



# 2022

Delta Southern Railroad, Inc. (DSRR)

## Safety Improvement and Rehabilitation Program

Consolidated  
Rail Infrastructure  
and Safety Improvements  
Program FY 2022

NOFO: FR-CRS-22-004

**Delta Southern Railroad, Inc.**  
**Delta Southern Railroad (DSRR) Rail Enhancement and Safety Improvement Program**  
**Consolidated Rail Infrastructure and Safety Improvements Program FY 2022**  
**NOFO: FR-CRS-22-004**

**I. Cover Page**

|                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Project Title                                                                                                                                                                                                                                                   | Delta Southern Railroad (DSRR) Rail Enhancement and Safety Improvement Program                                                                                                                                                                             |
| Applicant                                                                                                                                                                                                                                                       | Delta Southern Railroad, Inc.                                                                                                                                                                                                                              |
| Federal Funding Requested Under this NOFO                                                                                                                                                                                                                       | \$13,218,887.40                                                                                                                                                                                                                                            |
| Proposed Non-Federal Match                                                                                                                                                                                                                                      | \$4,406,295.80          In-Kind: \$0                                                                                                                                                                                                                       |
| Does some or all of the proposed Non-Federal Match for the total project cost consist of preliminary engineering costs associated with a Highway-rail Grade Crossing Improvement Project or a trespassing prevention project incurred before project selection? | No                                                                                                                                                                                                                                                         |
| Other Sources of Federal funding, if applicable                                                                                                                                                                                                                 | N/A                                                                                                                                                                                                                                                        |
| Total Project Cost                                                                                                                                                                                                                                              | \$17,625,183.20                                                                                                                                                                                                                                            |
| Was a Federal Grant Application Previously Submitted for this Project?                                                                                                                                                                                          | Yes. Consolidated Rail Infrastructure and Safety Improvements Program FY 2021 NOFO: FR-CRS-21-002<br>Delta Southern Railroad, Inc. Safety Improvement and Rehabilitation Program                                                                           |
| City(-ies), State(s) Where the Project is Located                                                                                                                                                                                                               | Alsatia, LA; Atherton, LA; Englewood, LA; Enoka, LA; Fairbanks, LA; Grimes, LA; Hollybrook, LA; Lake Providence, LA; Lamkin, LA; Monroe, LA; Omega, LA; Roosevelt, LA; Sondheimer, LA; Sterlington, LA; Talla Bena, LA; Tallulah, LA; and Transylvania, LA |
| Congressional District(s) Where the Project is Located                                                                                                                                                                                                          | Louisiana Congressional District 5                                                                                                                                                                                                                         |
| Is this a project eligible under 49 U.S.C. 22907(c)(2) that supports the development of new intercity passenger rail service routes including alignments for existing routes?                                                                                   | No                                                                                                                                                                                                                                                         |
| Is this a Rural Project? What percentage of the project cost is based in a Rural Area?                                                                                                                                                                          | Percentage of total project cost: 95.5% in Rural Area                                                                                                                                                                                                      |
| Is this a project eligible under 49 U.S.C. 22907(c)(11) that supports the development                                                                                                                                                                           | No                                                                                                                                                                                                                                                         |

|                                                                                                                                                                   |    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| and implementation of measures to prevent trespassing and reduce associated injuries and fatalities?                                                              |    |
| Is the application seeking consideration for funding under the Maglev Grants Program?                                                                             | No |
| Is the project currently programmed in: State rail plan, State Freight Plan, TIP, STIP, MPO Long Range Transportation Plan, State Long Range Transportation Plan? | No |

|                                                                                                                                    |           |
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## II. Project Summary

Delta Southern Railroad, Inc. (DSRR), currently a wholly owned subsidiary of West Branch Intermediate Holdings, LLC, with STB-approval pending to become a wholly owned subsidiary of Patriot Rail, LLC, is a Class III shortline railroad consisting of approximately 42 miles of FRA excepted mainline track; of which 33-miles of the Tallulah branch and three miles of the Sterlington branch are owned by DSRR, and 9.82 remaining miles of the Sterlington branch is leased from the Union Pacific (UP). DSRR interchanges with UP at MP 568.6 in Monroe, LA, and with Kansas City Southern (KCS) at MP 498.43 in Tallulah, LA. This Project seeks to rehabilitate approximately 39.54 miles of excepted track by replacing ties and ballast, rehabilitate six (6) rail sidings and construct a bypass track within the existing railroad right-of-way; in order to meet increased rail demand from local industry; to alleviate interchange point congestion; to increase the rail network's resiliency against major natural disasters by increasing accessibility to transload locations; to alleviate congestion at road crossings; and to provide rail access to non-rail served industries. The total Project cost is \$17,625,183.20, and this grant proposal seeks a 75% match of FRA funding in the amount of \$13,218,887.40, with DSRR committed to a 25% contribution in the amount of \$4,406,295.80—including potential contributions of \$1,400,000 from the Louisiana Department of Transportation and Development (LADoTD)-pending legislative approval, and \$1,000,000 from KCS. This Project will result in \$369.63 million in total project benefits to society, of which, \$26.72 million will benefit the local economy, and \$1.66 million will benefit low-income individuals in the economically distressed Opportunity Zone Number 22035000200 in East Carrol Parish, LA<sup>1</sup>. A majority of this Project falls within the Rural Area Set-Aside; specifically, 95.5% of the Project is located within a Rural Area, designated as being located outside of a U.S. Census-designated urbanized area (<50,000).<sup>2 3</sup>

## III. Project Funding

Funding outside this grant request comes from a private partner contribution by DSRR, consisting of contributions from their general funds, a portion of which may include potential contributions from LADoTD (\$1,400,000) and KCS (\$1,000,000). The Funding Commitment Letter is submitted in support of this application under the signature of DSRR CEO, Jon Ryan (Appendix B). As a Class III railroad, DSRR is eligible to receive Federal funding as a match.

DSRR has not previously been awarded funding for the Rail Enhancement and Safety Improvement Project stipulated in this grant proposal. It is also to be noted that 95.5% of the Project, determined on a Project cost-basis, is located within a Rural Area, designated as being located outside of a U.S. Census-designated urbanized area (<50,000)<sup>2 3</sup>.

