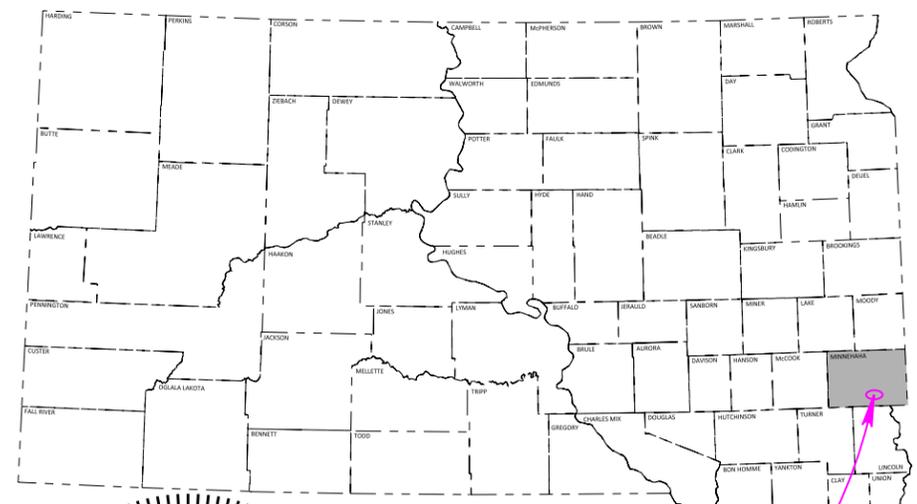


FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0100(105)419	1	401

FILE: A01 Title.dgn PLOTTING DATE: 06-09-2016  
 REV DATE: INITIAL:



STATE OF SOUTH DAKOTA  
 DEPARTMENT OF TRANSPORTATION  
 PLANS FOR PROPOSED

PROJECT NH 0100(105)419  
 HWY 100 (VETERANS PARKWAY) FROM  
 MAPLE STREET TO RICE STREET  
 MINNEHAHA COUNTY

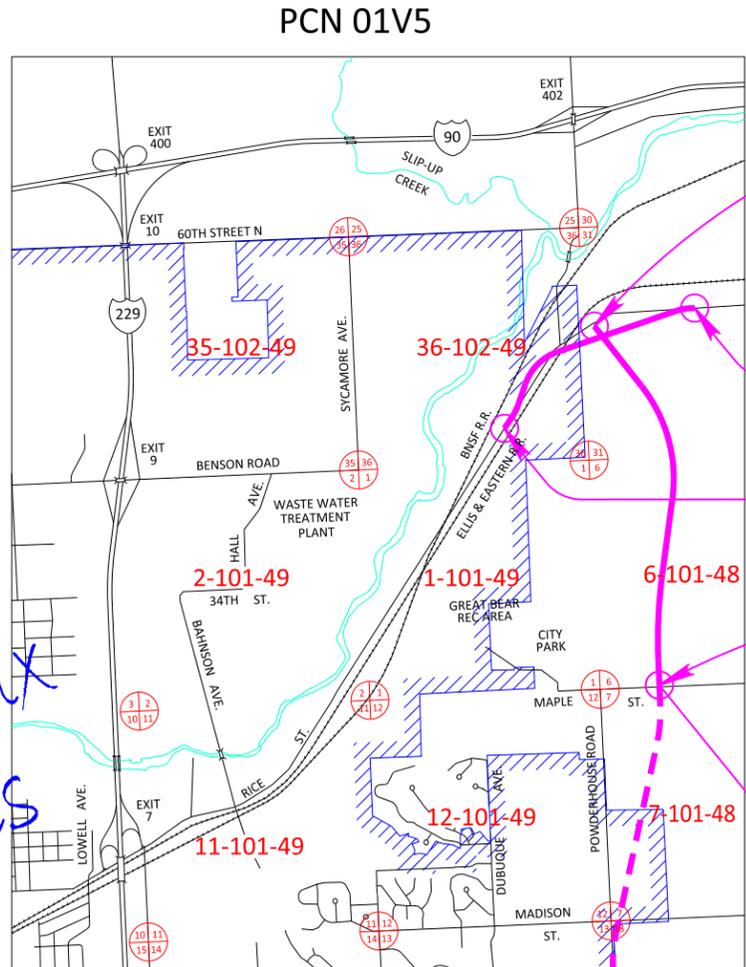
INDEX OF SECTIONS

Section A	Title Sheet
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 L	Signal and Lighting Plans
Section M	Pavement Markings
Section S	Permanent Signing Plans
Section X	Cross Sections
Section Z	Pipe Sections

GRADING, CURB & GUTTER, STORM SEWER, AC SURFACING, PCC PAVEMENT,  
 PAVEMENT MARKINGS, SIGNALS, LIGHTING, AND PERMANENT SIGNING

