**Attachment #3A** 

# Belle Fourche Industrial & Rail Park

# Rail Ready for Business!



## **Belle Fourche**

# DEVELOPMENT

PO Box 344 Belle Fourche, SD 57717 Phone: (605)892-5065 www.bfdcsd.com email: director@bellefourchedevcorp.com

February 12, 2019

## **Belle Fourche**

# DEVELOPMENT— CORPORATION

### **Executive Director-**

Hollie Stalder

### **Board of Directors -**

- Renae Schaeffer, President
- jim Doolittle, Past President
- Clay Birkeland, Vice President
- Dr. Pam Lange, 2<sup>nd</sup> Vice President
- Wendy Bowers, Secretary/Treasurer
- Derrick Jones
- Craig Knapp
- Brandon Hatling
- Marsha Nichols

### Community Representatives –

- Stan Harms,
   Butte County
   Commissioner
- Dr. Steve Willard, Superintendent of Schools for Belle Fourche
- Kelly Milliken, President Belle Fourche Chamber of Commerce
- Vern Hintz,
   Belle Fourche
   City Council

### Community Partners -

- · City of Belle Fourche
- Butte County
- Butte County Railroad Authority
- Belle Fourche School System
- Belle Fourche Chamber of Commerce

### **Physical address of the Belle Fourche siding:**

Belle Fourche Industrial & Rail Park Siding 600 Busfield Drive Belle Fourche, SD 57717

### Mailing address is:

Belle Fourche Industrial & Rail Park Siding PO Box 344 Belle Fourche, SD 57717

The Belle Fourche Development Corporation is the economic development organization for the community of Belle Fourche and the surrounding area in Butte County. Our oversight of the rail siding is managed through a lease from the Butte County Regional Railroad Authority to the Belle Fourche Development Corporation.

The rail siding is located in our industrial park.



If you have any questions on the material being submitted, I can be reached by email at <a href="mailto:director@bellefourchedevcorp.com">director@bellefourchedevcorp.com</a> or my cell is 605-892-5065.

Kindest regards,

### Hollie Stalder

Hollie Stalder, Executive Director Belle Fourche Development Corporation

**Belle Fourche Development Corporation** 

PO Box 344

Belle Fourche, SD 57717

www.bfdcsd.com email: director@bellefourchedevcorp.com

Phone: (605)892-5065

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Superintendent of Schools for Belle Fourche

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President Belle Fourche Chamber of Commerce

Vern Hintz,

Belle Fourche City Council

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February 12, 2019

### **Belle Fourche Industrial & Rail Park**

### ☐ Support Economic Growth and Development.

The Long-Baseline Neutrino Facility at the Sanford Underground Research Facility will expand the number of people working at Sanford for years to come. This project assists in the effort to build the Neutrino Facility. There will be jobs associated with preparing the steel, unloading the argon, managing the flow of parts and material in and out of the warehouse, transporting steel and argon to Lead. Starting this year is the excavation of two large caverns. After the caverns are excavated two neutrino detectors will be installed. Once they are installed and operating the plans are to install an additional two detectors.

The State Rail Plan includes a \$6 million Belle Fourche Transloading Facility project under the Industrial Park Development category.

### **☐** Ensure Connectivity for Critical Industries

The Industrial Park, with the added lengths of siding, will support Sanford and area industrial and commercial development.

### ☐ Maintain State Railroad Assets in a State of Good Repair

The Industrial Park is not a State Railroad asset.

### ☐ Reduce Highway Impacts

This project will eliminate long truck moves of steel (3400 containers moving 1800 miles) and 140,000 tons of argon being moved from Houston and Chicago. This project will reduce highway maintenance costs by \$1.3 million over 20 years.

### **Project Information**

### □ Project Summary

This project will construct an additional 3975 feet of siding in the Belle Fourche Industrial Park. The project is wholly located in the industrial park. We anticipate construction completion by the fall of 2020. Please see project drawing.

### □ Proposed Project Funding

Total project costs are estimated to be \$2,397,137. We propose a funding split of 20% local and 80% federal dollars.

### □ Project Readiness

The Industrial Park was built with the anticipation of additional track feet of siding. The project is a simple rail project that will require minimal grading.

### ■ Environmental Readiness

We anticipate the project will qualify for a Categorical Exclusion. Some environmental work was completed when the Industrial park was first built. We hope that we can still use at least some of that information. We understand that there will be some additional costs in gathering information for the environmental determination. We request that SDDOT submit the environmental documentation and assist in the process. We will pay for the cost of any field work or studies that need to be completed.

(continued next page)

### **Belle Fourche Industrial & Rail Park**

ч	Overall Benefit
	Even though we used only movements associated with inbound material for Sanford over 6 years, we still show a benefit of
	over \$13 million, with a benefit of \$9.3 million at 7% NPV and \$11.3 million at 3% NPV. The benefit cost ratio at 7% NPV is
	3.9:1 and at 3% NPV is 4.7:1.
	The benefits were calculated assuming the material needed for the Long-Baseline Neutrino Facility at the Sanford
	Underground Research Facility will come in by rail. The major components are steel and insulation from Europe – likely

- shipped to an east coast port and liquid Argon from both Chicago and Houston. Cost savings afforded by rail will help the overall economics of the Neutrino Facility. The movement by rail will support a business that plans to prepare the structural steel for use and warehousing the steel, insulation and electronics for Sanford. There is not a lot of room at Sanford and a nearby location that warehouses material for just in time use is a necessity.
- ☐ In addition to the quantified benefits there are other possible projects and uses for an upgraded facility. For example, there is interest in moving 300+ rail cars of pipe into Belle Fourche. The additional trackage will make Belle Fourche an attractive offload and transload location for the entire area.

### **☐** Proposed Party Developing the Application

☐ We will develop the application for submission to USDOT. We request that SDDOT submit and manage the project payments.

### **☐** Funding the Application

☐ We will pay for the development of the application.

If you have any questions on the material being submitted, I can be reached by email at director@bellefourchedevcorp.com or my cell is 605-892-5065.

Kindest regards,

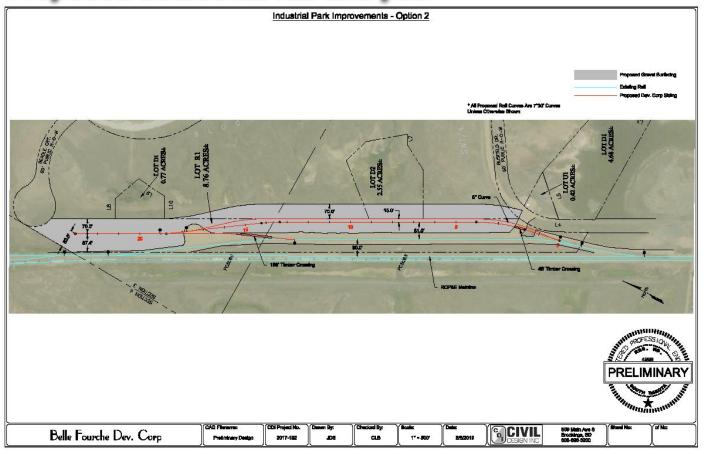
Hollie Stalder Hollie Stalder. **Executive Director** Belle Fourche **Development Corporation** 



Phone: (605)892-5065

# Belle Fourche Industrial & Rail Park Rail Siding

### Proposed additional rail and pad



### Engineer's Opinion of Probable Cost Belle Fourche Preliminary Rail 2/11/2019

### Track Construction

Bid Item		Approximate			
Number	Items	Quantity	Unit	Unit Cost	Total Cost
1	Mobilization	1	LS	\$ 85,000.00	\$ 85,000.00
2	Grading	1	LS	\$ 200,000.00	\$ 200,000.00
3	Geotextile Fabric	32,800	SqYd	\$ 2.50	\$ 82,000.00
4	Base Course	27,000	Ton	\$ 14.00	\$ 378,000.00
5	New Track Construction	3,975	Tr-Ft	\$ 175.00	\$ 695,625.00
6	New Switch Construction	4	Each	\$ 65,000.00	\$ 260,000.00
7	Timber Crossing Panels	216	Tr-Ft	\$ 280.00	\$ 60,480.00
8	Bumping Post	1	Each	\$ 5,000.00	\$ 5,000.00
9	Drainage Structures	1	LS	\$ 50,000.00	\$ 50,000.00
10	Site Lighting	1	LS	\$ 160,000.00	\$ 160,000.00
11	Railroad Protective Insurance	1	LS	\$ 5,000.00	\$ 5,000.00

| Subtotal | \$ 1,981,105.00 | 10% Contingency | \$ 198,110.50 | Construction Cost: \$ 2,179,215.50

Estimated Engineering Design & Construction Administration \$ 217,921.55 Total Project Costs \$ 2,397,137.05

### **Belle Fourche**

# DEVELOPMENT CORPORATION

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   Commerce
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- Butte County Railroad Authority
- Belle Fourche School System
- Belle Fourche Chamber of Commerce

February 12, 2019

### **BCA for Belle Fourche Industrial Park/Sanford Lab Project**

### **General Approach**

- ☐ The overall goal is to add additional capacity to support the movement of steel and argon for the Long-Baseline Neutrino Facility (LBNF) in Lead. The LBNF project is a reality the excavation of the caverns is starting this summer. The logistics of the material doming for the project (namely structural steel and argon) haven't been determined. The short-term goal of this project is to help support the LBNF project. We do know the steel is coming from Europe and the argon will likely originate in Chicago and Houston.
- ☐ We know there will likely be other uses of the new sidings, but the proposals thus far are either confidential or not certain enough to use in the benefit calculation. We are confident additional infrastructure in our Industrial Park will see additional usage.
- ☐ We assumed steel would come from Europe and be off loaded at a port on the east coast all the ports are approximately 1800 miles away. We used that 1800 miles as avoided truck miles and added train miles. The distance of argon shipments was averaged between Houston and Chicago (1145 miles) assuming there would be a 50/50 origin from each location. We subtracted out rail fuel usage from truck fuel usage, so the fuel cost savings is a net number.
- □ We used \$2.90 per gallon for diesel fuel. We used the cost of VOC, NOx, SO2 and PM as described in the FRA BCA document (Table 9). We used the rate of fatalities, injury, and property damage as described in the latest SDDOT crash reporting. We used the cost of those crashes from Table 4 of the BCA guidance. Because SDDOT doesn't report crash statistics in as many categories as presented in the BCA guidance, I used values of \$9,600,000 for a fatality, \$125,000 for minor injury and \$4552 for property damage only. The guidance has a value for major injury that is much higher, but SDDOT does not report that category. We used the value in the table for minor injury a much more conservative number. These dollar amounts as shown in the KABCO Level part of the table the MAIS Level table had values that were much higher (except for the fatality) so the use of the KABCO is conservative.
- ☐ We used emission rates for a 2013 model truck as described in a report entitled "Updated Emission Factors of Air Pollutants from Vehicle Operations in GREET using MOVES" done by Argonne National Labs in September 2013.
- ☐ We calculated the benefits with both 7% NPV and 3% NPV.

If you have any questions on the material being submitted, I can be reached by email at <a href="mailto:director@bellefourchedevcorp.com">director@bellefourchedevcorp.com</a> or my cell is 605-892-5065.

Kindest regards,

### Hollie Stalder

Hollie Stalder, Executive Director Belle Fourche Development Corporation

						3%NPV	benefits	\$	\$2,952,093	\$1,568,686	\$1,524,477	\$	\$	\$2,558,899	\$1,359,751	\$1,321,429	\$0	\$	\$	\$0	\$	\$	0\$	\$	\$0	\$	\$	\$11,285,335	
						7% NPV	enefits	\$	\$2,730,192	\$1,395,182	\$1,303,909	Ş	\$0	\$1,946,589	\$994,746	\$929,669	\$0	\$0	\$	\$	<del>S</del>	\$	\$	\$0	\$0	\$	\$0	\$9,300,287	
							Total benefits benefits	\$0.00	\$3,125,796.95	\$1,709,158.23	\$1,709,158.23	\$0.00	\$0.00	\$3,125,796.95	\$1,709,158.23	\$1,709,158.23	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$13,088,226.82	
Emmission benefits reduced	VOC, Nox, PM,	SO2 calculated per	mile of truck	movement	avoided and	emmissions value	in short tons	\$0.00	\$257,602.64	\$140,854.85	\$140,854.85	\$0.00	\$0.00	\$257,602.64	\$140,854.85	\$140,854.85	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,078,624.70 \$13,088,226.82	
		0,	_	_		Emission	Benefit PM	\$0.00	\$57,455.26	\$31,416.03	\$31,416.03	\$0.00	\$0.00	\$57,455.26	\$31,416.03	\$31,416.03	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		
						Emission E	benefit SO2 B	\$0.00	\$3,686.90	\$2,015.96	\$2,015.96	\$0.00	\$0.00	\$3,686.90	\$2,015.96	\$2,015.96	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		
						Emission E	benefit Nox b	\$0.00	\$192,154.42	\$105,068.34	\$105,068.34	\$0.00	\$0.00	\$192,154.42	\$105,068.34	\$105,068.34	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		
						Emission benefit E	VOC	\$0.00	\$4,306.06	\$2,354.51	\$2,354.51	\$0.00	\$0.00	\$4,306.06	\$2,354.51	\$2,354.51	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		
		Cost savings	due to	reduced	property	damage E	crashes \	\$0.00	\$28,758.63	\$15,724.97	\$15,724.97	\$0.00	\$0.00	\$28,758.63	\$15,724.97	\$15,724.97	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$120,417.13	
			0	Cost savings r	due to reduced p	minor injury o	crashes	\$0.00	\$379,755.00	\$207,646.69	\$207,646.69	\$0.00	\$0.00	\$379,755.00	\$207,646.69	\$207,646.69	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,590,096.75	
			Cost savings	due to C	reduced	major injury n	crashes c	\$0.00	\$70,217.51	\$38,394.31	\$38,394.31	\$0.00	\$0.00	\$70,217.51	\$38,394.31	\$38,394.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$334.80	
				Cost savings c	due to r	reduced	fatalitites	\$0.00	\$461,030.40	\$252,087.36	\$252,087.36	\$0.00	\$0.00	\$461,030.40	\$252,087.36	\$252,087.36	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$3,241,830.24	
Highway	maint costs	savings	truck vs rail	assumes	either all d	railorall	truck move f	\$0	\$313,200	\$171,255	\$171,255	\$0	\$0	\$313,200	\$171,255	\$171,255	\$0	\$0	\$0	\$0	\$0	\$0	\$	\$0	\$0	\$0	\$0	\$1,311,420	TOTALS
						HIWAY MILES	LOADED	0	2610000	1427125	1427125	0	0	2610000	1427125	1427125	0	0	0	0	0	0	0	0	0	0	0	10928500	
						insulati Value of Fuel HIWAY MILES	Saved	\$	\$1,615,233	\$883,195	\$883,195	\$0	\$	\$1,615,233	\$883,195	\$883,195	\$0	\$0	\$0	\$	\$	\$0	\$0	\$0	\$0	\$	\$0	\$6,763,246	
	Gallons	of fuel	saved	steel	and	insulati	on S	0	256977	90749	90749	0	0	256977	90749	90749	0	0	0	0	0	0	0	0	0	0	0		
				Gallons	of Fuel	Saved	argon	0	0 0	0 213801	0 213801	0 0	0 0	0 0	0 213801	0 213801	0 0	0 0	0 0	0 0	0	0 0	0 0	0 0	0 0	0 0	0 0	0 855205	
					tons of	steel and	n insulation		28000	000 9450	000 9450	0	0	0 58000	000 9450	000 9450				_	_					_		153800	
							ons of argon			35,000	35,000				35,000	35,000												140,000	