The two tables below show a breakdown of the project funding for the DSRR Rail Enhancement and Safety Improvement Program. Table 1 displays the breakdown of project funding by major project task. Table 2 displays a breakdown of the project funding by project component for each of the two DSRR rail lines, Sterlington branch and Tallulah Branch.

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<sup>1</sup> (Census Tract 2, Lake Providence, Louisiana, 2021)

<sup>2</sup> (State Profile: Louisiana, 2021)

<sup>3</sup> (Percent Population Residing in Urbanized Areas and Urbanized Clusters: 2010)

*Table 1 Project Funding Table by Task*

| <b>Task #</b>                                          | <b>Task Name</b>                                    | <b>Cost</b>                                                                                             | <b>Percentage of Total Cost</b> |
|--------------------------------------------------------|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------|---------------------------------|
| 1                                                      | Project Administration and Final Performance Report | \$ 1,107,280.20                                                                                         | 6.28%                           |
| 2                                                      | Environmental Review                                | \$35,483.79                                                                                             | 0.20%                           |
| 3                                                      | Engineering Design                                  | \$417,3890.07                                                                                           | 2.37%                           |
| 4                                                      | Track Construction                                  | \$16,065,039.14                                                                                         | 91.15%                          |
| Total Project Cost                                     |                                                     | \$17,625,183.20                                                                                         | 100%                            |
| Federal Funds Received from Previous Grant             |                                                     | \$0                                                                                                     | 0%                              |
| Federal Funding Under this NOFO Request                |                                                     | \$13,218,887.40                                                                                         | 75%                             |
| Non-Federal Funding/Match                              |                                                     | Cash: \$4,406,295.80<br>In-kind: \$0<br>Preliminary Engineering costs, consistent with section C.2: \$0 | 25%                             |
| Portion of Non-Federal Funding from the Private Sector |                                                     | DSRR: \$4,406,295.80<br>Incl., potential contributions of:                                              | 25%                             |
| Please list amounts per source.                        |                                                     | LaDOTD: \$1,400,000<br>KCS: \$1,000,000                                                                 |                                 |
| Portion of Total Project Costs Spent in a Rural Area   |                                                     | \$16,832,049.96                                                                                         | 95.5%                           |
| Pending Federal Funding Requests                       |                                                     | \$0                                                                                                     | 0%                              |

*Table 2 Project Funding Table by Project Component*

|                    | <b>Project Component description</b> | <b>Cost</b>     | <b>Percentage of total cost</b> |
|--------------------|--------------------------------------|-----------------|---------------------------------|
| 1                  | Tallulah Mainline Track Upgrade      | \$5,472,801.35  | 31%                             |
| 2                  | Bypass Track Installation            | \$5,690,120.09  | 32%                             |
| 3                  | Tallulah Sidings Upgrades            | \$1,311,826.71  | 7%                              |
| 4                  | Sterlington Mainline Track Upgrade   | \$2,791,432.50  | 16%                             |
| 5                  | Sterlington Sidings Upgrades         | \$1,721,445.39  | 10%                             |
| 6                  | Bluelinx Siding Upgrade              | \$637,557.16    | 4%                              |
| Total Project Cost |                                      | \$17,625,183.20 | 100%                            |

#### **IV. Applicant Eligibility**

Delta Southern Railroad, Inc. (DSRR) is an eligible grant applicant per item C(1)(g) in the Notice of Funding Opportunity; specifically, it is a Class III railroad. The DSRR operates and maintains a total of 51 miles of track, of which approximately 42-miles are FRA excepted mainline track, across two (2) branch lines; the Sterlington branch, 9.82 miles are leased from the UP, and the remaining railroad is owned by the DSRR. This Project involves improvements to both the Sterlington Branch and the Tallulah Branch.

#### **V. Project Eligibility**

Pursuant to the funding guidelines under 49 U.S.C. 22907, DSRR submits this Project's eligibility under the following items described in the Notice of Funding Opportunity:

C(3)(A)(iii)—This Project addresses congestion and safety challenges affecting freight rail service to increase capacity, reliability, and safety.

C(3)(A)(v)—This Project will upgrade one highway-railroad crossing to improve highway grade separation.

C(3)(A)(vii)—This Project will improve short line railroad infrastructure.

C(3)(A)(ix)—This Project will enhance multimodal connections, between freight rail, barge, and truck.

DSRR seeks funding for six (6) project components to meet increased rail demand from local industry; to alleviate interchange point congestion; to increase the rail network's resiliency against major natural disasters by increasing accessibility to transload locations; to alleviate congestion at road crossings; to provide rail access to non-rail served industries; to improve safety; and to improve the short line railroad infrastructure. Specifically, the project will consist of two (2) components to rehabilitate a total of 39.54 miles of mainline track; construct a new bypass track and rehabilitate rail sidings in six locations; two (2) in Hollybrook, Louisiana, one (1) in Sondheimer, Louisiana, two (2) in Monroe, Louisiana, and one (1) in Sterlington, Louisiana. Maintenance and operating expenses of the upgrades will be the responsibility of the DSRR.

#### **VI. Detailed Project Description**

##### **Background on Challenges and Solutions**

Delta Southern Railroad (DSRR), a Class III short line railroad, is currently a wholly owned subsidiary of West Branch Intermediate Holdings, LLC, with STB-approval pending to become a wholly owned subsidiary of Patriot Rail, LLC, operating on two (2) separate branch line segments. DSRR owns approximately 33-miles of track that was the former Missouri Pacific Railroad line from Tallulah to Lake Providence, and three miles of the former Missouri Pacific line from Monroe to Sterlington, LA. It also leases 9.82 -miles of the former Missouri Pacific line from Monroe to Sterlington, LA, from the UP. The railroad operates across approximately 51 total rail miles, of which approximately 42 miles are main line track, and serves two (2) river port facilities located on the mighty Mississippi River. The two river ports located on the DSRR are Lake Providence Port and Madison Parish Port, both of which are located on the Tallulah branch line. DSRR proudly works with our well-respected railroad and interchange partners, KCS, North Louisiana & Arkansas (NLA), and UP to provide customers with rail access to the Meridian Speedway, a 320-mile segment of railroad between Meridian, MS, and Shreveport, LA, along U.S. Hwy 20 (I-20). The Louisiana I-20 segment, running through Tallulah, is a designated

segment of the National Highway Freight Network. The National Highway Freight network is a critical transcontinental trade route running East to West via transcontinental interstate highway.