Project

REG. NO. 8244 LANCE R. MCQUEEN SOUTH DAKOTA 6-10-16  
 REG. NO. 8022 TROY D. BORCHARD SOUTH DAKOTA 6/10/2016  
 REG. NO. 8014 BRIAN J. JENSEN SOUTH DAKOTA 6-10-16  
 REG. NO. 8475 BENJAMIN D. WHITE SOUTH DAKOTA 6-10-16  
 REG. NO. 5524 JAMES H. UNRUH SOUTH DAKOTA 6-10-16



END NH 0100(105)419  
 Station 872+50.00  
 Approx. 2841.87' north and 390.63' east of the SW corner of Section 31 - Township 102 N - Range 48 W of the 5th P.M.

END NH 0100(105)419  
 Rice Street  
 Station 56+50.00

BEGIN NH 0100(105)419  
 Rice Street  
 Station 0+00.00

BEGIN NH 0100(105)419  
 Station 787+09.87  
 Approx. 17.37' north and 1,359.13' east of the SW corner of Section 6 - Township 101 N - Range 48 W of the 5th P.M.

EQUATION  
 786+00.00 PCN 00KB  
 = 787+09.87 PCN 01V5

Sioux Falls

DESIGN DESIGNATION

	HWY 100	Rice St
ADT (2012)	0	7,900
ADT (2035)	38,000	12,600
DHV (2035)	3,700	1,100
D (P.M. Peak)	60% NB, 40% SB	
T DHV	10%	4%
T ADT	7%	4%
V	60 MPH	50 MPH

STORM WATER PERMIT  
 Major Stream: Big Sioux River  
 Area Disturbed: 94 Acres  
 Total Project Area: 128 Acres  
 Approx. Begin Lat/Long: 43.5730, -96.6465

Hwy 100 Gross Length	8,540.13	Feet	1.618	Miles
Rice Street Gross Length	5,650.00	Feet	1.070	Miles
Length of Exceptions	0.00	Feet	0.000	Miles
Total Net Length	14,190.13	Feet	2.688	Miles

# ESTIMATE OF QUANTITIES

## GRADING - Section B

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
009E3230	Grade Staking	15.070	Mile
009E3245	Final Cross Section Survey	2.688	Mile
009E3250	Miscellaneous Staking	2.688	Mile
009E3280	Slope Staking	2.688	Mile
009E3290	Structure Staking	1	Each
009E3300	Three Man Survey Crew	40.0	Hour
100E0100	Clearing	Lump Sum	LS
110E0600	Remove Fence	3,030	Ft
110E1010	Remove Asphalt Concrete Pavement	17,076.0	SqYd
120E0010	Unclassified Excavation	1,109,855	CuYd
120E0420	Contractor Furnished Select Subgrade Topping	104,360	CuYd
120E1000	Muck Excavation	13,749	CuYd
120E2000	Undercutting	49,797	CuYd
120E6100	Water for Embankment	9,650.0	MGal
250E0020	Incidental Work, Grading	Lump Sum	LS
380E2564	4" Barrier Type Colored Median PCC Pavement	3,558.0	SqYd
380E2566	6" Barrier Type Colored Median PCC Pavement	57.0	SqYd
380E4090	10" PCC Fillet Section	39.0	SqYd
421E0100	Pipe Culvert Undercut	3,130	CuYd
450E0122	18" RCP Class 2, Furnish	6,722	Ft
450E0130	18" RCP, Install	6,722	Ft
450E0142	24" RCP Class 2, Furnish	1,838	Ft
450E0145	24" RCP Class 5, Furnish	352	Ft
450E0150	24" RCP, Install	2,190	Ft
450E0162	30" RCP Class 2, Furnish	1,018	Ft
450E0170	30" RCP, Install	1,018	Ft
450E0182	36" RCP Class 2, Furnish	36	Ft
450E0190	36" RCP, Install	36	Ft
450E0192	42" RCP Class 2, Furnish	930	Ft
450E0195	42" RCP Class 5, Furnish	184	Ft
450E0200	42" RCP, Install	1,114	Ft
450E0202	48" RCP Class 2, Furnish	158	Ft
450E0210	48" RCP, Install	158	Ft
450E0225	60" RCP Class 5, Furnish	240	Ft
450E0230	60" RCP, Install	240	Ft
450E0262	84" RCP Class 2, Furnish	14	Ft
450E0267	84" RCP Class 4000D, Furnish	404	Ft
450E0270	84" RCP, Install	418	Ft
450E0304	108" RCP Class 4, Furnish	186	Ft
450E0310	108" RCP, Install	186	Ft
450E2008	18" RCP Flared End, Furnish	9	Each
450E2009	18" RCP Flared End, Install	9	Each
450E2016	24" RCP Flared End, Furnish	11	Each
450E2017	24" RCP Flared End, Install	11	Each
450E2024	30" RCP Flared End, Furnish	1	Each
450E2025	30" RCP Flared End, Install	1	Each
450E2028	36" RCP Flared End, Furnish	1	Each
450E2029	36" RCP Flared End, Install	1	Each
450E2032	42" RCP Flared End, Furnish	3	Each
450E2033	42" RCP Flared End, Install	3	Each
450E2036	48" RCP Flared End, Furnish	1	Each
450E2037	48" RCP Flared End, Install	1	Each
450E2044	60" RCP Flared End, Furnish	1	Each
450E2045	60" RCP Flared End, Install	1	Each

