each
635E5360	Surface Mounted Junction Box	8	Each
635E5400	Electrical Service Cabinet	3	Each
635E5430	Traffic Signal Controller	3	Each
635E5450	Side Mounted Cabinet	6	Each
635E5515	Battery Backup System for Traffic Signal	3	Each
635E5520	Video Detection System	3	Each
635E5560	Emergency Vehicle Preemption Unit	3	Each
635E5570	Optical Detector	12	Each
635E5600	Surveillance Camera	2	Each
635E5880	Accessible Pedestrian Signal	24	Each
635E5910	Pedestrian Push Button Pole	13	Each
635E5922	Pedestrian Signal Head with Countdown Timer	24	Each
635E5930	Pedestrian Crossing Sign	24	Each

Section L – Signal & Lighting (continued)

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
635E5980	Rectangular Rapid Flashing Beacon System	4	Each
635E6200	Miscellaneous, Electrical	Lump Sum	LS
635E7505	Reset Luminaire Pole	2	Each
635E8008	0.75" Rigid Galvanized Steel Conduit	270	Ft
635E8010	1" Rigid Galvanized Steel Conduit	211	Ft
635E8020	2" Rigid Galvanized Steel Conduit	655	Ft
635E8108	0.75" Rigid Conduit, Schedule 40	568	Ft
635E8110	1" Rigid Conduit, Schedule 40	6,790	Ft
635E8120	2" Rigid Conduit, Schedule 40	19,493	Ft
635E8130	3" Rigid Conduit, Schedule 40	386	Ft
635E8140	4" Rigid Conduit, Schedule 40	365	Ft
635E8150	5" Rigid Conduit, Schedule 40	25	Ft
635E8220	2" Rigid Conduit, Schedule 80	3,806	Ft
635E8230	3" Rigid Conduit, Schedule 80	1,010	Ft
635E8240	4" Rigid Conduit, Schedule 80	200	Ft
635E8250	5" Rigid Conduit, Schedule 80	60	Ft
635E8420	1.5" Innerduct, SDR 13.5	4,630	Ft
635E8830	2/2/2/4 Aluminum Wire	8,728	Ft
635E9012	1/C #2 AWG Copper Wire	13,476	Ft
635E9014	1/C #4 AWG Copper Wire	6,574	Ft
635E9016	1/C #6 AWG Copper Wire	38,893	Ft
635E9018	1/C #8 AWG Copper Wire	13,201	Ft
635E9020	1/C #10 AWG Copper Wire	9,672	Ft
635E9022	1/C #12 AWG Copper Wire	6,059	Ft
635E9302	2/C #14 AWG IMSA Copper Cable, K1	1,020	Ft
635E9303	3/C #14 AWG IMSA Copper Cable, K1	480	Ft
635E9305	5/C #14 AWG IMSA Copper Cable, K1	1,285	Ft
635E9307	7/C #14 AWG IMSA Copper Cable, K1	8,345	Ft
635E9312	12/C #14 AWG IMSA Copper Cable, K1	1,990	Ft
635E9325	25/C #14 AWG IMSA Copper Cable, K1	2,270	Ft
635E9800	Preemption Cable	7,990	Ft
635E9906	6 Strand Fiber Optic Cable	1,133	Ft
635E9924	24 Strand Fiber Optic Cable	4,745	Ft

