STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
S.D.	P 0073(68)0 & P 0073(65)9	1	71

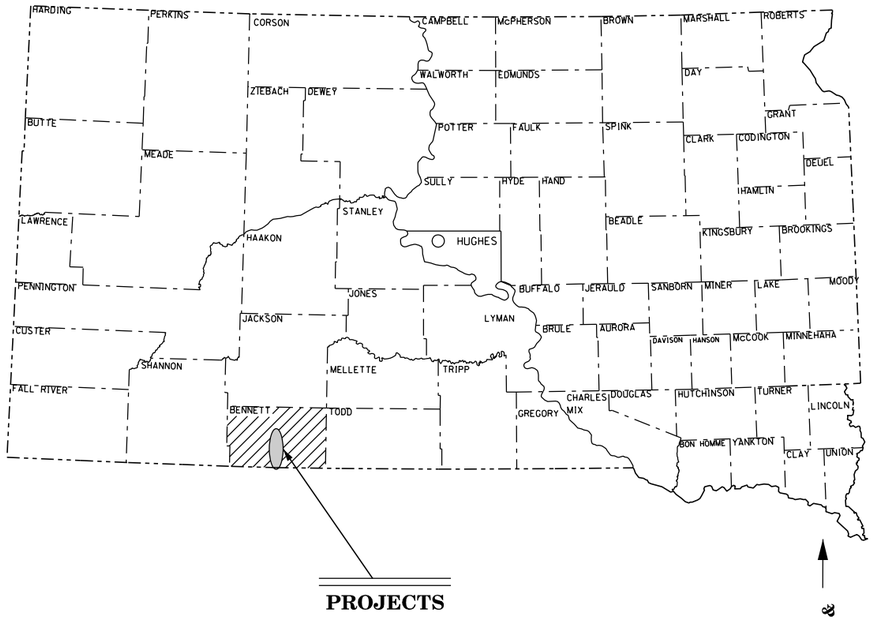
STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED

PROJECTS P 0073(68)0 & P 0073(65)9
SD HIGHWAY 73
BENNETT COUNTY

COLD MILLING ASPHALT CONCRETE TRANSITIONS,
ASPHALT CONCRETE RESURFACING,
EPOXY CHIP SEAL, GUARDRAIL REPLACEMENT, & RUMBLE STRIPES

