

PROJECT SUMMARY

This project will support overall economic development in the Yankton and southeast corner of South Dakota. In particular, supporting and improving train movements in and out of the industrial park. As the number of business located at the Napa Jct industrial park continues to increase, there will be a need to reduce congestion on the loop.

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, there is a need to install 6000' of yard at Janousek. This will support operational flexibility for the loop track at Napa Jct. In addition, light repair work for ruit .u6 will be performed at the yard in Janousek.

The proposed project has an estimated cost of \$4.5 million. The 20% match could be provided by the private funds or with State fund.

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. It is anticipated that 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 grant guidance states that \$96,000 of construction provides one job/year (this includes all jobs - not just construction jobs). Assuming the upcoming construction projects are valued at \$250 million, this equates to over 2500 construction jobs being 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, using the previous assumption between the pellet plant, the ethanol plant, the gas line and the rail project there is \$250 million in construction - the State will could 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 agricultural 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 DOG 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 and bring them up to today standards. It will add temporary car storage capacity and logistical flexibility at Janousek. Longer term, if the rail line is sold, the improvement could spur growth going west towards Tabor.

Reduce Highway Impacts.

The project will support business development at Napa Jct. The reduction in overall truck traffic is significant. Farmers will no longer to deliver grain to distant elevators. To estimate the amount of reduced truck traffic, it was assumed the amount of trucking distance of grain into the elevator would be reduced by 70 miles. There is a corresponding reduction in impact to the roads, reduction in truck crashes, as reduced emissions into the atmosphere. 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 experiencing greatly increased traffic volumes. Improved Railroad Safety, Security and Resiliency.

Improve Railroad Safety, Security and Resiliency

Currently, the infrastructure 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., increasing railroad safety, security and resiliency. In addition, the improvements will also spur development to the west and market the sale of the line to private entities in the future.

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 Janousek, and install 6000' of rail at the yard track at Janousek.

The project track would be Track three.

Proposed Project Funding

As stated in the STC grant, the project will need to be at an 80/20 split in funding for \$4.5 million total project costs - \$3.6 million in grant funds and \$900,000 in either State or private funds. The details need to be ironed out with the current Operator or other potential investor if the State is not desirous of using State funds.

Project Readiness

Plans have not begun on the project but due to the simple nature, the project could be designed, environmental cleared and let to contract in 12 – 18 months once acceptance is granted.

Plans Readiness

The project is small in nature and will have normal engineering and construction parameters. The project could be designed and bid well within the next 12 months once acceptance is granted.

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 qualify for a categorical exclusion. No additional ROW will be 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 and Proposed funding

The develop of the application could be a shared responsibility between the State and the Operator, with SDDOT providing assistance with the environmental process. Consultants would be retained to perform the field work for design and contract administration. Funding like wise could be shared.

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 be 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, it was assumed savings are 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

A value of \$2.90 per gallon for diesel fuel was used. In addition, the cost of **VOE**, NOx, SO2 and PM were used as described in the FRA BCA document (Table 9). The rate of fatalities, injury, and property damage as described in the latest SDDOT crash reporting were used. These were used as 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.

Emission rates for a 2013 model truck were used 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.

The calculated benefits were done both with 7% NPV and 3% NPV.

NAPA to Janousek Quantities and Cost Estimate

Description of work	Units	Price per unit	Estimated 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