

## CHAPTER 4: FREIGHT RAIL IMPROVEMENTS AND INVESTMENTS

### INTRODUCTION

The purpose of this chapter is to identify recent capital investment trends and to describe future rail improvements and investments that will address the ongoing freight movement utility, reliability, resiliency, and safety needs of South Dakota. Many of these projects focus on the opportunity for improvements to infrastructure that will enhance the capacity, safety, and efficiency of rail service and operations; climate change adaptation and environmental sustainability; and local economic development opportunities through enhanced rail access for new potential shippers.

Planned and proposed capital projects identified by South Dakota railroads, shippers, economic development agencies, and other stakeholders during the outreach activities conducted as part of the development of the South Dakota State Rail Plan are listed in this chapter. Projects selected to be prioritized for future public funding opportunities will be further detailed in **Chapter 5**.

### 4.1 RAIL CARRIER INVESTMENT NEEDS

#### 4.1.1 CLASS I RAILROAD INVESTMENT NEEDS

As private entities, Class I railroad companies in South Dakota generally must use private financing to cover the cost of equipment acquisition (such as locomotives and railcars) and infrastructure improvements aimed at renewing, upgrading, or expanding the rail network such as rail, ties, bridges, and signal systems. Railroads rely on a regulatory framework that provides sufficient return on investment as a means to accommodate these capital expenditures. Funding for capital programs can vary from year to year due to fluctuations in freight demand, economic trends, and other considerations.

Capital investment in rail infrastructure in South Dakota by BNSF and its predecessor, BN, has been robust and continuous since the 1980s. Historically, most projects were aimed at developing the capacity necessary to efficiently handle both the rail traffic originating and terminating in South Dakota and the rail traffic traveling through South Dakota. Notably, the ever-increasing agricultural output from South Dakota and the surge of coal shipments out of Wyoming's Powder River Basin had driven BN's investment in this region. Work has been performed to upgrade track structure and bridges to accommodate railcars with a maximum allowable gross weight of 286,000 lbs., and to expand and create new terminal facilities to accommodate dedicated unit trains of bulk commodities, such as coal, grain, and ethanol.

From 2013 through 2017, BNSF invested approximately \$220 million in routine infrastructure maintenance in South Dakota, including the replacement of rail and ties.<sup>63</sup> BNSF continues to invest heavily in its network, with a total systemwide capital investment of \$2.97 billion in 2021.<sup>64</sup>

CP did not identify specific investment needs for its trackage in South Dakota, but CP is committed to making continued investments in infrastructure, rolling stock, and other capital expenditures systemwide.

#### 4.1.2 CLASS II AND CLASS III RAILROAD INVESTMENT NEEDS

Class II (regional) and Class III (or short line) railroads generally face a different set of challenges meeting their needs than the Class I railroads, since they do not often possess the capital and technical resources, operating capacity and flexibility, or modern infrastructure of the larger Class I railroads.

Class II and Class III railroads typically rely upon private funding, public funding, or some combination of these sources to cover the capital cost of equipment acquisition and general infrastructure improvements. Some programs administered by the State of South Dakota and by the federal government are available to Class II and Class III railroads to help fund rail network improvement projects. The potential for this funding and its applicability to and Class II and Class III railroad improvement projects in South Dakota (including on State-owned lines) are discussed further in **Chapter 5**.

All Class II and Class III railroad line segments in South Dakota were originally constructed and operated by Class I railroads. In the 1980s, Class I railroads began to shed unprofitable branch lines following the passage of the federal Staggers Rail Act. Notably, C&NW sold its line between Winona, Minnesota, and Rapid City, South Dakota, to the DM&E in 1986.

Typically, the largest constraints on Class II and Class III railroads involve infrastructure-related restrictions that prohibit accommodating railcars with a maximum allowable gross weight of 286,000 lbs. (the current industry standard) and operational chokepoints caused by insufficient operating capacity on main lines, in rail yards, and locations where railroads interchange with each other.

Railcars with larger loading capacity provide greater operating efficiency by reducing labor, fuel, and maintenance costs while increasing capacity and synergy for rail operations and rail shippers. Most Class II and Class III railroads have a legacy infrastructure suited to low-density operations and railcars of lighter weight (gross weight of 268,000 lbs. or less). In order to accommodate the 286,000-lb. cars, Class II and III railroads must make upgrades to the track assets (i.e., rail, ties, and ballast) and bridges to handle the additional stress caused by transporting the heavier cars. Class II and Class III railroads that are unable to make the appropriate upgrades may be at a competitive disadvantage and lose business to transportation competitors, namely to trucks or nearby Class I railroads that are capable of handling the 286,000-lb. cars.

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<sup>63</sup> Yankton Daily Press & Dakotan, *BNSF Replacing Railroad Ties in Yankton Region*, October 2, 2018. Retrieved from: [https://www.yankton.net/community/article\\_2b67ed8c-c5f2-11e8-a1bf-23d624d90db0.html](https://www.yankton.net/community/article_2b67ed8c-c5f2-11e8-a1bf-23d624d90db0.html)

<sup>64</sup> BNSF Railway, BNSF Facts, March 2022. Retrieved from: [https://www.bnsf.com/bnsf-resources/pdf/about-bnsf/fact\\_sheet.pdf](https://www.bnsf.com/bnsf-resources/pdf/about-bnsf/fact_sheet.pdf)

Segments of the South Dakota rail network known to be incapable of handling these heavier loads are identified in **Chapter 2**.

