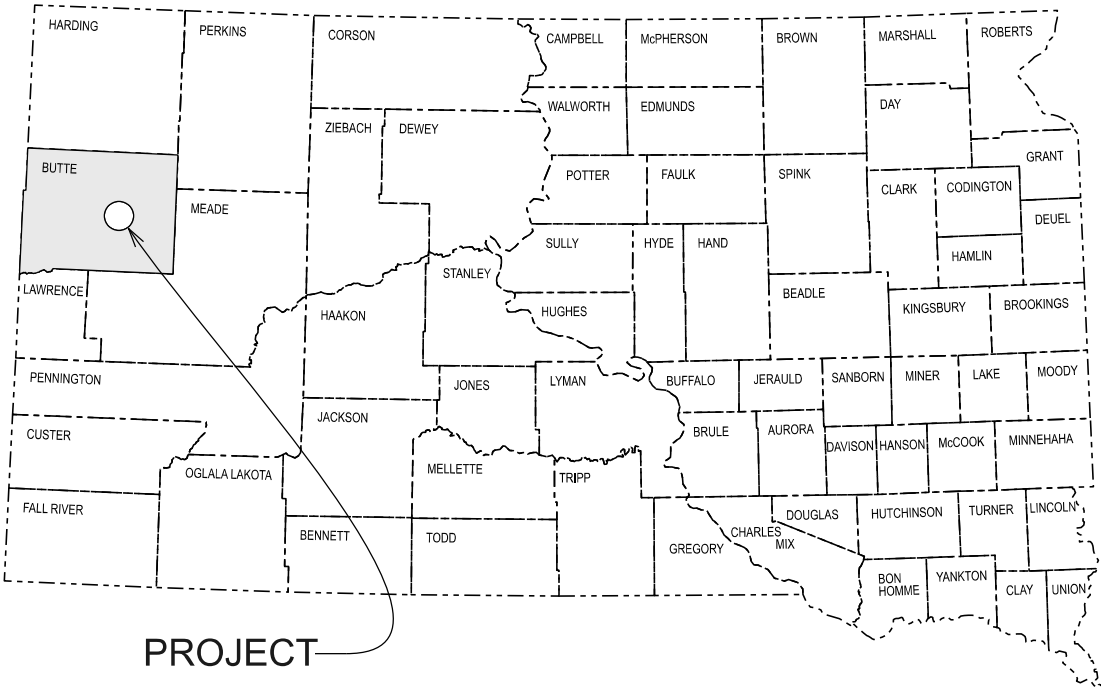




PROJECT

1 SD 79, MRM 140.31 to MRM 143.40

DESIGN DESIGNATION

ADT (2025)	810
ADT (2045)	1162
DHV	185
D	50%
T DHV	9.0%
T ADT	19.8%
V	65 MPH

STORM WATER PERMIT
No Permit Required

Gross Length	3.100 Miles
Length of Exceptions	0.000 Miles
Net Length	3.100 Miles

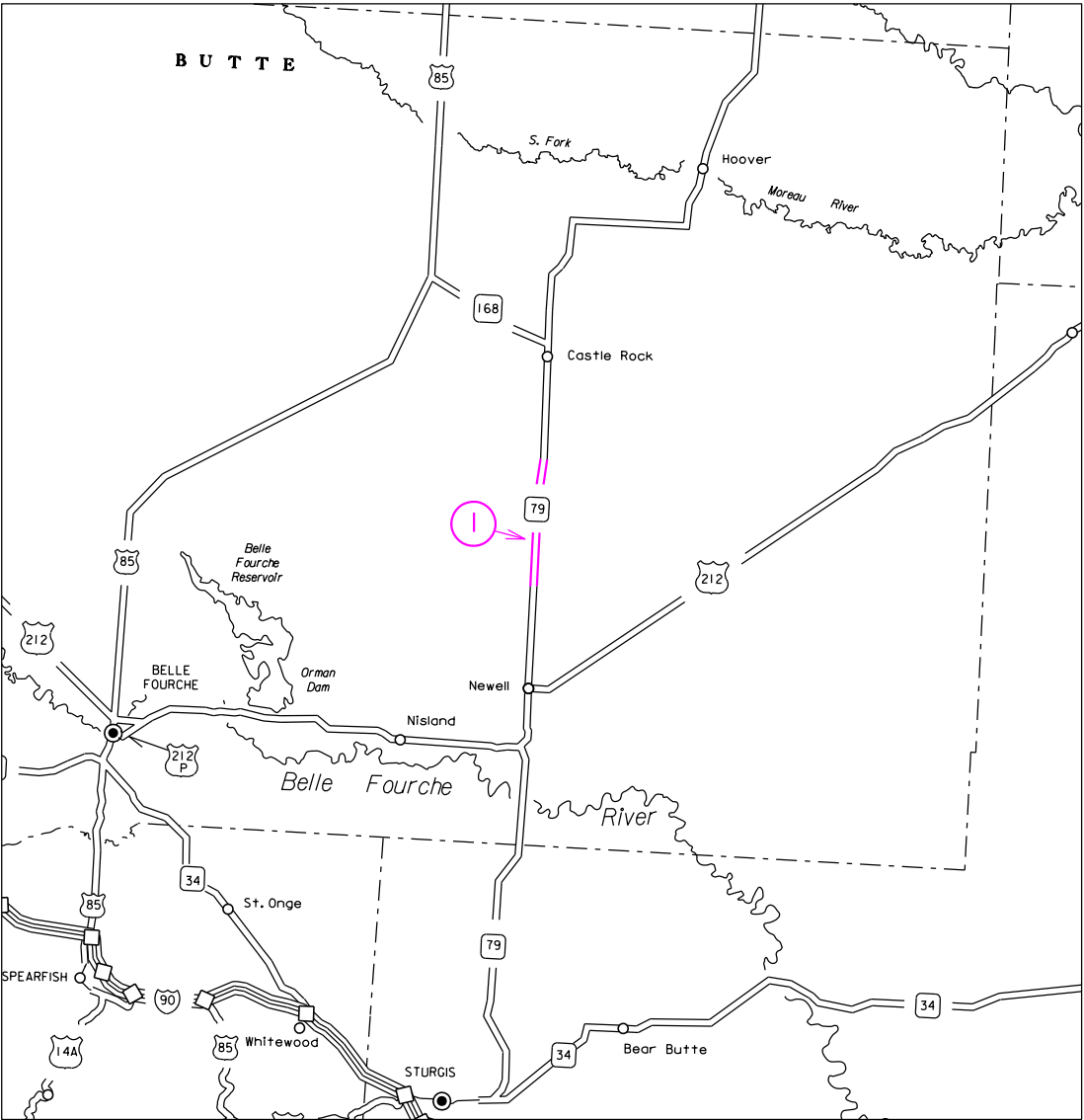
STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED
PROJECT 079-471
SD HIGHWAY 79
BUTTE COUNTY
MICRO-MILLING ASPHALT SURFACE BUMPS
PCN i89N

STATE OF SOUTH DAKOTA	PROJECT	SECTION	SHEET
	079-471	Non	1/3

Plotting Date: 09/30/2026

INDEX OF SHEETS

- 1 General Layout with Index
- 2-3 Estimate of Quantities and Plan Notes



ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
* 009E0010	Mobilization	Lump Sum	LS
* 333E4000	Micro-Milling Asphalt Concrete	12,172	SqYd

* - Denotes Non-Participating

SPECIFICATIONS

Standard Specifications for Roads and Bridges, 10-7-2026 Version, Required Provisions, and Special Provisions as included in the Proposal. The Standard Specifications for Roads and Bridges are available for download and viewing at <https://dot.sd.gov/doing-business/contractors/standard-specifications>

ENVIRONMENTAL COMMITMENTS

The SDDOT is committed to protecting the environment and uses Environmental Commitments as a communication tool for the Engineer and Contractor to ensure that attention is given to avoid, minimize, and/or mitigate an environmental impact. Environmental commitments to various agencies and the public have been made to secure approval of this project. An agency with permitting authority can delay a project if identified 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. During construction, the Project Engineer will verify that the Contractor has met Environmental Commitment requirements. These environmental commitments are not subject to change without prior written approval from the SDDOT Environmental Office.

