

STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0083(91)118, NH 0014(243)131, P 1806(26)145, P0047(123)52	1	97

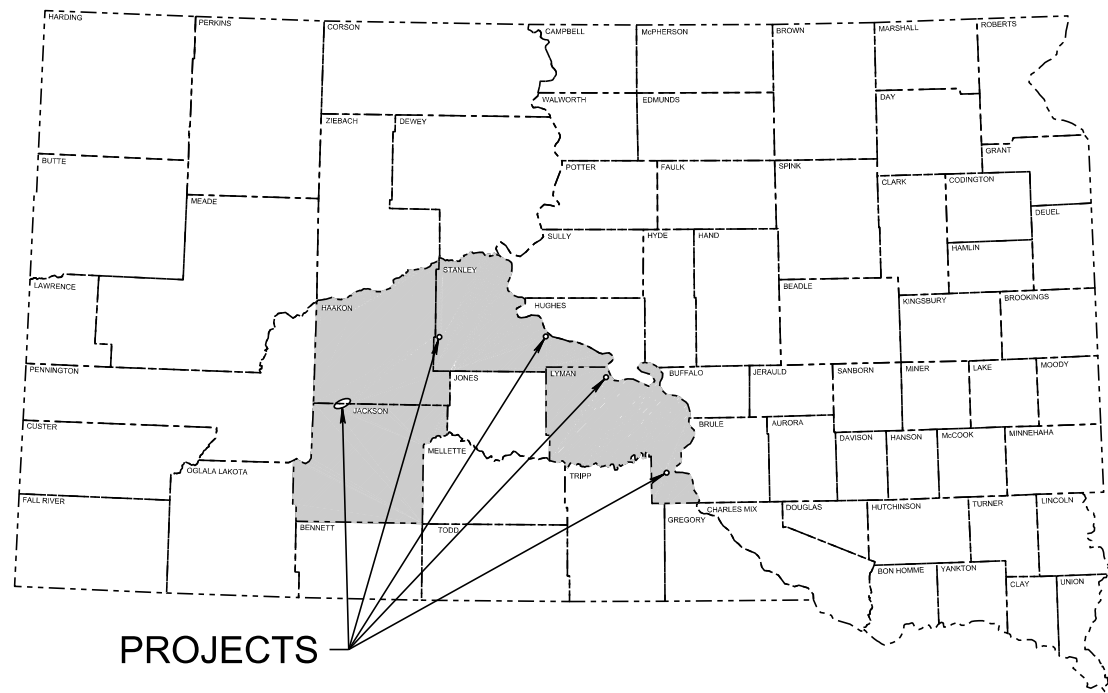
Plotting Date: 02/01/2024

INDEX OF SECTIONS

- Section A: Estimate of Quantities & Environmental Commitments
- Section C: Traffic Control Plans
- Section E: Structure Plans
- Section F: Surfacing Plans & Pavement Marking Plans

PROJECTS NH 0083(91)118,
NH 0014(243)131, P 1806(26)145,
P 0047(123)52
US HIGHWAY 83, US HIGHWAY 14,
SD-1806, SD-47
HAAKON, JACKSON, LYMAN,
AND STANLEY COUNTIES