## GRADING - Section B cont'd

450E2060	84" RCP Flared End, Furnish	2	Each
450E2061	84" RCP Flared End, Install	2	Each
450E2254	108" RCP Sectional End, Furnish	2	Each
450E2255	108" RCP Sectional End, Install	2	Each
450E2304	18" RCP Safety End, Furnish	1	Each
450E2307	18" RCP Safety End, Install	1	Each
450E2308	24" RCP Safety End, Furnish	2	Each
450E2311	24" RCP Safety End, Install	2	Each
450E3042	42" RCP Arch Class 2, Furnish	2,240	Ft
450E3050	42" RCP Arch, Install	2,240	Ft
450E3082	72" RCP Arch Class 2, Furnish	258	Ft
450E3090	72" RCP Arch, Install	258	Ft
450E4532	72" RCP Arch Flared End, Furnish	1	Each
450E4533	72" RCP Arch Flared End, Install	1	Each
450E4608	42" RCP Arch Sloped End, Furnish	16	Each
450E4609	42" RCP Arch Sloped End, Install	16	Each
450E4759	18" CMP 16 Gauge, Furnish	428	Ft
450E4760	18" CMP, Install	428	Ft
450E4769	24" CMP 16 Gauge, Furnish	160	Ft
450E4770	24" CMP, Install	160	Ft
450E4779	30" CMP 16 Gauge, Furnish	290	Ft
450E4780	30" CMP, Install	290	Ft
450E5010	18" CMP Elbow, Furnish	5	Each
450E5011	18" CMP Elbow, Install	5	Each
450E5015	24" CMP Elbow, Furnish	2	Each
450E5016	24" CMP Elbow, Install	2	Each
450E5020	30" CMP Elbow, Furnish	4	Each
450E5021	30" CMP Elbow, Install	4	Each
450E5211	18" CMP Flared End, Furnish	5	Each
450E5212	18" CMP Flared End, Install	5	Each
450E5215	24" CMP Flared End, Furnish	1	Each
450E5216	24" CMP Flared End, Install	1	Each
450E5219	30" CMP Flared End, Furnish	2	Each
450E5220	30" CMP Flared End, Install	2	Each
450E5227	42" CMP Flared End, Furnish	2	Each
450E5228	42" CMP Flared End, Install	2	Each
450E5406	18" CMP Safety End, Furnish	2	Each
450E5407	18" CMP Safety End, Install	2	Each
450E5549	42" CMP Arch 14 Gauge, Furnish	12	Ft
450E5550	42" CMP Arch, Install	12	Ft
450E6027	42" CMP Arch Safety End with Bars, Furnish	2	Each
450E6029	42" CMP Arch Safety End, Install	2	Each
450E7618	18" Steel Pipe, Furnish	56	Ft
450E7642	42" Steel Pipe, Furnish	348	Ft
450E8007	18" Concrete/Steel Pipe Transition, Furnish	2	Each
450E8009	18" RCP to CMP Transition, Furnish	1	Each
450E8010	18" Pipe Transition, Install	3	Each
450E8014	24" RCP to CMP Transition, Furnish	1	Each
450E8015	24" Pipe Transition, Install	1	Each
450E8019	30" RCP to CMP Transition, Furnish	2	Each
450E8020	30" Pipe Transition, Install	2	Each
450E8027	42" Concrete/Steel Pipe Transition, Furnish	2	Each
450E8030	42" Pipe Transition, Install	2	Each
451E1277	1.5" Water Service	1	Each
451E5118	Bore and Jack 18" Pipe	56	Ft
451E5142	Bore and Jack 42" Pipe	348	Ft

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0100(105)419	A1	A6

Plotting Date: 6/22/2016

### INDEX OF SHEETS

A1 to A3 Estimate of Quantities for Sections B,C,D,E, F, L, M, and S  
A4 and A6 Environmental Commitments

