

STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0012(152)187, NH 0212(149)208, & P 1806(06)365	1	104

Plotting Date: 03/16/2016
Revised by JJR on 2/11/2016
Revised by JJR on 3/16/2016

PROJECTS NH 0012(152)187
NH 0212(149)208, & P 1806(06)365
US HIGHWAYS 12, 212, &
SD HIGHWAY 1806
CORSON, WALWORTH,
DEWEY & POTTER COUNTIES

INDEX OF SECTIONS

Section A: Estimate of Quantities and Environmental Commitments

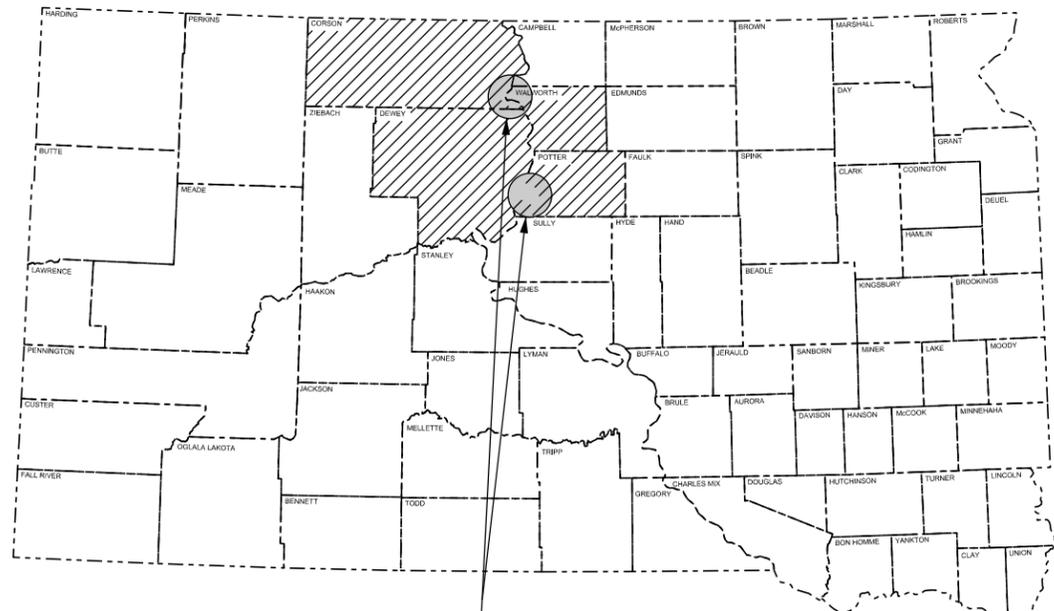
Section C: Traffic Control Plans

Section E: Structure Plans



SUBSTRUCTURE WORK
PCNS 02A6, 02A7, & 02A8

Plot Scale - 1:200



PROJECTS

DESIGN DESIGNATION - PCN 02A6

US 12 (Structure # 65-000-020)