Additional guidance on SDDOT’s Environmental Commitments can be accessed through the Environmental Procedures Manual found at: <<https://dot.sd.gov/doing-business/environmental/about-environmental/>>

For questions regarding change orders in the field that may have an effect on an Environmental Commitment, the Project Engineer will contact the Environmental Engineer at 605-773-3180 or 605-773-4336 to determine whether an environmental analysis and/or resource agency coordination is necessary.

Once construction is complete, the Project Engineer will review all environmental commitments for the project and document their completion.

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 pits, or staging areas associated with the project, cease construction activities in the affected area until the Whooping Crane departs and immediately 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

If a Contractor needs access to state waters for extraction, the Contractor must obtain a water right, through the application of a Temporary Permit to Use Public Waters before work begins.

The Contractor will not withdraw water with equipment previously used outside the State of South Dakota or previously used in aquatic invasive species (AIS) positive waters within South Dakota without prior approval from the SDDOT Environmental Office. To prevent and control the introduction and spread of invasive species into the project vicinity, all equipment will be power washed with hot water (≥140 °F) and completely dried for a minimum of 7 days prior to subsequent use. South Dakota administrative rule 41:10:04:02 forbids the possession and transport of AIS; therefore, all attached dirt, mud, debris and vegetation must be removed and all compartments and tanks capable of holding standing water must be drained. This includes, but is not limited to, all equipment, pumps, lines, hoses and holding tanks.

Action Taken/Required:

The Contractor will obtain the necessary permits from the regulatory agencies such as the South Dakota Department of Agriculture and Natural Resources (SDDANR) and the United States Army Corps of Engineers (USACE) prior to water extraction activities.

Temporary permit to use public waters for highway construction purposes application can be found on the SDDANR website: <https://danr.sd.gov/OfficeOfWater/WaterRights/PermitForms/default.aspx>

Additional information and mapping of water sources impacted by Aquatic Invasive Species in South Dakota can be accessed at: < <https://sdleastwanted.sd.gov/maps/default.aspx> >

South Dakota Administrative Rule 41:10:04 Aquatic Invasive Species: < <https://sdlegislature.gov/rules/DisplayRule.aspx?Rule=41:10:04> >

MICRO-MILLING ASPHALT CONCRETE

The Contractor will be required to micro-mill the mainline bump areas at the locations provided in these plans. Locations will be ground to eliminate any vertical lips and provide a smooth transition to the surrounding pavement. The Engineer will determine the extent of grinding required at each location.

The Contractor will use power-driven, self-propelled micro-milling equipment capable of adjusting the milling depth from 0 inches to at least 3 inches. If the Engineer determines that the bump remains after milling, the Contractor will perform an additional pass as directed by the Engineer. The equipment will produce a uniform surface texture. The Contractor may be required to micro-mill multiple passes, as needed, to meet the width requirements specified.

In addition, the micro-milling equipment will be:

- Equipped with a cutting mandrel with carbide tipped cutting teeth designed for micro-milling bituminous pavement to close tolerances;
- Capable of removing pavement to an accuracy of 1/16 inch; and,
- Provided with conveyors capable of side, rear, or front loading to transfer the milled material from the roadway to a truck.

The micro-milling machine will establish a longitudinal profile grade within ±1/8 inch referenced from a traveling stringline or erected fixed string line and will be controlled by an automatic system for controlling grade. The micro-milling machine will be equipped so that the depth and transverse slope of the drum is manually or automatically controlled using the traveling or fixed stringline on either or both sides of the milling machine. The fixed string line will remain taut after being tightened.