The work proposed in this Project is for the rehabilitation of 39.54 miles of mainline track, addition of bypass track and upgrading six sidings located on both the Tallulah Branch and Sterlington Branch of the DSRR. Primary commodities include grain, other agricultural products, metals, aggregate material, agricultural products, cotton, coal, chemicals, fertilizer, forest products, nitro propane, sand clay, and soda ash products.

All Rights-of-Way involved in the portion of the Project along the Tallulah Branch are wholly owned by Delta Southern Railroad, Inc. Whereas MP 556.18 to MP 566, approximately 9.82 miles, along the Sterlington Branch is wholly owned by UP and leased by DSRR. The LADoTD has discussed this application and has provided a Letter of Support, (Appendix E).

The DSRR management team continues to commit financial and human resources to develop plans to address the transportation infrastructure needs of Rural Areas. DSRR recognizes our collective national interests in investments necessary to grow Rural economies, facilitate freight movement, and improve access to reliable and affordable transportation options. Therefore, DSRR has embarked on aggressively pursuing improved railroad safety, efficiency, reliability, and capacity; alleviating congestion at freight rail chokepoints; and enhancing multi-modal connections to strengthen rail network resiliency. This Project specifically addresses the following challenges:

1. *Deterioration of Track:* The Project will address the deteriorating condition of main line rail along the Sterlington Branch and Tallulah Branch which require significant rehabilitation due to the condition of the track and to avoid future failures and traffic disruption. If not rehabilitated, the current traffic count will cause rapid deterioration of the line, resulting in a failure by component, likely becoming inoperable within five (5) years. Project Components 1 and 4, the Tallulah Mainline Track Upgrade and the Sterlington Mainline Track Upgrade, respectively, will rehabilitate the rail and is necessary to prevent increased degradation of the track, to continue and improve operations, and to provide safe and efficient rail service to new and existing customers.
2. *Limited efficiency due to Sub-Par Infrastructure:* The Project will address the sub-par infrastructure by rehabilitating the rail and ties, rehabilitating six (6) new sidings and associated crossings, and constructing a new bypass track. This project will increase safety and reduce transit times across the system, improve efficiency and benefit local industries in aggregate, metals, grains, and other agricultural products. Increased efficiency is vital in supporting the ability of our local industries and to compete in the global marketplace by enabling customers' continued access to rail infrastructure.
3. *Limited access to transload locations.* All six (6) Project Components will address the sub-par infrastructure by rehabilitating the rail and ties, rehabilitating six new sidings and associated crossings, and constructing a new bypass track. As motor carrier freight tends to be expensive and causes higher emissions and safety risks, logistics managers require more affordable, reliable modes of transportation, especially in rural areas. DSRR currently does not have enough adequate locations in the form of transload or sufficient sidings for customers to transload, which is particularly disadvantageous for local customers without direct rail access as well as for DSRR's interchange partners. This project will increase safety and reduce transit times across the system, improve efficiency and benefit local industries in aggregate, metals,

grains, and other agricultural products. Increased efficiency is vital in supporting the ability of our local industries and to compete in the global marketplace by enabling customers' continued access to rail infrastructure.

The Delta Southern Railroad, Inc. (DSRR) Safety Improvement and Rehabilitation Program will enable DSRR to improve safety and meet increased rail demand from local industry by rehabilitating six rail sidings, updating approximately 39.54 miles of main line track and creating a bypass track near Madison Parish Port. This Project will alleviate congestion along the Tallulah and Sterlington branches. It will also improve efficiency by enabling DSRR to timely serve current online customers, without having to relocate storage rail cars and transload customer cars, currently located along the railroad's mainline, each time DSRR serves the online customers. Rehabilitation of the six rail sidings will also create transload locations that would provide rail access to non-rail served industries in the DSRR area, providing the economies of rail to inaccessible industries. Specific industries which will directly benefit from this Project include grain, aggregate material, agricultural products, cotton, coal, chemicals, fertilizer, forest products, metals, nitro propane, sand clay, and soda ash products.

The Project will address potential derailments and unsafe track conditions by replacing ties and ballast across the 39.54 miles of mainline track and sidings on the DSRR. This rehabilitation will improve safety and reduce transit times across the system, thereby benefiting local industries, as increased efficiency is vital for supporting the ability of our local industries to compete in the global marketplace.

This Project is consistent with the Biden-Harris Administration's [Executive Order 14008](#)<sup>4</sup> Tackling the Climate Crisis at Home and Abroad. Specifically, each siding and the bypass track will be constructed with reclaimed, jointed relay rail, which will be purchased solely for this project. The 131-136RE rail qualifies as #2 class relay rail and is therefore suitable to be used for a rail siding. Reuse of reclaimed jointed rail supports Executive Order 14008, by mitigating the use of fossil fuels in the production of new steel, or through the smelting process of recycling steel to form new Continuous Welded Rail (CWR) or jointed rail.

Members of the DSRR leadership team (Jon Ryan, DSRR CEO; Riodino Trevino, DSRR General Manager) have identified the following Capital Project Components for implementation to enhance existing rail infrastructure for Rural Projects as authorized under 49 U.S.C. 24407(g).

DSRR is honored to include letters of support for this Project from Louisiana Department of Transportation and Development (Appendix E).

