

STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0014(186)225	1	192

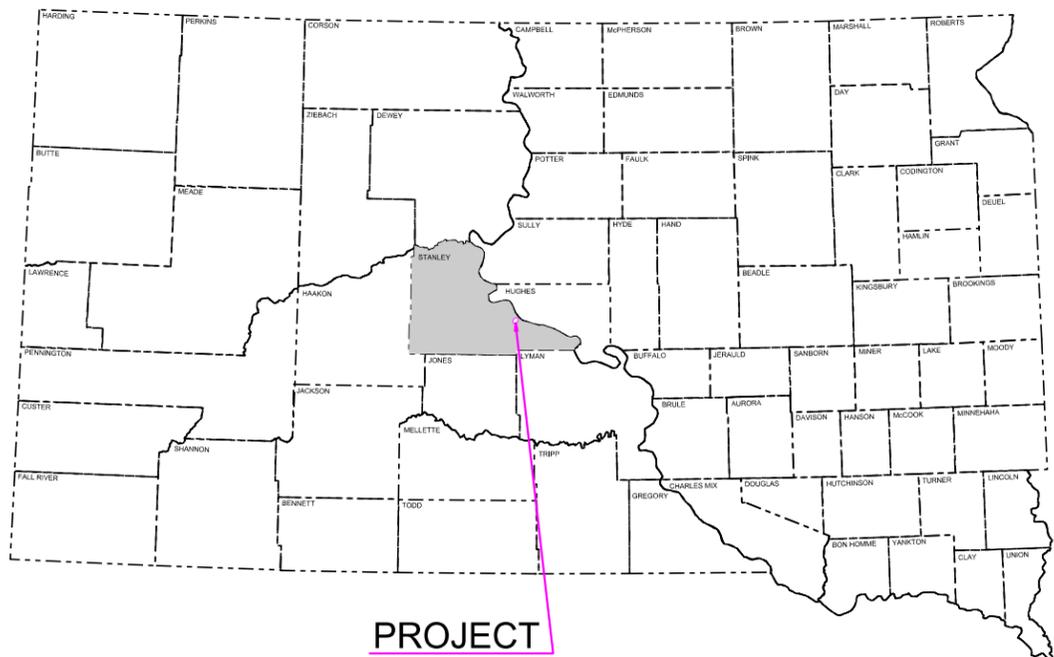
Plotting Date: 05/19/2014

PROJECT NH 0014(186)225 US HIGHWAY 14 STANLEY COUNTY

Drainage Improvements & Erosion Protection
PCN 03J4

INDEX OF SECTIONS

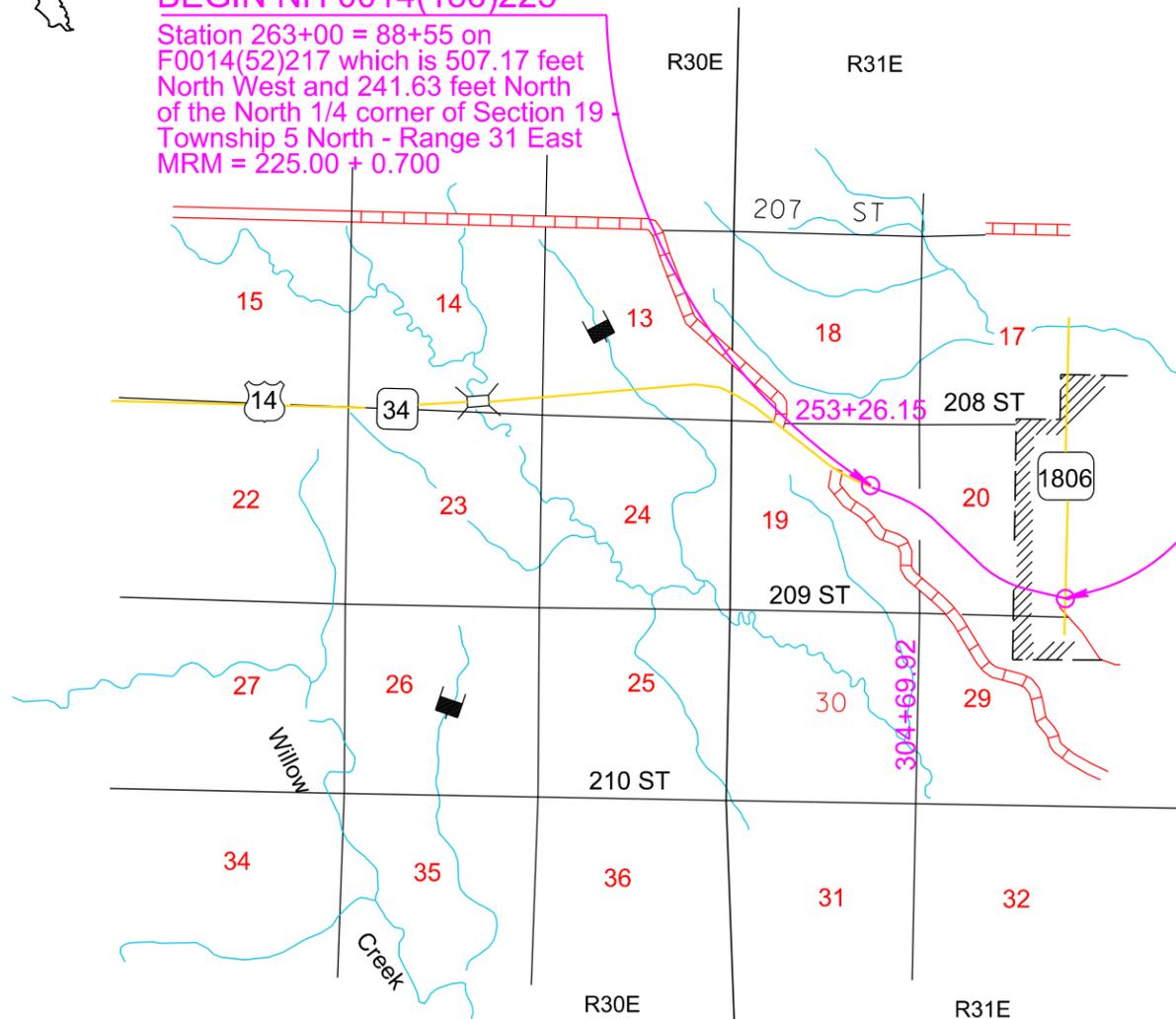
Section A:	Estimate of Quantities and Environmental Commitments
Section B:	Grading Plans
Section C:	Traffic Control Plans
Section D:	Erosion And Sediment Control Plans
Section X:	Cross Sections
Section Z:	Pipe Sections



PROJECT

BEGIN NH 0014(186)225

Station 263+00 = 88+55 on F0014(52)217 which is 507.17 feet North West and 241.63 feet North of the North 1/4 corner of Section 19 - Township 5 North - Range 31 East MRM = 225.00 + 0.700



END NH 0014(186)225

Station 351+55 = Station 351+77 on F0014(52)217 which is 207.58 feet North and 1316.69 feet East of the South 1/4 corner of Section 20 - Township 5 North - Range 31 East MRM = 226.59 + 0.000



DESIGN DESIGNATION

ADT (2013)	1436
ADT (2033)	2172
DHV	328.0
D	51%
T DHV	81%
T ADT	17.7%
V	70 mph

STORM WATER PERMIT

Major Receiving Missouri River
Body of Water:
Area Disturbed: 53 acres
Total Project Area: 80 acres
Approx. Begin 44.38595781/-100.426770421

GROSS LENGTH	8855 FEET	1.677 MILES
LENGTH OF EXCEPTIONS	0.000 FEET	0.000 MILES
NET LENGTH	8855 FEET	1.677 MILES

5

Plot Scale - 1:200

Plotted From -

Plot Name -

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ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
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Grading – Section B