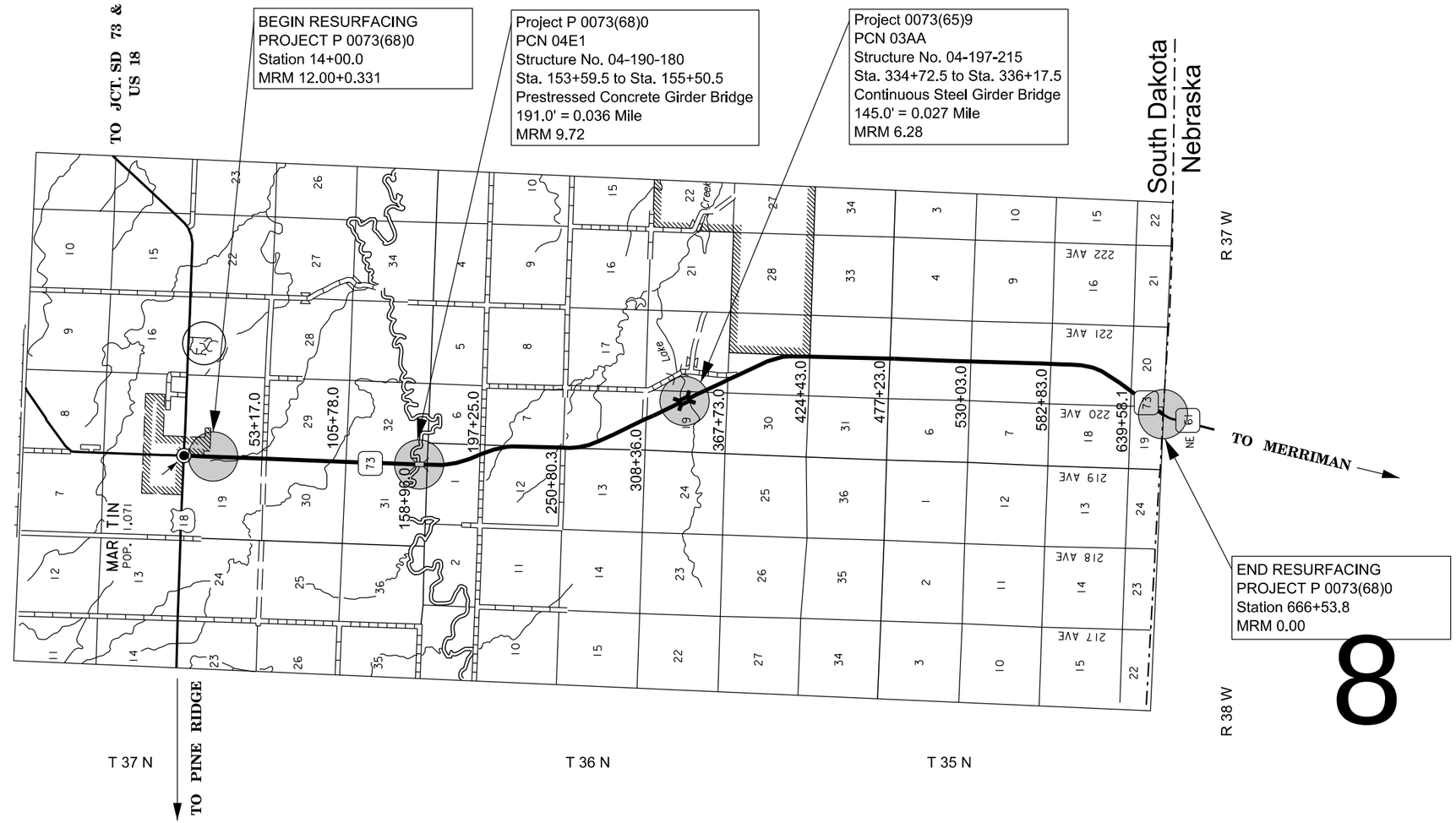
PCNS 04E1 & 03AA



PROJECTS

INDEX OF SECTIONS

Section A Title Sheet, Estimate of Quantities, & Environmental Commitments
Section C Traffic Control Plans
Section E Structure Plans
Section F Surfacing Plans



DESIGN DESIGNATION
(SD HIGHWAY 73)

ADT (2013)	377
ADT (2033)	427
DHV	51.7
D	51%
T DHV	14.8%
T ADT	32.6%
V	65 MPH

STORM WATER PERMIT
NONE REQUIRED

SD HIGHWAY 73

RESURFACING LENGTH	64,917.80 FEET	12.295 MILES
LENGTH OF BRIDGE WORK	336.00 FEET	0.064 MILES
GROSS PROJECT LENGTH	65,253.80 FEET	12.359 MILES

8

ESTIMATE OF QUANTITIES

Revised by JJR on 12/09/14
Revised by JJR on 12/17/14
Revised by JJR on 1/15/15
Revised by JJR on 1/23/15

STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
S.D.	P 0073(68)0 & P 0073(65)9	A1	A3

SECTION C – TRAFFIC CONTROL

P 0073(68)0 – PCN 04E1

Bid Item Number	Item	Quantity	Unit
633E1300	Pavement Marking Paint, White	418.0	Gal
633E1305	Pavement Marking Paint, Yellow	148.5	Gal
634E0010	Flagging	400	Hour
634E0020	Pilot Car	200	Hour
634E0100	Traffic Control	1,542	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0610	4" Temporary Pavement Marking Tape Type 2	8,928	Ft
634E0630	Temporary Pavement Marking	24.6	Mile

SECTION E – STRUCTURES

P 0073(65)9 – PCN 03AA: Structure No. 04-197-215

Bid Item Number	Item	Quantity	Unit
110E0022	Remove Thrie Beam Bridge Rail for Reset	382.0	Ft
460E0172	Concrete Patching Material, Bridge Deck	26.5	CuFt
470E0460	Reset Thrie Beam Bridge Rail	382.0	Ft
491E0015	Two Coat Bridge Deck Epoxy Chip Seal	636.6	SqYd
491E0110	Abrasive Blasting of Bridge Deck	636.6	SqYd
491E0120	Bridge Deck Grinding	636.6	SqYd
491E0130	Concrete Removal, Class A	4.5	SqYd
491E0140	Concrete Removal, Class B	4.5	SqYd