Class II and Class III railroad chokepoints are often attributed to legacy infrastructure tailored to historical railroad practice, which can limit capacity and hamper the efficiency and flexibility of modern operations. Such factors include yard capacity that is insufficient for building longer trains, switching, and staging cars; and sidings that are of inadequate number, length, or location to accommodate the demands of present-day train operations where meet-pass events may be required when multiple trains are operating on the same line.

Some Class II and Class III railroads are further constrained by delays that stem from interchanging railcars with another carrier or in the use of trackage rights to access an isolated segment of their network. Further complicating interchanges between carriers are “paper barriers” or instances where for regulatory or other contractual reasons one railroad is unable to interchange with another railroad to which it physically connects or is limited in the volume of traffic it can interchange. Among other things, operational chokepoints and terminal congestion can harm quality of life in communities where stopped trains result in blocked crossings and cause delays to motorists and pedestrians.

## 4.2 CURRENT AND ONGOING PROJECTS IN SOUTH DAKOTA

This section lists current and ongoing projects in South Dakota, as of 2022.

### 4.2.1 CLASS I RAILROAD PROJECTS

#### 4.2.1.1 BNSF RAILWAY

BNSF did not identify any current or ongoing projects on its network in South Dakota.

#### 4.2.1.2 CANADIAN PACIFIC RAILWAY

CP did not identify any current or ongoing projects on its network in South Dakota.

### 4.2.2 CLASS II AND CLASS III RAILROAD PROJECTS

#### 4.2.2.1 RAPID CITY, PIERRE & EASTERN RAILROAD

Since its start-up on June 1, 2014, the RCPE has been aggressively investing in its infrastructure to better serve South Dakota and Wyoming. Since its inception, RCPE has spent over \$52 million in routine maintenance of way expense work, and over \$68 million in track and bridge capital improvements. This is an average annual combined total of over \$18 million per year spent by RCPE on its right-of-way. These investments enable RCPE to provide safe, efficient, and competitive freight services for its customers.

These significant investments, along with capital improvement work enabled by prior federal and state grants, have restored the eastern half of the RCPE (Pierre, South Dakota, to Tracy, Minnesota) to a 40

mph line capable of handling industry standard 286,000-lb. railcars. RCPE, in partnership with state and local officials, has facilitated significant new development along the railroad since 2014.

The focus for future line improvements now centers on the RCPE main line west of Fort Pierre to Rapid City. This line, known as the PRC Subdivision, serves the region of the state known as “West River.” For decades, operating speeds on the PRC Subdivision have been generally limited to 10 mph and carloads have been restricted to a weight limit of 263,000 lbs. The PRC Subdivision provides eastward freight connectivity for Rapid City, the second largest city of South Dakota, and forms a link between much of the West River Region of the state and the national rail network east of the Missouri River.

### MIDLAND RAIL IMPROVEMENT (STC FY 2020)

RCPE was awarded a \$2.2 million FY 2020 Special Transportation Circumstances (STC) grant for the \$2.8 million Midland Rail Improvement Project to complete the rehabilitation of four miles of main line track along the PRC Subdivision near Midland, South Dakota. The project will upgrade the four miles of track to permit heavier 286,000-lb. railcars and increase operating speeds to 25 mph. As shown in **Table 57**, the total project cost is approximately \$2.8 million (\$2.2 million in STC funds and \$0.6 million of non-federal matching funds).

**Table 57: Midland Rail Improvement Project Funding Table**

Source	Amount	Percent (%)
STC Federal Grant Request	\$2.2 million	80%
RCPE Match	\$0.6 million	20%
<b>Total Project Cost</b>	<b>\$2.8 million</b>	<b>100%</b>

### WEST RIVER FREIGHT RAIL STORM RESILIENCY PROJECT (STC FY 2021)

The West River Freight Rail Storm Resiliency Project has been approved by the South Dakota State Railroad Board to be advanced for selection by the FRA to receive a \$0.8 million FY 2021 STC grant.

At eight individual locations along the RCPE PRC Subdivision are structures that facilitate storm water and other flows into the Bad River and Boxelder Creek. Professional hydrology studies were completed in 2020 and early 2021 to address resiliency concerns. Seven culverts and one bridge structure were identified to be at significant risk of compromise in future heavy storms.

The project will enable the installation of larger culverts to allow for unrestricted passage of expected future storm events. The single bridge structure identified is proposed to be replaced with a new embankment and new culvert placement to better control future flood waters on the Bad River.

The project will provide immediate and clear public benefits:

- A more reliable means of transporting freight through the West River Region that is more capable of withstanding future significant rainfall or flooding events, providing better resiliency for freight shipments in the region.

- Avoidance of truck substitution required for freight shipments if the PRC Subdivision becomes unusable for a period of time after a significant rainfall event in the watershed areas it passes through; dependent upon the cause of the rail line outage and the seasonal shipping demands of the rail customers on the line, this could be avoidance of thousands of truck trips over multiple month periods of time.
- Facilitate and coordinate with future investments in the PRC Subdivision to continue to improve operations and resiliency across the entire route.