## GRADING - Section B cont'd

462E0100	Class M6 Concrete	215.4	CuYd
464E0100	Controlled Density Fill	174.0	CuYd
480E0100	Reinforcing Steel	40,863	Lb
600E0300	Type III Field Laboratory	1	Each
620E0020	Type 2 Right-of-Way Fence	13,269	Ft
620E0040	Type 4 Right-of-Way Fence	9,922	Ft
620E1020	2 Post Panel	171	Each
620E1030	3 Post Panel	13	Each
635E8220	2" Rigid Conduit, Schedule 80	260	Ft
635E8240	4" Rigid Conduit, Schedule 80	260	Ft
650E1060	Type F66 Concrete Curb and Gutter	1,213	Ft
650E1100	Type F610 Concrete Curb and Gutter	33,586	Ft
650E6100	10" Concrete Valley Gutter	24	Ft
651E0060	6" Concrete Sidewalk	704	SqFt
651E7000	Type 1 Detectable Warnings	104	SqFt
670E1200	Type B Frame and Grate Assembly	120	Each
670E5340	4' x 11' Precast Concrete Type S Drop Inlet Lid	5	Each
670E5400	Precast Drop Inlet Collar	120	Each
671E6007	Type A7 Manhole Frame and Lid	3	Each
680E0240	4" Corrugated Polyethylene Drainage Tubing	284	Ft
680E0260	6" Corrugated Polyethylene Drainage Tubing	176	Ft
680E0440	4" Slotted Corrugated Polyethylene Drainage Tubing	2,850	Ft
680E0660	6" Slotted Corrugated Polyethylene Drainage Tubing	2,144	Ft
680E2000	Concrete Headwall for Underdrain	5	Each
680E2500	Porous Backfill	2,007.0	Ton
700E0110	Class A Riprap	4,021.2	Ton
700E0210	Class B Riprap	541.3	Ton
831E0110	Type B Drainage Fabric	4,947	SqYd
998E0100	Railroad Protective Insurance	Lump Sum	LS

## TRAFFIC CONTROL - Section C

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
634E0010	Flagging	100.0	Hour
634E0110	Traffic Control Signs	625.5	SqFt
634E0120	Traffic Control Miscellaneous	Lump Sum	LS
634E0135	Traffic Control Supervisor	Lump Sum	LS
634E0285	Type 3 Barricade, 8' Double Sided	27	Each
634E0560	Remove Pavement Marking, 4" or Equivalent	2,300	Ft
634E0640	Temporary Pavement Marking	10,620	Ft
634E1002	Detour Signing	2,107.0	SqFt
634E1215	Contractor Furnished Portable Changeable Message Sign	2	Each

### SPECIFICATIONS

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



Plotting Date: 7/15/2016

### EROSION & SEDIMENT CONTROL – Section D

Bid Item Number	Item	Quantity	Unit
110E1690	Remove Sediment	27.0	CuYd
110E1693	Remove Erosion Control Wattle	850	Ft
110E1695	Remove Sediment Filter Bag	5,000	Ft
110E1700	Remove Silt Fence	4,000	Ft
230E0010	Placing Topsoil	59,902	CuYd
230E0020	Placing Contractor Furnished Topsoil	19,605	CuYd
730E0100	Cover Crop Seeding	36	Bu
730E0206	Type D Permanent Seed Mixture	5,775	Lb
730E0212	Type G Permanent Seed Mixture	1,229	Lb
730E0251	Special Permanent Seed Mixture 1	1,306	Lb
730E0252	Special Permanent Seed Mixture 2	58	Lb
732E0100	Mulching	209.9	Ton
734E0044	Soil Stabilizer	30	Acre
734E0102	Type 2 Erosion Control Blanket	2,727	SqYd
734E0131	Type 1 Turf Reinforcement Mat	9,135	SqYd
734E0154	12" Diameter Erosion Control Wattle	2,532	Ft
734E0165	Remove and Reset Erosion Control Wattle	850	Ft
734E0180	Sediment Filter Bag	3,208	Ft
734E0325	Surface Roughening	19.4	Acre
734E0510	Shaping for Erosion Control Blanket	1,203	Ft
734E0602	Low Flow Silt Fence	17,083	Ft
734E0610	Mucking Silt Fence	1,000	CuYd
734E0620	Repair Silt Fence	3,500	Ft
734E0680	Flocculent Housing Unit	2	Each
734E0683	500K Gallon Treatment Flocculent Bag	2	Each
734E0845	Sediment Control at Inlet with Frame and Grate	123	Each
734E0847	Sediment Control at Type S Reinforced Concrete Drop Inlet	60	Ft
734E5000	Dewatering	200	Hour
734E5010	Sweeping	8	Hour
900E1310	Concrete Washout Facility	2	Each
900E1320	Construction Entrance	4	Each