Section M – Pavement Marking

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
633E0010	Cold Applied Plastic Pavement Marking, 4"	38,711	Ft
633E0019	Cold Applied Plastic Pavement Marking, 4" with Contrast Border	27,663	Ft
633E0021	Cold Applied Plastic Pavement Marking, 8" with Contrast Border	750	Ft
633E0025	Cold Applied Plastic Pavement Marking, 12"	2,687	Ft
633E0030	Cold Applied Plastic Pavement Marking, 24"	214	Ft
633E0040	Cold Applied Plastic Pavement Marking, Arrow	57	Each
633E0045	Cold Applied Plastic Pavement Marking, Combination Arrow	9	Each
633E0210	Preformed Thermoplastic Pavement Marking, 4"	936	Ft
633E0211	Preformed Thermoplastic Pavement Marking, 4" with Contrast Border	2,432	Ft
633E0215	Preformed Thermoplastic Pavement Marking, 8"	322	Ft
633E0216	Preformed Thermoplastic Pavement Marking, 8" with Contrast Border	2,242	Ft
633E0225	Preformed Thermoplastic Pavement Marking, 24"	1,500	Ft
633E0230	Preformed Thermoplastic Pavement Marking, Area	57	SqFt
633E0235	Preformed Thermoplastic Pavement Marking, Arrow	14	Each
633E1100	Epoxy Pavement Marking Paint, 4" White	1,159	Ft
633E5000	Grooving for Cold Applied Plastic Pavement Marking, 4"	29,298	Ft
633E5004	Grooving for Cold Applied Plastic Pavement Marking, 4" with Contrast Border	28,336	Ft
633E5005	Grooving for Cold Applied Plastic Pavement Marking, 8"	322	Ft
633E5008	Grooving for Cold Applied Plastic Pavement Marking, 8" with Contrast Border	2,992	Ft
633E5010	Grooving for Cold Applied Plastic Pavement Marking, 12"	2,687	Ft
633E5015	Grooving for Cold Applied Plastic Pavement Marking, 24"	1,714	Ft
633E5020	Grooving for Cold Applied Plastic Pavement Marking, Area	57	SqFt
633E5025	Grooving for Cold Applied Plastic Pavement Marking, Arrow	80	Each
633E5050	Surface Preparation for Pavement Marking	9,413	Ft
634E0560	Remove Pavement Marking, 4" or Equivalent	1,642	Ft
634E0565	Remove Pavement Marking, Arrow	4	Each

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Section S – Permanent Signing

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
110E0100	Remove Concrete Footing(s)	Lump Sum	LS
110E0120	Remove Sign Bridge	3	Each
110E0130	Remove Traffic Sign	62	Each
110E0135	Remove Delineator	136	Each
110E0140	Remove Extruded Panel Sign	6	Each
110E5000	Salvage Sign Bridge	2	Each
110E5020	Salvage Traffic Sign	10	Each
110E7150	Remove Sign for Reset	25	Each
632E0014	1.75' Diameter Breakaway Support Concrete Footing	126.0	Ft
632E0072	4' Diameter Fixed Support Concrete Footing	38.0	Ft
632E1235	W6x20 Steel Post	227.8	Ft
632E1320	2.0"x2.0" Perforated Tube Post	1,045.3	Ft
632E1340	2.5"x2.5" Perforated Tube Post	24.0	Ft
632E1410	3" Diameter Steel Post, .216" Shell	27.5	Ft
632E2000	4"x4" Amber Delineator with 1.12 Lb/Ft Post	12	Each
632E2004	4"x8" Amber Delineator with 1.12 Lb/Ft Post	15	Each
632E2008	4" Tubular Amber Delineator with 1.12 Lb/Ft Post	4	Each
632E2020	4"x4" White Delineator with 1.12 Lb/Ft Post	44	Each
632E2024	4"x8" White Delineator with 1.12 Lb/Ft Post	98	Each
632E2028	4" Tubular White Delineator with 1.12 Lb/Ft Post	5	Each
632E2220	Guardrail Delineator	95	Each
632E2510	Type 2 Object Marker Back to Back	63	Each
632E2520	Type 2 Object Marker	2	Each
632E3115	Extruded Aluminum Sign, Nonremovable Copy Super/Very High Intensity	1,270.1	SqFt
632E3203	Flat Aluminum Sign, Nonremovable Copy High Intensity	306.7	SqFt
632E3205	Flat Aluminum Sign, Nonremovable Copy Super/Very High Intensity	325.5	SqFt
632E3500	Reset Sign	25	Each
632E5020	Overhead Cantilever Sign Support	3	Each
634E0275	Type 3 Barricade	3	Each

SPECIFICATIONS

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

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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 3.72 acres of wetlands (includes temporary and permanent) becoming impacted. Refer to Section B – Grading Plans for location and boundaries of the impacted wetlands.