RCPE is contributing matching funds in the amount \$0.2 million, representing 20 percent of the \$1.0 million total project cost. **Table 58** shows the project funding sources and the total project cost.

**Table 58: West River Freight Rail Storm Resiliency Project Funding Table**

Source	Amount	Percent (%)
STC Federal Grant Request	\$0.8 million	80%
RCPE Match	\$0.2 million	20%
<b>Total Project Cost:</b>	<b>\$1.0 million</b>	<b>100%</b>

### SOUTH DAKOTA FREIGHT CAPACITY EXPANSION PROJECT (RAISE FY 2021)

SDDOT applied for and was selected to receive a \$22 million FY 2021 Rebuilding America Infrastructure with Sustainability and Equity (RAISE) grant to upgrade main line rail between Fort Pierre, South Dakota, and Rapid City, South Dakota.

Almost 90 miles of the PRC Subdivision main line still has old, lighter weight “jointed” rail. These 39-foot or shorter sections of rail are connected by joint bars bolted to the ends of the rail. The joints can deflect under the weight of passing trains, resulting in rail head wear on the ends of each section of rail and increased mechanical loading of ties and other material. In addition to rail replacement needs, the PRC Subdivision also has numerous trestle bridges that require upgrading to handle modern freight cars.

Modern, heavier continuously welded rail will eliminate the joints and deflection associated with the old, jointed rail. This project improves operating efficiency and reliability, increases safety, and helps stabilize the railroad which passes through the Pierre Shale geological formation, which poses other unique geotechnical challenges. The project will also upgrade bridges with strengthened stringers and caps to handle modern, fully loaded freight cars. These improvements together will allow RCPE to increase the maximum allowable gross weight capacity for railcars from 263,000 lbs. to 286,000 lbs. and increase operating speeds from 10 mph to 25 mph across the entire line between Fort Pierre and Rapid City.

**Figure 36** provides a map of the PRC Subdivision in South Dakota.

Figure 36: Map of RCPE PRC Subdivision



Source: Rapid City, Pierre & Eastern Railroad

As shown in **Table 59**, the total project cost is \$84.0 million. Recognizing the importance to the public and the economy of finishing this effort in a prompt fashion, a South Dakota Senate Bill (SB 93) was introduced and passed the legislature by overwhelming margins calling for \$20 million in state funds to be available to RCPE to use as non-federal matching funds for a federal grant to upgrade the line. Governor Noem signed the bill into law on March 22, 2021.

RCPE is providing an additional \$42.0 million in private non-federal matching funds for the project.

Table 59: South Dakota Freight Capacity Expansion Project Funding Table

Source	Amount	Percent (%)
RAISE Federal Grant Request	\$22.0 million	26%
RCPE Match	\$42.0 million	50%
State of South Dakota Match (SB 93)	\$20.0 million	24%
<b>Total Project Cost</b>	<b>\$84.0 million</b>	<b>100%</b>

### 4.2.2.2 D & I RAILROAD

#### DAKOTA AND IOWA RAILROAD MAIN LINE RAIL REPLACEMENT AND CROSSING IMPROVEMENT PROJECT (STC FY 2019)

DAIR was awarded a \$4.0 million FY 2019 STC grant for the \$5.0 million Dakota & Iowa Main Line Rail Replacement and Crossing Improvement Project to replace seven miles of 100-lb. per yard jointed rail with 115-lb. per yard continuous welded rail between Dell Rapids and Sioux Falls and upgrade four highway-rail grade crossings in Dell Rapids.

The project funding consists of \$4.0 million in STC funds and a \$1.0 million matching contribution from DAIR and the City of Dell Rapids for a total project cost of approximately \$5.0 million.

### 4.2.2.3 ELLIS & EASTERN RAILROAD

#### MINNESOTA-SOUTH DAKOTA RAIL IMPROVEMENT PROJECT (CRISI FY 2019)

EE directly applied for and was awarded an FY 2019 Consolidated Rail Infrastructure and Safety Improvements (CRISI) grant for the Minnesota-South Dakota Rail Improvement Project. This project is facilitating the restoration of roughly 38 miles of track between Brandon, South Dakota (near Sioux Falls), and Worthington, Minnesota. The project is upgrading 11 bridges, one siding, approximately six miles of rail, and 45 highway-rail grade crossings in order to facilitate the resumption of rail service on an intact portion of the EE that had previously sat disused for many years.

#### ELLIS & EASTERN SIOUX FALLS AREA BRIDGES (STC FY 2019)

EE was awarded a \$3.9 million FY 2019 STC grant for the Sioux Falls Area Bridges Project to reconstruct three bridges near Sioux Falls, South Dakota. The scope of work for Bridge P-106 includes adding another timber stringer cord, replacing timber pile caps, posting existing pile, replacing sway bracing and removal of debris around the bridge. The scope of work for Bridge P-125 includes removal of both existing timber approaches. The approaches would be replaced with steel piles, precast concrete abutments, precast concrete bent caps and precast solid slab beam spans. As shown in **Table 60**, the project funding consists of \$3.9 million in STC funds and a \$1.0 million non-federal matching contribution from EE for a total project cost of \$4.9 million.