ADT (2015)	2269
ADT (2035)	3084
DHV	473.9
D	51%
T DHV	6.1%
T ADT	13.5%
V	55 MPH

DESIGN DESIGNATION - PCN 02A7

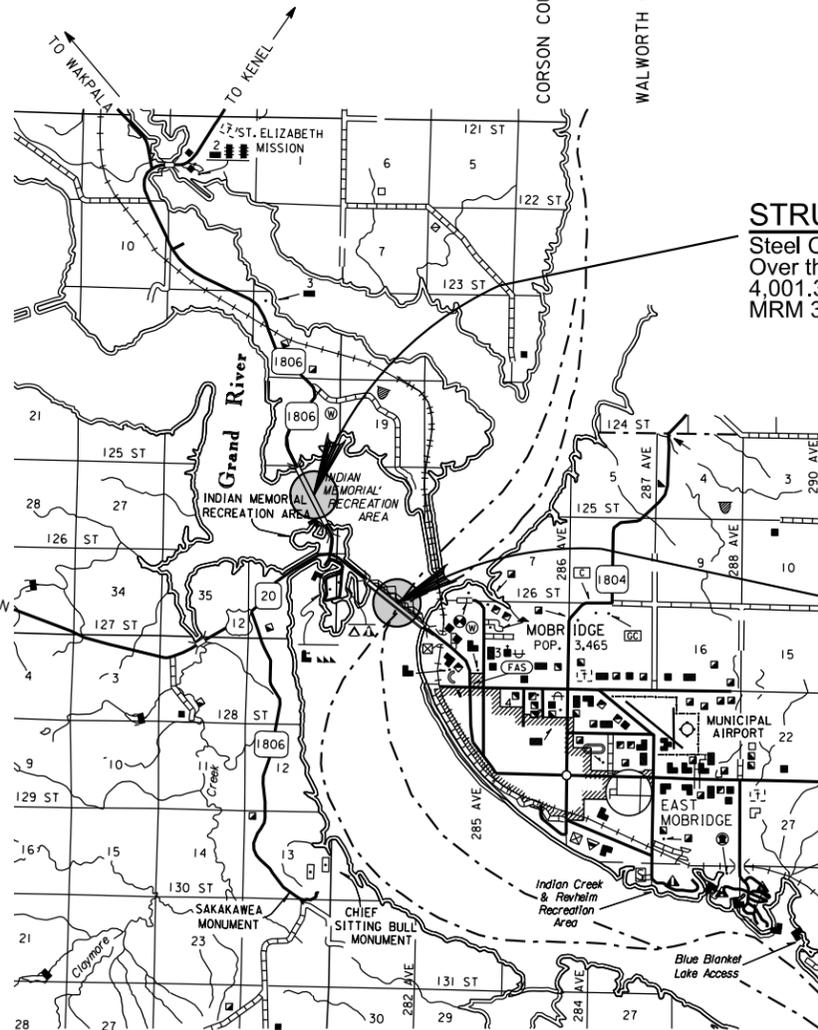
SD 1806 (Structure # 16-737-253)

ADT (2015)	941
ADT (2035)	1284
DHV	197.7
D	51%
T DHV	2.0%
T ADT	4.4%
V	55 MPH

DESIGN DESIGNATION - PCN 02A8

US 212 (Structure # 54-056-158)

ADT (2015)	630
ADT (2035)	764
DHV	117.7
D	51%
T DHV	7.4%
T ADT	16.3%
V	30 MPH



STRUCTURE # 16-737-253 - PCN 02A7

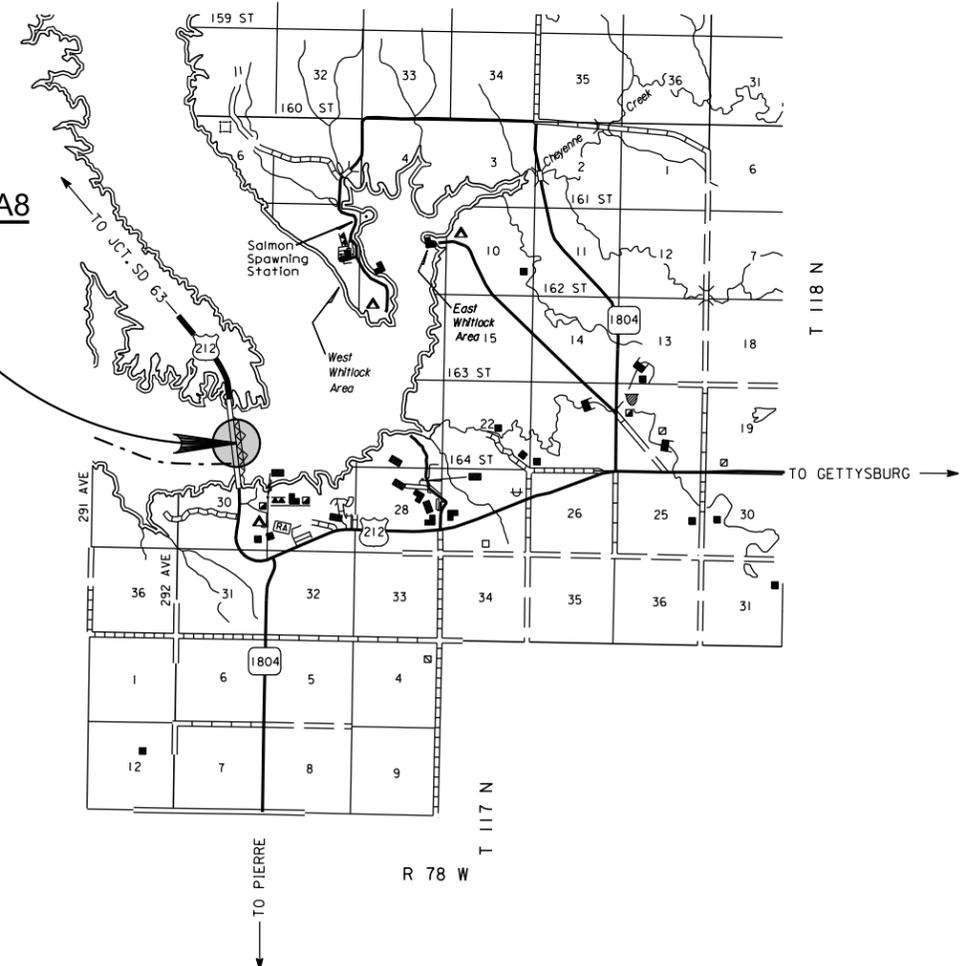
Steel Continuous Girder Bridge
Over the Grand River
4,001.3 Feet = 0.758 Mile
MRM 365.72