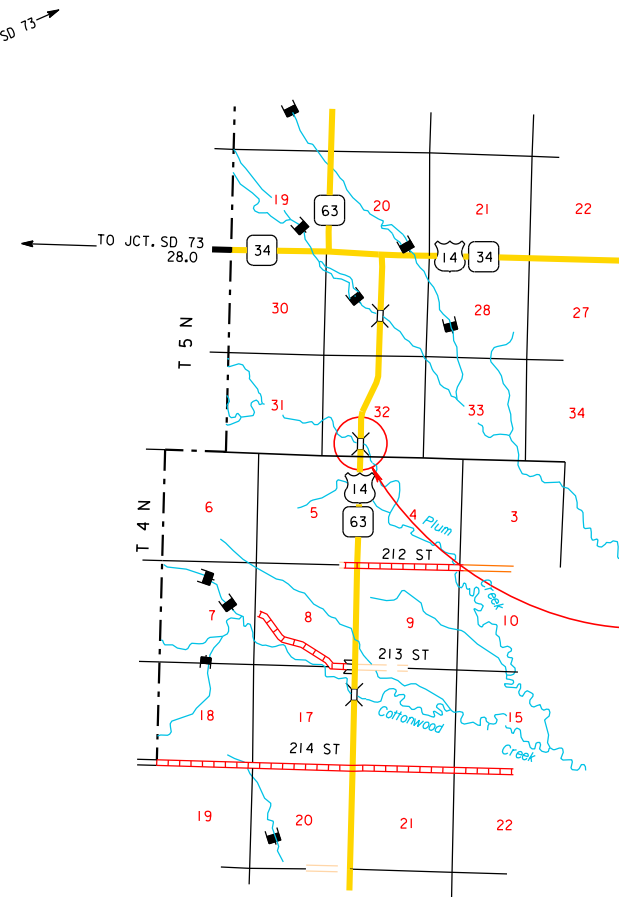
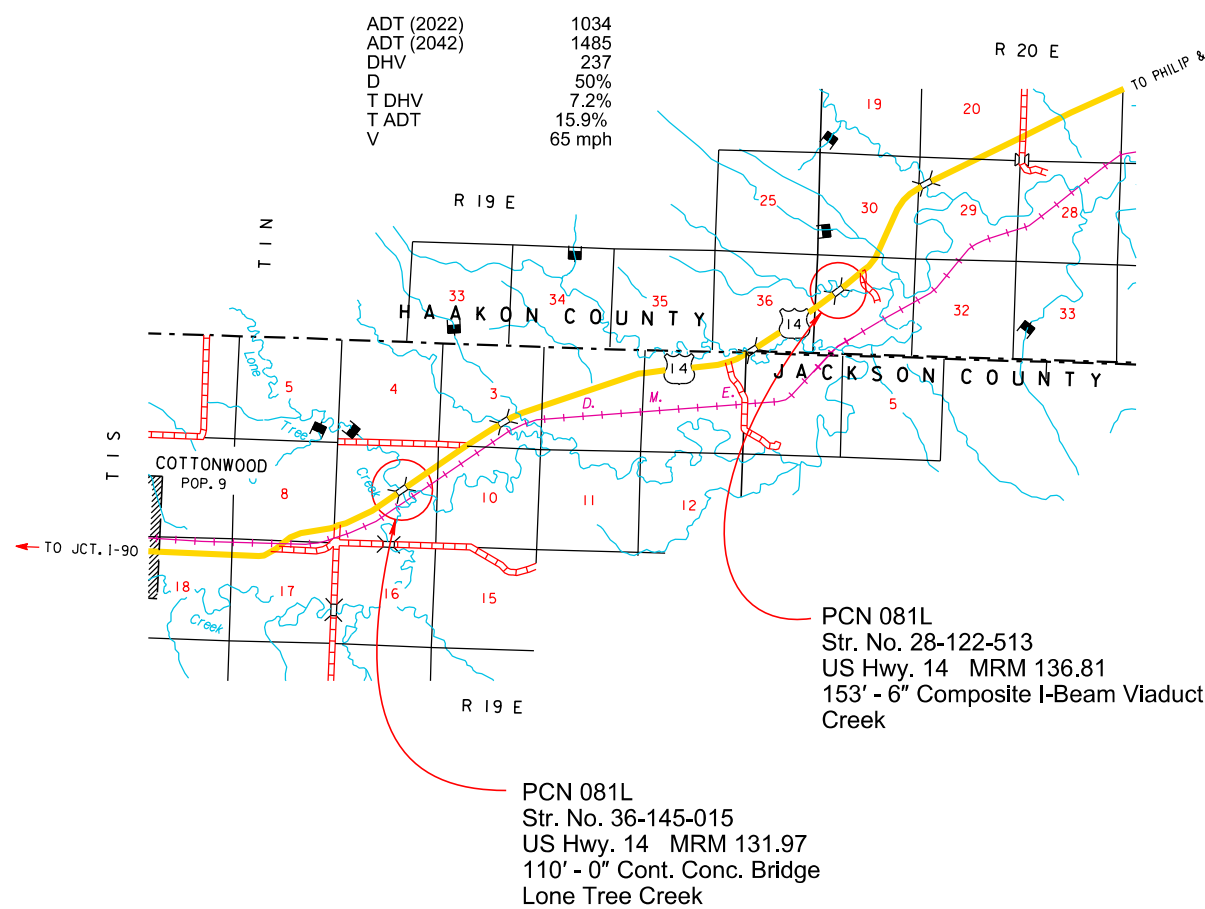
POLYMER CHIP SEALS & APPROACH SLAB REPLACEMENT
PCN 081K, 081L, 08JA, 08JC