**Table 60: Ellis & Eastern Sioux Falls Area Bridges Project Funding Table**

Source	Amount	Percent (%)
STC Federal Grant Request	\$3.9 million	80%
EE Match	\$1.0 million	20%
<b>Total Project Cost</b>	<b>\$4.9 million</b>	<b>100%</b>



### 4.2.2.4 RINGNECK & WESTERN RAILROAD

Since acquiring the formerly State-owned MRC line in 2021, RWRR through its parent company Watco has committed to ongoing track upgrade and maintenance activities to support rail traffic growth on this corridor. Prior to Watco’s acquisition of the line, former operator DSRC had completed a substantial reconstruction of the line between Mitchell and Presho, funded through multiple sources including the Railroad Trust Fund, the GOED Future Fund, and federal TIGER II and TIGER VI grants.

### MITCHELL-RAPID CITY MEET AND PASS SIDING (STC FY 2020)

RWRR was awarded a \$1.6 million FY 2020 STC grant for \$2.5 million Mitchell-Rapid City Meet and Pass Siding Project. The project will enable the construction of a new 10,000-foot meet/pass siding near Kimball, South Dakota. This siding will add capacity to the route to enable RWRR to support multiple shuttle trains simultaneously, alleviating a potential bottleneck at the Mitchell interchange. The new siding will improve operational flexibility on the line. As shown in **Table 61**, the total project cost is approximately \$2.5 million (\$1.6 million in STC funds, \$0.6 million from the Railroad Trust Fund, and \$0.3 million in other non-federal matching funds).

**Table 61: Mitchell-Rapid City Meet and Pass Siding Project Funding Table**

Source	Amount	Percent (%)
STC Federal Grant Request	\$1.6 million	60%
Watco Match	\$0.3 million	20%
South Dakota Railroad Trust Fund	\$0.6 million	20%
<b>Total Project Cost</b>	<b>\$2.5 million</b>	<b>100%</b>

### RINGNECK & WESTERN EFFICIENCY AND GROWTH PROJECT (STC FY 2021)

The Ringneck & Western Efficiency and Growth Project has been approved by the South Dakota State Railroad Board to be advanced for selection by the FRA to receive a \$0.8 million FY 2021 STC grant. RWRR proposes to build new railroad infrastructure at a site located on railroad-owned property at the intersection of US Highway 281 and Old Highway 16 in Plankinton, South Dakota (located at approximately MP 395), that will improve efficiency, reduce fuel consumption, and drive new transload capacity and economic development opportunities. The proposed project includes two main components: 1) a 558-foot locomotive shop track, and 2) two 1,500-foot transload tracks for new opportunities. Ancillary project work would include a loadout spur, access roadway for transloading, six new turnouts, and a maintenance pit for locomotive inspections.

The project has three main areas of benefit:

- RWRR has identified the opportunity to serve a new customer that is interested in receiving five cars per week of dimensional lumber product.
- The shop track will allow RWRR to perform locomotive maintenance in Plankinton instead of Chamberlain.



- The transload tracks will provide the ability to move rock into Plankinton by rail for both RWRR use and for use in other local construction projects.

As shown in **Table 62**, the total project cost is \$3.0 million. RWRR’s parent company, Watco, will provide a 40 percent non-federal match of \$1.2 million and requests a STC grant in the amount of \$1.8 million (60 percent of the total project cost).

**Table 62: Ringneck & Western Efficiency and Growth Project Funding Table**

Source	Amount	Percent (%)
STC Federal Grant Request	\$1.8 million	60%
Watco Match	\$1.2 million	40%
<b>Total Project Cost</b>	<b>\$3.0 million</b>	<b>100%</b>

### 4.2.2.5 SISSETON MILBANK RAILROAD

#### LAKE FARLEY BRIDGE REPLACEMENT (STC FY 2019)

SMRR was awarded a \$1.5 million FY 2019 STC grant for the \$1.9 million Lake Farley Bridge Replacement Project. This project will reconstruct an existing bridge near Milbank, South Dakota. As shown in **Table 63**, the project funding consists of \$1.5 million in STC funds and a \$0.4 million matching contribution from SMRR for a total project cost of \$1.9 million.

**Table 63: Lake Farley Bridge Replacement Project Funding Table**

Source	Amount	Percent (%)
STC Federal Grant Request	\$1.5 million	80%
SMRR Match	\$0.4 million	20%
<b>Total Project Cost</b>	<b>\$1.9 million</b>	<b>100%</b>

### 4.2.3 LOCAL ECONOMIC DEVELOPMENT AGENCY PROJECTS

#### 4.2.3.1 BELLE FOURCHE DEVELOPMENT CORPORATION

##### BELLE FOURCHE INDUSTRIAL AND RAIL PARK

BFDC was awarded a 2019 STC grant to construct 3,975 track-feet of additional sidings and install four turnouts at its Industrial and Rail Park near Belle Fourche, South Dakota. As shown in **Table 64**, the project funding consists of \$1.9 million in STC funds and \$0.5 million of BFDC funds for a total project cost of \$2.4 million.