Table of Impacted Wetlands

Wetland No.	Station	Perm. Impact (Acres)	Temp. Impact (Acres)	Total Impact (Acres)
1	55+00 to 59+43 (64+94)	0.49	0.40	0.89
2	15+83 to 17+57	0.12	0.0	0.12
6	31+53 to 34+54	0.19	0.0	0.19
7	80+44 to NB Cliff 119+37	0.75	0.0	0.75
8	12+61 to 21+47	1.31	0.0	1.31
9	11+55 to 12+50	0.10	0.0	0.10
10	220+49 to 233+22	0.36	0.0	0.36

Action Taken/Required:

SDDOT will acquire 4.08 credits from the Goeden Properties II LLC's wetland mitigation bank site or Ducks Unlimited's In-Lieu Fee program in the Lower Big Sioux GSA 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 as designated in Section B – Grading Plans. 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.

COMMITMENT B: FEDERALLY THREATENED, ENDANGERED, AND PROTECTED SPECIES

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 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
Ramp B – 35+45 to 35+84 R	April 1 to October 31

Tree removal will occur between November 1st and March 31st.

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

Tree removal should be restricted to those identified in the plans for removal.

If project activities cannot be conducted outside of the seasonal restriction the Contractor will notify the Project Engineer and the Environmental Office Biologist (605-773-3309) to schedule a presence absence survey.

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.

Table 3 – Migratory Bird Seasonal Work Restriction Locations

Station	Migratory Bird Restriction
SB229 - 241+25 to 241+67 L	April 1 to July 15
RAMP B - 35+45 to 35+84 R	April 1 to July 15
RAMP C - 55+19 to 56+29 R	April 1 to July 15
RAMP D - 79+97 to 83+39 L	April 1 to July 15
RAMP H - 35+10 to 35+42 L	April 1 to July 15
NBCLIFF - 122+61 to 123+94 R	April 1 to July 15
SBCLIFF - 305+76 to 325+78 L	April 1 to July 15
41ST ST - 21+84 to 22+48 R	April 1 to July 15
41ST ST - 23+38 to 37+14 L	April 1 to July 15
PAM - 50+77 to 50+82 R	April 1 to July 15
PAM - 50+87 to 51+65 L	April 1 to July 15
SCHOOL - 40+40 to 40+40 R	April 1 to July 15
SCHOOL - 40+76 to 40+76 L	April 1 to July 15
SCHOOL - 40+80 to 40+80 R	April 1 to July 15
SCHOOL - 40+82 to 40+82 L	April 1 to July 15
SCHOOL - 41+81 to 42+91 R	April 1 to July 15

If project activities cannot be conducted outside of the seasonal restriction the Contractor will notify the Project Engineer and the Environmental Office Biologist (605-773-3309) to coordinate with the USFWS.

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COMMITMENT B7: Trout Perch (SDGFP Recommendations)

Disturbance to riparian and wetland areas should be kept to an absolute minimum.

If riparian vegetation is lost it should be quantified and replaced on site. Seeding of indigenous species should be accomplished immediately after construction to reduce sediment and erosion.

A site-specific sediment and erosion control plan should be part of the project.

A post construction erosion control plan should be implemented in order to provide interim control prior to re-establishing permanent vegetative cover on the disturbed site.

Stream bottoms impacted by construction activities should be restored to pre-project elevations.

In stream work should not be conducted during fish spawning periods.

COMMITMENT C: WATER SOURCE

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

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

Action Taken/Required:

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

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

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

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

COMMITMENT D: WATER QUALITY STANDARDS

COMMITMENT D1: SURFACE WATER QUALITY

The Big Sioux River s 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.

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

Action Taken/Required:

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

COMMITMENT D2: SURFACE WATER DISCHARGE

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

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

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

Action Taken/Required:

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

<https://dot.sd.gov/media/documents/SDDOTDewateringInfoCDX.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_CGPAppendixCCA2018Fillable.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.

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COMMITMENT E: STORM WATER (CONTINUED)

Storm Water Pollution Prevention Plan

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

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

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

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

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

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

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

COMMITMENT G: DEWATERING AND SEDIMENT COLLECTION

The purpose of a dewatering and sediment collection system is to collect turbid stormwater on the project, treat it with flocculants as needed, and capture the sediment that falls out of suspension before the water is discharged into “Waters of the US” or “Waters of the State”. Refer to Commitment D1: Surface Water Quality for stream classification.

Action Taken/Required:

The Contractor will meet the terms of the Temporary Discharge Permit and the Storm Water Permit for Construction Activities.