# Belle Fourche

- 1. 74 acres of varied lot sizes that can be adjusted to fit the project needs
- 2. Full utilities in place -
  - 1. water looped 8" water line/ over 900 gals/minute,
  - 2. Sewer 8" line
  - 3. 3 phase power, gas and telecom are at the curb throughout the Park.
  - 4. Electric provider Black Hills Energy.
  - 5. Natural Gas provider Montana-Dakota Utilities
- 3. Concrete road, curb & gutter designed for industrial use, loops through the BFI&RP.
- 4. A <u>new</u> 2660 ft. rail siding ready for use.
- 5. Belle Fourche is the official geographic center of the nation with a great transportation network:

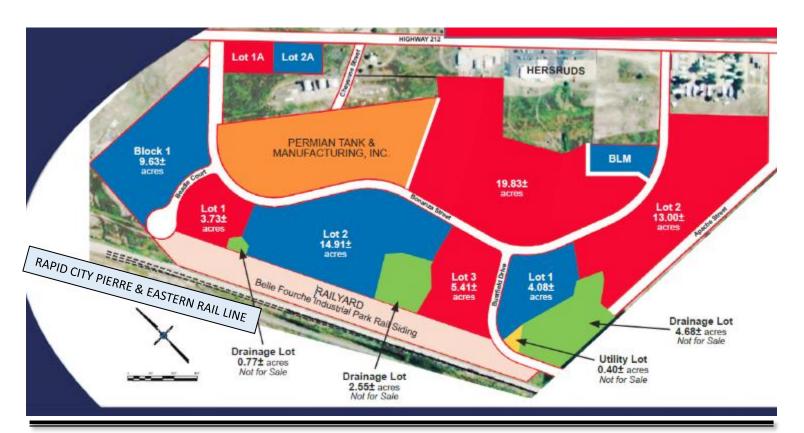
### 3 major highways -

- north/south Hwy 85,
- east west Hwy 212 and 34;

Rail through the center of the community with 5 day a week service to our BFI&RP served by the Rapid City Pierre & Eastern railroad

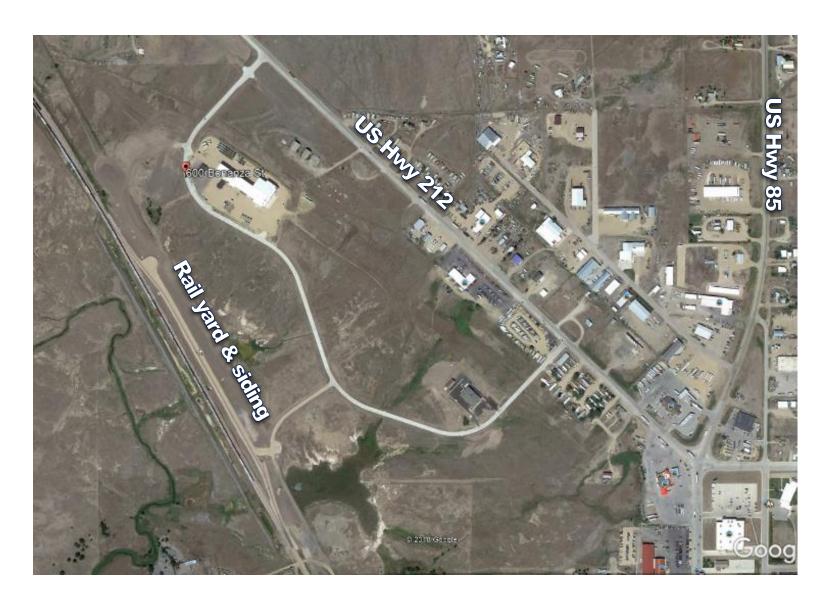
And, within 15 miles of Interstate-90.

60 miles to commercial airport.



# Belle Fourche Industrial & Rail Park

Google Earth ariel view of park and rail siding.



Phone: (605)892-5065

# Belle Fourche Industrial & Rail Park







### **Letter of Support for Belle Fourche Development Corporation**

March 13, 2019

South Dakota Railroad Authority

Dear South Dakota Railroad Authority,

I am writing on behalf of the Rapid City, Pierre, & Eastern Railroad in full support of the Belle Fourche Development Corporation's proposal for further development of the Belle Fourche Industrial & Rail Park Siding.

As the serving rail carrier, we see this proposal as an opportunity for business development and job growth that is vital to the RCP&E, Belle Fourche, and western South Dakota. The proposed development indicated in the grant application will expand opportunities for rail traffic in and out of South Dakota that will benefit the community, region, and the state.

We thank you for your consideration.

Sincerely,

**Nicholas Smith** 

NSmith

Manager, Marketing and Sales

Rapid City, Pierre, & Eastern Railroad



### Delivering Quality & Excellence

SINCE 1976

### bsieve@permiantank.com

March 13, 2019

South Dakota Railroad Authority 700 East Broadway Pierre, SD 57501

Re:

Development of Belle Fourche Industrial & Rail Park

### Greetings:

Permian Tank & Manufacturing, Inc. has operated its South Dakota manufacturing facility in the Belle Fourche Industrial & Rail Park since 2014. Permian Tank & Manufacturing is supportive of further development of the Belle Fourche Industrial & Rail Park rail siding. The newly proposed development will create additional jobs and will increase opportunities for other rail business in our region. Your favorable consideration of the new development will be appreciated.

Sincerely,

Robert Sieve, Plant Manager

RS/



Date: March 12, 2019

To: South Dakota Railroad Authority

From: Belle Fourche Chamber of Commerce

Regarding: Grant Application for Belle Fourche Economic Development Corp

Please accept this letter as the Belle Fourche Chamber of Commerce's support for the Belle Fourche Development Corporation's proposal for further development of the Belle Fourche Industrial & Rail Park Siding.

As the local chamber of commerce office, we see the business development and job creation potential this opens for the community and the region. The Belle Fourche Industrial Rail park is unique in the state of South Dakota and a large asset to our community, region and state. Our proximity to the oil fields as well as our quad-state regional reach as a community makes this industrial park a vital economic asset here in Western South Dakota.

The proposed development indicated in the grant application will create jobs and enhance our current regional assets for other rail business in the community and region. This is good for commerce even beyond our community borders.

We thank you for your consideration.

Sincerely,

Gary Wood

**Executive Director** 

Belle Fourche Chamber of Commerce

1010 State St.

Belle Fourche, SD 57717

605-892-2676

bellefourchechamber.org



### POWDER COATING - SURFACE BLASTING - ASSEMBLY

300 Pheasant Ridge Drive - Watertown, SD 57201 - Phone 605-753-5300

Dear State Rail Authority,

Please accept this letter as support for the Belle Fourche Development Corp's (BFDC) request for a grant to fund the expansion of their rail siding. The expansion of their rail siding would position them for playing a major role in the DUNE project as they work to partner with the Department of Energy and the Sanford Underground Research Facility in Lead, SD. This project, which is a worldwide collaboration, has the potential to have a positive economic impact for the city of Belle Fourche as well as the state of South Dakota. With that said, there is also a chance that this economic impact could fall outside of our state. The grant you are considering would help ensure that it stays in our great state.

Metrix' involvement in this is supporting the BFDC and being a key supplier to the DUNE project by providing either powder coating or liquid painting surfaces to the main structure of the neutrino collectors. By forming this partnership we once again keep the economic impact within our state, however that is only the start of the potential. The long-term potential would be to continue to provide a coatings service business in Belle Fourche for a long time to come. This could draw other businesses to this area and generate further economic growth for many years past the DUNE project.

We look forward to working with the BFDC and Sanford on this project but need your help. We thank you for considering the community of Belle Fourche for this grant and supporting the state of South Dakota along with its' residents and businesses.

Sincerely

Chad Orthaus

President Metrix, LLC



### Macksteel Warehouse, Inc.

415 20<sup>th</sup> Avenue South East, Watertown, South Dakota 57201 Phone: (605) 882-2177 Fax: (605) 882-2980 www.macksteel.com

### Dear State Rail Authority:

I write on behalf of Macksteel Warehouse, Inc, in support of the Belle Fourche Development Corp's (BFDC) proposal to the State Rail Authority for a grant to fund the expansion of the rail siding in Belle Fourche, SD. Funding this project will greatly improve the position of BFDC as they pursue a partnership with the Department of Energy (DOE), to play a critical role in the DUNE Project. Should the DOE choose BFDC as a partner, a considerable positive economic impact in the state will occur. Furthermore, a successful partnership now will make it more likely that the improved siding will be chosen for any future projects related to the Sanford Underground Research Facility. The rail infrastructure does not exist as required, and without this grant, it is unlikely the rail expansion will occur. Without the rail, it is possible that a partner site, not in SD, could be chosen, and the potential jobs and correlating economic impact may not occur in our state. I strongly support this grant application with the focus of funding the infrastructure required to allow South Dakota to retain the full benefit of this opportunity.

As an organization who distributes raw materials, as well as fabricated metal products to hundreds of companies in South Dakota, we understand the critical role that improving infrastructure has on the ability of South Dakota businesses to compete successfully with businesses located elsewhere. Our partnership with BFDC demonstrates our desire to create opportunity in this state, and we see this grant as the critical 1st step.

Through this letter, we acknowledge our commitment and ability to fulfill our role and responsibility in this partnership. In the event this proposal is funded, we would expect our role in the BFDC Rail Siding Expansion to include forming a genuine business partnership with BFDC, allowing them to present the DOE with the best solution, ultimately allowing South Dakota to retain 100% of the economic impact of the DUNE project.

We look forward to working with BFDC on the DUNE Project, and we thank you for your consideration in making Belle Fourche, SD the chosen site for this once in a lifetime opportunity.

Sincerely,

Charles Mack

General Manager – Macksteel Warehouse, Inc.

ides A. Mach

March 14, 2019

South Dakota Railroad Authority

To whom it may concern.

As a life long resident of Belle Fourche, a 4th Ward Council member, and a Plant manager for Hills Products Group in Belle Fourche. I totally support further development of rail for the Belle Fourche industrial park. I have seen too many good families have to move away to find better jobs. The youth of or city need to have a choice to stay and work and live here. Agriculture is a big part of our community and being able to give them the opportunity to use rail would be very beneficial for them. Please consider helping out this Rural Community. Thank you.

Sincerely,

Randy Schmidt



# BELLE FOURCHE

511 6<sup>TH</sup> AVENUE BELLE FOURCHE, SOUTH DAKOTA 57717

#### PHYSICAL LOCATIONS:

**CITY HALL/FINANCE OFFICE**511 6<sup>TH</sup> AVENUE
605/892-2494
FAX: 605/892-2784

E-MAIL: finance@bellefourche.org

#### ENGINEERING

511 6<sup>™</sup> AVENUE 605/892-3006 FAX: 605/723-0897 E-MAIL: engineer@bellefourche.org

#### CITY SERVICES

511 6<sup>™</sup> AVENUE 605/892-2674 FAX: 605/892-2784

#### POLICE DEPARTMENT

1010 8TH AVENUE 605/892-4354 FAX: 605/892-4504

#### FIRE DEPARTMENT

605 NATIONAL STREET 605/892-6237 FAX: 605/892-2784

### **BELLE FOURCHE AIRPORT**

HIGHWAY 85 NORTH 605/892-6345 FAX: 605/892-2784

### **COMMUNITY CENTER**

1111 NATIONAL STREET 605/892-2467 FAX: 605/892-3536 E-MAIL: bfacc@bellefourche.org

### COMMUNITY HALL

508 6<sup>TH</sup> AVENUE 605/892-2467 FAX: 605/892-3536

### LIBRARY

905 5<sup>TH</sup> AVENUE 605/892-4407 FAX: 605/892-2784 E-MAIL: bfplib@yahoo.com

### PACKAGE LIQUOR STORE

1845 5<sup>™</sup> AVENUE 605/892-4125 FAX: 605/892-2784

### **PUBLIC WORKS**

220 6TH AVENUE 605/892-3414 FAX: 605/723-0145 E-MAIL: pubworks@bellefourche.org

### LANDFILL

61 NORTH 8<sup>TH</sup> AVENUE 605/892-3530 FAX: 605/723-0145

### PINESLOPE CEMETERY

170 WEST HWY 34 605/892-3735 FAX: 605/723-0145

### TRI-STATE MUSEUM

415 5TH AVENUE 605 / 723-1200 FAX: 605 / 892-2784 E-MAIL: tristatemuseum@rushmore.com March 18, 2019

South Dakota Railroad Authority 700 East Broadway Pierre, SD 57501

To whom it may concern:

I write on behalf of the City of Belle Fourche in full support of the Belle Fourche Development Corporation's proposal for further development of the Belle Fourche Industrial and Rail Park siding.

At the city level, we see the business development and job creation potential this opens for the community and the region.

The proposed development indicated in the grant application will create jobs and increase opportunities for other rail business in the community, region, and state. I truly believe that this opportunity is great for commerce even beyond our community borders.

We thank you all for your consideration.

Glorin & Lanopher

Sincerely,

Gloria Landphere, Mayor

City of Belle Fourche

Tho

alkingh

Nick Alderson 2030 Main Street Sturgis, SD 57785

March 14, 2019

South Dakota Railroad Authority

Dear South Dakota Railroad Authority:

I was contacted by Hollie Stalder, Hollie explained there may be an opportunity to expand the rail siding in Belle Fourche, South Dakota. As a cooperative that is committed to servicing our member owners in western South Dakota, eastern Wyoming, and eastern Montana, CBH would be interested in discussing the possibility of receiving Propane and Refined Fuels via rail. This supply channel could allow CBH members a valuable supply option versus depending on pipelines only. We have had success with our rail facility in Gillette, WY receiving Propane. We look forward to future discussion.