**Table 64: Belle Fourche Industrial and Rail Park Project Funding Table**

Source	Amount	Percent (%)
STC Federal Grant Request	\$1.9 million	80%
BFDC Match	\$0.5 million	20%
<b>Total Project Cost</b>	<b>\$2.4 million</b>	<b>100%</b>

### 4.3 FUTURE PROPOSED PROJECTS

This section lists proposed projects that have been identified through stakeholder outreach throughout the development of this State Rail Plan.

#### 4.3.1 PROPOSED CLASS I RAILROAD PROJECTS

##### 4.3.1.1 BNSF RAILWAY

BNSF is committed to improving highway-rail grade crossing safety in South Dakota in partnership with SDDOT and local municipalities. BNSF has proposed upgrades to existing crossing surfaces that will improve safety for vehicles at numerous locations statewide.

BNSF is also seeking to partner with local roadway authorities to design and implement systematic programs of highway-rail grade crossing safety upgrades along designated corridors, whether along a specific railroad subdivision or within a particular city or county.

##### 4.3.1.2 CANADIAN PACIFIC RAILWAY

CP did not identify any future proposed projects for its network in South Dakota.

#### 4.3.2 PROPOSED CLASS II AND CLASS III RAILROAD PROJECTS

##### 4.3.2.1 RAPID CITY, PIERRE & EASTERN RAILROAD

###### HURON LOCOMOTIVE MAINTENANCE FACILITY

RCPE identified the near-term potential to construct a new locomotive maintenance facility in Huron, South Dakota to functionally replace the historic steam-era roundhouse structure. The Huron roundhouse was built by the CN&W to support the day-to-day storage and servicing of steam locomotives used in the first half of the 20<sup>th</sup> century. The facilities have since become obsolete and are not well suited to modern diesel locomotive maintenance needs.

RCPE noted that a new state-of-the-art heavy maintenance facility could perform locomotive overhauls for other Genesee and Wyoming railroad subsidiaries nationally in addition to the RCPE fleet. This would require RCPE to hire additional mechanics, electricians, machinists, and shop laborers in Huron, providing a local economic benefit.

The upgraded locomotive maintenance facility would provide a safer, more efficient means to maintain RCPE locomotives, and directly facilitate the upgrading of the RCPE locomotive fleet from the current 1970-vintage, 3,000-horsepower, six-axle diesel-electric locomotives to larger, 1990-vintage 4,000-horsepower, six-axle diesel-electric locomotives.

The estimated total project cost is approximately \$23.2 million.

#### **DOWNTOWN RAPID CITY RAIL IMPROVEMENTS**

RCPE identified the near-term opportunity to improve rail operations in Downtown Rapid City, South Dakota.

Improvements associated with this project would allow for more efficient train movements through Rapid City, helping to reduce train occupancy time at highway-rail grade crossings in downtown Rapid City and improve quality of life for those traveling through or living in Rapid City.

The estimated total project cost is approximately \$4 million.

#### **UPGRADE BLACK HILLS NORTH SUBDIVISION**

RCPE identified the near-term opportunity to upgrade the Black Hills North Subdivision between Rapid City, South Dakota, and Colony, Wyoming. RCPE proposes to crop, weld, and relay 112 lb. per yard-jointed rail salvaged from PRC Subdivision. The addition of this heavier rail, along with bridge improvements, will enable the line from Rapid City to the Colony to handle 286,000-lb. railcars (currently limited to 263,000-lb. cars) and increase speeds to 25 mph across the entire line. The increased weight capacity and operating speeds will enable RCPE to provide faster and more competitive shipping for its customers, allowing them to load higher volumes of product in each railcar.

The estimated total project cost is approximately \$7.5 million.

#### **UPGRADE BLACK HILLS SOUTH SUBDIVISION**

RCPE identified the long-term need to replace approximately 75 miles of 100-plus year-old 83 lb. per yard rail on the line between Rapid City, South Dakota, and Dakota Jct., Nebraska. This rail replacement project would improve the speed, reliability, and safety of shipments over the line and would open this corridor up for future industrial development. Upgrades to this line would increase the maximum allowable gross weight from 263,000 lbs. to 286,000 lbs. and allow operating speeds to increase from 10 mph to 25 mph.

The estimated total project cost is approximately \$90 million.

#### **HURON YARD EXPANSION**

RCPE identified the long-term need to expand the Huron yard. The Huron Yard Expansion Project would improve the capacity and efficiency of the west end of Huron Yard by constructing two or three new double-ended yard tracks on available railroad-owned property. This additional capacity in Huron would help to increase the velocity of shipments across the RCPE network.

The estimated total project cost is approximately \$7 million.

#### 4.3.2.2 D & I RAILROAD

##### HUDSON, SD AREA MAIN LINE RAIL REPLACEMENT PROJECT

This proposed STC project will replace 5.80 miles of existing 100 lb. per yard jointed rail with 115 lb. per yard ribbon rail located near Hudson, South Dakota, on the D & I Sioux Valley Subdivision between MP 29.86 and MP 35.66.

The estimated total project cost is approximately \$5.5 million.