### STRUCTURES – Section E

Str. No. 50-242-177 12'x10' Box Culvert			
Bid Item Number	Item	Quantity	Unit
420E0200	Structure Excavation, Box Culvert	137	CuYd
421E0200	Box Culvert Undercut	386	CuYd
460E0120	Class A45 Concrete, Box Culvert	357.9	CuYd
460E0204	Anti-Graffiti Coating	6,755.0	SqFt
480E0100	Reinforcing Steel	58,185	Lb
621E0040	4' Chain Link Fence with Top Rail	134	Ft

10'x10' Junction Box			
Bid Item Number	Item	Quantity	Unit
420E0400	Structure Excavation, Miscellaneous	34	CuYd
462E0100	Class M6 Concrete	13.8	CuYd
480E0100	Reinforcing Steel	2,621	Lb
671E6007	Type A7 Manhole Frame and Lid	1	Each

### SURFACING – Section F

Bid Item Number	Item	Quantity	Unit
120E6200	Water for Granular Material	809.6	MGal
260E1010	Base Course	33,477	Ton
260E2010	Gravel Cushion	33,509	Ton
260E3010	Gravel Surfacing	379	Ton
320E0007	PG 64-28 Asphalt Binder	910.2	Ton
320E1050	Class E Asphalt Concrete	16,253.1	Ton
320E3000	Compaction Sample	3	Each
330E0100	SS-1h or CSS-1h Asphalt for Tack Coat	19.1	Ton
330E0210	SS-1h or CSS-1h Asphalt for Flush Seal	9.9	Ton
330E2000	Sand for Flush Seal	187.0	Ton
380E0090	10" Nonreinforced PCC Pavement	76,137	SqYd
380E1070	10" Miscellaneous PCC Pavement	227	SqYd
380E6000	Steel Bar	44,938	Each
380E6110	Insert Steel Bar in PCC Pavement	26	Each

FOR BIDDING PURPOSES ONLY

### SIGNALS AND LIGHTING – Section L

Bid Item Number	Item	Quantity	Unit
110E1530	Remove Signal Pole Footing	1	Each
110E1540	Remove Luminaire Pole Footing	3	Each
635E0050	Breakaway Base Luminaire Pole with Arm, 50' Mounting Height	56	Each
635E2065	Signal Pole with 65' Mast Arm	2	Each
635E2165	Signal Pole with 65' Mast Arm and Luminaire Arm	2	Each
635E3700	Roadway Luminaire, LED with Photoelectric Cell	58	Each
635E4030	3 Section Vehicle Signal Head	11	Each
635E4050	5 Section Vehicle Signal Head	2	Each
635E4080	3 Section Directional Vehicle Signal Head	12	Each
635E5020	2' Diameter Footing	478.0	Ft
635E5030	3' Diameter Footing	60.0	Ft
635E5310	Special Electrical Junction Box	40	Each
635E5400	Electrical Service Cabinet	4	Each
635E5430	Traffic Signal Controller	1	Each
635E5450	Side Mounted Cabinet	1	Each
635E5515	Signal Head Battery Backup and Flash System	1	Each
635E5545	Wireless In Pavement Traffic Sensor	44	Each
635E5555	Wireless Access Point	4	Each
635E5558	Wireless Repeater	3	Each
635E5560	Emergency Vehicle Preemption Unit	1	Each
635E5570	Optical Detector	4	Each
635E5900	Pedestrian Push Button	2	Each
635E5910	Pedestrian Push Button Pole	2	Each
635E5922	Pedestrian Signal Head with Countdown Timer	2	Each
635E5930	Pedestrian Crossing Sign	2	Each
635E6200	Miscellaneous, Electrical	Lump Sum	LS
635E7500	Remove and Reset Luminaire Pole	3	Each
635E7510	Remove and Reset Signal Pole	1	Each
635E7530	Relocate Signal Equipment	Lump Sum	LS
635E8025	2.5" Rigid Galvanized Steel Conduit	985	Ft
635E8030	3" Rigid Galvanized Steel Conduit	740	Ft
635E8040	4" Rigid Galvanized Steel Conduit	400	Ft
635E8050	5" Rigid Galvanized Steel Conduit	10	Ft
635E8108	0.75" Rigid Conduit, Schedule 40	80	Ft
635E8115	1.5" Rigid Conduit, Schedule 40	270	Ft
635E8120	2" Rigid Conduit, Schedule 40	11,520	Ft
635E8130	3" Rigid Conduit, Schedule 40	5,850	Ft
635E8140	4" Rigid Conduit, Schedule 40	80	Ft
635E8215	1.5" Rigid Conduit, Schedule 80	45	Ft
635E8220	2" Rigid Conduit, Schedule 80	305	Ft
635E8230	3" Rigid Conduit, Schedule 80	1,305	Ft
635E8410	1/2" Innerduct, SDR 13.5	26,565	Ft
635E8420	1.5" Innerduct, SDR 13.5	75	Ft
635E8830	2/2/2/4 Aluminum Wire	25,985	Ft
635E9011	1/C #1 AWG Copper Wire	1,680	Ft
635E9014	1/C #4 AWG Copper Wire	165	Ft
635E9020	1/C #10 AWG Copper Wire	10,175	Ft
635E9023	3/C #12 AWG Copper Wire	270	Ft
635E9302	2/C #14 AWG IMSA Copper Cable, K1	110	Ft
635E9304	4/C #14 AWG IMSA Copper Cable, K1	1,370	Ft
635E9307	7/C #14 AWG IMSA Copper Cable, K1	30	Ft
635E9325	25/C #14 AWG IMSA Copper Cable, K1	1,325	Ft
635E9710	2/C #10 AWG Copper Pole and Bracket Cable	3,770	Ft
635E9800	Preemption Cable	3,230	Ft