PROJECTS

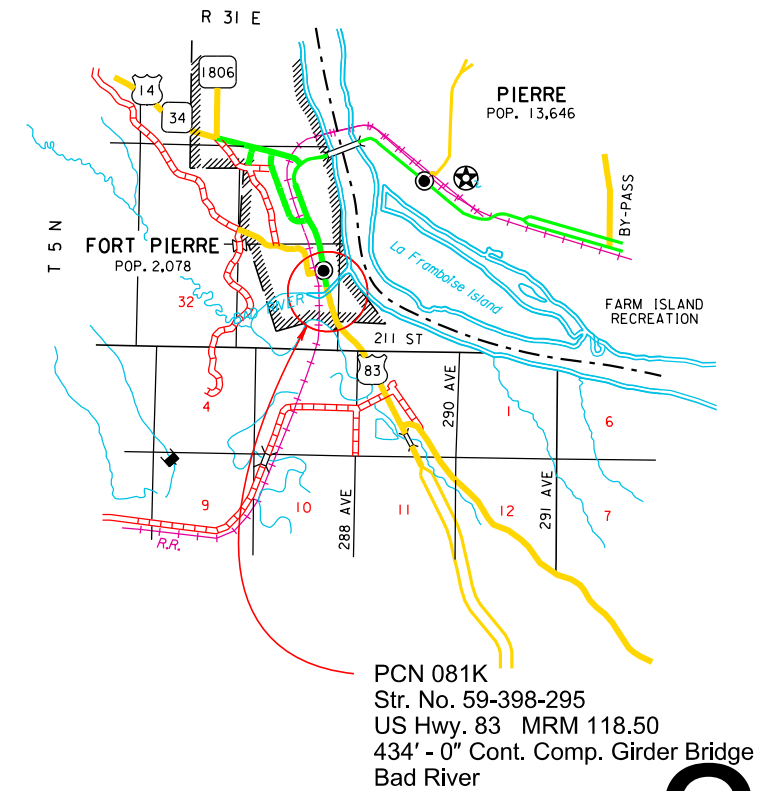
DESIGN DESIGNATION

ADT (2022)	1034
ADT (2042)	1485
DHV	237
D	50%
T DHV	7.2%
T ADT	15.9%
V	65 mph



DESIGN DESIGNATION

ADT (2022)	722
ADT (2042)	1044
DHV	166
D	50%
T DHV	9.2%
T ADT	20.3%
V	65 mph



DESIGN DESIGNATION

ADT (2022)	5688
ADT (2042)	8225
DHV	1310
D	50%
T DHV	6.2%
T ADT	13.7%