### **Users and Beneficiaries**

DSRR operates 95.5% within Rural Areas as designated by the Census Bureau<sup>5</sup>. The Rural Area of the Tallulah branch, in which DSRR operates, requires DSRR to provide dependable service to its customers, particularly grain and chemical customers who experience time sensitive transportation needs, and interchange Class I and Class III partners. DSRR must maintain reliable transportation service, without a delay or disruption in service, to KCS interchange and to local industries. Specific industries which will directly benefit from this Project include grain, aggregate material, agricultural products, cotton, coal, chemicals, fertilizer, forest products, metals, sand, clay, and soda ash products. Furthermore, these transload locations would provide

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<sup>4</sup> <https://www.federalregister.gov/documents/2021/02/01/2021-02177/tackling-the-climate-crisis-at-home-andabroad>

<sup>5</sup> [https://mtgis-](https://mtgis-portal.geo.census.gov/arcgis/apps/MapSeries/index.html?appid=49cd4bc9c8eb444ab51218c1d5001ef6)

[portal.geo.census.gov/arcgis/apps/MapSeries/index.html?appid=49cd4bc9c8eb444ab51218c1d5001ef6](https://mtgis-portal.geo.census.gov/arcgis/apps/MapSeries/index.html?appid=49cd4bc9c8eb444ab51218c1d5001ef6)

rail access to non-rail served industries in the DSRR area, providing the economies of rail to inaccessible industries.

Bluelinx Corporation is an additional beneficiary of this project. Project Component 6, Bluelinx Siding Rehabilitation, will expand the length of the siding, add a switch to tie back into the main line at their Monroe facility. This would allow Bluelinx to expand their unloading capabilities at this location, as well as allow for increased traffic and reduced congestion. The current length and configuration of the siding requires DSRR to spot Bluelinx cars on the main, put up a blue flag and allow Bluelinx to unload from the main line. Rehabilitation to their siding will enable all Bluelinx cars to be spotted on the industrial siding and prevent Bluelinx from having to unload off the main line.

By strengthening DSRR safety, fluidity, and capacity, through Rehabilitation, this Project strengthens operations across both the Tallulah Branch and Sterlington Branch of DSRR. This Project also strengthens the entire DSRR system through increased carload capacity, positively impacting the eighteen (18) Rural cities and towns through which DSRR operates along the Tallulah and Sterlington Branches: Alsatia, Ashly, Atherton, Englewood, Enoka, Fairbanks, Grimes, Hollybrook, Lake Providence, Lamkin, Monroe, Omega, Roosevelt, Sondheimer, Sterlington, Talla Bena, Tallulah, and Transylvania, Louisiana

Furthermore, this Project will result in a total benefit of \$369 million in total benefits to society, \$26.72 million for the local economy, including a \$1.66 million benefit for low-income individuals in the economically distressed Opportunity Zone Number 22035000200, titled Census Tract 2, Lake Providence, LA; located in East Carrol Parish, LA<sup>6</sup>, in which three of the six sidings in this Project will be rehabilitated, a bypass track will be installed, and approximately 28 miles of mainline track will be rehabilitated. This benefit is calculated in the Benefit-Cost Analysis by the short-term increase in employment and labor income resulting from capital expenditures in key industries employing low-income individuals. This benefit is especially significant considering that Opportunity Zone 22035000200 is an economically disadvantaged community that contains high rates of low-income individuals, as is evidenced by the Federal Opportunity Zone designation.

### **Project Components**

Members of the DSRR leadership team, Jon Ryan, CEO and Rioldino Trevino, General Manager, have identified the following Capital Project Components for implementation to rehabilitate existing rail infrastructure for Rural Projects as authorized under 49 U.S.C. 24407(g).

The Capital Project involves six (6) Project Components including two (2) main line rehabilitation components, one (1) bypass new construction, and six (6) siding rehabilitation projects. Six rail sidings near the following Louisiana cities: two (2) in Hollybrook, Louisiana, one (1) in Sondheimer, Louisiana, two (2) in Monroe, Louisiana, and one (1) in Sterlington, Louisiana (amounting to \$). The Project also includes rehabilitating approximately 28 miles of mainline track along the Tallulah Branch by replacing about twenty-four thousand (24,000) railroad ties and replacing ballast to stabilize track. The Project will take place along the Tallulah branch of the DSRR, from milepost 471 to MP 498.4 (amounting to \$5,472,801.35). The project also includes rehabilitating approximately 13 miles of mainline track along the Sterlington Branch by replacing over sixteen thousand (16,000) railroad ties, installing about four thousand (4,000) tons of rock, and replacing ballast to stabilize track. The Project will take place along the Sterlington Branch of the DSRR from MP 566 to 553.86 (amounting to \$2,791,432.50).

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<sup>6</sup> (Census Tract 2, Lake Providence, Louisiana, 2021)

Additionally, the Project includes construction of a bypass track near Madison Parish Port (amounting to \$5,690,120.09). The bypass track will benefit DSRR by enabling the railroad to effectively stage cars for the port; it will also alleviate congestion at nearby road crossings and provide additional access for non-rail served customers.

DSRR has identified the scope of work and will contract with vendors who can provide the materials and equipment for this Project. DSRR will comply with all FRA procurement requirements listed within a grant contract.

#### *Project Component 1: Tallulah Mainline Track Upgrade (Figure 5)*

This program involves replacing ties and fouled ballast material from MP 471 to MP 498.4 along the Tallulah Branch of the DSRR track. This program encompasses 28 miles of excepted track operated by DSRR in Northern Louisiana. Approximately twenty-four thousand (24,000) new ties and fresh ballast will be installed across 28 miles of track, as necessary, to improve railroad safety and quality. DSRR will change out failed and defective ties and ballast with new components based on an assessment provided by the DSRR general manager, Roidino Trevino.

The scope of work will be sent to contractors. Contractors will complete site visits and provide estimates, and DSRR will choose the qualified bidder with the lowest price.

#### *Project Component 2: Bypass Track Construction (Figure 6)*

This Project Component involves construction of a bypass track, approximately 1.3 miles in length, near Talla Bena, Louisiana, along the DSRR rail line. This will entail eight hundred – fifty 850 ties per mile and fresh ballast to be installed.

The scope of work will be sent to contractors. Contractors will complete site visits and provide estimates, and DSRR will choose the qualified bidder with the lowest price.