Sincerely,

**Nick Alderson** 

CEO

Office: 605-720-2946 ext. 101

Cell: 605-390-2081

2030 Main Street

Sturgis, SD 57785



Butte County Commissioners 117 5<sup>th</sup> Avenue Belle Fourche SD 57717 (605) 892-4485

# **Butte County Commissioners**

March 19, 2019

To whom it may concern:

The Butte County Commissioners are in full support for the further development of the Belle Fourche Industrial & Rail Park siding. The proposed development will create jobs and increase opportunities for other rail business in our region.

The Butte County Regional Railroad Authority is the official property owner of the siding, and subsequently leases the property to the economic development organization – Belle Fourche Development Corporation.

The rail siding is located in the Belle Fourche Industrial Park.

If you have any questions or concerns, please contact the Butte County Auditor at (605) 892-4485.

Sincerely,

Kim Richards

Chairman, Butte County Commission

for Richards

## Belle Fourche

# ELOPMENT Corporation

Building the future of Belle Fourche together!

**Executive Director-**Hollie Stalder

### Board of Directors -

- Renae Schaeffer, President
- lim Doolittle Past President
- Clay Birkeland, Vice President
- Dr. Pam Lange 2<sup>nd</sup> Vice President
- Wendy Bowers, Secretary/Treasurer
- Marsha Nichols
- **Craig Knapp**
- **Brandon Hatling**
- **Derrick Jones**
- **Chad Pelster**

### Community Representatives -

- Stan Harms, **Butte County** Commissioner
- Dr. Steve Willard, Superintendent of Schools for Belle Fourche
- Kelly Milliken, President Belle Fourche Chamber of Commerce
- Vern Hintz. Belle Fourche City Council

### Community Partners -

- City of Belle Fourche
- **Butte County**
- **Butte County Railroad** Authority
- Belle Fourche School
- Belle Fourche Chamber of Commerce

March 15, 2019

South Dakota Railroad Authority

To whom it may concern,

The Belle Fourche Development Corporation is in full support of the further development of the Belle Fourche Industrial & Rail Park rail and siding area. The proposed development indicated in the grant application will create jobs and increase opportunities for other rail business in our community and region.

The diverse customer base developing shows the interest level across various business sectors. The commerce and trade driven by the further development of this property is farther than our community borders, not to mention the ease of burden and reduced impacts on our roads and highways.

The Belle Fourche Development Corporation leases the rail siding property from the Butte County Railroad Authority in a 20 year lease which offers increased sales and marketing efforts and confidentiality working with prospects preparing to utilize the rail and develop business in the Industrial & Rail Park.

If you have any questions on the material being submitted, our cell number is 605-892-5065 and email is director@bellefourchedevcorp.com.

We appreciate your consideration and look forward to hearing from you.

Kindest regards,

Hollie Stalder **Executive Director** 

Belle Fourche Development Corp

**Belle Fourche Development Corporation** 

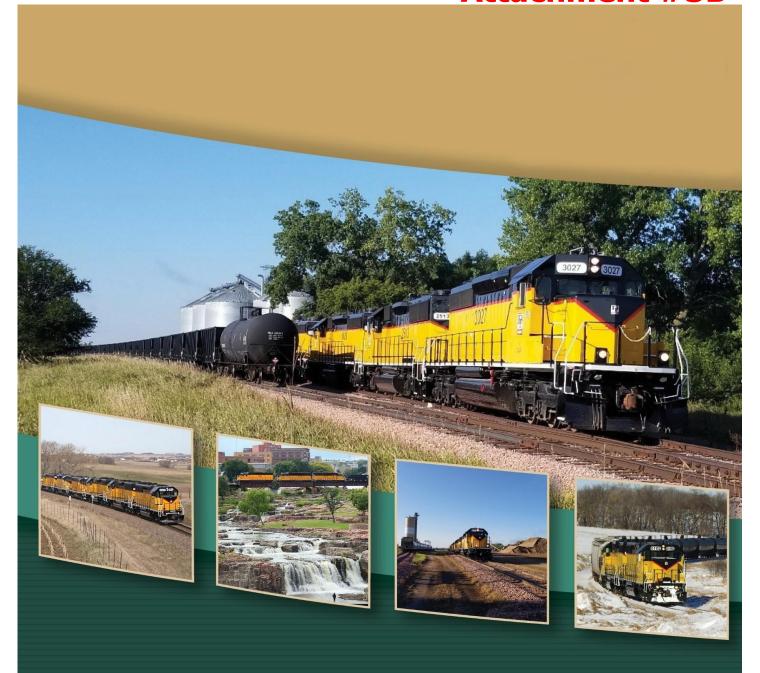
PO Box 344

Belle Fourche, SD 57717

Phone: (605)892-5065

www.bfdcsd.com email: director@bellefourchedevcorp.com This institution is an equal opportunity provider and employer

### **Attachment #3B**



### D & I RAILROAD

# MAIN LINE RAIL REPLACEMENT AND CROSSING IMPROVEMENT PROJECT

FEDERAL RAILROAD ADMINISTRATION STC GRANT FY 2019 | FEBRUARY 22, 2019

### D & I RAILROAD

# MAIN LINE RAIL REPLACEMENT AND CROSSING IMPROVEMENT PROJECT FEDERAL RAILROAD ADMINISTRATION | STC GRANT FY 2019

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### **EXECUTIVE SUMMARY**

The D & I Railroad Main Line Rail Replacement and Crossing Improvement Project (the Project) will improve railroad safety, efficiency, capacity, and reliability on a railroad line that is critical to the success of local economies and the national and global reach and competitiveness communities in rural eastern South Dakota and northwestern Iowa. Significant freight shipments originate or terminate on this rural railroad line, and consist of aggregates, ethanol, corn oil, cement, chemicals, agricultural products, construction Figure 1: D & I Ethanol Train at Hawarden, Iowa



materials, and plastics. The majority of this vital railroad line includes several miles of legacy jointed rail on the main line that is approaching 100 years of age. The safety, efficiency, capacity, and reliability of present-day railroad operations on the line are affected by the timeworn main line rail nearing the end of its useful life. These impacts have caused temporary speed restrictions (slow orders) to appear more frequently, despite recent concerted maintenance and capital investment by the D & I Railroad. Safety improvements at 13 grade crossings are included in the project.

The State of South Dakota is an eligible recipient for STC grant funds. The State will serve as the lead applicant for the grant funding and the South Dakota Department of Transportation (SDDOT) will be the agency managing any grant funds received from the Federal Railroad Administration (FRA). The project's Applicants are D & I Railroad (D & I) and City of Dell Rapids, SD. These parties are also contributing time and resources towards the development of this STC grant application. Public-private partnerships, such as this one, demonstrate an innovative approach that allows multiple stakeholders to cooperate on and deliver projects more efficiently, cost effectively, and with less federal funding required. The above named parties are committed to delivering the Project and will contribute toward the Project as detailed in Section 2.0

The primary purpose of the Project is to enhance freight railroad infrastructure to maintain the rural economy of a large geographic area in eastern South Dakota and northwest Iowa. Ancillary benefits generated by the Project are improved railroad operation from the replacement of legacy main track rail as well as a reduction in derailment exposure and likelihood by providing safer and more reliable railroad infrastructure. This railroad line is vital to the operation and future growth for many rural shippers.

### 1.0 PROJECT SUMMARY

The Project will replace 7 miles of 100 lb/yd existing jointed main line rail with new 115 lb./yd. continuously welded rail (CWR) and/or 80-foot sections of rail on a segment of the D & I Railroad between Sioux Falls, SD and Dell Rapids, SD. The jointed rail to be replaced is nearing the end of its useful life and is on a track segment that is at the beginning of the rail line originating in Dell Rapids, SD and terminating in Sioux City, IA. The rail line serves a major aggregates producer, L.G. Everist, two ethanol shippers, a cement terminal, and several transload customers and facilities. Continued degradation or loss of railroad service will be detrimental to these industries. These improvements are needed to solve lingering legacy infrastructure issues, to preserve and enhance capacity, rail access, multimodal connectivity, and

# MAIN LINE RAIL REPLACEMENT AND CROSSING IMPROVEMENT PROJECT FEDERAL RAILROAD ADMINISTRATION | STC GRANT FY 2019

interchange connections with three Class I railroads (BNSF Railway, Canadian National Railway, and Union Pacific Railroad), and to accommodate future growth in economic and industrial development in the rural Siouxland region.

Assuming approval of the STC grant in midyear 2019, construction of the Project will begin in the spring of 2020 and be completed by the end of 2020. Overall, the Project will have an immediate positive impact on this rural area and the industries that rely on this vital link to the national freight rail network and global marketplace.

### 1.1 Challenges Addressed by the Project

The Project will improve railroad safety, efficiency, capacity, and reliability of the railroad line in rural eastern South Dakota and northwestern lowa. Most of the carloads originate on the railroad line, and consist of unit volumes of aggregate and ethanol, and carload volumes of chemicals, agricultural products, construction materials, and plastics. The majority of the infrastructure on this railroad line is a relic of the past, including several miles of existing main line jointed rail that is nearing 100 years of age and the end of its useful life. Temporary speed restrictions (slow orders) appear more frequently, despite the continued maintenance and capital investment made by D & I.

The purpose of the Project is to maintain freight railroad access to this robust, rural economy located in eastern South Dakota and northwestern lowa. **Reliability** is key to the industries, businesses, and customers utilizing this railroad line. Maintaining the existing railroad line to a state of good repair is paramount to preserving and achieving economic and industrial growth in this rural area. The proposed Project improvements will enhance overall service reliability, safety and operational efficiencies.

The aging and worn-out main line rail also increases potential derailment exposure, further putting the railroad, its users, and communities at risk. The proposed Project improvements will replace the railroad line's oldest and most worn-out sections of main line rail, which will allow for **safer** railroad operations due to reductions in potential derailment exposure.

### 1.2 Grade Crossing Improvements and Information

The D & I Project includes upgrades to grade crossing components. Four grade crossing improvements in the City of Dell Rapids are included in this project. These crossings will receive safety improvements, which include upgraded active warning devices, crossing surface enhancements, ADA accessible sidewalk improvements and drainage improvements. These improvements are part of a larger project in Dell Rapids which is planned to improve water quality, storm water drainage and vehicular safety. Nine additional crossings will receive plank and hardware improvements in the rail relay project element.

### 1.3 Performance Measures

As the applicant for and potential recipient of STC funds, SDDOT understands that the USDOT may establish performance measures for the D & I Main Line Rail Replacement and Crossing Improvement Project in order to assess progress in achieving strategic goals and objectives. SDDOT also understands that USDOT may require it to periodically report information related to such performance measures. Potential performance measures for the Project would be confirmed through coordination with USDOT after award of STC funds to SDDOT.

### 2.0 PROJECT FUNDING

# 2.1 Main Line Rail Replacement (Dell Rapids Subdivision 7 Miles) and Crossing Improvement Project

The Project represents a significant transportation infrastructure investment to provide enhanced service performance and reliability for this rural freight railroad line in the state of South Dakota. The State of South Dakota is committed to delivering the Project, in cooperation with D&I and City of Dell Rapids. These funding partners will contribute \$998.2 thousand toward the Project's \$4.99 million construction cost, expended over a one-year period. The \$3.99 million request for STC funds would provide the remaining project funding needed to construct the Project. Committed Project funding sources are presented in the following tables.

Task No.	Task Name/ Project Component	Cost (2018\$)	Percentage of Total Cost		
1	Main Line Track Rail Replacement (7 miles)	\$4,240,948	85%		
2	<b>Dell Rapids Grade Crossing Improvements</b>	\$750,000	15%		
	Total Project Cost	\$4,990,948	100%		
Federal Funds	Received from Previous Grant	\$0	N/A		
STC Federal Fu	nding Request	\$3,992,758	80%		
Non-Federal Fu	unding/Match	\$998,190 Cash: \$998,190 In-Kind: \$0	20%		
Portion of Non	-Federal Funding from the Private Sector	\$998,190	20%		
Portion of Tota	l Project Costs Spent in a Rural Area	\$4,990,948	100%		
Pending Federa	al Funding Request	\$0	N/A		

The funding breakdown consists of an "80/20" funding package for the \$4.99 million project as supported by the following public-private partnership:

- \$4.14 million STC Grant by the Federal Railroad Administration (FRA)
- \$848,190 thousand from D & I Railroad
- \$150 thousand from City of Dell Rapids, SD

A funding commitment letter and cost benefit analysis of the crossing improvements in Dell Rapids is attached from the City's Engineer. The funding commitment letter from the D & I is attached, as well.

### 3.0 BENEFIT COST ANALYSIS

The cost effectiveness of the Project's proposed improvements was measured by conducting a Benefit-Cost Analysis (BCA), which followed USDOT's "Benefit-Cost Analysis Guidance for Discretionary Grant Programs" dated June 2018. The main line rail improvements constructed under the Project will provide many quantifiable benefits to railroad operations, rail shippers, and the public. Non-quantifiable benefits of the grade crossing improvements to the City of Dell Rapids and its residents are not included in the monetized benefits explained below:

- Annual avoided train crew costs and train delay due to improved running times \$83.2 thousand per year
  - Due to existing temporary slow orders, the main line within the Project Area has been operating at a slower track speed temporarily. The Project would eliminate these temporary slow orders and return the main track back to its original timetable speed.
- Annual reduction in maintenance costs \$55 thousand per year
  - Due to the current condition of the track, significant time and resources are used to keep the rail in usable condition. Completion of the Project would allow maintenance crews to return to a less intense maintenance schedule
- Annual avoided costly derailments \$111 thousand per year
  - Completion of the project is assumed to save one derailment per year. The average cost of a derailment has been \$111 thousand.
- Total Annual Project Benefits \$249.2 thousand per year

COST BENEFIT RATIO is 1.78 for the 30 year analysis period.

Some of the track assets installed during the construction of the Project maintain residual value since their useful life is greater than the 30-year analysis period.

### 4.0 PROJECT ELIGIBILITY

The Project is requesting STC funding for Project Track 3 Final Design/Construction. Per the STC Notice of Funding Opportunity (NOFO), the Project is eligible for STC funding.

The D & I Railroad (D & I) is a short line railroad that is owned by L.G. Everist, Inc. (LGE), and operates approximately 138 route-miles of rail lines in the states of South Dakota and Iowa. From north to south, the D & I operates from:

- Dell Rapids, South Dakota to Sioux Falls, South Dakota (on trackage owned by D & I)
- Sioux Falls, South Dakota to Canton, South Dakota (via operating rights over BNSF Railway trackage)
- Canton, South Dakota to Elk Point, South Dakota (via operating rights on the SVRRA, which leases this track from the State of South Dakota)
- Hawarden, Iowa to Beresford, South Dakota (via operating rights on the SVRRA, which leases this track from the State of South Dakota)
- Elk Point, South Dakota to Sioux City, Iowa (via operating rights over BNSF Railway trackage)

The D & I interchanges unit train and carload rail traffic with three Class I railroads in Sioux City, Iowa (BNSF Railway, Canadian National Railway, and Union Pacific Railroad). This competitive access is critical to the ongoing success of the D & I and its shippers.

