

Plotting Date: 08/18/2016

STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED

NH 0050(108)385
SD HIGHWAY 50 & 50W
YANKTON COUNTY

PCC Overlay, PCC Surfacing, Curb and Gutter, Pavement Marking, Median Crossover, Guardrail, Cutoff Drain, and Edge Drains

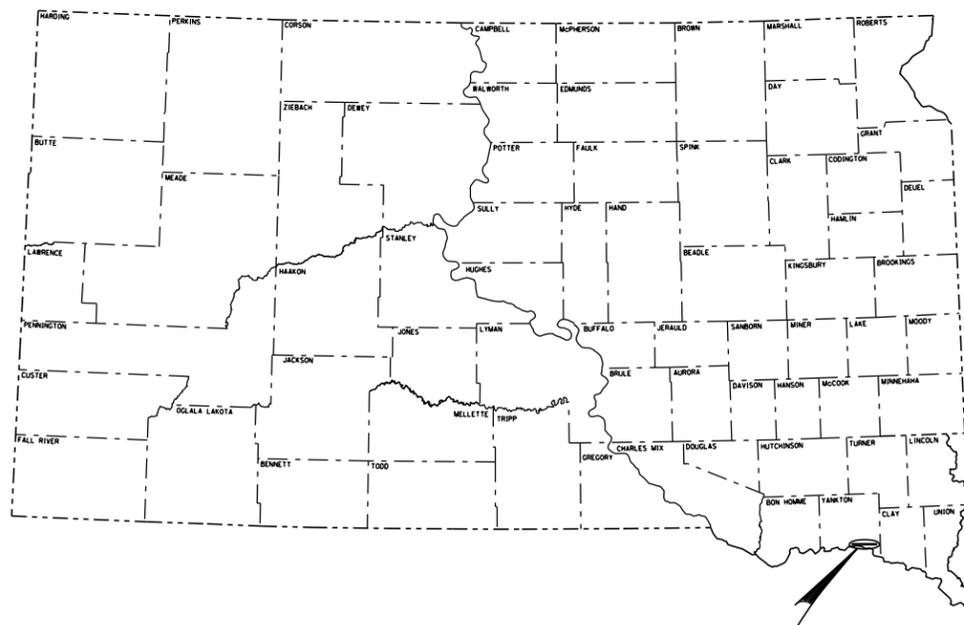
PCN 023U

INDEX OF SECTIONS

- Section A: Estimate of Quantities
- Section B: Traffic Control Plans
- Section C: Erosion Control
- Section F: Surfacing Plans
- Section M: Pavement Marking Plans