##### FAIRVIEW MEET AND PASS SIDING

DAIR identified the long-term need for an additional 8,000-foot-long meet and pass siding near Fairview, South Dakota, on the Sioux Valley Subdivision to supplement the one existing meet and pass siding located near Chatsworth, Iowa. This siding will enable DAIR to accommodate additional traffic on the line and provide operational flexibility to support multiple simultaneous train movements.

The estimated total project cost is approximately \$2.5 million.

##### SIOUX VALLEY SUBDIVISION MODERNIZATION

DAIR identified the near-term need for bridge upgrades at various locations along the Sioux Valley Subdivision where the rail line crosses the Sioux River, as well as additional replacement of legacy 100 lb. per yard rail between Canton, South Dakota, and Elk Point, South Dakota.

The estimated total project cost is approximately \$50 million.

##### DELL RAPIDS SUBDIVISION MODERNIZATION

DAIR identified the near-term need for additional bridge upgrades and rail replacement along the Dell Rapids Subdivision between Dell Rapids, South Dakota, and Sioux Falls, South Dakota.

The estimated total project cost is approximately \$15 million.

##### SIOUX CITY YARD OPERATIONS ENHANCEMENT

In light of operational challenges noted in the Sioux City, Iowa area, DAIR proposes the construction of a new connector track at the Downtown Sioux City rail junction in the near-term. This connector would increase the length of track available for carload interchange movements between DAIR's Downtown Sioux City rail yard and the respective rail yards of Class I railroad interchange partners CN and UP by 1,500 feet – doubling the current amount of space available to accommodate these movements.

The estimated total project cost is approximately \$2.5 million.

##### NORTH SIOUX CITY MEET AND PASS SIDING

To improve interchange operations in the Sioux City, Iowa Area and to provide additional capacity on the BNSF Aberdeen Subdivision where DAIR has trackage rights, DAIR proposes the construction of a new 8,000-foot-long meet and pass siding to the west of Downtown Sioux City in the long-term. DAIR

indicated that the new siding could potentially be located near the existing rail yard in North Sioux City, South Dakota. The siding could be used for meet-pass events, as well as for staging unit trains intended to be interchanged between DAIR, BNSF, and CN or UP in Sioux City.

The estimated total project cost is approximately \$2.5 million

#### 4.3.2.3 DAKOTA, MISSOURI VALLEY AND WESTERN RAILROAD

##### ABERDEEN TO JARRET JCT. IMPROVEMENTS

Between Aberdeen and Jarrett Jct., DMVW identified the need to replace approximately 10 highway-rail grade crossing surfaces, potentially rehabilitate existing bridges as-needed, and replace numerous existing culverts.

##### JARRETT JCT. TO BRITTON IMPROVEMENTS

Between Jarrett Jct. and Britton, DMVW identified the need to upgrade five existing turnouts, replace rail as needed, replace anchors, place new ballast and perform surfacing, replace three highway-rail grade crossing surfaces, and replace numerous existing culverts.

##### JARRETT JCT. TO GENESEO JCT. IMPROVEMENTS

Between Jarrett Jct. and Geneseo Jct., DMVW identified the need to upgrade three existing turnouts, replace rail as needed, replace anchors, place new ballast and perform surfacing, replace eight highway-rail grade crossing surfaces, potentially rehabilitate a number of existing bridges as needed, and replace numerous existing culverts.

#### 4.3.2.4 ELLIS & EASTERN RAILROAD

##### SIOUX FALLS RAIL RELAY PROJECT

EE identified the near-term need to relay main line rail in the Sioux Falls area to enable the railroad to accommodate 286,000-lb. carloads. The limits of the proposed project extend from MP 58.9 to MP 59.4. Existing light weight jointed rail would be replaced with new 115 lb. per yard jointed rail.

The estimated total project cost is approximately \$0.7 million.

##### CITY OF SIOUX FALLS CROSSING CLOSURES

EE identified the near-term opportunity to collaborate with the City of Sioux Falls to close six highway-rail grade crossings in the heart of Sioux Falls between MP 59.3 and MP 60.6 for the purpose of improving public safety.

The estimated total project cost is approximately \$0.4 million.

##### RESTORE RAIL SERVICE TO ELLIS

EE identified the near-term opportunity to rehabilitate existing disused out-of-service track between Sioux Falls and Ellis to serve a potential shipper that already has an existing spur. The project would

extend from approximately MP 63.9 in Sioux Falls to MP 65.6 west of Ellis and would include replacement of existing light weight jointed rail with new 115 lb. per yard jointed rail as well as the installation of new ties and surfacing with new ballast. The main line reconstruction will allow the addition of several additional customers and potential development of an industrial rail park in West Sioux Falls.

The estimated total project cost is approximately \$2.5 million.

#### **BRIDGE P-136 REHABILITATION**

While completing the reconstruction of the main line between MP 63.9 and MP 65.6, EE identified that bridge P-136 at MP 64.79 near Ellis will require rehabilitation in the near-term.

The estimated total project cost is \$0.4 million.

#### **ELLIS SIDING REHABILITATION**

Upon reconstruction of the main line from MP 63.9 to MP 65.6, there will be an opportunity in the long-term for the existing siding in Ellis near MP 65.0 to be brought back online for transloading purposes.