## PAVEMENT MARKINGS – Section M

Section M - Pavement Marking			
BID ITEM NUMBER	ITEM	QUANTITY	UNIT
633E0010	Cold Applied Plastic Pavement Marking, 4"	17,339	Ft
633E0021	Cold Applied Plastic Pavement Marking (Contrast), 8"	3,830	Ft
633E0055	Cold Applied Plastic Pavement Marking, Railroad Crossing	2	Each
633E1400	Pavement Marking Paint, 4" White	15,322	Ft
633E1405	Pavement Marking Paint, 4" Yellow	13,790	Ft
633E1430	Pavement Marking Paint, 24" White	1,321	Ft
633E1435	Pavement Marking Paint, 24" Yellow	911	Ft
633E1440	Pavement Marking Paint, Area	100	SqFt
633E1445	Pavement Marking Paint, Arrow	19	Each
633E1460	Pavement Marking Paint, Symbol	16	Each
633E5000	Grooving for Cold Applied Plastic Pavement Marking, 4"	17,339	Ft
633E5005	Grooving for Cold Applied Plastic Pavement Marking, 8"	3,830	Ft
633E5040	Grooving for Cold Applied Plastic Pavement Marking, Railroad Crossing	2	Each

## PERMANENT SIGNING – Section S

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
110E5020	Salvage Traffic Sign	7	Each
110E5030	Salvage Extruded Panel Sign	1	Each
632E0010	1.25' Diameter Breakaway Support Concrete Footing	12.0	Ft
632E0014	1.75' Diameter Breakaway Support Concrete Footing	16.0	Ft
632E1235	W6x20 Steel Post	50.0	Ft
632E1320	2.0"x2.0" Perforated Tube Post	76.8	Ft
632E1340	2.5"x2.5" Perforated Tube Post	30.0	Ft
632E3115	Extruded Aluminum Sign, Nonremovable Copy Super/Very High Intensity	140.0	SqFt
632E3203	Flat Aluminum Sign, Nonremovable Copy High Intensity	69.1	SqFt
632E3205	Flat Aluminum Sign, Nonremovable Copy Super/Very High Intensity	27.0	SqFt
632E3520	Remove, Salvage, Relocate, and Reset Traffic Sign	8	Each
632E4005	Type 3 Single Sided Barricade	8.0	Ft

FOR BIDDING PURPOSES ONLY

Rev 7/14/2016 JHU

STATE OF SOUTH DAKOTA	PROJECT NH 0100(105)419	SHEET A3	TOTAL SHEETS A6
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Plotting Date: 7/15/2016

**ENVIRONMENTAL COMMITMENTS**

An Environmental Commitment is a measure that SDDOT commits to implement in order to avoid, minimize, and/or mitigate a real or potential environmental impact. Environmental commitments to various agencies and the public have been made to secure approval of this project. An agency mentioned below with permitting authority can influence a project if perceived 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. These environmental commitments are not subject to change without prior written approval from the SDDOT Environmental Office. The environmental commitments associated with this project are as follows:

**COMMITMENT A: WETLANDS**

Approximately 1.58 acres of wetlands will be impacted by the project. Refer to Section B – Grading Plans for location and boundaries of the impacted wetlands. These unavoidable impacts to wetlands shall be mitigated through an approved wetland mitigation bank site, through In Lieu Fee wetland program at the time of construction.

**Table of Impacted Wetlands**

Wetland No.	Type	Station	Permanent Impact (Ac)	Temp. Impact	Total Impact (Ac)
2	Slope	Rice 29+60	0.11	0	0.11
16	Slope	Hwy100 839+00 to 857+00	1.47	0	1.47
		Total:	1.58	0	1.58

**Action Taken/Required:**

SDDOT will utilize credits from the Tetonka wetland mitigation bank site as mitigation.