PLOT SCALE - 1:7920.02



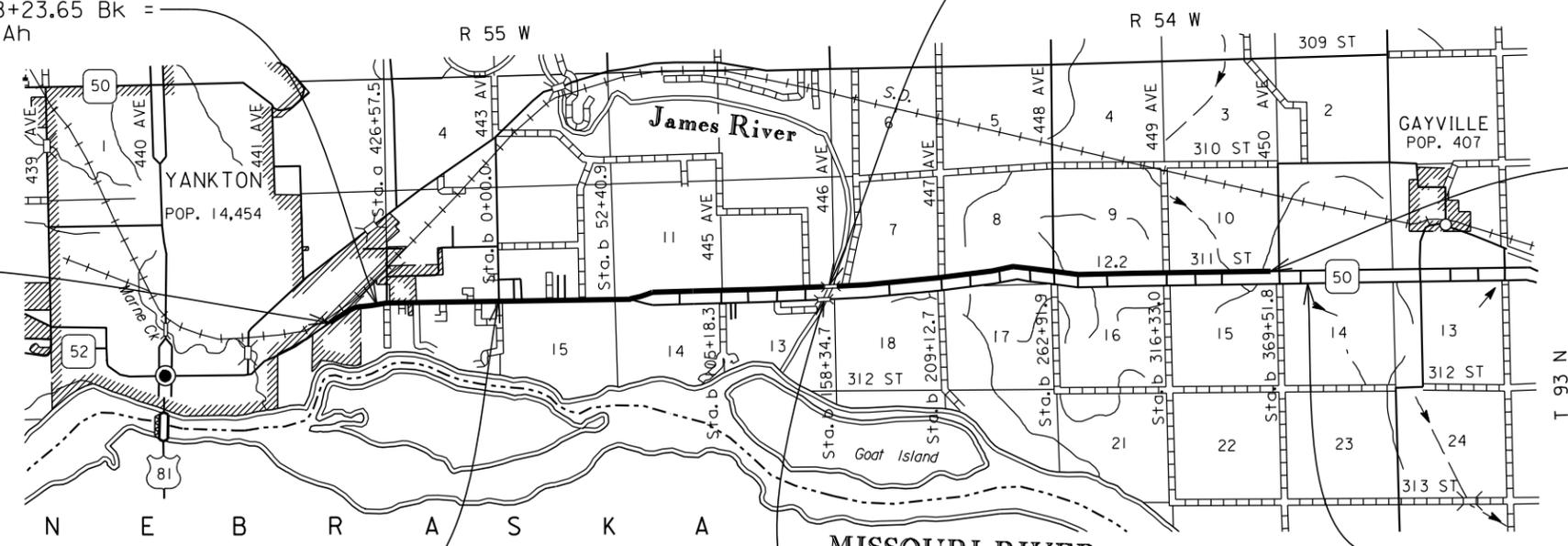
PROJECT

Equation: Sta. 418+23.65 Bk =
Sta. a 418+27.65 Ah

Surfacing Exception
Sta. b 155+56.66 to Sta. b 159+48.47 WB
Str. # 68-180-199/Approach Slabs
MRM 390.05 (SD 50W)

BEGIN NH 0050(108)385

Station 398+73.0
MRM = 385.48 +0.000



END NH 0050(108)385

Station b 368+13.6
M.R.M.= 394.00 + 0.034

Equation: Sta. a 479+07.3 Bk =
Sta. b 0+00.0 Ah

Str. # 68-180-200
MRM 390.05 (SD 50E)

Sta. b 382+30
Median Crossover

SD 50 DESIGN DESIGNATION		SD 50W DESIGN DESIGNATION	
ADT (2015)	8371	ADT (2015)	2423
ADT (2035)	11268	ADT (2035)	3291
DHV	1476	DHV	431
D	52%	D	100%
T DHV	6.3%	T DHV	8.3%
T ADT	13.8%	T ADT	18.2%
V	50 MPH	V	70 MPH

SD 50 & SD 50W
STORM WATER PERMIT
Major Receiving
Body of Water: James River
Yankton Clay Ditch
Area Disturbed: 95.7 Ac
Total Project Area: 290.4 Ac
Approx. Begin Lat/Long: 42.8780, -97.3673

SD 50 & SD 50W		
GROSS LENGTH	44,843.90 FEET	8.493 MILES
LENGTH OF EXCEPTIONS	391.81 FEET	0.074 MILES
NET LENGTH	44,452.09 FEET	8.419 MILES

PLOTTED FROM - TRPR16032

FILE - ... \PRJ\YANK\023U\TITLE A 023U.DGN

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	NH 0050(108)385	A1	A3

SECTION F Surfacing Plans

Revised: 1 Sep 16, RML

INDEX OF SHEETS

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

SPECIFICATIONS

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

Section C – Traffic Control

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
633E1305	Pavement Marking Paint, Yellow	169	Gal
634E0010	Flagging	200.0	Hour
634E0110	Traffic Control Signs	2,332.3	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0135	Traffic Control Supervisor	Lump Sum	LS
634E0280	Type 3 Barricade, 8' Single Sided	46	Each
634E0285	Type 3 Barricade, 8' Double Sided	5	Each
634E0340	Temporary Raised Pavement Markers	37.4	Mile
634E0380	Tubular Marker	777	Each
634E0390	Replace Tubular Marker	150	Each
634E0420	Type C Advance Warning Arrow Board	2	Each
634E0560	Remove Pavement Marking, 4" or Equivalent	850	Ft
634E0600	4" Temporary Pavement Marking Tape Type I	1,008	Ft
634E0630	Temporary Pavement Marking	23.6	Mile
634E1002	Detour Signing	570.0	SqFt

Section D – Erosion and Sediment Control

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
110E1700	Remove Silt Fence	750	Ft
230E0100	Remove and Replace Topsoil	Lump Sum	LS
730E0212	Type G Permanent Seed Mixture	780	Lb
731E0200	Fertilizing	15.00	Ton
732E0100	Mulching	60.0	Ton
734E0602	Low Flow Silt Fence	1,000	Ft
734E0604	High Flow Silt Fence	2,000	Ft
734E0610	Mucking Silt Fence	208	CuYd
734E0620	Repair Silt Fence	750	Ft