The D & I Main Line Rail Replacement and Crossing Improvement Project is a capital project that will:

- Improve short line railroad infrastructure and operations
- Address congestion challenges affecting rail L.G. Eve service, and will increase rail capacity and upgrade the condition and capacity of railroad main lines
- Improve track conditions on a railroad line, helping to alleviate rail service interruptions and lift permanent speed restrictions



Figure 2: D & I at GCC Dakotah Cement (Left) and L.G. Everist Pit (Right) Located at Hawarden, Iowa

### 4.1 Expected Users and Beneficiaries of the Project

Expected users and beneficiaries of the Project include:

- Public The rail upgrade will improve the health of the corridor and will decrease the potential likelihood of track-caused derailments a livability benefit for the public. In addition, the rail upgrade component of the project will help lift several speed restrictions resulting in faster and more efficient train operations and less overall train occupancy times at highway-rail grade crossings. Improvements at grade crossings will enhance safety to the residents of Dell Rapids.
- Industries Shippers and receivers of raw materials and goods entrust their businesses to the reliability of this supply chain component. Being able to ship and receive bulk materials by rail is also advantageous as it reduces input costs for the producer, as well as overall price for the end user. D & I shippers on the railroad line and their commodities include:
  - o L.G. Everist, aggregates used in construction
  - o BX Civil & Construction, magnesium chloride for roadway dust control and de-icing
  - Poet Bio-Refining, ethanol and dried distiller's grains (DDG)
  - Siouxland Energy Cooperative, ethanol
  - o Poet Nutrition, corn oil
  - o **GCC Dacotah Cement**, raw cement
  - o **Prinsco**, plastic pellets for the manufacture of agricultural drain tiles
  - o Green Plains Renewable Fuels, corn oil
  - o *Valero*, corn oil
  - Agri-Trading Co., DDG
  - Purina Animal Nutrition, DDG
  - Innovative Resource Management, Methyl Ester Fatty Acids
- D & I Railroad Railroad operator
- The residents of the City of Dell Rapids, South Dakota

### 5.0 PROJECT LOCATION

The Project is located fully within rural South Dakota, and within the following congressional district:

South Dakota – At Large

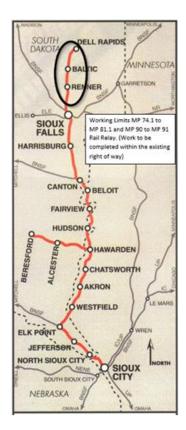
The nearest Urban Area is the City of Sioux Falls, which is nearly 20 miles away from the northern end of the Project Area (Dell Rapids, South Dakota). The Project's southern end is located north of Sioux Falls, South Dakota and is not within the urban area.

The Project's location (geospatial data) is in proximity to:

Latitude and Longitude: 43°67'42.93"N - 96°43'42.43"W

# 6.0 PROJECT ADHERENCE TO STATE RAIL PLAN GOALS

1) Economic Support, Growth, and Development. The Project will promote continued safe and reliable rail service for the shippers on the D & I Dell Rapids Subdivision, and will provide additional operational flexibility that will increase track capacity and create transportation efficiencies, all while increasing the ability to accommodate the shipments of new customers on the line. At present, nearly 75 percent of all existing D & I rail traffic originating or terminating on the rail line traverses the Project Limits, meaning most future traffic will benefit from this Project's proposed improvements.



Over the past 10 years, freight shipments on the D & I have averaged between 17,000 and 20,000 carloads annually. New shippers to the railroad line show great potential for more growth in the transloading business, with products arriving from a four-state area, encompassing South Dakota,

Minnesota, Iowa, and Nebraska. After the completion of the Project, D & I will be able to attract more business opportunities for further economic and industrial growth and development within the region.

2) Ensuring Enhanced Competitive Access and Maximum Connectivity for Critical Industries. Often over looked, short line railroads fill a critical role within the U.S. freight network as they provide bulk freight service transportation for the "first or last mile" connections between farmers, manufacturers, and the end consumer. Industries along the D & I rail line rely on D & I to transport bulk quantities of rock, sand, agricultural products, construction materials, and ethanol by rail to customers outside of the eastern South Dakota and northwestern lowa region. These commodities have significance to the regional,



Figure 3: D & I at Siouxland Energy Cooperative located at Hudson, South

# MAIN LINE RAIL REPLACEMENT AND CROSSING IMPROVEMENT PROJECT FEDERAL RAILROAD ADMINISTRATION | STC GRANT FY 2019

national, and global economies. The D & I connects to and interchanges with three Class I railroads in Sioux City (BNSF Railway, Canadian National Railway, and Union Pacific Railroad), and thus provides local businesses and industries with broad competitive access to the national freight railroad system, global marketplace, and the opportunity to grow their market share.

Local industries are also leading the source of inquiries for new business on all South Dakota railroad lines, and continually look to expand their operations, leading to economic growth within this rural area. With strong growth and new business opportunities present along the D & I rail line there is an overwhelming need to maintain freight railroad access to this rural area in order to preserve existing businesses and industries, and their ability to attract new business. The D & I Main Line Rail

Replacement and Crossing Improvement Project will help to maintain the reliability of existing freight rail service and to improve future rail service on the line.

3) Maintaining State Railroad Assets in Good Repair. The D & I Railroad has a long history of maintaining this rail line (the D & I Dell Rapids Subdivision) to an acceptable standard. The rail replacement component of this Project is a much needed improvement since the existing rail is or nearly is 100 years old. The rail has served its useful life and needs to be replaced due to its worn condition, which was caused by heavy impacts to the rail joints, leading to excessive rail end batter and warp conditions. Further rail degradation could potentially result in maintenance for D & I, loss of the ability to accommodate rail cars with a maximum allowable gross weight of 286,000 lbs., or an increase in service failures and a marked reduction in operating velocity and efficiency, including an enhanced risk of train derailments and other incidents. The rail renewal proposed in the Project will allow the D & I to remain competitively connected with



Figure 4: Existing Condition Showing Surface of Track on the D & I Railroad line

three Class I railroads and its transload facility in Sioux City, Iowa. It will also allow D & I to confidently maintain consistent service over the line.

Since the D & I began operating in 1981, they have worked diligently with ongoing public-private partnerships to invest in numerous capital projects involving bridge replacements, new rail, and track and tie maintenance, ensuring that this railroad line continues to provide reliable, safe, and fully accessible service to the states and region. Shippers, their employees, their customers, and surrounding communities all rely on this vital rural railroad connection. The capital improvement proposed in the D & I Main Line Rail Replacement and Crossing Improvement Project will greatly reduce the risk for rail traffic interruption and any negative impacts this could potentially have on existing rural-area businesses (and their ability to attract new business) on the railroad line.

# MAIN LINE RAIL REPLACEMENT AND CROSSING IMPROVEMENT PROJECT FEDERAL RAILROAD ADMINISTRATION | STC GRANT FY 2019

4) Reducing Highway Impacts. Previous capital improvements to the D & I Dell Rapids Subdivision by the D & I have allowed for the upgrades to accommodate 286,000 lb. heavy-axle load rail cars on the railroad line, further reducing impact to local roads and the highway system. This improvement has allowed existing shippers to ship more weight per carload, thus avoiding extra shipment of smaller carloads or diverting excess shipments from freight rail to trucks during peak times. Further investment in the D & I line will continue to encourage local, regional, and state-wide growth opportunities and reduce the impact on state highways and local roads.

In addition, the local rail service that many short line railroads offer, like D & I, have helped to attract local truck-haul service for end point or origin points of shipments (or for transload from truck to rail or vice versa). It is the understanding of D & I that the Final Rule for Electronic Logging Devices and Hours of Service Supporting Documents (known as the "ELogs"), as mandated by the Federal Motor Carrier Safety Administration under USDOT, has changed the carload/truckload interchange to benefit freight rail as it is being phased into operation¹. Logistics companies are looking for new avenues to shorten truck hauls in order to maximize driver productivity.

The recent additions to the D & I customer base are a direct result of the "ELogs" mandate. The trucking companies that serve new transload customers are realizing the importance of short-haul in the freight rail system, which was previously known for long-haul shipping only. These trucking companies prefer to ship manageable distances that allow their drivers to maximize their time in the seat. In 2017 alone, four additional transload customers located their operations on the railroad line in Hawarden, lowa. With the Project's improvements, D & I will be better positioned to handle more of these short-haul moves in the future since the Project will improve overall capacity and reliability of the railroad line, and help to remove more long-haul trucks from local roadways and state highways (which will reduce pavement damage, air emissions, etc.).

5) Improving Railroad Safety, Security, and Resiliency. Improving railroad safety, security, and resiliency is one of the key goals identified in the South Dakota State Rail Plan (2014). The Project will provide much needed rail infrastructure and will aid in lowering potential derailment exposure caused by track defects on the D & I Dell Rapids Subdivision. This capital improvement project will help to improve the overall safety and reliability of this railroad line and sustain the continued operation of the D & I. For D & I, the capital improvement project will reduce the overall potential risk to train operations. D & I recently employed a railroad contractor to inspect for track defects on the rail line using a technologically advanced track inspection vehicle. This exercise proved to be an effective technique, providing data that would otherwise not be available using traditional approaches.

<sup>&</sup>lt;sup>1</sup> U.S. Federal Register, *Final Rule for Electronic Logging Devices and Hours of Service Supporting Documents*, <a href="https://www.gpo.gov/fdsys/pkg/FR-2015-12-16/pdf/2015-31336.pdf">https://www.gpo.gov/fdsys/pkg/FR-2015-12-16/pdf/2015-31336.pdf</a>

### 7.0 PLANNING READINESS

For Tracks 3 (FD/Construction) Projects:

The Project's component is supported in the South Dakota State Rail Plan (2014). Table 1 summarizes the planning document coverage.

Table 1: State Planning Documents Identifying the Importance of the Project

Planning Document	Sponsor	Relevant Pages	Web Location
South Dakota State Rail Plan (2014)	SDDOT	41, 42, 43	<u>Link</u>

This Project demonstrates the State of South Dakota's intent and commitment to finding long-term improvements that:

- Support economic growth and development
- Ensure connectivity for critical industries
- Maintain state-owned railroad assets in a state of good repair
- Reduce highway impacts
- Improve railroad safety, security, and resiliency

The D & I Railroad will assist the SDDOT with preparation of the STC application. This document may serve as a template for the application.

### 8.0 ENVIRONMENTAL READINESS

The National Environmental Policy Act (NEPA) requires consideration of environmental impacts for federal actions. The level of analysis and documentation required to comply with NEPA depends on the scope of the project. This Project is categorically excluded under the categories of Maintenance of Existing Track (main line replacement) [64 Federal Register 28548(4)(c)].

### 9.0 SUMMARY OF NON-QUALITATIVE BENEFITS

- A more reliable railroad system helps control supply chain cost variability, which is beneficial to the shippers. Local businesses also thrive when the shippers on the railroad line are productive and profitable.
- Maintaining the freight railroad system in southeast South Dakota and northwest Iowa is crucial to the economies of the counties and rural communities along the railroad line.
- Shippers and employees of surrounding businesses that support these local shippers rely on a reliable local rail system to transport products via the D & I Railroad.

1/15/2019

Jerry Cope Chairman South Dakota Railroad Board 700 East Broadway Ave. Pierre, SD 57501

Subject: Special Transportation Circumstances (STC) Grant Application and Funding Commitment

Dear Jerry,

I am writing to express my strong support for the application being filed by the D & I Railroad (D & I) to the South Dakota Department of Transportation (SDDOT) for \$4.99 million in STC grant funding. D & I seeks this grant for the D & I Railroad Main Line Rail Replacement and Crossing Improvement Project (the Project). The Project would include the replacement of 7 miles of nearly 100 year old rail, in service between Sioux Falls, SD and Dell Rapids, SD. It includes improvements at 13 grade crossings, including 4 crossings in Dell Rapids, SD which will receive safety improvements.

The Project is divided into two components:

- 1) 7 miles of rail replacement estimated to cost \$4.24 mm and funded by the STC Grant at 80% or \$3.39, with the D & I contributing 20% or \$848K towards the rail project.
- 2) 4 grade crossing improvements projects in Dell Rapids estimated to cost \$750K and funded by the STC Grant at 80% or \$600 k, with the City contributing \$150K.

The total amount of the Project and entirely funded by the Public-Private partnership is \$4.99 mm, with over \$998K coming from the D & I and the City of Dell Rapids. No South Dakota State Railroad Trust Funds are included in this funding package.

The D & I Railroad is committed to and is supportive of this partnership. The funds from this public-private funding package will be used to pay for important infrastructure improvements that will help to preserve and grow economic development opportunities in rural South Dakota, as well as maintaining railroad assets in a state of good repair to ensure connectivity and railroad access is available for the state's critical industries.

Sincerely,

Jack Parliament
President / GM
D & I Railroad Co.

February 21, 2019

South Dakota Railroad Board 700 E. Broadway Ave. Pierre, SD 57501

**RE:** Railroad Crossing Replacements

**Dell Rapids, SD** 

DGR Project No.: 666800

Dear Board Members:

The purpose of this letter is to provide support for the STC Grant Application by D & I Railroad, which includes improvements to four railroad grade crossings in the City of Dell Rapids, SD. DGR Engineering has served the City of Dell Rapids in the capacity as their City Engineer for nearly 35 years and has extensive knowledge of the City's infrastructure. Over the course of the past few years, the City has been evaluating existing infrastructure that is in dire need of repair and/or replacement and has worked closely with D & I Railroad, as well as other private utilities, to coordinate the construction effort. In conjunction with future infrastructure replacement projects, D & I Railroad is planning for railroad crossing replacements in three locations within the City of Dell Rapids; 7<sup>th</sup> Street, Washington Avenue, and the 4<sup>th</sup> Street/Garfield Avenue intersection. The infrastructure at the three locations proposed for crossing improvements has not been touched in 50+ years, most of which date back to original installation.

The City's proposed infrastructure improvement project cost estimate is in excess of \$30 million in present day costs, which is largely impacted by the age of the existing facilities, the presence of quartzite bedrock within the project area, and the railroad that cuts through town and impacts the ability to facilitate the repair or replace the outdated infrastructure. The total estimated cost of the proposed City infrastructure improvements at these three locations alone is in excess of \$1 million dollars, not including the private railroad crossing replacements associated with the improvements. The estimated cost for the railroad crossings is approximately \$750,000. If the railroad crossings are not funded, the cost to bore beneath the railroad (through quartzite bedrock), or route along alternate routes is estimated to be \$2 to \$3 million. The financial benefit of the proposed crossing replacements is significant, not to mention the ancillary benefits of improved safety, health related improvements related to the existing infrastructure issues, as well as bringing these crossing locations up to current design standards.