The Contractor will create a Pollution Prevention Plan (PPP) for dewatering and sediment collection if the Contractor chooses to discharge the water into “Waters of the US” or “Waters of the State”. Refer to the detail sheet OPTIONS FOR DEWATERING AND SEDIMENT COLLECTION in the plans. The PPP must be kept on-site and updated as site conditions change.

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, except as detailed for use in processed subgrade topping in Section B – Grading Plans.

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 100 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 L: CONTAMINATED MATERIAL

Contaminated soil and/or known gas stations, undergrounds storage tanks, etc. are located within the project limits. Petroleum contaminated soil may be located at the following sites:

Table 4 – Locations of Potential Contaminated Material

Description	Location
Vacant Land (former railroad corridor)	North of I-229 approximately 450', on the west side of Cliff Avenue
Spoke-N-Sport/former gas station	3401 S Cliff Ave, west side of Cliff Ave south of I-229

Action Taken/Required:

The Contractor will give notice to the Engineer when contaminated soil is encountered on the project. The Engineer will contact the Environmental Office so that contact with the DANR and consultant to inspect and monitor removal of any contaminated soil can be initiated.

The Contractor will be responsible for having the existing underground utilities located in the construction area. Underground utilities damaged by the Contractor due to negligence will be repaired at the Contractor's expense.

Petroleum contaminated soil may be disposed of at the Sioux Falls Regional Sanitary Landfill (contact Don Kuper, Landfill Superintendent at 605-367-8162). Measurement of "Contaminated Material Excavation" will be in accordance with Section 120.4 of the Specifications. All costs for excavating and transporting the contaminated materials to the disposal site and all fees charged per ton by the disposal site will be incidental to the contract unit price per ton for "Contaminated Material Excavation".

The estimated quantity of "Contaminated Material Excavation" is 200 tons. The quantity of "Contaminated Material Excavation" may vary from the plans. No adjustment will be made to the contract unit price for variations in the quantity of "Contaminated Material Excavation". The estimated quantity of "Contaminated Material Excavation" is provided in Section B – Grading Plans.

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
Ramp C – 54+50 to 55+95	Spencer Park (perm impact)
Ramp C – 55+00 to 58+96	Spencer Park (temp impact)
SBCliff – 308+35 to 308+76	Spencer Park (temp impact)
NBCliff – 108+96 to 110+74	Tuthill Park (temp impact)
Ramp B – 36+44 to 41+80	Tuthill Park (perm impact)
Ramp B – 35+11 to 43+45	Tuthill Park (temp impact)

Action Taken/Required:

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

- Land temporarily occupied by construction, in Spencer and Tuthill Parks, will be fully restored by the conclusion of the project;
- Temporary occupancy of Spencer and Tuthill Parks during construction is anticipated to last no longer than 180 days and will be less than the time needed for construction. There will be a Special Provision for Construction Time, included in the project plans, limiting the duration of construction at each location in both parks to less than 180 days.
- Temporary construction fencing shall be installed along proposed construction limits prior to the start of construction activities to protect the existing 4(f) property and the public.
- Appropriate signage shall be installed to alert users of Spencer and Tuthill Parks of construction activities, access restrictions or closures, and to direct users to secondary access points.
- The Contractor shall be required to closely coordinate the construction schedule with the SDDOT Project Engineer who will coordinate with Chad Babcock, SDDOT Environmental Section Manager, 605.773.3721, and the Don Kearney, Director, Sioux Falls Parks & Recreation Department prior to the start of construction activities.

The Contractor is not permitted to stage equipment or materials with Spencer or Tuthill Parks outside of the designated work areas. 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 M2: SECTION 6(f) PROPERTY

National Park Service concurrence is required for project impacts to the following resource(s) acquired and developed through a Land and Water Conservation Fund grant.