P 0073(68)0 – PCN 04E1: Structure No. 04-190-180

Bid Item Number	Item	Quantity	Unit
110E0022	Remove Thrie Beam Bridge Rail for Reset	290.0	Ft
462E0200	Controlled Density Fill	8.7	CuYd
470E0460	Reset Thrie Beam Bridge Rail	290.0	Ft

SECTION F – SURFACING

P 0073(65)9 – PCN 03AA

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS

P 0073(68)0 – PCN 04E1

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
009E3210	Construction Staking	24.592	Mile
009E3300	Three Man Survey Crew	40.0	Hour
009E4200	Construction Schedule, Category II	Lump Sum	LS
110E0300	Remove Concrete Curb and Gutter	176	Ft
110E0730	Remove Beam Guardrail	856.0	Ft
110E1690	Remove Sediment	0.5	CuYd
110E1693	Remove Erosion Control Wattle	50	Ft
110E1700	Remove Silt Fence	120	Ft
110E7700	Remove Drop Inlet Frame and Grate Assembly for Reset	8	Each
120E0010	Unclassified Excavation	349	CuYd
120E0100	Unclassified Excavation, Digouts	618	CuYd
120E0600	Contractor Furnished Borrow	741	CuYd
230E0100	Remove and Replace Topsoil	Lump Sum	LS
260E1010	Base Course	2,439.9	Ton
260E1030	Base Course, Salvaged	1,114.9	Ton
270E0040	Salvage and Stockpile Asphalt Mix and Granular Base Material	856.2	Ton
320E0007	PG 64-28 Asphalt Binder	1,786.4	Ton
320E1002	Class Q2 Hot Mixed Asphalt Concrete	31,699.8	Ton
320E4000	Hydrated Lime	316.2	Ton
320E7012	Grind 12" Rumble Strip or Stripe in Asphalt Concrete	24.6	Mile
330E0100	SS-1h or CSS-1h Asphalt for Tack	63.3	Ton
330E0210	SS-1h or CSS-1h Asphalt for Flush Seal	55.5	Ton
330E2000	Sand for Flush Seal	639.4	Ton
332E0010	Cold Milling Asphalt Concrete	5,467	SqYd
460E0380	Install Dowel in Concrete	24	Each
480E0200	Epoxy Coated Reinforcing Steel	596	Lb
600E0300	Type III Field Laboratory	1	Each
630E0110	Straight Double Class A Thrie Beam Guardrail with Wood Posts	100.0	Ft
630E1140	Straight Double Class A W Beam Guardrail with Wood Posts	850.0	Ft
630E2000	W Beam to Thrie Beam Guardrail Transition	8	Each
630E2015	W Beam Guardrail Flared End Terminal	8	Each
632E2220	Guardrail Delineator	24	Each
650E2100	Special Concrete Curb and Gutter	176	Ft
670E7000	Reset Drop Inlet Frame and Grate Assembly	8	Each
734E0010	Erosion Control	Lump Sum	LS
734E0154	12" Diameter Erosion Control Wattle	200	Ft
734E0165	Remove and Reset Erosion Control Wattle	50	Ft
734E0604	High Flow Silt Fence	480	Ft
734E0610	Mucking Silt Fence	33	CuYd
734E0620	Repair Silt Fence	120	Ft
831E0300	MSE Geotextile Fabric	1,998	SqYd
900E0010	Refurbish Single Mailbox	10	Each
900E0012	Refurbish Double Mailbox	3	Each
900E1980	Storage Unit	1	Each

SPECIFICATIONS

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

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 B3: AMERICAN BURYING BEETLE

This project is located in an area that contains habitat associated with the American Burying Beetle. Project clearance with the SD-USFWS office has been achieved for all work included within the project limits and all designated option borrow sites provided in the plans.

Action Taken/Required:

Earth disturbing activities shall not occur outside the plans designated work limits unless specifically addressed in the plans. The Contractor is responsible for obtaining USFWS review for any borrow sites, staging areas, waste sites, additional easement, and other ground disturbing activities outside the project limits as shown in the plans. The Contractor shall provide the Project Engineer a copy of the USFWS review prior to commencing any work outside the project limits as shown in the plans.

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.

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 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.

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

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.

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.