

Plotting Date: 07/29/2015

INDEX OF SECTIONS

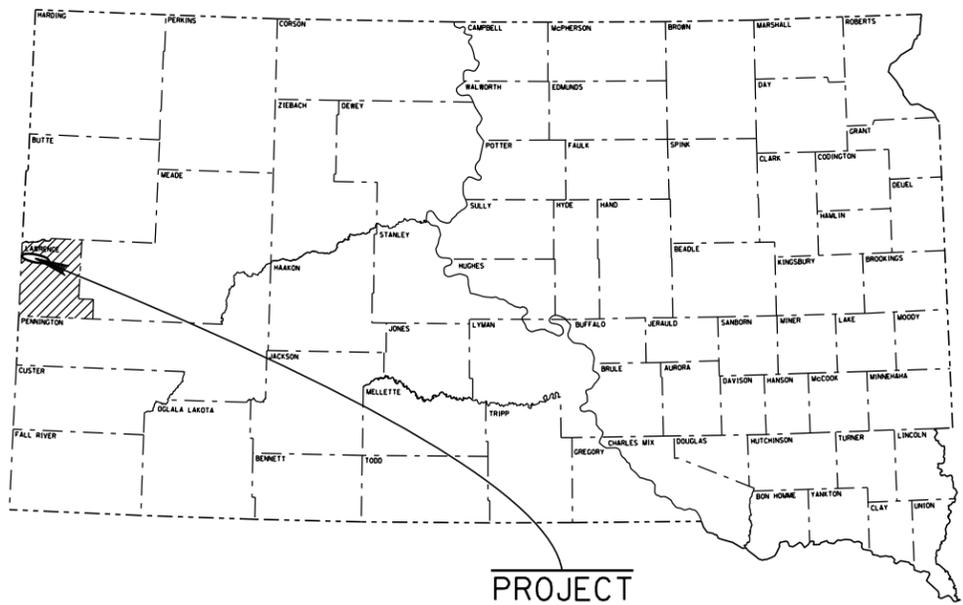
- Section A: Estimate of Quantities
- Section C: Traffic Control Plans
- Section D: Erosion Control Plans
- Section F: Surfacing Plans
- Section M: Pavement Marking

STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED

**IM 0901(186)0**  
**INTERSTATE 90**  
**LAWRENCE COUNTY**

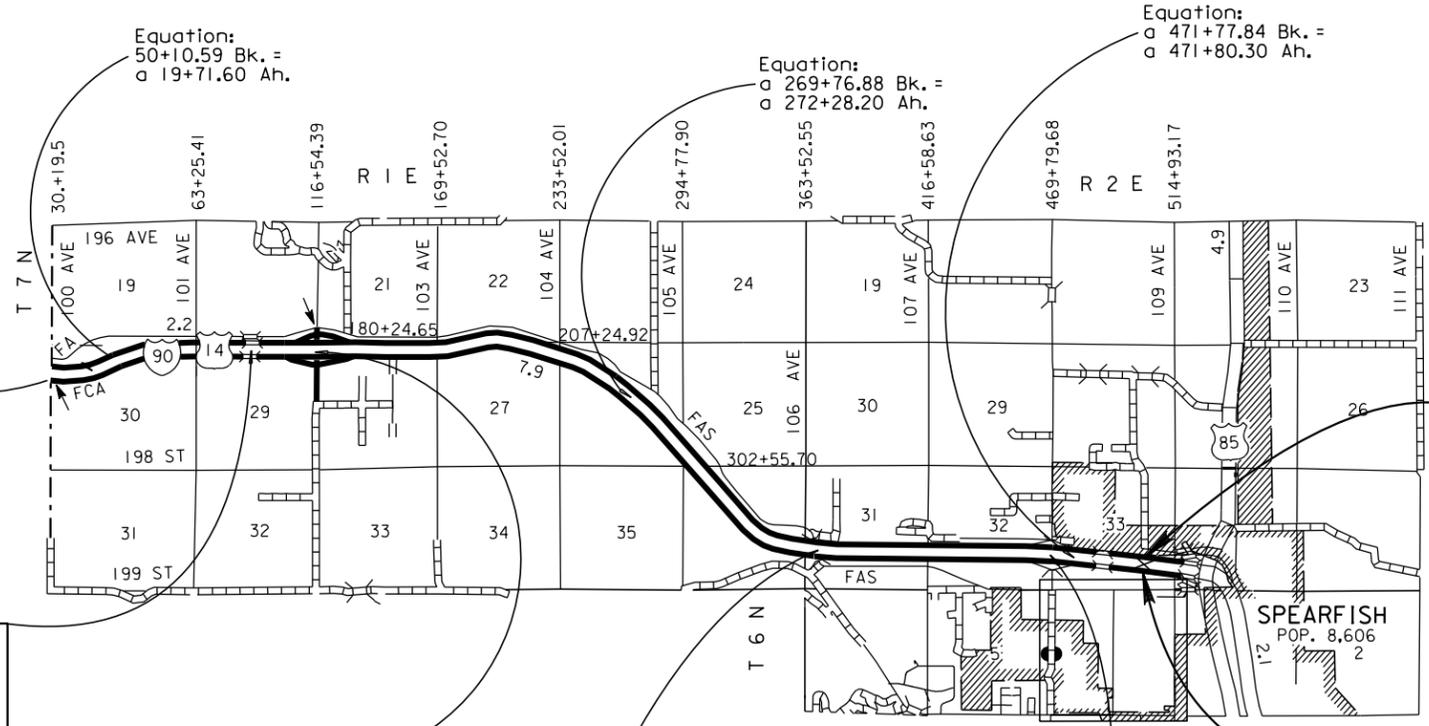
Crack & Seat PCC Pavement, Culvert Repair,  
Guardrail, Asphalt Concrete Surfacing,  
Shoulder Shaping, and Permanent Pavement Marking  
PCN 04DA