V	35 mph

2

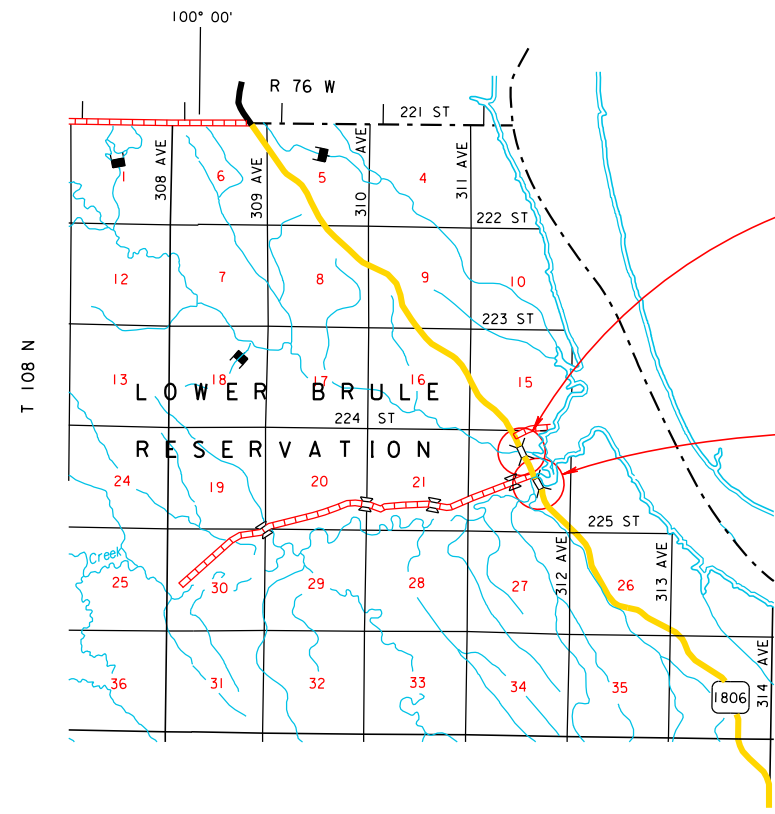
May 1, 2024

STORM WATER PERMIT
None required

Plot Scale - 1:200

Plotted From - TRPR202410

Plot Name - ...ICAD\081K_TileSheets.dgn

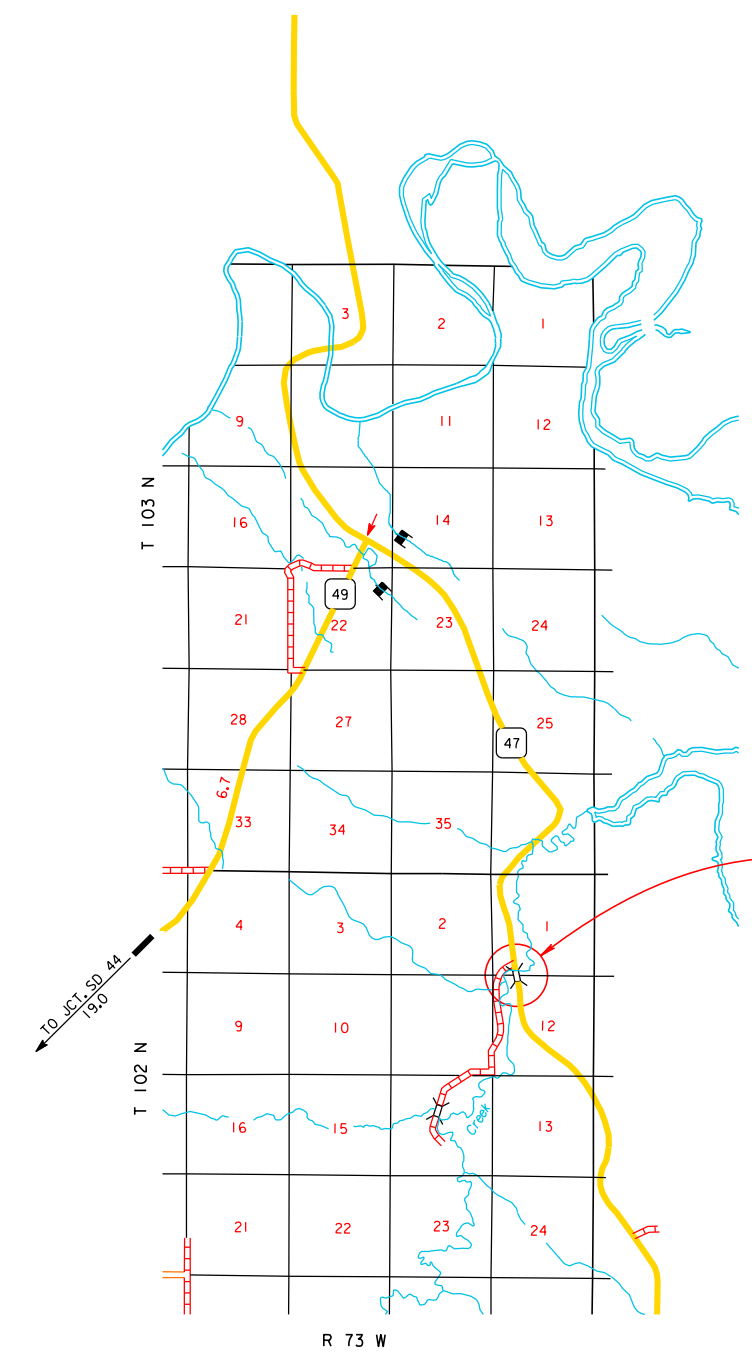


PCN 08JA
Str. No. 43-216-034
SD Hwy. 1806 MRM 145.31
56' - 0" Comp. Steel Girder Bridge
Straight Creek