#### *Project Component 3: Sidings at Hollybrook Ware, Hollybrook Gin and Sondheimer (Figure 7)* *\*Individual siding figures can be found in Appendix F*

This Project Component involves rehabilitating approximately 1,800 feet of rail siding from MP 474.3 to MP 474.4 in Hollybrook, LA, 720 feet of rail siding from MP 474.50 to MP 474.95 in Hollybrook, LA, and 1,100 feet of rail siding from MP 487.34 to MP 487.72 in Sondheimer, LA. All sidings will require tie replacement (850 ties per mile) and replacement of fouled ballast.

The scope of work will be sent to contractors. Contractors will complete site visits and provide estimates, and DSRR will choose the qualified bidder with the lowest price.

#### *Project Component 4: Sterlington Mainline Track Upgrade (Figure 8)*

This program involves replacing ties and fouled ballast material from MP 566 to MP 553.86 along the Sterlington Branch of the DSRR track. This program encompasses 13 miles of excepted track operated by DSRR in Northern Louisiana. MP 556.18 to MP 566, approximately 9.82 miles, of this project component along the Sterlington Branch is wholly owned by UP and leased by DSRR. Over sixteen thousand (16,000) railroad ties will be replaced, about four thousand (4,000) tons of ballast will be installed across 13 miles of track, as necessary, to improve railroad safety and quality. DSRR will replace failed and defective ties and ballast with new components based on an assessment provided by the DSRR general manager, Roidino Trevino. This component falls along the portion of track that DSRR leases from UP.

The scope of work will be sent to contractors. Contractors will complete site visits and provide estimates, and DSRR will choose the qualified bidder with the lowest price.

*Project Component 5: Sterlington Sidings at Keystone and Sterlington Yard (Figure 9)*

*\*Individual siding figures can be found in Appendix F*

This Project Component involves rehabilitating approximately 1,400 feet of rail siding from MP 556.01 to MP 555.5 and 2,500 feet of rail siding from MP 554.57 to MP 558.77 both in Sterlington, LA. These sidings will require new rail, new ties, rock installation and surface and line upgrade.

The scope of work will be sent to contractors. Contractors will complete site visits and provide estimates, and DSRR will choose the qualified bidder with the lowest price.

*Project Component 6: Bluelinx Siding Upgrade (Figure 10)*

This Project Component involves upgrading and expanding the existing siding from approximately 500 feet to 1,000 feet from MP 558.59 to MP 558.77 in Monroe, LA. This siding will require the addition of double end siding, one turnout, dirtwork, rock and surface and line upgrade. This component falls along the portion of track that DSRR leases from UP.

The scope of work will be sent to contractors. Contractors will complete site visits and provide estimates, and DSRR will choose the most qualified bidder with the lowest competitive price and quality of work.

### **Performance Reporting**

Project Performance Measures are included with this proposal (Attachment 5: Performance Measures). These Performance Measures will be used to assess progress in achieving the Project's strategic goals and objectives.

### **Draft Use/Ownership Agreement**

FRA requires a written agreement exist between the applicant and the railroad regarding use and ownership consistent with 49 U.S.C. 22905(c)(1) for projects using rights-of-way owned by a railroad that is not the applicant. A draft agreement, to be executed between the DSRR and UP has been included as Appendix G.

### **A. Grade Crossing Information**

This Project involves five at-grade crossings. DSRR owns the rail infrastructure of the following at-grade rail crossings. DSRR is the primary railroad operator for each of the following at-grade rail crossings (Attachment 6)

Table 3 U.S. DOT Grade Crossing Information

| <b>U.S. DOT Crossing Inventory Number</b> | <b>Intersecting Roadway</b> | <b>Intersection Mile Post(s)</b>                 |
|-------------------------------------------|-----------------------------|--------------------------------------------------|
| AARDOT#425404W                            | Private Road                | Tallulah Branch / Lake Providence Sub MP 474.31  |
| AARDOT#425405D                            | Paris Road                  | Tallulah Branch / Lake Providence Sub MP 474.63  |
| AARDOT#425487M                            | Private Road                | Tallulah Branch / Lake Providence Sub MP 487.63. |

|                |              |                                              |
|----------------|--------------|----------------------------------------------|
| AARDOT#924866P | Private Road | Sterlington Branch / Huttig<br>Sub MP 558.60 |
| AARDOT#924867W | Private Road | Sterlington Branch / Huttig<br>Sub MP 558.70 |

*This Project does not include any grade crossings for the Hollybrook Ware Siding (Tallulah branch MP 474.3 - 474.4), the Keystone Siding (Sterlington branch MP 556.01 - 555.50) or the Sterlington Siding (Sterlington Branch MP 554.57 - 554.02)*

Proper signage will be placed at each crossing to show that the crossing is now two tracks instead of one. The U.S. DOT crossing inventory forms will be updated. The Project will not involve adding any additional at-grade crossings within the project area, as the four other listed at-grade road crossings will be maintained during the project.

The siding crossing surface at the private road (AARDOT#425404W, AARDOT#425487M, AARDOT#924866P, and AARDOT#924867W) at-grade crossings will be constructed with similar materials and components as exist currently. These private roads are unpaved.

The siding crossing surface at Paris Road (AARDOT#425405D) will be constructed with asphalt, using similar materials and components currently used in the existing at-grade road crossing. The existing crossing has a passive traffic control device (i.e., crossbucks). The roadway traversing the rail crossing is a paved, two-lane public road.

#### **B. Heavily Traveled Rail Corridor information**

This requirement is not applicable to this project as it does not pertain to Intercity Passenger Rail Transportation.

#### **C. PTC Information**

This requirement is not applicable to this project as it does not include deployment of PTC systems.

#### **D. Workforce Development and Training Information**

This requirement is not applicable to this project as it does not contain a workforce development or training component.

#### **E. Trespassing injury and Fatality Prevention and Reduction Documentation**

This requirement is not applicable to this project as it does not include a trespassing injury and fatality prevention and reduction component.

#### **F. Emissions Reduction Information**

This requirement is not applicable to this project as it does not include an emissions reduction component.

#### **G. Community Emergency Plans**

This requirement is not applicable to this project as it does not include a community emergency plan component.

## **H. Maglev Grants Program Magnetic Levitation Projects**

This requirement is not applicable to this project as it does not include a magnetic levitation component.