The City of Dell Rapids is committed to, and is supportive of the public-private funding partnership with the D & I Railroad. The City will contribute \$150,000 (or 20 percent) of the cost of the crossing improvements in Dell Rapids.

The 7<sup>th</sup> Street crossing is located on the east side of town on the only roadway into town from that direction. The condition of this crossing is in significant disrepair, creating safety issues, and a recent drainage analysis indicates the area does not meet current design standards or criteria, creating flood hazards for adjacent properties. The benefits of a new crossing include improved drainage to meet current design standards and improved roadway safety at the crossing. Without improving the

crossing, the much-needed upgrades to current design standards, and related safety implications will not be achieved, and the cost to improve the drainage to meet current engineering design standards will more than double by either requiring boring beneath the railroad through bedrock or routing the drainage elsewhere (requiring increased pipe sizes beneath other railroad crossings). The benefits of the crossing improvements at this location far outweigh the cost.

The Washington Street crossing is located within a residential area on the east side of town that has existing water, sanitary sewer, and storm sewer that runs beneath, along with other private utilities. The current condition of these public utilities is poor, and in need of replacement. Furthermore, the crossing width is very narrow and adequate pedestrian crossings do not exist. Rerouting utilities to other locations is not a feasible option without significant pumping requirements that would drive the cost up 4x the anticipated cost to replace existing. An option to bore the new utilities beneath the railroad was also considered but would also more than double the cost to open cut. In addition, if the railroad crossing is not replaced, the current safety issues for vehicles and pedestrians that exist at this location would not be addressed. The benefits of performing the crossing improvements in conjunction with the proposed City infrastructure improvements is substantial and far outweighs the costs.

The 4<sup>th</sup> Street and Garfield Avenue intersection crossing is the most significant area of concern as this railroad crossing intersects the roadway intersection at a diagonal skew and is a primary roadway and truck route in the community. This particular intersection is also critical relative to vehicle and pedestrian safety considering the intersection geometrics. There are very few "other options" to consider at this intersection except to leave as it currently exists. This would not address the repairs or replacement of the outdated infrastructure and would not address the significant safety concerns at this location. Costs associated with partial repair of the infrastructure would be nearly equivalent to the replacement costs and would only be temporary in nature.

On behalf of the City of Dell Rapids, and serving in the capacity as the community's engineer, we offer our strong support for the consideration of funding the proposed railroad crossing replacements. The cost implications of not getting funding assistance for this work is significant and would delay most of the proposed improvements to benefit the citizen health and safety. We are able to provide additional supporting documents as may be necessary to further supplement our letter of support for this project.

Thank you for your consideration.

Sincerely,

DGR Engineering

Lance Mayer, PE

LWM:kjh

cc: Jack Parliament, D & I Railroad Justin Wieland, City of Dell Rapids

### **STC Grant Application**

### South Dakota Railroad Board



### MRC Meet and Pass Siding

Support Economic Growth and Development.

The traffic on the MRC line has grown to nearly 10,000 cars per year serving three shuttle elevators at Kimball, Kennebec and Presho. The traffic levels have started to cause congestion problems. These problems have resulted in the elevators and Dakota Southern missing OEP payments. These payments reward the elevator and the Dakota Southern for quickly loading trains, improving efficiency for BNSF. The OEP rate of \$100 per car means that \$11,000 dollars per train is lost if the turn times are not met. If the delay gets to be too much, then a \$1000 per hour penalty applies. As traffic increases on the line excessive delays will continue to happen and will increase in frequency. The line needs a meet and pass siding to increase capacity on the line and decrease the delays that can cause OEP payments to be lost.

The State Rail Plan includes a \$1.75 million Meet and Pass siding under the Efficiency/Chokepoint category.

### **Ensure Connectivity for Critical Industries**

Agriculture is the largest industry in South Dakota. This project will help ensure continued growth of rail volumes on the MRC as well as increased grain volumes handled by the elevators on the line. The BNSF shuttle program is a very important outlet for grain in the trade area of the MRC.

Maintain State Railroad Assets in a State of Good Repair

The MRC is a state-owned railroad. This project will be an addition to the physical infrastructure owned by the state. The railroad does not currently have any long meet and pass sidings.

**Reduce Highway Impacts** 

This project will not change truck traffic levels or impacts to the highway system.

Improve Railroad Safety, Security and Resiliency

This project will improve resiliency because it offers operational flexibility and improves capacity.

**Project Information** 

**Project Summary** 

This project will construct a new 10,000 foot siding east of Highway 45 near the Gavilon Elevator. The siding will be located south of the track on extra width property half which is currently owned by the State. The other half of the project right of way will need to be acquired.

**Proposed Project Funding** 

Total project costs are estimated to be \$2,500,000 (including land acquisition). We propose a funding split of \$222,235 provided by Dakota Southern in the form of in-kind match, the remainder of match (\$277,765) being provided by the state and 80% federal dollars. Dakota Southern will provide tamping and lining (value of \$59,000) for the siding and dumping of ballast and sub-ballast (value of \$163,235). Dakota Southern will prove 8.9% of the match, with the State providing the remaining 11.1%.

**Project Readiness** 

Civil Design has developed a preliminary plan set including quantities. The first two pages of the preliminary design are included in the application. Also included is a preliminary layout of the siding.

**Plans Readiness** 

Preliminary plans have been completed.

**Environmental Readiness** 

We anticipate the project will qualify for a Categorical Exclusion. No environmental work has been done. Since this is a State-owned asset, we propose the State perform the work needed to obtain the required environmental determination.

#### Overall Benefit

To calculate the benefit of the project we assumed that OEP payments would continue to be missed. We assumed that as traffic increases over the years the rate of missed OEP payments would increase. When OEP payments are lost it is a direct result of a loss in efficiency. Using the value of the assumed missed payments we calculated a total benefit over 20 years of \$5.5 million. When calculated with a 7% NPV the benefit is \$2.6 million over 20 years and when calculated with a 3% NPV the benefit is \$3.9 million. Using a project cost of \$2.5 million the benefit cost ratio at 7% NPV is 1.03:1 at 3% NPV the benefit cost ratio is 1.56:1.

Proposed Party Developing the Application

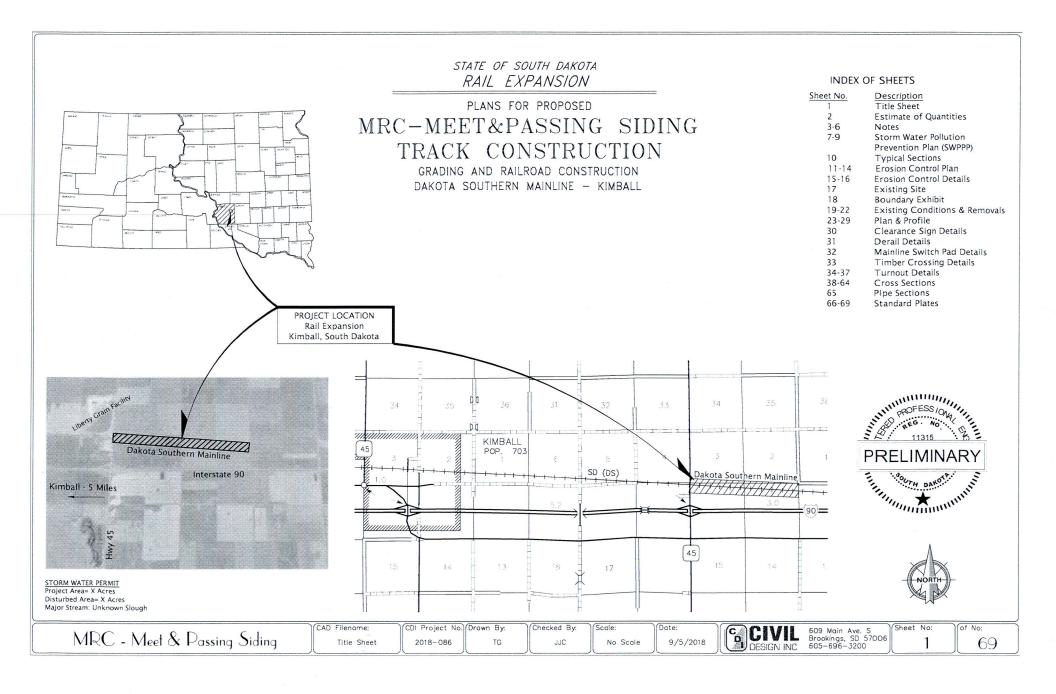
We request SDDOT develop the grant application. We request that SDDOT submit and manage the project payments.

**Funding the Application** 

We request SDDOT pay for the development of the application.

#### BCA

		OEP		
	Calendar	Payment	7% NPV	3%NPV
Year	Year	missed	benefits	benefits
1	2021	\$132,000	\$123,364	\$128,155
2	2022	\$132,000	\$115,294	\$124,423
3	2023	\$132,000	\$107,751	\$120,799
4	2024	\$132,000	\$100,702	\$117,280
5	2025	\$264,000	\$188,228	\$227,729
6	2026	\$264,000	\$175,914	\$221,096
7	2027	\$264,000	\$164,406	\$214,656
8	2028	\$264,000	\$153,650	\$208,404
9	2029	\$264,000	\$143,599	\$202,334
10	2030	\$264,000	\$134,204	\$196,441
11	2031	\$264,000	\$125,424	\$190,719
12	2032	\$264,000	\$117,219	\$185,164
13	2033	\$264,000	\$109,551	\$179,771
14	2034	\$264,000	\$102,384	\$174,535
15	2035	\$396,000	\$143,529	\$254,177
16	2036	\$396,000	\$134,139	\$246,774
17	2037	\$396,000	\$125,363	\$239,587
18	2038	\$396,000	\$117,162	\$232,608
19	2039	\$396,000	\$109,497	\$225,833
20	2040	\$396,000	\$102,334	\$219,256
		\$5,544,000	\$2,593,716	\$3,909,741



#### Estimate of Quantities

BID ITEM NUMBER	DESCRIPTION	UNIT	QUANTITIES
A-1	Mobilization	LS	Lump Sur
A-2	Removals	LS	Lump Sur
A-3	Remove & Reset Sign	LS	Lump Sur
A-4	Unclassified Excavation	CuYd	46,69
A-5	Placing Topsoil	CuYd	5,41
A-6	Waste	CuYd	19,95
A-7	Undercut	CuYd	9,00
A-8	Subballast	Ton	24,64
A-9	Geogrid	SqYd	36,97
A-14	20" CMP Flared End - Furnish & Install	Each	
A-15	30" CMP Flared End - Furnish & Install	Each	
A-17	Type A Permanent Seed Mixture	Lb	6
A-18	Mulching	Ton	6.
A-19	High Flow Silt Fence	Ft	16
A-20	Erosion Control Wattle	Ft	80
A-21	Railroad Protective Insurance	LS	Lump Sur
A-22	Right of Entry Permit	LS	Lump Sur
A-23	Flagging	LS	Lump Sur

BID ITEM NUMBER	DESCRIPTION	UNIT	QUANTITIES
B-1	Mobilization	LS	Lump Sum
B-2	# 11 Mainline Switch & Turnout, Install	Each	2
B-3	Track Construction	Tr-Ft	10,162
B-4	Timber Crossing	Ft	24
B-5	Double Switch Point Derail (DSPD)	Each	2
B-6	Clearance Point Sign	Each	4
B-7	Derail Target	Each	2
B-8	Railroad Protective Insurance	LS	Lump Sum
B-9	Right of Entry Permit	LS	Lump Sum
B-10	Flagging	LS	Lump Sum



CAD Filename: Estimate of Quantities

CDI Project No. 2018-086

Drawn By: TG Checked By: JJC

No Scale

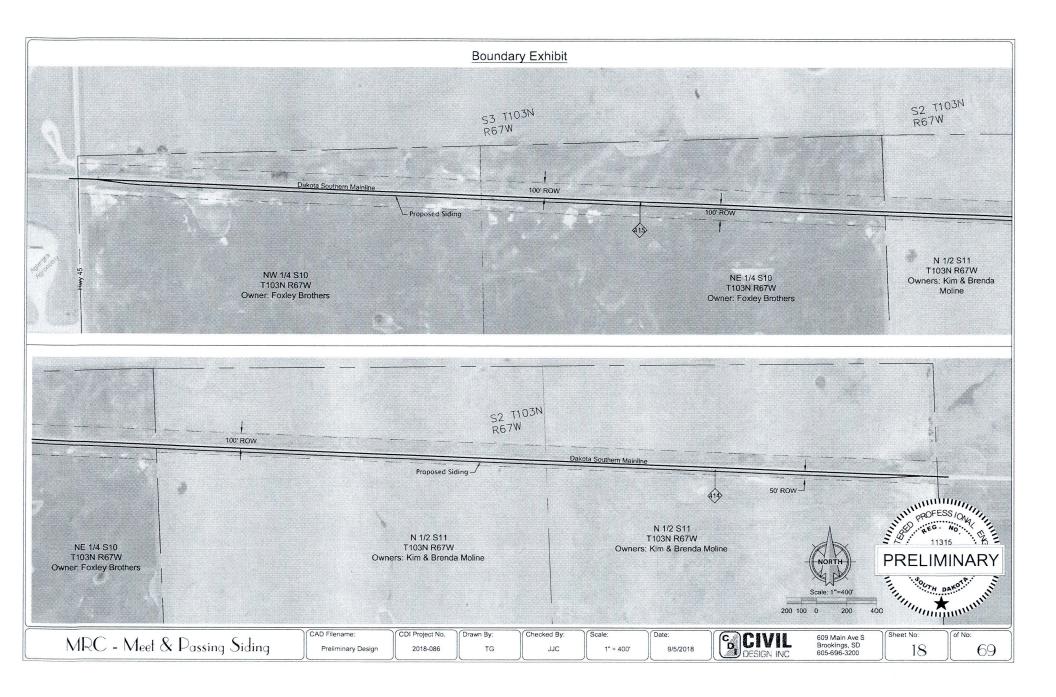
Scale:

Date: 9/5/2018

609 Main Ave. S Brookings, SD 57006 605-696-3200

Sheet No: 2

69



TO:

South Dakota Railroad Board

FROM:

Chuck Jepson

DATE:

Feb 15, 2019

SUBJECT:

STC Grant Application

#### Project Overview:

This project will support overall economic development in the Yankton and southeast corner of South Dakota. The Board is no doubt aware of the development activities at Napa Junction. This project is needed to support the Napa Jct site by improving and supporting train movements in and out of the industrial park. As the business located at the Napa Jct industrial park increase, there will be a need to reduce congestion on the loop. At the same time, we are proposing to return the Napa – Platte line to private ownership.