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
100E0100	Clearing	Lump Sum	LS
110E0600	Remove Fence	5,295	Ft
110E7500	Remove Pipe for Reset	96	Ft
110E7510	Remove Pipe End Section for Reset	4	Each
120E0010	Unclassified Excavation	256,160	CuYd
120E6100	Water for Embankment	3,400.0	MGal
250E0020	Incidental Work, Grading	Lump Sum	LS
420E0400	Structure Excavation, Miscellaneous	16	CuYd
450E0142	24" RCP Class 2, Furnish	56	Ft
450E0150	24" RCP, Install	56	Ft
450E0162	30" RCP Class 2, Furnish	24	Ft
450E0170	30" RCP, Install	24	Ft
450E0182	36" RCP Class 2, Furnish	84	Ft
450E0190	36" RCP, Install	84	Ft
450E4758	18" CMP 14 Gauge, Furnish	90	Ft
450E4760	18" CMP, Install	90	Ft
450E4768	24" CMP 14 Gauge, Furnish	128	Ft
450E4770	24" CMP, Install	128	Ft
450E4788	36" CMP 14 Gauge, Furnish	388	Ft
450E4790	36" CMP, Install	388	Ft
450E4798	42" CMP 14 Gauge, Furnish	412	Ft
450E4800	42" CMP, Install	412	Ft
450E4818	54" CMP 14 Gauge, Furnish	94	Ft
450E4820	54" CMP, Install	94	Ft
450E5015	24" CMP Elbow, Furnish	4	Each
450E5016	24" CMP Elbow, Install	4	Each
450E5025	36" CMP Elbow, Furnish	4	Each
450E5026	36" CMP Elbow, Install	4	Each
450E5030	42" CMP Elbow, Furnish	4	Each
450E5031	42" CMP Elbow, Install	4	Each
450E5215	24" CMP Flared End, Furnish	2	Each
450E5216	24" CMP Flared End, Install	2	Each
450E5223	36" CMP Flared End, Furnish	4	Each
450E5224	36" CMP Flared End, Install	4	Each
450E5227	42" CMP Flared End, Furnish	6	Each
450E5228	42" CMP Flared End, Install	6	Each
450E5235	54" CMP Flared End, Furnish	2	Each
450E5236	54" CMP Flared End, Install	2	Each
450E5406	18" CMP Safety End, Furnish	2	Each
450E5407	18" CMP Safety End, Install	2	Each
450E8014	24" RCP to CMP Transition, Furnish	2	Each
450E8015	24" Pipe Transition, Install	2	Each
450E9000	Reset Pipe	96	Ft
450E9001	Reset Pipe End Section	4	Each
462E0100	Class M6 Concrete	18.6	CuYd
480E0100	Reinforcing Steel	2,160	Lb
600E0200	Type II Field Laboratory	1	Each
620E0020	Type 2 Right-of-Way Fence	7,307	Ft
620E0510	Type 1 Temporary Fence	6,626	Ft
620E1020	2 Post Panel	21	Each
620E1030	3 Post Panel	16	Each
680E0240	4" Corrugated Polyethylene Drainage Tubing	775	Ft
680E0440	4" Slotted Corrugated Polyethylene Drainage Tubing	6,225	Ft
680E2000	Concrete Headwall for Underdrain	5	Each
680E2010	Precast Concrete Headwall for Drain	4	Each
680E2500	Porous Backfill	2,926.0	Ton
700E0210	Class B Riprap	7,531.0	Ton
700E0310	Class C Riprap	1,298.0	Ton
831E0110	Type B Drainage Fabric	9,760	SqYd

Traffic Control – Section C

Bid Item Number	Item	Quantity	Unit
634E0010	Flagging	300	Hour
634E0100	Traffic Control	592	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS

Erosion and Sediment Control – Section D

Bid Item Number	Item	Quantity	Unit
110E1693	Remove Erosion Control Wattle	975	Ft
110E1700	Remove Silt Fence	125	Ft
230E0010	Placing Topsoil	31,320	CuYd
730E0251	Special Permanent Seed Mixture 1	1,007	Lb
731E0200	Fertilizing	53.00	Ton
732E0100	Mulching	106.0	Ton
734E0103	Type 3 Erosion Control Blanket	9,785	SqYd
734E0131	Type 1 Turf Reinforcement Mat	5,485.0	SqYd
734E0132	Type 2 Turf Reinforcement Mat	7,015.0	SqYd
734E0154	12" Diameter Erosion Control Wattle	3,900	Ft
734E0165	Remove and Reset Erosion Control Wattle	975	Ft
734E0325	Surface Roughening	27.0	Acre
734E0510	Shaping for Erosion Control Blanket	12,525	Ft
734E0604	High Flow Silt Fence	500	Ft
734E0610	Mucking Silt Fence	35	CuYd
734E0620	Repair Silt Fence	125	Ft
734E0972	Transition Mat	27.0	SqYd
900E1320	Construction Entrance	1	Each

INDEX OF SHEETS

A1	Estimate of Quantities for Sections B,C, and D
A2 to A3	Environmental Commitments

SPECIFICATIONS

Standard Specifications for Roads & Bridges, 2004 Edition and Required Provisions, Supplemental Specifications and/or Special Provisions as included in the Proposal.

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0014(186)225	A2	A3

Plotting Date: 05/19/2014

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 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 pit, or staging site associated with the project, cease construction activities in the affected area until the Whooping Crane departs and 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 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.

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 E: STORM WATER

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

Contractor Certification Form:

The "Department of Environment 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>

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 State 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 State 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 State 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.

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT NH 0014(186)225	SHEET A3	TOTAL SHEETS A3
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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 designated option borrow 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 J: CONSTRUCTION PRACTICES FOR TEMPORARY WORKS IN WATERWAYS OF THE U.S.

The Contractor is advised that special construction measures have to be taken to ensure that the waterways of the U.S. are not impacted.

Action Taken/Required:

No excavation shall be made below the ordinary high water elevation in waterways outside of caissons, cribs, cofferdams, steel piling, or sheeting; and the natural streambed shall not be disturbed unless specified by the plans and under the observation of the Project Engineer. Refer to the Table of U.S. Waterways to Protect for ordinary high water elevations.

All dredged or excavated materials shall be placed at a site above the ordinary high water elevation in a confined area (not classified as a wetland) that is a minimum of 50 feet away from concentrated flows of storm water, drainage courses, and inlets to prevent return of such material to the waterway.

The construction of temporary work platforms, crossings, or berms below the ordinary high water elevation will be allowed provided that all material placed below the ordinary high water elevation consists of Class B or larger riprap.

All temporary caissons, cribs, cofferdams, steel piling, sheeting, work platforms, crossings, and berms shall be removed with minimal disturbance to the streambed. Proper construction practices shall be used to minimize increases in suspended solids and turbidity in the waterway.

Bridge berms, wing dams, traffic diversions, channel reconstruction, grading, etc. shall be constructed in close conformity with the plans to ensure that the hydraulic capacity of the waterway is not changed.

Temporary waterway crossings required for the Contractors construction operations shall be constructed with an adequate drainage structure size and minimum fill height to reduce the potential for upstream flooding. The Contractor will be responsible for sizing the temporary drainage structure for these crossings.

Table of U.S. Waterways to Protect

Station	Waterway	Ordinary High Water Elevation
291+26	Missouri River	1673.09
299+56	Missouri River	1630.55
307+05	Missouri River	1593.41
313+56	Missouri River	1567.67
319+83	Missouri River	1553.91
330+67	Missouri River	1516.69
337+00	Missouri River	1501.39

COMMITMENT N: SECTION 404 PERMIT

The SDDOT has obtained 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.

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.