PCN 08JA
Str. No. 43-218-036
SD Hwy. 1806 MRM 145.02
137' - 0" Cont. Conc. Bridge
Cedar Creek

DESIGN DESIGNATION

ADT (2022)	110
ADT (2042)	155
DHV	25
D	50%
T DHV	8.9%
T ADT	19.6%
V	65 mph



PCN 08JC
Str. No. 43-422-370
SD Hwy. 47 MRM 52.73
209' - 0" Cont. Conc. Bridge
Bull Creek

DESIGN DESIGNATION

ADT (2022)	222
ADT (2042)	314
DHV	37
D	50%
T DHV	12.6%
T ADT	27.8%
V	65 mph

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0083(91)118, NH 0014(243)131, P 1806(26)145, P 0047(123)52	A1	A4

Revised 03/28/2024 JPJ

INDEX OF SHEETS

A1 and A2 Estimate of Quantities for Sections C, E, and F
A3 and A4 Environmental Commitments

Section C - Traffic Control

PCN 081K

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
009E4100	Construction Schedule, Category I	Lump Sum	LS
633E0010	Cold Applied Plastic Pavement Marking, 4"	630	Ft
633E0030	Cold Applied Plastic Pavement Marking, 24"	16	Ft
633E0040	Cold Applied Plastic Pavement Marking, Arrow	1	Each
633E1200	High Build Waterborne Pavement Marking Paint, White	6	Gal
633E1205	High Build Waterborne Pavement Marking Paint, Yellow	10	Gal
633E1272	High Build Waterborne Pavement Marking Paint, Arrow	1	Each
633E5000	Grooving for Cold Applied Plastic Pavement Marking, 4"	630	Ft
633E5015	Grooving for Cold Applied Plastic Pavement Marking, 24"	16	Ft
633E5025	Grooving for Cold Applied Plastic Pavement Marking, Arrow	1	Each
634E0010	Flagging	40.0	Hour
634E0110	Traffic Control Signs	201.0	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0135	Traffic Control Supervisor	Lump Sum	LS
634E0275	Type 3 Barricade	4	Each
634E0525	Linear Delineation System Panel, Barrier Mounted	52	Each
634E0700	Traffic Control Movable Concrete Barrier	52	Each
634E0750	Temporary Concrete Barrier End Protection	2	Each
634E0755	Remove and Reset Temporary Concrete Barrier End Protection	2	Each
634E1002	Detour and Restriction Signing	1,053.0	SqFt
634E2015	Temporary Pedestrian Access Route	Lump Sum	LS
634E2020	Temporary Curb Ramp	1	Each
634E2025	Longitudinal Pedestrian Barrier	750	Ft

PCN 081L

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
009E4100	Construction Schedule, Category I	Lump Sum	LS
633E1200	High Build Waterborne Pavement Marking Paint, White	6	Gal
633E1205	High Build Waterborne Pavement Marking Paint, Yellow	4	Gal
634E0010	Flagging	60.0	Hour
634E0110	Traffic Control Signs	490.2	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0135	Traffic Control Supervisor	Lump Sum	LS
634E0310	Temporary Flexible Vertical Markers (Tabs)	381	Ft
634E0600	4" Temporary Pavement Marking Tape Type I	7,032	Ft
634E1002	Detour and Restriction Signing	1,026.0	SqFt

PCN 08JA

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
009E4100	Construction Schedule, Category I	Lump Sum	LS
633E1200	High Build Waterborne Pavement Marking Paint, White	3	Gal
633E1205	High Build Waterborne Pavement Marking Paint, Yellow	2	Gal
634E0010	Flagging	60.0	Hour
634E0110	Traffic Control Signs	221.8	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0135	Traffic Control Supervisor	Lump Sum	LS
634E0310	Temporary Flexible Vertical Markers (Tabs)	193	Ft
634E0600	4" Temporary Pavement Marking Tape Type I	4,688	Ft