The estimated total project cost is \$0.3 million.

#### **CONSTRUCT A NEW TEAM TRACK BETWEEN SIOUX FALLS AND ELLIS**

In anticipation of future industrial growth in Ellis and the surrounding area, EE identified the long-term opportunity to construct a team track between MP 63.0 and MP 63.9 to accommodate additional transloading and potentially a future industrial site.

The estimated total project cost is \$1.5 million.

#### **CONSTRUCT A NEW SPUR INTO POTENTIAL INDUSTRIAL SITE WEST OF ELLIS**

EE identified the long-term opportunity to construct a new rail spur into a potential industrial site west of Ellis near MP 65.3.

The estimated total project cost is \$1.0 million.

#### **RELOCATE QUARRY SPUR**

In the long term, EE proposes to relocate the existing quarry spur from east of Lyon Boulevard to the west side of Big Sioux Diversion Channel near MP 61.5.

The estimated total project cost is not known at this time.

#### **CONSTRUCT NEW COMMERCIAL TRANSLOAD SIDING IN VALLEY SPRINGS**

Upon completion of the Minnesota-South Dakota Rail Improvement Project from Manley to Valley Springs, in the long term EE proposes to construct a new 800-foot long siding near approximately MP 43 in Valley Springs for transloading purposes.

The estimated total project cost is \$0.3 million.

#### IMPROVEMENTS TO THE EXISTING VALLEY SPRINGS SIDING

Upon completion of the Minnesota-South Dakota Rail Improvement Project from Manley to Valley Springs, EE has identified the long-term potential to restore service to the existing Valley Springs Coop Elevator near approximately MP 43.2.

The estimated total project cost is \$0.3 million.

#### CONSTRUCT A NEW SIDING FOR POTENTIAL INDUSTRIAL SITE BETWEEN VALLEY SPRINGS AND BRANDON

With the continued growth expected in Minnehaha County, EE anticipates that developing a new rail industrial site between approximately MP 45.6 and MP 46.6 between Valley Springs and Brandon will be a necessary long-term strategic decision to allow potential shippers to leverage both rail and interstate access.

The estimated total project cost is \$0.8 million.

#### ENCORE RAIL PARK

This proposed long-term project will construct a 5,121-foot-long siding along the existing EE track from MP 50.9 to MP 51.9 and will install six rail turnouts along the siding and a 948-foot-long spur into a new rail served industrial park. This all new industrial rail park will be located on the western edge of Brandon, South Dakota. The Encore Rail Park land parcel was recently annexed into the City of Brandon.

The project will help attract businesses to the area that would not otherwise consider locating in South Dakota or the Sioux Falls/Brandon area. The project will help reduce highway impacts due to a modal shift to rail.

The project has wide local support. Letters of support were provided by the City of Brandon, neighboring business, Sioux Valley Electric, Brandon Economic Development Foundation, Sioux Falls Development Foundation, Sioux Metro Growth Alliance, and the City of Sioux Falls.

#### 4.3.2.5 RINGNECK & WESTERN RAILROAD

##### RINGNECK AND WESTERN GRADE STABILIZATION PROJECT

This proposed STC project consists of performing 1,000 feet of undercutting; purchasing and installing 11,600 ties, 8,200 tons of ballast, and 3,500 tons of rip rap; and performing 21 miles of surfacing. The project area is located from MP 445 to MP 457 west of the Missouri River Bridge and MP 434 to MP 441 east of the Missouri River Bridge. The rip rap and undercutting will be on the east side of the river, with ties and ballast being installed on both sides of the river.

The estimated total project cost is \$3 million.



#### 4.3.2.6 SISSETON MILBANK RAILROAD

##### SISSETON MILBANK RAILROAD MODERNIZATION PROJECT

SMRR has long identified the near-term need to conduct a major overhaul of its rail and bridge structures to ensure the long-term viability of its operations. Currently, the maximum allowable gross weight for carloads is 263,000-lbs and train speeds are restricted to 10 mph.

The proposed project would reconstruct the railroad line from Milbank to Sisseton to FRA Class 2 Track Safety Standards, including replace the existing rail with 115 lb. per yard or heavier new or relay rail, replace ties (estimated at 2,046 new ties per mile), add 600 tons per mile of ballast, repair 10 highway-rail grade crossings, add 850 tons of riprap, repair 94 culverts, and repair 28 bridges. The proposed project would complete all upgrades necessary to support 286,000-lb. carloads between Sisseton and Milbank and allow trains to operate at 25 mph. This will in turn make rail service on the line more reliable and cost-effective to existing shippers and will increase the marketability of rail service on this line.

The public benefits of this rail replacement and modernization project include the potential to reduce highway impacts, enable future investment to construct and equip a modern grain handling facility in Sisseton, and enable future transload opportunities that leverage SMRR's close proximity to Interstate 29. Additionally, commerce with the Sisseton Wahpeton Oyate community may also potentially increase as a result of the enhanced rail service.

The estimated total project cost is \$31.25 million.