The proposed project is to relay the first four 4 miles of mainline track west of the elevator with heavy rail, replace 90% of the ties and add 5000 tons of ballast per mile. In addition, we propose to build 6000' of yard track at Janousek. The purpose of this track is to support operational flexibility for the loop track at Napa Jct. In addition, light repair work for rail cars will be performed at the yard in Janousek.

The proposed project has an estimated cost of \$4.5 million. We will provide the 20% match with private funds. We request the board sell the Napa Platte line to us for \$1.5 million. The sale can be at the convenience of the state – but we propose the sale be finalized upon competition of the project.

#### Support Economic Growth and Development:

Dakota Plains Ag Center is currently located at Napa Junction. In the most recent year the elevator shipped approximately 8 million bushels of grain. Dakota Plains goal is to ship 20 million bushels per year. Currently under construction is a business called Dakota Protein, a facility that pelletizes distillers' grain for feed. This business plans on shipping 20% of their product by rail upon startup (about 2000 cars per year). Currently under development is a new 140-million-gallon ethanol plant. This ethanol plant will use 35 to 45 million bushels of grain per year and ship out over 4500 cars of ethanol per year. The ethanol plant will provide distillers grain for the pellet plant. There are currently other businesses that need rail access evaluating this location.

The Napa Junction area has been designated as an Opportunity Zone. We anticipate this status will attract capital for large projects. There are significant tax advantages for investments in opportunity zones.

One of the limiting factors limiting growth in the area is the lack of natural gas. Businesses have declined to locate in the area because of the lack of enough natural gas. Current natural gas providers are at capacity. For the ethanol plant to be built, an adequate supply of natural gas is

needed. A 65,000 dekatherm natural gas line is planned to be constructed in conjunction with the ethanol plant. This volume of gas will support the ethanol plant, other businesses at the industrial park and will also provide additional gas capacity to Yankton and will allow smaller communities to tap into the line. It is difficult to overstate the importance of this additional natural gas capacity.

While the industrial park has great potential, it has only a single loop track. While the single loop is adequate for a single business, as additional businesses locate on the loop it will become more difficult to get trains in and out. With the additional flexibility afforded by the four miles of heavy track, the yard at Janousek and the new natural gas line – the Napa Junction industrial park will become an engine for economic growth in the area.

These businesses will have a significant impact on employment in the area. Dakota Plains has 10 employees, the ethanol plant will have 50 to 70, the pellet plant will likely have 12. These are new jobs and good jobs for the area.

In addition, the construction projects alone will provide not only construction jobs but taxes back to the state. Between the ethanol plant, the pellet plant and the natural gas line – there will be hundreds of millions of dollars of construction. TIGER grand guidance says that \$96,000 of construction provides one job/year (this includes all jobs – not just construction jobs). If we assume the upcoming construction projects are \$250 million – that means over 2500 construction jobs will be created.

The taxes generated by the construction of the businesses at Napa Jct and the rail project will return millions of tax dollars to the state. Again, if we assume between the pellet plant, the ethanol plant, the gas line and the rail project there is \$250 million in construction — the state will probably realize \$10 million in excise tax alone. The ongoing property tax revenues to the state and local governments are another important benefit.

However, all this development relies on one thing — good rail service. Without rail, the industrial park would not exist. It is vitally important to support the industrial park with good rail infrastructure. The site has good service via the BNSF and the ability to access the interchange rights described in the BNSF Settlement agreement. However, it is important to improve the ability of the industries to move and store cars as needed before they leave the industrial park.

Ensure Connectivity for Critical Industries

Agriculture is the largest industry in South Dakota. The efficient movement of agricultural products makes South Dakota ag products more competitive in a world market. This project will improve efficiency for movements of raw agricultural products such as corn and soybean and support new value-added products such as ethanol and high protein DDG pellets.

Maintain State Railroad Assets in a State of Good Repair

The Napa Platte Line is a state-owned asset. Other than improving the wye years ago little improvements have been made. This project will improve the first four miles to a high standard. It will add temporary car storage capacity and logistical flexibility at Janousek. Longer term, if

the rail line is sold, the plan is to improve the line to Tabor enough to provide rail service to Tabor.

Reduce Highway Impacts.

The project will support business development at Napa Jct. The reduction in overall truck traffic is significant. No longer will farmers need to deliver grain to distant elevators. For the purpose so developing an estimate we assumed trucking distance of grain into the elevator would be reduced by 70 miles. There is a corresponding reduction in damage to the roads, reduced truck crashes, reduced emissions. Those values are detailed in the benefit cost study. The reduced road maintenance costs are nearly \$9 million over 20 years. There will be shift in traffic patterns, with local roads leading to Napa Jct seeing greatly increased traffic volumes.

Improved Railroad Safety, Security and Resiliency

The look at Napa Jct is not adequate to support the rail needs of an elevator, pellet plant and ethanol plant. This project will provide the additional capacity and flexibility to support the planned industries at Napa Jct. In addition, the sale of the line and the project will support opening the line and providing service to at least Tabor.

## **Project Summary**

The project will replace 90% of the ties to Janousek, replace the existing rail with 115 lb or heavier rail, replace the crossings to Janousek, install a mainline switch to a yard location at Jonousek, install 6000' of 115lb or greater yard track at Janousek.

While not part of the federal project – if the line is sold we will improve the rail to Tabor to enable service to the Tabor Elevator.

## Proposed Project Funding

We propose an 80/20 split in funding for \$4.5 million total project costs - \$3.6 million in grant funds and \$900,000 in private funds. We are not requesting any state funds.

We propose to pay the state \$1.5 million for the Napa Platte Line. We suggest the transfer of ownership happen after project competition.

## **Project Readiness**

This is a smaller project, with well understood engineering and construction parameters.

## Plans Readiness

As a smaller, relatively simple project plans can be developed in a very short period of time.

#### **Environmental Readiness**

No environmental work has been done. Most of the project will likely fall under a Categorical Exclusion. The yard location has been previously disturbed and may or may not qualify for a

categorical exclusion. There will be no additional ROW needed, the project will be constructed within the existing ROW.

Overall Benefit

Attached is an explanation of the BCA and the assumptions used to calculate the BCA. Depending upon the Net Present Value percentage used the B/C ratio is 41:1 (7% NPV) or 62:1 (3% NPV).

Party Tasked with Developing the Application

We will develop the application, but request SDDOT assistance with the environmental process. We will retain consultants to perform the field work for the environmental documentation.

Proposed funding for developing the application

We will pay for the development of the application.

## BCA for Napa Platte Project

#### General Approach

The overall goal is to improve the train handling capacity at Napa Junction to support the industries located at Napa. Once there are multiple industries at Napa, the loop will become congested or blocked at times for additional trains coming in. There needs to a place for these trains to go. Also — there may be smaller trains or even individual cars coming in and out — there needs to be a place for these cars to be staged. Without this additional flexibility the industrial park at Napa Jct will cease to grow. I have calculated the benefit based upon train movements for the entire park and compared to the cost of this project.

The existence of a large industrial businesses that use and ship out agricultural products should have an impact on prices paid to farmers. Based upon past project results I have assumed that to be 27 cents per bushel. This would be the difference paid to farmers. This benefit comes from the reduced cost of transporting grain or ethanol or pellets to their destination by rail. At the same time the farmer benefits directly by having a facility destination closer to their farm — reducing transportation costs. The state and local governments benefit by reduced local truck miles and wear on the highways. If there is reduced trucking miles, there are less crashes — also a benefit

I used \$2.90 per gallon for diesel fuel. I used the cost of VOC, NOx, SO2 and PM as described in the FRA BCA document (Table 9). I used the rate of fatalities, injury, and property damage as described in the latest SDDOT crash reporting. I used the cost of those crashes from Table 4 of the BCA guidance. Because SDDOT doesn't report crash statistics in as many categories as presented in the BCA guidance, I used values of \$9,600,000 for a fatality, \$125,000 for minor injury and \$4552 for property damage only. The guidance has a value for major injury that is much higher, but SDDOT does not report that category. I used the value in the table for minor injury – a much more conservative number. These dollar amounts as shown in the KABCO Level part of the table – the MAIS Level table had values that were much higher (except for the fatality) – so the use of the KABCO is conservative.

I used emission rates for a 2013 model truck as described in a report entitled "Updated Emission Factors of Air Pollutants from Vehicle Operations in GREET using MOVES" done by Argonne National Labs in September 2013.

I calculated the benefits with both 7% NPV and 3% NPV.

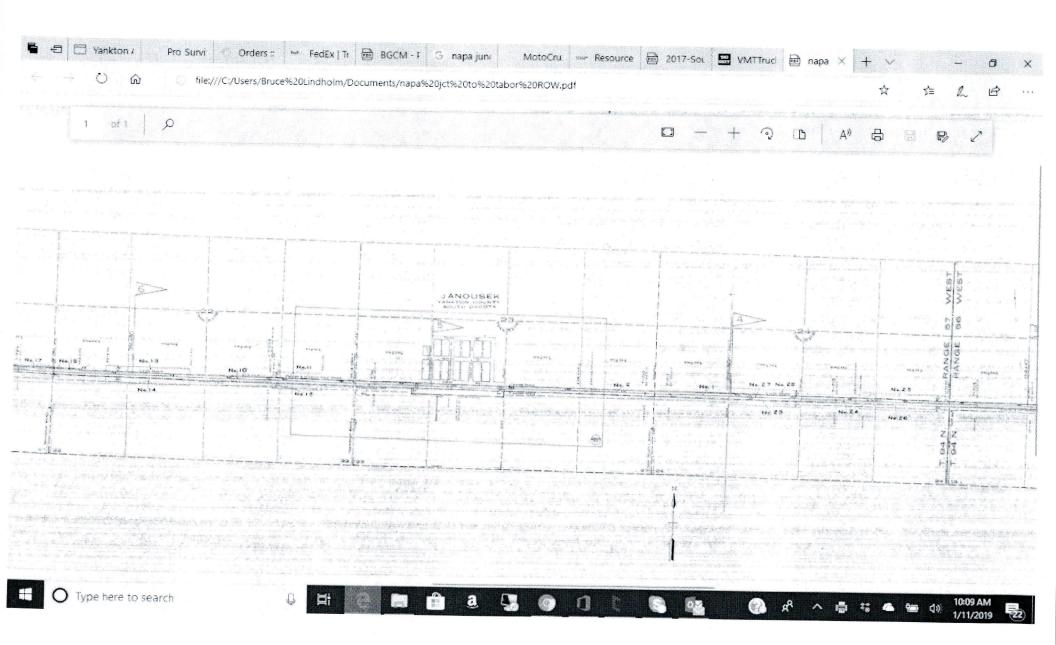
# Attachment #3D

	Tr of ec de bushels of grain ex	pressed by basis	Gallons of Fuel Saved	Value of Fuel Saved \$601,481 \$705,185 \$3,650,370 \$3,733,333 \$3,816,296 \$3,899,259 \$3,982,222 \$4,065,185		\$74,667 \$79,333 \$410,667 \$420,000 \$429,333 \$438,667 \$448,000	\$143,360.00 \$152,320.00 \$788,480.00 \$806,400.00 \$824,320.00 \$842,240.00 \$860,160.00	\$105,123.70 \$111,693.93 \$578,180.34 \$591,320.80 \$604,461.26 \$617,601.72 \$630,742.19	Cost savings due to reduced property damage crashes \$3,469.88 \$19,406.13 \$19,837.38 \$20,268.62 \$20,699.87	\$1,100.19 \$5,695.08 \$5,824.51 \$5,953.94 \$6,083.38 \$6,212.81	\$255,211.66 \$261,011.92 \$266,812.19 \$272,612.45 \$278,412.72	Emission benefit SO2 \$892.32 \$948.09 \$4,907.75 \$5,019.29 \$5,130.83 \$5,242.37 \$5,353.91	Emission Benefit PM 513,905.64 514,774.74 576,481.00 578,219.21 579,957.41 581,695.61 583,433.82	\$62,235.54 \$66,125.26 \$342,295.49 \$350,074.93 \$357,854.37 \$365,633.82 \$373,413.26	Total benefits \$3,150,317.37 \$3,413,323.31 \$17,668,967.74 \$18,070,535.19 \$18,472,102.64 \$18,873,670.09 \$19,275,237.54	\$2,981,329 \$14,423,141 \$13,785,925 \$13,170,354 \$12,576,323 \$12,003,649	3%NPV benefits 53,061,533 53,223,641 516,216,796 516,117,793 516,011,774 515,898,791 515,779,459
8 2026 9 2027 10 2028 11 2029 12 2030 13 2031 14 2032 15 2033 16 2034 17 2035 18 2036 19 2037 20 2038	\$0,000,000 \$1,000,000 \$2,000,000 \$3,000,000 \$4,000,000 \$5,000,000 \$5,000,000 \$7,000,000 \$9,000,000 \$9,000,000 60,000,000	\$13,230,000.00 \$13,500,000.00 \$13,770,000.00 \$14,040,000.00 \$14,910,000.00 \$14,850,000.00 \$15,120,000.00 \$15,120,000.00 \$15,390,000.00 \$15,930,000.00 \$16,200,000.00 \$16,470,000.00	1270370 1296296 1322222 1348148 1374074 1400000 1425926 1451852 1477778 1503704 1529630 1555556 1581481	\$4,065,185 \$4,148,148 \$4,231,111 \$4,314,074 \$4,397,037 \$4,480,000 \$4,562,963 \$4,645,926 \$4,728,889 \$4,811,852 \$4,811,852 \$4,877,778 \$5,060,741	7777778 7933333 8088889 8244444 8400000 8555556 8711111 8866667 9022222 9177778 9333333 9488889	\$457,333 \$466,667 \$476,000 \$485,333 \$494,667 \$504,000 \$513,333 \$522,667 \$532,000 \$541,333 \$550,667 \$560,000 \$569,333	\$878,080.00 \$896,000.00 \$913,920.00 \$931,840.00 \$949,760.00 \$967,680.00 \$1,003,520.00 \$1,021,440.00 \$1,039,360.00 \$1,075,280.00 \$1,075,280.00 \$1,093,120.00	\$643,882.65 \$657,023.11 \$670,163.57 \$683,304.04 \$696,444.50 \$709,584.96 \$722,725.42 \$735,865.88 \$749,006.35 \$762,146.81 \$775,287.27 \$788,427.73 \$801,568.20	\$21,131.12 \$21,562.36 \$21,993.61 \$22,424.86 \$22,856.11 \$23,287.35 \$23,718.60 \$24,149.85 \$24,581.10 \$25,012.34 \$25,443.59 \$25,874.84 \$26,306.08	56,342.24 56,471.68 56,601.11 56,730.45 56,859.98 56,989.41 57,118.85 57,248.28 57,377.71 57,507.15 57,636.58 57,66.01 57,895.45		\$5,465.45 \$5,576.99 \$5,688.53 \$5,800.07 \$5,911.61 \$6,023.15 \$6,134.69 \$6,246.23 \$6,357.77 \$6,469.31 \$6,580.39 \$6,692.39	\$83,433.82 \$85,172.02 \$86,910.23 \$88,648.43 \$90,386.64 \$92,124.84 \$93,863.05 \$95,601.25 \$97,339.46 \$99,077.66 \$100,815.86 \$102,554.07 \$104,292.27 \$106,030.48	\$373,413.26 \$381,192.70 \$388,972.14 \$396,751.59 \$404,531.03 \$412,310.47 \$420,089.92 \$427,859.36 \$435,648.80 \$443,428.24 \$451,207.69 \$458,987.13 \$466,766.57 \$474,546.02 \$7,479,934.32	\$19,676,804.99 \$20,078,372.43 \$20,479,939.88 \$20,881,507.33 \$21,283,074.78 \$21,684,642.23 \$22,086,209.68 \$22,487,777.13 \$22,889,344.57 \$23,290,912.02 \$23,692,479.47 \$24,094,046.92 \$24,495,614.37	\$12,003,649 \$11,452,080 \$10,921,304 \$10,410,963 \$9,920,654 \$9,449,940 \$8,998,356 \$8,565,413 \$8,150,605 \$7,753,413 \$7,373,306 \$7,009,750 \$6,662,205 \$6,330,132	\$15,779,459 \$15,654,225 \$15,523,517 \$15,387,743 \$15,247,292 \$15,102,536 \$14,953,828 \$14,801,507 \$14,645,895 \$14,487,297 \$14,326,006 \$14,162,299 \$13,996,441 \$13,828,684