STRUCTURE # 54-056-158 - PCN 02A8

Steel Continuous Truss Bridge
Over the Missouri River
4,619.3 Feet = 0.875 Mile
MRM 208.53

STRUCTURE # 65-000-020 - PCN 02A6

Steel Continuous Truss Bridge
Over the Missouri River
5,058.5 Feet = 0.958 Mile
MRM 187.15



STORM WATER PERMIT
(None Required)

R 29 E

R 30 E

Plotted From - trp25584

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ESTIMATE OF QUANTITIES

Revised by JJR on 03/16/2016

STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
S.D.	NH 0012(152)187, NH 0212(149)208, & P 1806(06)365	A1	A3

SECTION C – TRAFFIC CONTROL

NH 0012(152)187 – PCN 02A6

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
634E0010	Flagging	360.0	Hour
634E0110	Traffic Control Signs	238	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E1002	Detour Signing	456.0	SqFt

P 1806(06)365 – PCN 02A7

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
634E0010	Flagging	180.0	Hour
634E0110	Traffic Control Signs	238	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E1002	Detour Signing	171.0	SqFt

NH 0212(149)208 – PCN 02A8

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
634E0010	Flagging	150.0	Hour
634E0110	Traffic Control Signs	238	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E1002	Detour Signing	399.0	SqFt

Index of Sheets
Sheet A1: Estimate of Quantities
Sheet A2: Environmental Commitment Notes

SECTION E – STRUCTURE

NH 0012(152)187 – PCN 02A6

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
460E0174	Concrete Patching Material, Miscellaneous	24.6	CuFt
460E0190	Concrete Crack Injection/Sealing	72	In
460E0240	Concrete Crack Healer/Sealer	207	SqFt
460E0300	Breakout Structural Concrete	0.9	CuYd
480E5000	Galvanic Anode	25	Each

P 1806(06)365 – PCN 02A7

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
460E0174	Concrete Patching Material, Miscellaneous	36.6	CuFt
460E0300	Breakout Structural Concrete	1.4	CuYd
480E5000	Galvanic Anode	27	Each

NH 0212(149)208 – PCN 02A8

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
460E0174	Concrete Patching Material, Miscellaneous	34.3	CuFt
460E0190	Concrete Crack Injection/Sealing	168	In
460E0300	Breakout Structural Concrete	1.3	CuYd
480E5000	Galvanic Anode	27	Each

SPECIFICATIONS

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

Revised by JJR on 03/09/2016
Revised by JJR on 03/16/2016

STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
S.D.	NH 0012(152)187, NH 0212(149)208, & P 1806(06)365	A2	A3

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 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 D: WATER QUALITY STANDARDS

COMMITMENT D1: SURFACE WATER QUALITY

These segments of the Missouri River are classified as a cold water permanent fishery with a total suspended solids standard of 30 milligrams/liter.

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 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 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 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.

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: Contractor furnished material sources, material processing sites, stockpile sites, storage areas, plant sites, and waste areas.

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 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 shall provide the required permits and clearances to the Project Engineer at the preconstruction meeting.

STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
S.D.	NH 0012(152)187, NH 0212(149)208, & P 1806(06)365	A3	A3

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

Structure	Waterway	Ordinary High Water Elevation
65-000-020	Missouri River	1617
54-056-158	Missouri River	1617
16-737-253	Missouri River	1617