PCN 08JC

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
009E4100	Construction Schedule, Category I	Lump Sum	LS
633E1200	High Build Waterborne Pavement Marking Paint, White	3	Gal
633E1205	High Build Waterborne Pavement Marking Paint, Yellow	1	Gal
634E0010	Flagging	60.0	Hour
634E0110	Traffic Control Signs	163.4	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0135	Traffic Control Supervisor	Lump Sum	LS
634E0310	Temporary Flexible Vertical Markers (Tabs)	209	Ft
634E0600	4" Temporary Pavement Marking Tape Type I	2,344	Ft
634E1002	Detour and Restriction Signing	477.0	SqFt

Section E - Structure

PCN 081K - Structure No. 59-398-295

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E3310	Bridge Elevation Survey	Lump Sum	LS
110E0010	Remove Concrete Bridge Approach Slab	262.7	SqYd
110E0020	Remove Bridge Railing	899	Ft
120E0010	Unclassified Excavation	15	CuYd
430E0300	Granular Bridge End Backfill	32.6	CuYd
430E0510	Approach Slab Underdrain Excavation	2.0	CuYd
460E0010	Class A45 Concrete, Bridge Barrier	4.4	CuYd
460E0150	Concrete Approach Slab for Bridge	277.6	SqYd
460E0160	Concrete Approach Sleeper Slab for Bridge	29.7	SqYd
460E0200	Special Surface Finish	5,798	SqFt
470E0120	Steel Pedestrian Railing on Sidewalk	434.0	Ft
470E0220	Steel Pedestrian Railing on Concrete Barrier	429.5	Ft
480E0200	Epoxy Coated Reinforcing Steel	1,252	Lb
480E0504	No. 4 Rebar Splice	32	Each
480E0505	No. 5 Rebar Splice	14	Each
480E0506	No. 6 Rebar Splice	51	Each
480E0508	No. 8 Rebar Splice	2	Each
491E0005	Two Coat Bridge Deck Polymer Chip Seal	2,292.8	SqYd
491E0110	Abrasive Blasting of Bridge Deck	2,292.8	SqYd
491E0120	Bridge Deck Grinding	2,292.8	SqYd
491E0130	Concrete Removal, Class A	26.2	SqYd
491E0140	Concrete Removal, Class B	26.2	SqYd
491E0172	Concrete Patching Material, Bridge Deck	152.4	CuFt
621E0300	Chain Link Fence for Bridge Sidewalk	434	Ft
651E0140	4" Reinforced Concrete Sidewalk	350	SqFt
680E0040	4" Underdrain Pipe	61	Ft
680E2500	Porous Backfill	3.8	Ton
900E8900	Anchor Bolt Coring	76.5	Ft

PCN 081L - Structure No. 28-122-513

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
491E0005	Two Coat Bridge Deck Polymer Chip Seal	500.6	SqYd
491E0110	Abrasive Blasting of Bridge Deck	500.6	SqYd
491E0120	Bridge Deck Grinding	500.6	SqYd
491E0130	Concrete Removal, Class A	40.9	SqYd
491E0140	Concrete Removal, Class B	40.9	SqYd
491E0172	Concrete Patching Material, Bridge Deck	238.0	CuFt

ESTIMATE OF QUANTITIES (SECTION E, CONTINUED)

PCN 081L - Structure No. 36-145-015

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
491E0005	Two Coat Bridge Deck Polymer Chip Seal	366.6	SqYd
491E0110	Abrasive Blasting of Bridge Deck	366.6	SqYd
491E0120	Bridge Deck Grinding	366.6	SqYd
491E0130	Concrete Removal, Class A	4.0	SqYd
491E0140	Concrete Removal, Class B	4.0	SqYd
491E0172	Concrete Patching Material, Bridge Deck	35.2	CuFt