# NAPA to Janousek Quantities and Cost Estimate

Description of work	Units	Pr	ice per unit	Es	timated Cost
New Ties - each	10,000	) \$	48.00	\$	480,000.00
Relay ties - each	5,000	) \$	28.00	\$	140,000.00
Tie Distribution/installation - each	15,000	,	23.00	\$	345,000.00
Tie Disposal - each	15,000	\$	6.00	\$	90,000.00
Ballast Purchase - ton	25,500	\$	17.00	\$	433,500.00
Ballast Distribution - ton	25,500	\$	6.00	\$	153,000.00
switches	4	\$	60,000.00	\$	240,000.00
Surfacing/Tamping - mile	5.1	\$	4,200.00	\$	21,420.00
rail replacement	26,928.0	\$	81.00	\$	2,181,168.00
Replace crossings	4	\$	5,000.00	\$	20,000.00
Engineering				\$	400,000.00
				\$	4,504,088.00

## Attachment #3D



# Attachment #3E





# STC Grant Application Sisseton Milbank Railroad Modernization Project – Phase 1 Lake Farley Bridge Replacement



#### Project Overview:

This project is the first phase of the reconstruction of the Sisseton Milbank Railroad (SMRR). While the rest of the railroad needs a significant amount of work – the condition of the Lake Farley Bridge must be done as soon as possible. The SMRR plans on applying for a future BUILD grant to rebuild the rest of the railroad.

The proposed project is to replace bridge 0-900 over Lake Farley in Milbank. The bridge is in poor condition – please see the photos, bridge inspection reports, and the project description developed by Civil Design.

The proposed project has an estimated cost of \$1.937 million. The SMRR will provide the 20% match with private funds. We understand that preliminary plans, application to USDOT and environmental work will also be the responsibility of SMRR.

The reconstruction of the Sisseton Milbank Railroad Road is listed in the 2014 South Dakota State Rail Plan in Table 41 - Potential Investment Opportunity List – as a Track Condition Project.

Support Economic Growth and Development:

Wheaton Dumont owns the Sisseton Elevator. The elevator currently ships 800 to 1000 (about 3 million bushels) cars per year on the Sisseton Milbank Railroad. Wheaton Dumont also ships 3 million bushels per year by truck to a Canadian Pacific served elevator 37 miles away. The trucked 3 million bushels would move to rail transportation if the line is upgraded. If the line is upgraded to allow for the shipment of shuttle trains, Wheaton Dumont will construct a new shuttle elevator south of Sisseton. Trains can be interchanged with the BNSF at Milbank or taken by Twin Cities & Western Railroad to be interchanged with the Canadian National, Canadian Pacific or the Union Pacific. Having four connecting railroads greatly expands the possible market for area commodities.

Wheaton Dumont anticipates first year volume of the new elevator to be 8 million bushels with gradual expansion to 17 million bushels per year. Currently the elevator brings in 12,000 tons of fertilizer per year by truck. The truck haul for this fertilizer is 185 loaded miles. The new elevator will be able to accept fertilizer by rail – which should reduce input costs for local farmers.

An expanded elevator will have additional employees.

There are other shippers on the line. A plastic film manufacturing business owned by the Sisseton Wahpeton Oyate receives 6 to 12 cars per month of plastic pellets. A smaller elevator in Wilmot ships a few cars per year by rail. These businesses will benefit by a project to replace the bridge to keep the line open and a future project to upgrade the line. If the bridge is not replaced, the plastic film business owned by the Sisseton Wahpeton Oyate may be in jeopardy.

The construction projects alone will provide not only construction jobs but taxes back to the state. TIGER grant guidance says that \$96,000 of construction provides one job/year (this includes all jobs – not just construction jobs). If we assume the bridge replacement project is \$1.937 million that means the project will create 20 jobs.

Again, if we assume the bridge project is \$1.937 million – the state will probably realize \$77,000 in excise tax. This project supports the application of future grants to reconstruct the entire line in Phase 2 of the project. Phase 2 will be a \$26 million project and will provide many more direct and indirect jobs, taxes and other benefits.

**Ensure Connectivity for Critical Industries** 

Agriculture is the largest industry in South Dakota. The efficient movement of agricultural products makes South Dakota ag products more competitive in a world market. This project will improve efficiency for movements of raw agricultural products such as corn and soybean and support lower fertilizer costs for farmers.

The bridge replacement will also allow the Sisseton Wahpeton Oyate - owned plastic film business to continue their business as they are now.

Maintain State Railroad Assets in a State of Good Repair

The Sisseton Milbank is not a state-owned asset. However, the proposed shuttle elevator will provide access to shuttle train economics. The bridge project by itself is needed to keep the line open and operating safely.

Reduce Highway Impacts.

The project will support business development on the SMRR. The reduction in overall truck traffic once Phase 2 is completed is significant. No longer will farmers need to deliver grain to distant elevators. For the purpose of developing a benefit estimate we assumed trucking distance of grain into the elevator would be reduced by 37 miles and the reduced mileage for inbound fertilizer would be reduced by 185 loaded miles. There is a corresponding reduction in damage to the roads, reduced truck crashes, reduced emissions. Those values are detailed in the benefit cost study. The reduced road maintenance costs are a little more than \$3 million over 20 years. There will be shift in traffic patterns, with local roads leading to Sisseton seeing increased traffic volumes.

If Phase 1 is not completed, the bridge will likely get to the point it will no longer safely support rail traffic. In that case the 3 million bushels now moving by rail will move by truck – adding 3300 loaded truck trips per year onto the highway system.

Improved Railroad Safety, Security and Resiliency

The Sisseton Milbank Railroad and the Lake Farley Bridge are in very poor condition. For the line to remain active, the bridge needs to be replaced and then the line needs to be rebuilt. The bridge replacement is the Phase 1 of rehabilitating the line.

### **Project Summary**

The purpose of the proposed project is to rehabilitate Bridge 0-900 on the Sisseton Milbank Railroad (SMRR). The SMRR is a subsidiary of the Twin Cities & Western Railroad (TCWR). Existing Bridge 0-900 is located on the SMRR Mainline at Milepost 1.40, is 176 feet long and spans over Lake Farley just northwest of Milbank, SD. The existing bridge is an open deck timber trestle structure with a total of eleven (11) spans comprising of 3-ply timber stringers under each rail and bent substructures consisting of timber caps and six (6) timber pile at each bent location. The existing rail over the bridge is 115RE jointed rail dated 2016 and is in good condition.

The purpose of this project is to replace Bridge 0-900 which provides the SMRR vital access to the TCWR, which in turn provides access to all Class 1 railroads. With the north end of the SMRR mainline dead-ending, this is the only route available to get freight along the 37 miles of SMRR mainline to market. In addition, the existing structure currently does not meet the required E-rating of the freight being shipped due to the bridge's poor condition and exceedingly long timber span lengths. Due to the severe conditions that the bridge substructure is in, it is not feasible for repairs to be made due to multiple rotting and failed timber piles throughout the structure.

The proposed replacement structure consists of a ballasted deck prestressed slab beam bridge with an overall length of approximately 184 feet in place of the existing structure. The beams would be supported by abutments at the bridge ends and intermediate bents between spans. The abutments would consist of a precast cap, backwall and wingalls, with the cap being supported on driven steel H-piles. The intermediate bents would consist of a precast cap supported on driven steel H-piles. Precast members are proposed for use to minimize the amount of time the mainline would be out of service.

In order to perform the required bridge construction-related work, access and staging SE of the site is required. In addition, a temporary causeway will require construction in order to access and work alongside the bridge. The temporary causeway will be constructed of adequate size with a material sufficient to support equipment to facilitate removal of the existing structure and installation of the proposed structure. One of the main constraints of the project is the inability to directly access the bridge. The existing track embankment extends approximately 300 feet into the lake from each end, without any access alongside, before the beginning of the bridge is reached. This requires considerable causeway length in order for equipment to access the bridge. In addition, track work will be required on the new structure as well at each bridge end for a length sufficient to tie back into existing mainline grades. New cross ties will be installed on the bridge and approaches and existing rail being salvaged for reinstallation. Without the assistance of Special Transportation Circumstance (STC) grant funding, this project will not be able to be completed.

#### **Proposed Project Funding**

We propose an 80/20 split in funding for \$1.937 million total project costs - \$1.55 million in grant funds and \$387,400 in private funds. We are not requesting any state funds.

#### **Project Readiness**

This is a smaller project, with well understood engineering and construction parameters.

#### Plans Readiness

A detailed estimate is attached to this application. Much of the preliminary engineering has been completed.

#### **Environmental Readiness**

No environmental work has been done. As this is a complete bridge replacement in a water environment the environmental effort will be more extensive than for track replacement. If this project moves ahead, the environmental process for Phase 2 will be less difficult.

#### Overall Benefit

Attached is an explanation of the BCA and the assumptions used to calculate the BCA. I considered two ways of calculating the benefit cost ratio of the project. The first was to assume the benefit is derived from the completion of both phases – so the entire railroad is rebuilt, and the shuttle elevator is built. In that case, depending upon the Net Present Value (NPV) percentage used the B/C ratio is 17.6:1 (7% NPV) or 26.3:1 (3% NPV).

The second assumption was that only the first phase is built – the rest of the line never gets rebuilt and the Sisseton Elevator continues business much as it is now with modest growth. In this case the assumption is the bridge must be replaced, if it is not the line will no longer support traffic. The B/C ratio is 6.14:1 (7% NPV) or 8.80:1 (3% NPV).

Party Tasked with Developing the Application

We will develop the application, but request SDDOT assistance with the environmental process. We will retain consultants to perform the field work for the environmental documentation. We request DOT submit the application and administer the grant.

Proposed funding for developing the application

We will pay for the development of the application.

BCA for SMRR

#### General Approach

The project on the SMRR is to replace the Lake Farley Bridge. This project is phase 1 of reconstructing the entire railroad. We calculated the benefit cost ratio two ways. One is assuming ultimately the entire line gets rebuilt and a shuttle elevator is built at Sisseton. The benefits of the reconstructed line are compared against the cost of replacing the bridge. The other way was to calculate the benefits of keeping the line open by replacing the bridge. Phase 1 will maintain the line at its current level of traffic, and we assumed modest increases in traffic.

The existence of a large shuttle elevator that ships out agricultural products should have an impact on prices paid to farmers. Based upon past project results we assumed that to be 27 cents per bushel. This would be the difference paid to farmers. This benefit comes from the reduced cost of transporting grain to a rail destination and delivering fertilizer by train to a new elevator. We assumed steady growth in grain volumes moved by rail and modest growth of fertilizer moving into the facility. At the same time the farmer benefits directly by having a facility destination closer to their farm – reducing transportation costs. The state and local governments benefit by reduced local truck miles and wear on the highways. If there is reduced trucking miles, there are less crashes – also a benefit.

The BCA was performed over a 20-year period as required by federal guidance. We used \$2.90 per gallon for diesel fuel. We used the cost of VOC, NOx, SO2 and PM as described in the FRA BCA document (Table 9). We used the rate of fatalities, injury, and property damage as described in the latest SDDOT crash reporting. We used the cost of those crashes from Table 4 of the BCA guidance. Because SDDOT doesn't report crash statistics in as many categories as presented in the BCA guidance, we used values of \$9,600,000 for a fatality, \$125,000 for minor injury and \$4552 for property damage only. The guidance has a value for major injury that is much higher, but SDDOT does not report that category. We used the value in the table for minor injury – a much more conservative number. These dollar amounts as shown in the KABCO Level part of the table – the MAIS Level table had values that were much higher (except for the fatality) – so the use of the KABCO is conservative.

We used emission rates for a 2013 model truck as described in a report entitled "Updated Emission Factors of Air Pollutants from Vehicle Operations in GREET using MOVES" done by Argonne National Labs in September 2013. We calculated the benefits with both 7% NPV and 3% NPV.



## SISSETON MILBANK RAILROAD COMPANY

RAILROAD BRIDGE INSPECTION REPORT

BRIDGE NO.: 0-900

LOCATION			
Subdivision:	N/A	Milepost:	1.4
Nearest Town:	Milbank	LAT:	45.227666
Bridge Crosses	Lake Farley	I ONG:	-96 649443



1,4000 (1,4000)	STEEL ST
Weather:	Sunny, Calm
Temperature (Air):	51 °F
Inspection Date:	5/15/2018
Inspection Time:	7:20 AM
Inspector(s):	Chris Brozik & Tyson Mitze
Report Date:	5/22/2018
_	01/////

Inspector Signature:

#### **BRIDGE INFORMATION**

Structure Type:	Open Dec	k Timber Pile Trestle	
Deck Type:	Open	Skew:	0°
No. Tracks:	1	No. Bents:	12
No. Spans:	11	No. Piers:	-
Overall Length:	176 ft	No. Abutments:	-
Max. Height:	13.7 ft	Walkway:	No
Alignment:	Tangent	Utilities:	None observed

**BRIDGE ACCESS** 

Nearest Xing: \_\_\_\_\_ Distance: \_\_\_\_ Adjacent Road: \_

Describe Access: Accessed by hi-rail truck on SMRR Mainline.