## **VII. Project Location**

Delta Southern Railroad (DSRR) is a wholly owned subsidiary of West Branch Intermediate Holdings, LLC, operating on two-line segments, approximately 60 miles apart, in Monroe and Tallulah, Louisiana, encompassing approximately 51 track miles and serving two port facilities located on the mighty Mississippi River – Lake Providence Port and Madison Parish Port. This Project will be located solely along both the Sterlington Branch (Sterlington to Monroe, LA.) and the Tallulah Branch (Lake Providence to Tallulah, LA.).

This Project involves rehabilitation of 39.54 miles of excepted track along both the Monroe and Tallulah Branches of the DSRR, rehabilitation of six (6) rail sidings and construction of a bypass track along the Tallulah Branch within the existing railroad right-of-way.

Project Component 1, Tallulah Mainline Track Upgrade, will be located from Lake Providence, LA to Tallulah, LA., in East Carroll Parish, LA. from MP 471 to MP 498.4. on the Tallulah Branch of the DSRR.

Project Component 2, Tallulah Bypass Track Addition, will be located in Talla Bena, LA., in East Carroll Parish, LA. from MP 491.94 to MP 493.54 on the Tallulah Branch of the DSRR.

Project Component 3, Tallulah Sidings Rehabilitation, will be located in Hollybrook, LA and Sondheimer, LA., in East Carroll Parish, LA. This will consist of three (3) sidings from MP 473.3 to MP 474.4, MP 474.5 to MP 474.95, and MP 487.34 to 487.72 on the Tallulah Branch of the DSRR.

Project Component 4, Sterlington Mainline Track Upgrade, will be located from Sterlington, LA to Monroe, LA., in Ouachita Parish, LA. from MP 553.86 to MP 566 on the Sterlington Branch of the DSRR. MP 556.18 to MP 566, approximately 9.82 miles, along the Sterlington Branch is wholly owned by UP and leased by DSRR.

Project Component 5, Sterlington Sidings Rehabilitation, will be in Sterlington, LA., in Ouachita Parish, LA. This will consist of two (2) sidings from MP 554.02 to MP 554.57 and from MP 555.5 to 556.01 on the Sterlington Branch of the DSRR.

Project Component 6, Sterlington Siding Rehabilitation, will be in Monroe, LA., in Ouachita Parish, LA. from MP 558.59 to MP 558.77 on the Sterlington Branch of the DSRR.

The Project falls entirely within the boundaries of Congressional District LA-005, as illustrated in Figure 1. The project is located 95.5% within a Rural Area as defined by the Census Bureau “as any population, housing, or territory NOT in an urban area.”<sup>7</sup> This is illustrated by Figure 2 Population Density in Louisiana Counties: 2020 Census and Figure 3 Percent Population Residing in Urbanized Areas by County: 2010.

Below, Figure 4 shows DSRR’s rail lines. Figures 5 through 10 show the Google Earth views of each project component.

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<sup>7</sup> (State Profile: Louisiana, 2021)