Temporary impacts will not be mitigated as original grades will be re-established.

A mitigation plan has been provided by the SDDOT Environmental Office. A monitoring plan has been included and responsibilities are accounted for. The contact person is the Environmental Project Scientist of the SDDOT Environmental Office at 605-773-3268.

**COMMITMENT B: FEDERALLY THREATENED, ENDANGERED, AND PROTECTED SPECIES**

**COMMITMENT B4: BALD EAGLE**

Bald eagles are known to occur in this area.

**Action Taken/Required:**

Due to the potential for eagle habitat, an eagle nest survey will be conducted prior to construction within the 1-mile of the project by a qualified individual that is acceptable to the USFWS to conduct a bald and golden eagle nest survey. A qualified biologist will be utilized to determine if construction would impact eagles or eagle nests and coordinate with USFWS. Appropriate avoidance or mitigation as prescribed by USFWS will be taken prior to construction activities.

**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. The specific areas of potential habitat are illustrated on plan sheets B47, B53, B56, B59, and B63 within the ESS (environmental sensitive site) lines

**Action Taken/Required:**

Project activities requiring use of lighting in the evenings or night should do the following:

- Direct temporary lighting away from suitable habitat during the active season (Active season is April 1 to September 30).
- Use downward-facing, full cut-off lens lights, and direct lighting away from suitable habitat when installing new or replacing existing permanent lights.

Project activities that include tree removal 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
Rice Street 22+00 to 46+00 (L and R)	April 1 to September 30
Hwy100 871+00 to 874+00 (existing Rice Street) (L and R)	

Tree removal in potential bat habitat should be limited to areas specified in project plans. Bright colored flagging/fencing should be installed at clearing limits prior to any tree clearing to ensure contractors stay within clearing limits.

No tree roosts have been documented for the area. If any roosts are identified prior to clearing, the SDDOT environmental office should be contacted prior to removing trees.

**COMMITMENT B6: LINED SNAKE**

Based on a survey conducted in 2014, lined snakes are known to inhabit the Cactus Hills Area (station 840+00 to 872+50).

**Action Taken/Required:**

Erosion control measures, such as silt fencing, should be properly installed around the project's disturbance boundary within lined snake habitat. This fence will assist in limiting lined snakes from entering the construction area, thus limit the possibility of injury or mortality.

- To prevent entrapment of the lined snake during construction, all excavated, steep walled holes or trenches should either be covered by plywood at the end of each day or provided with one or more escape ramps constructed of earth fill or wooden planks.

Each morning before construction activities resume and before such holes or trenches are filled, they will be inspected for trapped animals, including the lined snake. Upon the discovery of a lined snake the reptile will be allowed to escape voluntarily (by escape ramps) or a person trained to handle the snake will be contacted to remove the snake

**COMMITMENT C: WATER SOURCE**

The Contractor shall not withdraw water with equipment previously used outside the State of South Dakota without prior approval from the SDDOT Environmental Office. Thoroughly wash all construction equipment before entering South Dakota to reduce the risk of invasive species introduction into the project vicinity.

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

**Action Taken/Required:**

The Contractor shall obtain the necessary permits from the regulatory agencies such as the Department of Environment and Natural Resources (DENR) and the United States Army Corps of Engineers (COE) prior to executing water extraction activities.

**COMMITMENT D: WATER QUALITY STANDARDS**

**COMMITMENT D1: SURFACE WATER QUALITY**

The unnamed tributary to the Big Sioux River is classified as fish and wildlife propagation, recreation, irrigation, 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.

**Action Taken/Required:**

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

**COMMITMENT D2: SURFACE WATER DISCHARGE**

The unnamed tributary to the Big Sioux River is classified as fish and wildlife propagation, recreation, irrigation 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.

**Action Taken/Required:**

If construction dewatering is required, the Contractor shall obtain a Temporary Discharge Permit from the DENR and provide a copy to the Project Engineer. Contact the DENR Surface Water Program at 605-773-3351 to apply for a permit.

**COMMITMENT E: STORM WATER**

**Action Taken/Required:**

Construction activities constitute 1 acre or more of earth disturbance.

**Action Taken/Required:**

The DENR and the US Environmental Protection Agency (EPA) have issued separate general permits for the discharge of storm water runoff. The DENR permit applies to discharges on state land and the EPA permit applies to discharges on federal or reservation land. The Contractor is advised this project is regulated under the Phase II Storm Water Regulations and must receive coverage under the General Permit for Construction Activities. A Notice of Intent (NOI) will be submitted to DENR a minimum of 15 days prior to project start by the DOT Environmental Office. A letter must be received from DENR that acknowledges project coverage under this general permit before project start. The Contractor is advised that permit coverage may also be required by off-site activities, such as borrow and staging areas, which are the responsibility of the Contractor.