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
004E0050	Remove Traffic Diversion(s)	Lump Sum	LS
009E0010	Mobilization	Lump Sum	LS
009E3230	Grade Staking	25.530	Mile
009E3240	Graded Centerline Staking	8.419	Mile
009E3250	Miscellaneous Staking	8.419	Mile
009E3280	Slope Staking	8.419	Mile
009E3300	Three Man Survey Crew	40.0	Hour
009E4300	Construction Schedule, Category III	Lump Sum	LS
110E0300	Remove Concrete Curb and/or Gutter	510	Ft
110E0415	Remove Edge Drains	Lump Sum	LS
110E0700	Remove 3 Cable Guardrail	478	Ft
110E0730	Remove Beam Guardrail	300.0	Ft
110E0740	Remove 3 Cable Guardrail Anchor Assembly	1	Each
110E0745	Remove 3 Cable Guardrail Slip Base Anchor Assembly	2	Each
110E0770	Remove W Beam Guardrail Breakaway Cable Terminal	2	Each
110E0800	Remove W Beam Guardrail End Terminal	2	Each
110E1100	Remove Concrete Pavement	9,401.0	SqYd
120E0010	Unclassified Excavation	3,252	CuYd
120E0600	Contractor Furnished Borrow Excavation	16,666	CuYd
120E6100	Water for Embankment	214.9	MGal
120E6200	Water for Granular Material	529.8	MGal
120E9000	Pit Run	922.5	Ton
260E1010	Base Course	17,474.9	Ton
260E1030	Base Course, Salvaged	20,517.1	Ton
260E2010	Gravel Cushion	2,301.5	Ton
260E2030	Gravel Cushion, Salvaged	2,702.2	Ton
260E6000	Granular Material, Furnish	10,829.4	Ton
270E0040	Salvage and Stockpile Asphalt Mix and Granular Base Material	1,560.5	Ton
270E0220	Blend and Stockpile Granular Material	21,658.8	Ton
320E0004	PG 58-28 Asphalt Binder	716.0	Ton
320E1070	Class HR Asphalt Concrete	17,907.8	Ton
320E1200	Asphalt Concrete Composite	240.0	Ton
320E3000	Compaction Sample	3	Each
320E5010	Saw and Seal Shoulder Joint	87,666	Ft
320E7012	Grind 12" Rumble Strip or Stripe in Asphalt Concrete	5.3	Mile
330E0010	MC-70 Asphalt for Prime	115.0	Ton
330E0100	SS-1h or CSS-1h Asphalt for Tack	30.9	Ton
330E0210	SS-1h or CSS-1h Asphalt for Flush Seal	20.3	Ton
330E2000	Sand for Flush Seal	104.4	Ton
332E4000	Micro-Milling Asphalt Concrete	134,619	SqYd
380E0070	9" Nonreinforced PCC Pavement	9,646.4	SqYd
380E1500	PCC Overlay, Furnish	36,895.9	CuYd
380E1570	7" PCC Overlay, Placement	173,000.1	SqYd

SECTION F Surfacing Plans (Continued)

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
380E3530	7" PCC Approach Pavement	82.2	SqYd
380E5010	Fast Track Concrete	10,997.8	SqYd
380E6000	Dowel Bar	108,806	Each
380E6110	Insert Steel Bar in PCC Pavement	617	Each
410E2600	Membrane Sealant Expansion Joint	52.0	Ft
430E0700	Precast Concrete Headwall for Drain	24	Each
600E0300	Type III Field Laboratory	1	Each
629E0100	3 Cable Guardrail	247	Ft
629E0300	3 Cable Guardrail Slip Base Anchor Assembly	1	Each
630E1010	Straight Class A W Beam Guardrail with Wood Posts	200.0	Ft
630E2020	W Beam Guardrail Tangent End Terminal	1	Each
630E2030	W Beam Guardrail Breakaway Cable Terminal	1	Each
650E0070	Type B67 Concrete Curb and Gutter	398	Ft
650E4670	Type P7 Concrete Gutter	112	Ft
650E6070	7" Concrete Valley Gutter	112	Ft
680E0010	Edge Drain	3,527	Ft
680E0015	Edge Drain Outlet	24	Each
680E0025	Adjust Edge Drain Outlet	145	Each
680E0100	Cutoff Drain	1	Each
831E0210	Non-woven Separator Fabric	1,202	SqYd
831E1500	Geotextile Bond Breaker Fabric	211,251	SqYd
900E0010	Refurbish Single Mailbox	24	Each
900E0012	Refurbish Double Mailbox	10	Each

Section M – Pavement Marking

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
633E1300	Pavement Marking Paint, White	282	Gal
633E1305	Pavement Marking Paint, Yellow	351	Gal

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	NH 0050(108)385	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 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 D2: SURFACE WATER DISCHARGE

The James River is classified as a warm water semi-permanent fishery with a Surface Water Discharge standard of 90 milligrams/liter total suspended solids.

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

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://www.sddot.com/business/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>

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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 Public 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 Public 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 Public 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.