Figure 1: Map of Louisiana Congressional District

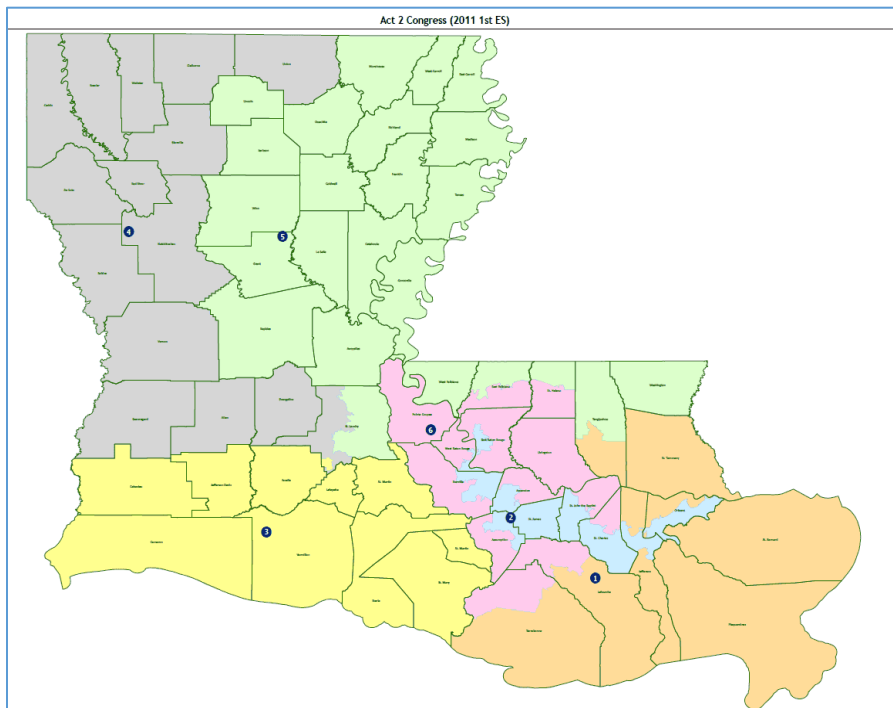


Figure 2: Population Density in Louisiana Counties: 2020 Census

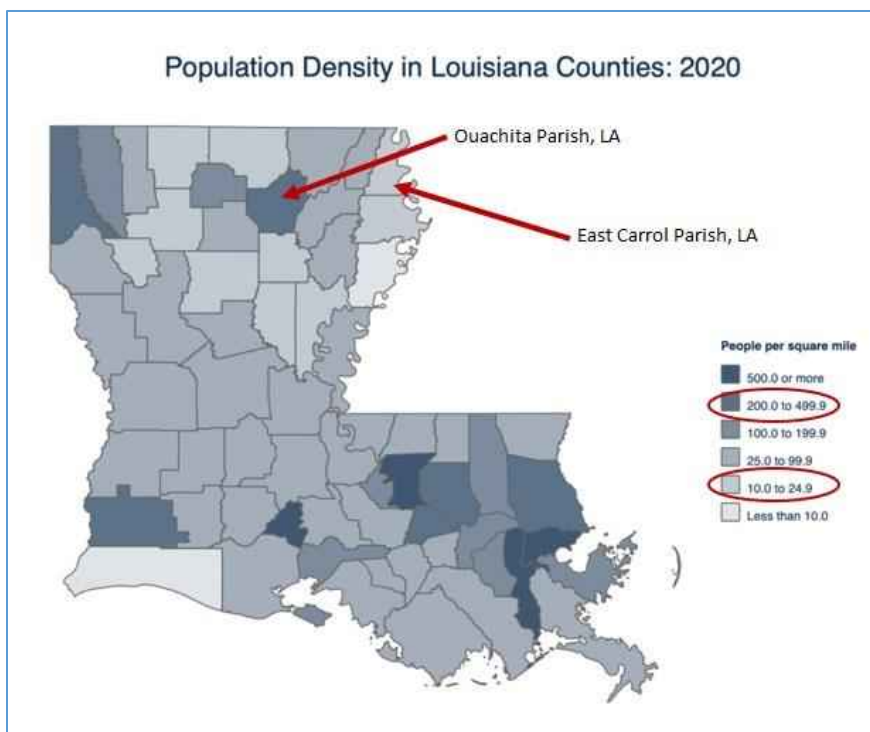


Figure 3: Percent Population Residing in Urbanized Areas by County: 2010



Figure 5: Tallulah Branch Mainline Track Upgrade – Project Component 1



Figure 6: Tallulah Branch Bypass Track Construction – Project Component 2



Figure 7: Tallulah Rail Sidings – Project Component 3



Figure 8: Sterlington Mainline Track Upgrade – Project Component 4

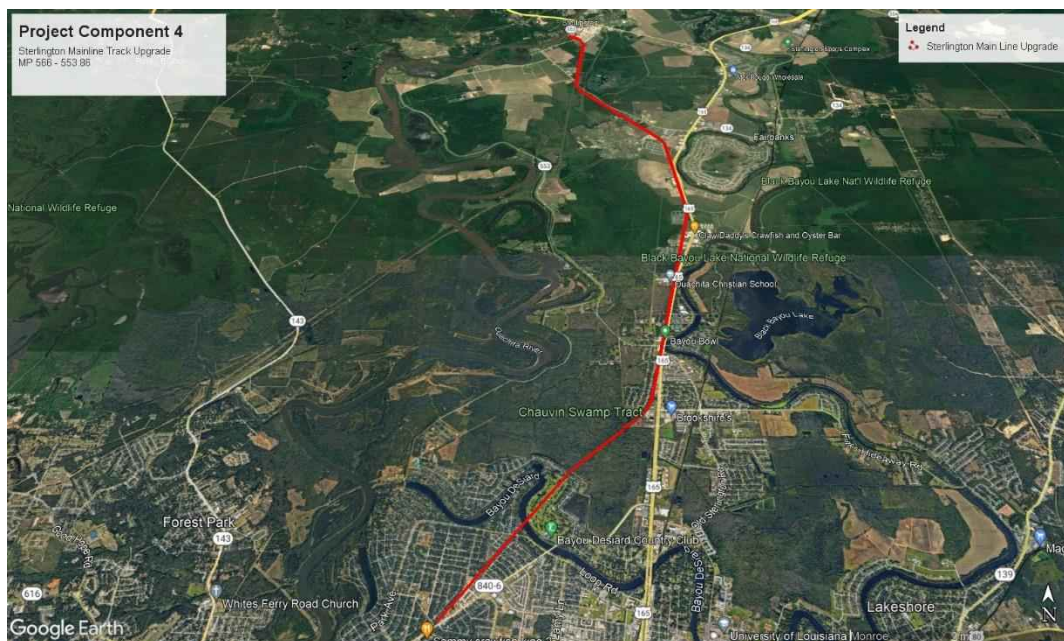


Figure 9: Sterlington Rail Sidings – Project Component 5

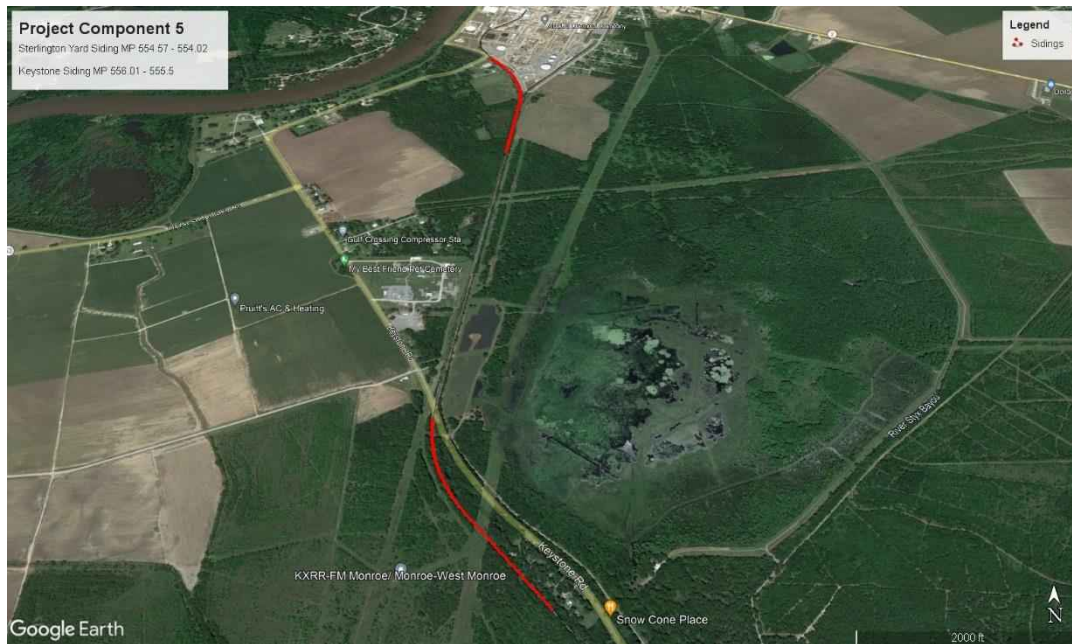


Figure 10: Bluelinx Rail Siding – Project Component 6



## **VIII. Evaluation and Selection Criteria**

### **A. Summary of Eligibility and Completeness**

Tasks and subtasks detailed in the Statement of Work have been identified, and the Project described in this proposal is in the Project Development and FD/Construction stages (Track 2 and Track 3). A Schedule, Budget, and Performance Measures have been articulated (Attachment 3: Schedule; Attachment 4: Budget; Attachment 5: Performance Measures). DSRR is committed to continually making improvements to rail infrastructure in Northern Louisiana.