The traveling stringline will have a minimum effective length of 28 feet. The traveling stringline will be attached and positioned on the milling machine to reference the longitudinal profile. The traveling stringline will utilize either mechanical skis or non-contacting grade averaging sensors. If mechanical skis are provided, the sensor of the control system will rest midway between the traveling string line.

Following milling of the first pass, adjacent passes will be milled referencing the traveling stringline riding on the previously milled pass. A shoe attachment may be used to match an adjacent reference point when directed by the Engineer.

The drum will be capable of tilting to allow feathering of edges to zero cut.

The existing surface of the pavement will be removed by micro-milling to the depth, width, cross section, and grade necessary to remove the bumps and the resulting micro-milled surface will meet the following acceptance criteria:

- The final micro-milled surface will be free of detrimental ridges or grooves.
- The final micro-milled surface texture produced by the micro-milling operation will have a grid surface with uniform discontinuous striations. Continuous longitudinal striations will not be allowed.
- The final micro-milled surface will have a transverse pattern of 1/4 inch center to center of each strike area.
- The difference between the ridge and valley of the mat surface will not exceed 1/8 inch when tested in accordance with SD 320.

MICRO-MILLING ASPHALT CONCRETE(Continued)

The milled section will be finished to the cross slope shown on the typical section ±0.2%. The quarter crown within any 12 foot transverse length (or the actual lane width paved with a single paver pass) will not exceed 0.04 foot when measured with a straightedge, stringline, or other suitable equipment. The Engineer may order changes to the typical section if field conditions warrant.

All vertical cuts from micro-milling operations left and right of the centerline will be daylighted to the outside edge of the road to allow surface water to be drained off of the roadway. Daylighting will be accomplished by methods satisfactory to the Engineer using equipment meeting the requirements of this specification.

The surface will be free of waves and other irregularities. The pavement surface will be tested with a 10-foot straightedge. The permissible longitudinal and transverse surface deviation will be 1/4 inch in 10 feet. The difference between adjacent milling passes will not exceed 1/8 inch. Areas of deviation will be reground.

The Contractor may be required to make more than one pass with the equipment to meet the specifications. If multiple passes of the micro-milling equipment are required, the area of each pass will be measured for payment.

Micro-milling asphalt concrete will be measured per square yard. The actual limits of the micro-milling will be determined in the field by the Contractor and will be approved by the Engineer. The purpose of this work is to reduce pavement bumps and improve overall ride quality.

Micro-milling asphalt concrete will be paid for at the contract unit price per square yard. Payment will be full compensation for milling, equipment, labor, and loading the SDDOT trucks.

The SDDOT will be responsible for hauling away all material produced from the micro-milling operation and any brooming of the road surface. The Contractor will be responsible for loading the milling material into the SDDOT trucks.

TEMPORARY TRAFFIC CONTROL

The SDDOT will be responsible for all temporary traffic control including all channelizing devices, signs, setup, removal, and maintenance of all temporary traffic control. Traffic control work zone will be completed with a flagging setup with work needing to be complete one lane at a time.

The Contactor will notify the Belle Fourche Area Office at (605)898-2872 at least two weeks prior to beginning work so SDDOT personnel can prepare for and schedule traffic control work.

TABLE OF QUANTITIES

Route	MRM	Length(Ft)	Width(Ft)	Area(SqFt)	Micro-Milling Asphalt Concrete (SqYd)
SD79	140.31	300	29	8700	967
SD79	140.37	300	29	8700	967
SD79	140.88	300	29	8700	967
SD79	141.03	300	29	8700	967
SD79	141.09	300	29	8700	967
SD79	141.19	400	29	11600	1289
SD79	142.29	300	29	8700	967
SD79	142.36	300	29	8700	967
SD79	142.53	300	29	8700	967
SD79	143.07	300	27	8100	900
SD79	143.19	300	27	8100	900
SD79	143.38	450	27	12150	1350
Total:					12,172

* The actual limits of the micro-milling will be determined in the field by the Contractor and will be approved by the Engineer.