##### RAIL RELAY PROJECT

This proposed STC project will replace 2.5 miles of 60 lb. per yard rail that dates back to 1884 with new 115 lb. per yard rail on the Sisseton Milbank Railroad between MP 19.5 and MP 22.0, just to the north of Wilmot, South Dakota. This rail is the worst on the rail line; SMRR maintenance of way crews repair broken rail in this area as often as twice per week.

The estimated total project cost is \$2.1 million.

#### 4.3.3 PROPOSED LOCAL ECONOMIC DEVELOPMENT AGENCY PROJECTS

##### 4.3.3.1 BELLE FOURCHE DEVELOPMENT CORPORATION

##### BELLE FOURCHE DEVELOPMENT CORPORATION RAIL PARK IMPROVEMENTS

Belle Fourche Development Corporation proposes to expand the current Belle Fourche Industrial and Rail Park in the near term with the addition of 1,494 feet of new track to provide direct service to a new potential shipper.

The estimated total project cost is \$0.7 million.

#### BELLE FOURCHE DEVELOPMENT CORPORATION ADDITIONAL RAIL PARK OPPORTUNITY

Belle Fourche Development Corporation proposes to develop a second 100-acre industrial and rail park site in close proximity to the existing Belle Fourche Industrial and Rail Park in the near term. The new site will have both highway and rail access. BFDC proposes to construct a total of 5,000 feet of new siding track to serve the proposed site.

The estimated total project cost is \$1.8 million.

#### 4.3.4 OTHER STAKEHOLDER PROPOSED PROJECTS

**Table 65** lists other rail-related projects that have been proposed by non-railroad stakeholders during the development of this State Rail Plan.

**Table 66** lists projects related to highway-rail grade crossing safety improvements and highway-rail grade separations proposed by railroads and other stakeholders during the development of this State Rail Plan.

## Chapter 4: Freight Rail Improvements and Investments

### South Dakota State Rail Plan

**Table 65: Other Stakeholder Proposed Rail Projects**

Type of Improvement	Project Description	Location	Estimated Total Project Cost
Adaptive Reuse	Long-term opportunity to construct recreational trail between Platte and Ravinia on railbanked State-owned Napa-Platte Line right-of-way	Platte, SD – Ravinia, SD	\$3.2 million
Capacity	Long-term opportunity to construct a meet and pass siding near Utica on the BNSF Aberdeen Subdivision to reduce train delay	Utica, SD	\$2.5 million
State of Good Repair	Long-term opportunity to rehabilitate State-owned Napa-Platte Line track between Napa and Tyndall	Napa, SD – Tyndall, SD	\$25.0 million
State of Good Repair	Long-term opportunity to reactivate inactive State-owned Napa-Platte Line between Tyndall and Wagner	Tyndall, SD – Wagner, SD	TBD
Economic Development	Long-term opportunity to construct rail-served grain shuttle terminal near Wagner on the Napa-Platte Line	Wagner, SD	TBD
Economic Development	South Dakota Soybean Processors proposes to construct a new rail-served soybean processing facility south of Mitchell along the BNSF Aberdeen Subdivision in the near term. The project would involve construction of new industrial loop track to allow BNSF to serve the facility.	Mitchell, SD	\$13.8 million
Economic Development	Long-term opportunity to develop a rail intermodal container terminal for imports and exports	Statewide	TBD
Economic Development	Long-term opportunity to plan for a future rail-served mega-development site to support a large-scale manufacturer seeking to locate in South Dakota	Statewide	TBD
Quality of Life	Sioux Falls Whistle Reduction Effort (Near Term)	Sioux Falls, SD	\$5.4 million
Quality of Life	Rapid City Railroad Quiet Zone (Near Term)	Rapid City, SD	\$6.0 million
Quality of Life	Box Elder Railroad Quiet Zone (Long Term)	Box Elder, SD	TBD
Quality of Life	Brookings Railroad Quiet Zone (Long Term)	Brookings, SD	TBD

## Chapter 4: Freight Rail Improvements and Investments

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**Table 66: Stakeholder Proposed Highway-Rail Grade Crossing Safety Projects**

Crossing DOT#	Project Description	Location	Estimated Total Project Cost
067500K	Opportunity to install flashing light signals and gates on County Road 9 near Britton	Britton, SD	\$0.3 million
318716D	Opportunity to install gates at Garfield Avenue in Dell Rapids	Dell Rapids, SD	\$0.3 million
386052J	Opportunity to install flashing light signals and gates at 397th Avenue in Mt. Vernon	Mt. Vernon, SD	\$0.3 million
389090T	Opportunity to install flashing light signals and gates at Main Street in Kimball	Kimball, SD	\$0.3 million
097252V	Opportunity to construct grade separation overpass at 259 <sup>th</sup> Street near Sioux Falls	Sioux Falls, SD	\$15.0 million
097254J	Opportunity to construct grade separation overpass at 471 <sup>st</sup> Street (Marion Road) near Sioux Falls	Sioux Falls, SD	\$15.0 million
381187X	Opportunity to improve vertical clearance at existing grade separation underpass at 460th Avenue (CR 23) near Madison	Madison, SD	TBD
382080Y	Opportunity to improve vertical clearance at existing grade separation underpass at Main Street (SD 105) in North Sioux City	North Sioux City, SD	TBD

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