Table 6 – Work areas Within Section 6(f) Resources

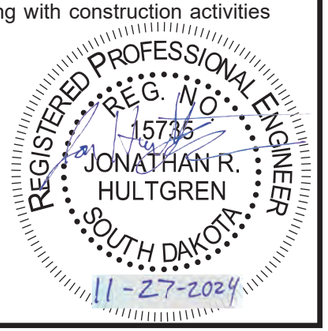
Station	Section 6(f) Property
Ramp C – 54+50 to 55+95	Spencer Park (perm impact)
Ramp C – 55+00 to 58+96	Spencer Park (temp impact)
SBCliff – 308+35 to 308+76	Spencer Park (temp impact)
NBCliff – 108+96 to 110+74	Tuthill Park (temp impact)
Ramp B – 36+44 to 41+80	Tuthill Park (perm impact)
Ramp B – 35+11 to 43+45	Tuthill Park (temp impact)

Action Taken/Required:

The following actions are required to ensure 6(f) replacement lands of equal value and usefulness are achieved:

- Land temporarily occupied by construction, in Spencer Park and Tuthill Parks, will be fully restored by the conclusion of the project;
- The contractor must adhere to the Special Provision for Construction Time, included in the project plans, limiting the duration of construction at each location in these parks to less than 180 days per location.
- Temporary construction fencing shall be installed along proposed construction limits prior to the start of construction activities to protect the existing 6(f) property and the public.
- Appropriate signage shall be installed to alert users of Spencer and Tuthill Parks of construction activities, access restrictions or closures, and to direct users to secondary access points.

The Contractor is not permitted to stage equipment or materials within [name of park(s)]. The Contractor will notify the Project Engineer if additional easement is needed to complete the work adjacent to any Section 6(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 6(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.

COMMITMENT T1: EMERALD ASH BORER MANAGEMENT

The City of Sioux Falls is taking a proactive approach to manage Emerald Ash Borers in Minnehaha County. Removal of ash trees by the project undertaking will need to coordinate an action plan in accordance with the City's approved quarantine data and restrictions.

Action Taken/Required:

Ash wood cannot be transported off the project site between Memorial Day and Labor Day due to the presence of the Emerald Ash Borer in the area. If ash trees to be removed with the project cannot be removed from the project site prior to Memorial Day, or cannot wait to be removed from the project site until after Labor Day, the Contractor may still cut down the ash tree(s), but the ash wood must remain on the project site until after Labor Day. All costs associated with the transporting and disposal of ash wood, and/or storing ash wood on the project site until it can be safely transported to a disposal facility, shall be incidental to the contract unit price for "Clear and Grub Tree".

Ash wood cannot be transported outside of the Quarantine Area designated by the South Dakota Department of Agriculture and the United States Department of Agriculture without a permit. The Quarantine Area is currently defined per the SDDANR Emergency Plant Pest Quarantine Map shown on https://emeraldashborerinsouthdakota.sd.gov/quarantine.aspx. Transport of ash wood outside the Quarantine Area without a permit will subject offenders to civil and/or criminal penalties. All costs associated with the transporting and disposal of ash wood, as well as permitting fees, if necessary, shall be incidental to the contract unit price for "Clear and Grub Tree". Facilities within the Quarantine Area that accept ash wood for disposal include:

Mueller Pallets
27163 471st Avenue
Sioux Falls, SD 57108
(605) 368-2440

Mueller Pallets
46868 Sands Street
Sioux Falls, SD 57107
(605) 368-2440

Sioux Falls Regional Landfill
26750 464th Avenue
Hartford, SD 57033
(605) 367-8162

Grinding of ash tree stumps and disposal of ash tree stump grinding waste may occur at any time of the year with no restriction on transportation time frames within the Quarantine Area. If ash tree stumps are removed by any method other than grinding (i.e. excavator, etc.), the same transportation restrictions as regular ash wood waste apply. All costs associated with grinding, removing, and disposal of ash tree stumps shall be incidental to the contract unit price for "Clear and Grub Tree"

COMMITMENT T2: CITY OF SIOUX FALLS SOUNDS LEVEL PERMIT

The City of Sioux Falls City ordinance requires amplified sound permits for sound variations over a certain decibel levels.

Action Taken/Required:

The Contractor will apply for a sound level permit for construction activities within the boundary of the City of Sioux Falls when construction activities will produce amplified or elevated sound levels (e.g. pile driving). The Contractor will provide the approved permit to the Project Engineer prior to scheduling the preconstruction meeting.

<https://www.siouxfalls.gov/files/assets/public/v/1/parks-and-recreation/special-events/3y18008_sound_permit_app_20.pdf>

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