PROJECT

**Begin IM 0901(186)0**

Sta. 30+19.15 EBL & WBL  
1534.84' South of Northwest  
corner of Section 30-T7N-R1E ,B.H.M  
MRM 0.00 +0.000



**End IM 0901(186)0**

Sta. a 515+41.5 WBL, Approximately 1099.4 feet  
North and 759.1 feet West of the  
Southeast corner of Section 33-T7N-R2E,  
MRM 9.34 +0.478

Exception:  
Westbound MRM 1.71  
Str. No. 41-015-041  
Sta. a 88+06.81 to Sta. a 89+95.19

Exception:  
Eastbound MRM 1.71  
Str. No. 41-015-042  
Sta. a 88+06.81 to Sta. a 89+95.19

Exception:  
Westbound MRM 2.25  
Str. No. 41-020-041  
Sta. a 115+53.79 to Sta. a 117+54.99

Exception:  
Eastbound MRM 2.25  
Str. No. 41-020-042  
Sta. a 115+53.79 to Sta. a 117+54.99

Exception:  
Westbound MRM 7.02  
Str. No. 41-061-056  
Sta. a 365+21.5 to Sta. a 367+71.4

Exception:  
Eastbound MRM 7.02  
Str. No. 41-061-057  
Sta. a 366+09.0 to Sta. a 368+56.0

Exception:  
Westbound MRM 8.96  
Str. No. 41-080-057  
Sta. a 468+86.15 to Sta. a 470+69.35

Exception:  
Eastbound MRM 8.96  
Str. No. 41-080-058  
Sta. a 468+85.01 to Sta. a 470+68.21

**End IM 0901(186)0**

Sta. a 515+41.5 EBL, Approximately 1015.8 feet  
North and 767.6 feet West of the  
Southeast corner of Section 33-T7N-R2E,  
MRM 9.34 +0.469

DESIGN DESIGNATION

ADT (2013)	2634
ADT (2033)	4352
DHV	566
D	50%
T DHV	7.7%
T ADT	16.4%
V	75 MPH

STORM WATER PERMIT

MAJOR STREAM - Red Water River,  
Spearfish Creek, Crow Creek,  
Lake Creek

ACRES DISTURBED - 63

PROJECT AREA - 226

LATITUDE = 44.5423892

LONGITUDE = -104.0558906

	1 90 EBL		1 90 WBL		TOTAL	
GROSS LENGTH	51307.21 FEET	9.717 MILES	51307.21 FEET	9.717 MILES	102614.42 FEET	19.434 MILES
LENGTH OF EXCEPTIONS	819.78 FEET	0.155 MILES	822.68 FEET	0.156 MILES	1642.46 FEET	0.311 MILES
NET LENGTH	50487.43 FEET	9.562 MILES	50484.53 FEET	9.561 MILES	100971.96 FEET	19.123 MILES

PLOT SCALE - 1:15280

PLOTTED FROM - TRPR15123

FILE - ... \PRJ\LAWR04DA & 04DC\TITLE.DGN

# ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	IM 0901(186)0	A1	A3

## SPECIFICATIONS

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

### Section C – Traffic Control

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
634E0010	Flagging	2,000.0	Hour
634E0110	Traffic Control Signs	1,853	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0135	Traffic Control Supervisor	Lump Sum	LS
634E0285	Type 3 Barricade, 8' Double Sided	4	Each
634E0420	Type C Advance Warning Arrow Board	4	Each
634E0630	Temporary Pavement Marking	77.6	Mile
634E1215	Contractor Furnished Portable Changeable Message Sign	4	Each
634E1255	Contractor Furnished Speed Monitoring Radar Trailer	2	Each

### Section D – Erosion Control

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
110E1690	Remove Sediment	9.2	CuYd
110E1700	Remove Silt Fence	1,000	Ft
230E0100	Remove and Replace Topsoil	Lump Sum	LS
730E0210	Type F Permanent Seed Mixture	1,638	Lb
731E0200	Fertilizing	47.25	Ton
732E0100	Mulching	126.0	Ton
734E0154	12" Diameter Erosion Control Wattle	4,000	Ft
734E0602	Low Flow Silt Fence	2,000	Ft
734E0604	High Flow Silt Fence	2,000	Ft
734E0610	Mucking Silt Fence	280	CuYd
734E0620	Repair Silt Fence	1,000	Ft
900E1320	Construction Entrance	1	Each