PCN 081L - Structure No. 59-023-299

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
491E0005	Two Coat Bridge Deck Polymer Chip Seal	390.0	SqYd
491E0110	Abrasive Blasting of Bridge Deck	390.0	SqYd
491E0120	Bridge Deck Grinding	390.0	SqYd
491E0130	Concrete Removal, Class A	6.2	SqYd
491E0140	Concrete Removal, Class B	6.2	SqYd
491E0172	Concrete Patching Material, Bridge Deck	49.3	CuFt

PCN 08JA - Structure No. 43-216-034

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
491E0005	Two Coat Bridge Deck Polymer Chip Seal	220.0	SqYd
491E0110	Abrasive Blasting of Bridge Deck	220.0	SqYd
491E0120	Bridge Deck Grinding	220.0	SqYd
491E0130	Concrete Removal, Class A	4.0	SqYd
491E0140	Concrete Removal, Class B	4.0	SqYd
491E0172	Concrete Patching Material, Bridge Deck	16.2	CuFt

PCN 08JA - Structure No. 43-218-036

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
491E0005	Two Coat Bridge Deck Polymer Chip Seal	544.0	SqYd
491E0110	Abrasive Blasting of Bridge Deck	544.0	SqYd
491E0120	Bridge Deck Grinding	544.0	SqYd
491E0130	Concrete Removal, Class A	4.0	SqYd
491E0140	Concrete Removal, Class B	4.0	SqYd
491E0172	Concrete Patching Material, Bridge Deck	39.0	CuFt

PCN 08JC - Structure No. 43-422-370

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
491E0005	Two Coat Bridge Deck Polymer Chip Seal	693.4	SqYd
491E0110	Abrasive Blasting of Bridge Deck	693.4	SqYd
491E0120	Bridge Deck Grinding	693.4	SqYd
491E0130	Concrete Removal, Class A	19.1	SqYd
491E0140	Concrete Removal, Class B	19.1	SqYd
491E0172	Concrete Patching Material, Bridge Deck	240.8	CuFt

Section F - Surfacing

PCN 081K

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
110E0300	Remove Concrete Curb and/or Gutter	60	Ft
110E1010	Remove Asphalt Concrete Pavement	160.5	SqYd
110E1100	Remove Concrete Pavement	244.6	SqYd
110E1140	Remove Concrete Sidewalk	52.4	SqYd
260E1010	Base Course	10.0	Ton
260E2010	Gravel Cushion	10.0	Ton
320E1200	Asphalt Concrete Composite	71.2	Ton
380E0070	9" Nonreinforced PCC Pavement	166.7	SqYd
380E6000	Dowel Bar	48	Each
380E6110	Insert Steel Bar in PCC Pavement	48	Each
410E2600	Membrane Sealant Expansion Joint	53.3	Ft
650E0080	Type B68 Concrete Curb and Gutter	60	Ft
650E0090	Type B69 Concrete Curb and Gutter	62	Ft
651E0040	4" Concrete Sidewalk	400	SqFt

SPECIFICATIONS

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

ENVIRONMENTAL COMMITMENTS

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

Additional guidance on SDDOT's Environmental Commitments can be accessed through the Environmental Procedures Manual found at: <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.

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

COMMITMENT B: FEDERALLY THREATENED, ENDANGERED, AND PROTECTED SPECIES

COMMITMENT B2: WHOOPING CRANE

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

Action Taken/Required:

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

COMMITMENT C: WATER SOURCE

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

Action Taken/Required:

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

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

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

COMMITMENT E: STORM WATER

Construction activities constitute less than 1 acre of disturbance.

Action Taken/Required:

At a minimum and regardless of project size, appropriate erosion and sediment control measures must be installed to control the discharge of pollutants from the construction site.

COMMITMENT H: WASTE DISPOSAL SITE

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

Action Taken/Required:

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

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

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

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

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

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

The above requirements will not apply to waste disposal sites that are covered by an individual solid waste permit as specified in SDCL 34A-6-58, SDCL 34A-6-1.13, and ARSD 74:27:10:06. Failure to comply with the requirements stated above may result in civil penalties in accordance with South Dakota Solid Waste Law, SDCL 34A-6-1.31.

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

COMMITMENT I: HISTORIC PRESERVATION OFFICE CLEARANCES

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

Action Taken/Required:

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

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

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

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

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

SHPO/THPO 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.