RECOMMENDA	THONS	
Rec. No.:	<u>Priority:</u>	<u>Description:</u>
1	2	Replace Bent 2 cap
2	3	As an alternative to recommended repairs below, consider structure replacement
3	3	Replace reject bridge ties
4	3	Replace or Post Bent 2 Pile 3 & 5 (consider Bent 2 replacement)
5	3	Replace or Post Bent 3 Pile 2 & 3
6	3	Replace Bent 5 Pile 2,3,4 (consider Bent 5 replacement)
7	3	Replace or Post Bent 6 Pile 2 & 4
8	3	Replace Bent 7 (cap and piling)
9	3	Span 7, Ply 4 & 6 @ Bent 8 - improve bearing to 4" minimum
10	3	Replace Bent 8 Pile 1,4,5 (consider Bent 8 replacement)
11	3	Replace or Post Bent 10 Pile 2 & 5
12	4	Replace or Post Bent 11 Pile 3,5,6 (consider Bent 11 replacement)
13	4	Tighten loose packing bolts on Span 2, Ply 4-6 @ Bent 3
14	4	Raise approaches to match bridge elevation and for smoother transition
15	5	Replace first 5 approach ties (min.) each end of bridge with 11' long ties
16	5	Install sway bracing on Bents 2-11
17	5	Clean ballast off tops of stringers between bridge ties prior to next inspection
18	5	Install additional riprap around front and side of south and north headwall

INSPECTION RES	ULTS (CONDITION RATING:	7-9 Good 5-6 Fai	r 3-4 Poor 1-2 Critical 0 Out of Service)
Inspection Type:	Periodic (Annual)	Superstructure:	6
Deck Condition:	5 - 64/165 reject bridge ties	Substructure:	3
Walkway:	N/A	Channel:	7 - good
Handrail:	N/A	Drift:	6 - minimal drift collection on bents
Approaches:	6 - low, surfacing planned	Vegetation:	6
Headwalls:	6 - minor tipping & damage	Other:	Lack of sway bracing on intermediate bents
Any Required	Train Restrictions?: No		Need for RBE Notification?:

## SUPERSTRUCTURE & SUBSTRUCTURE FINDINGS:

		betoke i livbings.
Finding No.:	Rating:	<u>Description:</u>
1	5	Bent 1, Cap - vertical split west end approx. 3' into cap with start of deterioration
2	6	Bent 1, Piles 1-5 - OK
3	7	<b>Span 1, Ply 1-6</b> - OK
4	3	Bent 2, Cap - reject; 2 severe vertical splits decay, crushing observed at stringers,
		condition has worsened since previous inspection
5	6	Bent 2, Piles 1,2,4,6 - OK
6	3	Bent 2, Piles 3,5 - reject; hollow sounding, cored (2017) - 2" remains around perim.
7	6	Span 2, Ply 1-6 - OK, loose packing bolts on Ply 4-6 @ Bent 3
8	7	Bent 3, Cap - OK
9	6	Bent 3, Piles 1,4,6 - OK
10	3	Bent 3, Piles 2,3 - reject; pile 2 cored (2017) 1' from top with 1.5" remaining perim.
11	5	Bent 3, Pile 5 - hollow sounding, cored (2017), 6" remaining around perimeter - OK
12	6	<b>Span 3, Ply 1-5</b> - @ Bent 3 ply 4-5 minor crushing (1/4"); @ Bent 4 ply 1-3 minor
		crushing (1/4"), ply 4-5 crushing (3/4")
13	7	<b>Span 3, Ply 6</b> - OK
14	7	Bent 4, Cap - OK
15	6	Bent 4, Piles 1,3,4,5,6 - OK
16	4	Bent 4, Pile 2 - full vertical split, hollow sounding, void present (unknown size)
17	7	<b>Span 4, Ply 1-6</b> - OK
18	7	Bent 5, Cap - OK
19	6	Bent 5, Piles 1,5,6 - OK
20	3	Bent 5, Piles 2,3,4 - reject; hollow sounding, P4 cored (2017) - 2" remaining, 90°
		core - 4" remaining around perimeter
21	7	Span 5, Ply 1-6 - OK, loose packing bolt Ply 1-3 @ Bent 6
22	7	Bent 6, Cap - OK
23	6	Bent 6, Piles 1,3,5,6 - OK, Pile 3 - 3/8" gap between cap/pile, Pile 5 - vertical split
24	3	Bent 6, Piles 2,4 - reject; hollow sounding
25	7	<b>Span 6 - Ply 1-6</b> - OK
26	7	Bent 7, Cap - OK
27	6	Bent 7, Piles 1 - OK
28	3	Bent 7, Piles 2,3,4 - reject; P2 severe top rot, P3 core (2017) - 2" remaining around
		perimeter, P4 - physical examination of large decay through old hardware hole
29	4	Bent 7, Pile 5 - suspect; vertical splits through piling, split has worsened (2018)
30	3	Bent 7, Pile 6 - reject; Pile has failed @ cap, approx. 25% bearing on cap remains
31	7	Span 7, Ply 1,2,4,5 - OK

#### **SUPERSTRUCTURE & SUBSTRUCTURE FINDINGS (CONT'D):**

Finding No.:	Rating:	<u>Description:</u>
32	4	<b>Span 7, Ply 3,6</b> - @ Bent 8 Ply 3, 3.5" bearing; Ply 6, 2-1/2" bearing (4" min. req'd)
33	7	Bent 8, Cap - OK
34	3	Bent 8, Pile 1 - reject; 35" down large decay 13" into pile (65% loss estimated),
		vertical split fully through pile
35	6	<b>Bent 8, Piles 2,3,6</b> - OK
36	3	Bent 8, Pile 4,5 - reject; cored (2017) P4 - 2" remains perim.; P5 - 3" remains perim.
37	7	<b>Span 8, Ply 1-6</b> - OK
38	7	Bent 9, Cap - OK
39	5	Bent 9, Piles 1,3 - vertical splits observed, OK
40	6	Bent 9, Piles 2,4,5,6 - OK
41	7	<b>Span 9, Ply 1,2,4,5,6</b> - OK
42	5	Span 9, Ply 3 - vertical split at Bent 10, unknown depth for length of 2'
43	7	Bent 10, Cap - OK
44	6	Bent 10, Pile 1 - minor vertical splitting, OK
45	3	Bent 10, Piles 2,5 - reject; hollow and severe vertical splitting
46	6	Bent 10, Piles 3,4,6 - OK
47	7	Span 10, Ply 1-3 - OK
48	6	Span 10, Ply 4-6 - minor fire damage from small campfire (charring minimal) - OK
49	6	Bent 11, Cap - small vertical splitting 1/4 depth & 3' length @ West end
50	6	Bent 11, Piles 1,2,4 - OK
51	5	Bent 11, Piles 3,5,6 - P3 suspect - core (2017) & multiple splits, P5 suspect - decay
		@ hardware below waterline, P6 start of deterioration at waterline
52	3	Bent 11, Sway Bracing - reject; damaged
53	7	<b>Span 11, Ply 1-6</b> - OK
54	8	Bent 12, Cap - OK, relatively new cap
55	6	Bent 12, Piles 1-5 - OK

<u>Note:</u> Piling exposed  $\approx$  33" (2018) above waterline @ Bent 8, unknown condition below waterline; no sway bracing on intermediate bents with the exception of Bent 11 (damaged). 115RE Rail (2016 stamp) upgrade across bridge @ 2018 insp.

#### **INSPECTION PHOTOS**

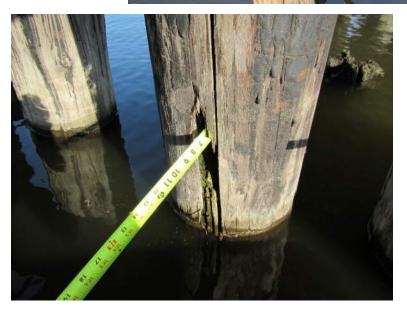
See Attached

## **BRIDGE 0-900 PHOTOGRAPHS**



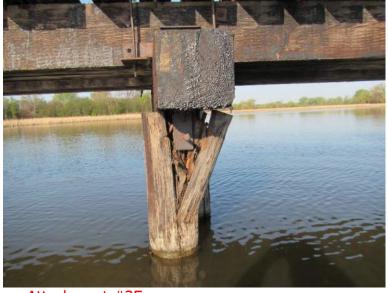
## Photo 1:

- Bent 2 cap vertical split & crushing observed
- 2018 Inspection Photo Ply 4-6 looking West
- 2018 Inspection Photo East End looking West
- CRUSHING HAS WORSENED SINCE LAST INSPECTION



## Photo 2:

 Example reject pile with high deterioration %



Attachment #3E

## Photo 3:

- Bent 7, Pile 6 looking West
- Failed Pile 6



#### SISSETON MILBANK RAILROAD

#### Bridge 0-900 Preliminary Opinion of Probable Cost FULL REPLACEMENT (ASSUMES 6" GRADE RAISE, 250 FT TIE IN EACH END)



Approx. Proposed Bridge Length = 184

BID ITEM NUMBER	DESCRIPTION		UNIT	BID UNIT PRICE		TOTAL BID PRICE	
1	Mobilization	1	Lump Sum	\$ :	150,000.00	\$	150,000.00
2	Clearing & Grubbing	1	Lump Sum	\$	5,000.00	\$	5,000.00
3	Remove Existing Rail & OTM	234	Track-Ft	\$	10.00	\$	2,340.00
4	Jointed Track Construction	234	Track-Ft	\$	150.00	\$	35,100.00
5	Cross Ties, Furnish & Install	140	Each	\$	125.00	\$	17,500.00
6	Ballast	300	Tons	\$	50.00	\$	15,000.00
7	Surfacing	684	Track-Ft	\$	10.00	\$	6,840.00
8	Erosion Control/SWPPP	1	Lump Sum	\$	40,000.00	\$	40,000.00
9	Access/Partial Length Causeway/Crane Platform/Crane Mats	1	Lump Sum	\$ 4	475,000.00	\$	475,000.00
10	Remove Existing Structure	176	Bridge-Ft	\$	250.00	\$	44,000.00
11	2'x2'x15' Precast Cap, Furnish	7	Each	\$	5,000.00	\$	35,000.00
12	2'x2'x15' Precast Cap, Install	7	Each	\$	3,000.00	\$	21,000.00
13	Precast Abutment Cap & Backwall, Furnish	2	Each	\$	8,000.00	\$	16,000.00
14	Precast Abutment Cap & Backwall, Install	2	Each	\$	4,500.00	\$	9,000.00
15	Precast Wingwall, Furnish	4	Each	\$	1,500.00	\$	6,000.00
16	Precast Wingwall, Install	4	Each	\$	1,500.00	\$	6,000.00
17	20" Prestressed Slab Beam w/ Vertical Curb, Furnish	8	Each	\$	10,000.00	\$	80,000.00
18	20" Prestressed Slab Beam w/ Walk, Furnish	8	Each	\$	11,000.00	\$	88,000.00
19	20" Prestressed Slab Beam, Install	16	Each	\$	3,500.00	\$	56,000.00
20	Walkway Handrail System	1	Lump Sum	\$	35,000.00	\$	35,000.00
21	HP 14 Pile Tip Reinforcement	27	Each	\$	150.00	\$	4,050.00
22	HP 14 x 89 Steel Bearing Pile, Furnish and Drive	2,400	Ft	\$	85.00	\$	204,000.00
23	(2) C10x20 Bent Bracing	7	Each	\$	7,500.00	\$	52,500.00
24	Granular Bridge End Backfill	40	Ton	\$	40.00	\$	1,600.00
25	Class C Riprap	750	Ton	\$	60.00	\$	45,000.00
26	Type B Drainage Fabric	720	SqYd	\$	4.00	\$	2,880.00
27	Railroad Protective Insurance	1	Lump Sum	\$	5,000.00	\$	5,000.00
						\$	1,457,810.00

CONTINGENCY (10%) = \$ 145,800.00

GEOTECHNICAL EXPLORATION = \$ 15,000.00

ENVIRONMENTAL MITIGATION CONTINGENCY = \$ 100,000.00

DESIGN ENGINEERING (9%) = \$ 131,200.00 CONSTRUCTION ENGINEERING (6%) = \$ 87,500.00

TOTAL PRELIMINARY OPINION OF PROBABLE COST = \$ 1,937,310.00

#### Assumptions:

Assumes bridge replaced with similar length (Existing = 176') and waterway opening - assumes low bridge beam elevation remains the same Assumes an extended track window to facilitate bridge removal and replacement (assumed 7-day window)

Assume a partial length causeway would be acceptable access when applying for USACE Permit (Called USACE - acceptable on phone call 1-15-19)

Assume ballast rock and/or riprap acceptable for temporary causeway



# Sisseton-Wahpeton Oyate

LAKE TRAVERSE RESERVATION

## Office of the Tribal Chairwoman

P.O. Box 509 | 112554 BIA HWY 711 Agency Village, South Dakota 57262 Phone: (605) 698-3911

January 20, 2019

Civil Design Inc. Attn. Rusty Olson 609 Main Ave. S. Brookings, SD. 57006

RE: 2019 BUILD Grant Application-Support Letter for Sisseton Milbank Railroad Rebuild Project. (Rural)

I am writing in support of the Better Utilizing Investments to Leverage Development (BUILD) Grant application being submitted by Civil Design Incorporated (CDI) for the Sisseton Milbank Railroad (SMRR) Modernization Project.

The SMRR runs north 37 miles from Milbank SD. north to Sisseton SD. Bringing goods by rail to the Northeast corner of SD and the Lake Traverse Reservation. We feel this modernization project will be a spur to the economic development of the Lake Traverse Reservation. Hauling agriculture products to and from the Lake Traverse Reservation at a larger quantity and faster rate. Also transporting our plastic pellets for the Sisseton-Wahpeton Oyate Bag factory which is a vital industry for the Tribes economic stability.

With the current railroad being outdated the SMRR is not able to transport propane along the Railway, once the modernization project is complete SMRR will be able to transport the propane gas to the Tribe, giving the Sisseton-Wahpeton Oyate Fuel Incorporated business vast opportunity for expansion and making the business better able to supply the propane gas to the northeast corner of SD. and the Lake Traverse Reservation.

Please accept The Sisseton-Wahpeton Oyate (SWO) of the Lake Traverse Reservations support for the very important **Sisseton Milbank Railroad (SMRR) Modernization Project.** 

Sincerely,

Ella Robertson

Chairwoman, Sisseton-Wahpeton Oyate of the Lake Traverse Reservation