### Section F – Surfacing

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
009E3230	Grade Staking	4,704	Mile
009E3250	Miscellaneous Staking	2,352	Mile
009E3280	Slope Staking	2,352	Mile
009E3300	Three Man Survey Crew	100.0	Hour
009E3320	Checker	Lump Sum	LS
110E0700	Remove 3 Cable Guardrail	117	Ft
110E0740	Remove 3 Cable Guardrail Anchor Assembly	8	Each
110E0745	Remove 3 Cable Guardrail Slip Base Anchor Assembly	8	Each
110E6000	Remove 3 Cable Guardrail for Reset	4,379	Ft
110E6230	Remove W Beam Guardrail for Reset	950.0	Ft
110E6240	Remove W Beam to Thrie Beam Guardrail Transition for Reset	2	Each
110E6260	Remove W Beam Guardrail Breakaway Cable Terminal for Reset	16	Each
110E7510	Remove Pipe End Section for Reset	4	Each
120E0010	Unclassified Excavation	4,323	CuYd
120E0100	Unclassified Excavation, Diggouts	478	CuYd
120E0600	Contractor Furnished Borrow Excavation	17,713	CuYd
120E4100	Reprofiling Ditch	2.5	Sta
120E6100	Water for Embankment	229.3	MGal
120E6200	Water for Granular Material	174.4	MGal
210E2000	Shoulder Shaping	1,408	Mile
250E0010	Incidental Work	Lump Sum	LS
260E1010	Base Course	10,728.0	Ton
260E1030	Base Course, Salvaged	3,795.0	Ton
270E0040	Salvage and Stockpile Asphalt Mix and Granular Base Material	3,795.0	Ton
320E1080	Class S Asphalt Concrete	24,950.6	Ton
320E1810	Asphalt Concrete Leveling Lift	7,348.9	Ton
320E3100	Stabilizing Additive for Asphalt Concrete	62.5	Ton
320E7012	Grind 12" Rumble Strip or Stripe in Asphalt Concrete	35.9	Mile
330E0010	MC-70 Asphalt for Prime	1.4	Ton
330E0100	SS-1h or CSS-1h Asphalt for Tack	336.4	Ton
330E0210	SS-1h or CSS-1h Asphalt for Flush Seal	16.9	Ton
332E0010	Cold Milling Asphalt Concrete	1,173	SqYd
380E6500	Planing PCC Pavement	7,724.0	SqYd
393E0100	Cracking and Seating PCC Pavement	265,275.6	SqYd
393E0300	Cored or Sawed Sample	44	Each
450E0182	36" RCP Class 2, Furnish	12	Ft
450E0190	36" RCP, Install	12	Ft
450E8900	Cleanout Pipe Culvert	7	Each
450E9001	Reset Pipe End Section	4	Each
600E0300	Type III Field Laboratory	1	Each
629E0100	3 Cable Guardrail	773	Ft
629E0200	Reset 3 Cable Guardrail	4,379	Ft
629E0300	3 Cable Guardrail Slip Base Anchor Assembly	16	Each
630E2110	Beam Guardrail Post and Block	124	Each
630E2205	Breakaway Cable Terminal End Post	32	Each
630E5160	Reset W Beam Rail	950.0	Ft
630E5180	Reset W Beam Guardrail Breakaway Cable Terminal	16	Each
630E5190	Reset W Beam to Thrie Beam Guardrail Transition	2	Each
632E2220	Guardrail Delineator	117	Each
632E2520	Type 2 Object Marker	16	Each
720E1015	Bank and Channel Protection Gabion	6.0	CuYd
900E1980	Storage Unit	1	Each

\* - Denotes Non-Participating

## INDEX OF SHEETS

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

### Section F – Surfacing (continued)

#### Alternate A

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
320E0006	PG 64-22 Asphalt Binder	1,500.0	Ton
320E0008	PG 64-34 Asphalt Binder	5,421.6	Ton
320E1004	Class Q4 Hot Mixed Asphalt Concrete	87,956.0	Ton
320E4000	Hydrated Lime	870.7	Ton

#### Alternate B

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
320E0006	PG 64-22 Asphalt Binder	1,378.0	Ton
320E0008	PG 64-34 Asphalt Binder	4,959.7	Ton
320E1004	Class Q4 Hot Mixed Asphalt Concrete	90,276.7	Ton
320E4000	Hydrated Lime	892.6	Ton

### Section M – Pavement Marking

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
633E0010	Cold Applied Plastic Pavement Marking, 4"	25,243	Ft
633E1200	Waterborne Pavement Marking Paint with High Grade Polymer, White	519	Gal
633E1205	Waterborne Pavement Marking Paint with High Grade Polymer, Yellow	532	Gal
633E5000	Grooving for Cold Applied Plastic Pavement Marking, 4"	25,243	Ft
633E5100	Grooving for Durable Pavement Marking, 4"	193,800	Ft
633E5110	Grooving for Durable Pavement Marking, 12"	1,891	Ft

# ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
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## 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 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](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	SHEET NO.	TOTAL SHEETS
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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 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 proposed 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 historic or 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.