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

A major component of the storm water construction permits is development and implementation of a Storm Water Pollution Prevention Plan (SWPPP), which is a joint effort and responsibility of the SDDOT and the Contractor. Erosion control measures and best management practices will be implemented in accordance with the SWPPP. The SWPPP is a dynamic document and is to be available on-site at all times.

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

SDDOT:

<http://sddot.com/transportation/highways/environmental/stormwater/Default.aspx>

DENR: <http://www.denr.sd.gov/des/sw/stormwater.aspx>

EPA: [http://cfpub.epa.gov/npdes/home.cfm?program\\_id=6](http://cfpub.epa.gov/npdes/home.cfm?program_id=6)

**Contractor Certification Form:**

The "Department of Environmental and Natural Resources – Contractor Certification Form" (SD EForm – 2110LDV1-ContractorCertification.pdf) shall be completed by the Contractor or their certified Erosion Control Supervisor after the award of the contract. Work may not begin on the project until this form is signed.

The form certifies under penalty of law that the Contractor understands and will comply with the terms and conditions of the Surface Water Discharge General Permit for Storm Water Discharges Associated with Construction Activities for the Project.

The online form can be found at:

<http://denr.sd.gov/des/sw/eforms/E2110LDV1-ContractorCertification.pdf>

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0100(105)419	A5	A6

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**COMMITMENT H: WASTE DISPOSAL SITE**

The Contractor shall 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 ROW.

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

The waste disposal site(s) shall 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 Project Engineer.

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

1. Construction and/or demolition debris consisting of concrete, asphalt concrete, or other similar materials shall be buried in a trench completely separate from wood debris. The final cover over the construction and/or demolition debris shall consist of a minimum of 1 foot of soil capable of supporting vegetation. Waste disposal sites provided outside of the ROW shall be seeded in accordance with Natural Resources Conservation Service recommendations. The seeding recommendations may be obtained through the appropriate County NRCS Office. The Contractor shall control the access to waste disposal sites not within the ROW through the use of 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 of time not to exceed the duration of the project. Prior to project completion, the waste shall 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) shall be incidental to the various contract items.



**COMMITMENT I: HISTORICAL PRESERVATION OFFICE CLEARANCES**

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

**Action Taken/Required:**

All earth disturbing activities not designated within the plans require review of cultural resources impacts. This work includes, but is not limited to: staging areas, borrow sites, waste disposal sites, and all material processing sites.

The Contractor shall arrange and pay for a cultural resource survey and/or records search. 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; however, a cultural resources survey may need to be conducted by a qualified archaeologist.

The Contractor shall provide ARC with the following: a topographical map or aerial view on 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 shall submit the records search or cultural resources survey report and if the location of the site is within the current geographical or historic boundaries of any South Dakota reservation to SDDOT Environmental Engineer, 700 East Broadway Avenue, Pierre, SD 57501-2586 (605-773-3180). 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.

If evidence for cultural resources is uncovered during project construction activities, then such activities shall cease and the Project Engineer shall be immediately notified. The Project Engineer will contact the SDDOT Environmental Engineer in order to determine an appropriate course of action.

SHPO/THPO review does not relieve the Contractor of the responsibility for obtaining any additional permits and clearances for staging areas, borrow sites, waste disposal sites, or material processing sites that affect wetlands, threatened and endangered species, or waterways. The Contractor shall 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 not known to be located within the project limits.

**Action Taken/Required:**

The contractor should be alert for the large areas of soil staining, buried drums, or USTs, and coordinate with SDDOT and SDDENR if any obvious contamination is found prior to continuing work in those areas.

**COMMITMENT N: SECTION 404 PERMIT**

The SDDOT has applied for a Section 404 Permit from the US Army Corps of Engineers for the permanent actions associated with this project.

**Action Taken/Required:**

The Contractor shall comply with all requirements contained in the Section 404 permit application and the permit, when issued. The contractor shall avoid installation of box culverts and grading within the wetland areas until the permit is issued.

The Contractor shall also be responsible for obtaining a Section 404 permit for any dredge, excavation, or fill activities associated with staging areas, borrow sites, waste disposal sites, or material processing sites that affect wetlands or waters of the United States.

**COMMITMENT S: MIGRATORY BIRDS WORK RESTRICTION**

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

**Action Taken/Required:**

If construction is planned within the nesting season, SDDOT will coordinate surveys for migratory birds in suitable areas that have not been mowed or cleared prior to mid-April to determine if there are current nests. If migratory birds are found, construction should cease until birds hatch and fledge. SDDOT will coordinate surveys to be conducted within the same year, but prior to construction start in order to capture the current conditions.

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