### **B. Summary of Benefits and Technical Merit**

This Project will improve DSRR's safety, efficiency, reliability, capacity, competitiveness and resiliency, and it has been found to have the highest net positive impact on DSRR's system, service performance, and customer participation. The Project involves rehabilitation of 39.54 miles of excepted track along both the Sterlington and Tallulah Branches of the DSRR, rehabilitation of six (6) rail sidings across DSRR and construction of a bypass track along the Tallulah Branch within the existing railroad right-of-way. The appropriate stretches of the DSRR right-of-way have been identified and an aggressive, specific, and task-oriented Statement of Work (Attachment 2), and Budget (Attachment 4) have been articulated.

Implementing the DSRR Rail Enhancement and Safety Improvements Program will considerably affect DSRR's ability to improve rail competitiveness in our market territory, increase reliability, reduce trip, and transit time, and improve system resilience. Benefits and efficiencies include meeting the demand for additional rail, increased efficiency of acceptance of large freight loads, increased accessibility, reduced truck traffic, and increased reliability. Consistent with the Biden-Harris Administration's Executive Order 14008 Tackling the Climate Crisis at Home and Abroad<sup>8</sup>, this Project will increase the resiliency of Louisiana's freight transportation in the face of climate change impacts. Without implementation of the Rail Enhancement and Safety Improvement Program project will result in a 20% decline of the current 2,000 annual carloads over 5 years with complete failure expected by 2032.

#### *Summary of Benefits*

This Project will...

- result in a \$369.63 million total economic benefit;
- result in a \$1.66 million benefit in short-term impacts in key industries employing low-income individuals;
- divert more than 720k trucks over a 20-year period, reducing over 262 million miles of truck traffic off congested highways, resulting in a savings of approximately \$31 million in reduced highway maintenance costs to taxpayers;
- increase safety of the local highways;
- reduce greenhouse gas emissions from truck traffic;
- increase system efficiency;
- enhance DSRR's competitiveness;
- increase local industries' competitiveness in the global marketplace; and
- reduce transit times across the system.

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<sup>8</sup> <https://www.federalregister.gov/documents/2021/02/01/2021-02177/tackling-the-climate-crisis-at-home-andabroad>

## Benefits

Bluelinx Corporation will also receive a significant benefit from this project by expanding the length as well as double ending the siding at their Monroe facility for the Bluelinx Siding Rehabilitation portion of this project. This would allow Bluelinx to expand their unloading capabilities at this location as well as allow for increased traffic and reduced congestion.

Furthermore, this Project will result in a total benefit \$369 million in total benefits to society, of which, \$26.72 million for the local economy, including a \$1.66 million benefit for low-income individuals in the economically distressed Opportunity Zone Number 22035000200, titled Census Tract 2, Lake Providence, LA<sup>9</sup>; located in East Carrol Parish, LA, in which three of the six sidings in this Project will be rehabilitated, a bypass track will be installed, and approximately 28 miles of mainline track will be rehabilitated. This benefit is calculated in the Benefit-Cost Analysis (Appendix E) by the short-term increase in employment and labor income resulting from capital expenditures in key industries employing low-income individuals. This benefit is especially significant considering that Opportunity Zone 22035000200 is an economically disadvantaged community that contains high rates of low-income individuals, as is evidenced by the Federal Opportunity Zone designation.

### *Summary of Technical Merit*

DSRR believes these tasks and subtasks, as outlined in the Statement of Work (Attachment 2), are appropriate to achieve the expected outcomes of the proposed Project as DSRR is ready to meet requirements under the Project tracks designated.

DSRR has traditionally and consistently invested capital into the railroad to serve the online industries. Increased volume and local economic growth continue to drive increased traffic across the network, and an increase in railcar volume requires the ability for time sensitive unit train delivery to travel smoothly and safely. DSRR has prepared a long-term capital plan based on projected railroad volume growth and is committed to the life-cycle cost of maintaining the rail enhancements. Furthermore, DSRR is committed to safely and efficiently serving local industries and the community in which we live and work.

## **IX. Project Implementation and Management**

The management of DSRR has committed the following people to take part actively and aggressively in the Safety Improvement and Rehabilitation Project detailed in this proposal. These individuals bring strong experience in safety in the railroad industry and a commitment to the careful and successful launch of rail enhancements.

### **A. Implementation Team:**

*Jon Ryan* has enjoyed a successful career within the rail industry for more than a decade, including serving the last four years as the Chief Executive Officer for the Delta Southern Railroad, Inc. Mr. Ryan's experience also includes senior leadership positions with Banyan Rail, as their President and CEO, and Managing Member of Ryan Advisory Services. Prior to joining the rail industry, Mr. Ryan developed a successful 25-year career as a senior financial executive; his expertise was built on diverse global project management experience for both publicly and privately owned entities. Mr. Ryan earned his Bachelor of Business Administration in Accounting degree from the University of North Florida and is a licensed Certified Public

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<sup>9</sup> (Census Tract 2, Lake Providence, Louisiana, 2021)

Accountant. He started his career with Ernst & Young and Smoak, Davis & Nixon, LLP, following his graduation.

*Israel Perez, Jr.* serves as the Corporate Controller (Consultant) for Delta Southern Railroad, Inc. His expertise was instrumental in helping DSRR strategically re-engineer its accounting and financial systems in 2017. Mr. Perez has been with DSRR for six years and has a total of eight years of railroad industry experience. In addition to his tenure at DSRR, Mr. Perez worked as Corporate Controller for Continental Rail, Senior Accountant for Silver Airways and Patriot Rail Corp, as well as a tax consultant for NextEra Energy, Inc. He holds a Bachelor of Business Administration in Accounting degree from Florida Atlantic University and is an active Certified Management Accountant.

*Roidino (Dino) Trevino* joined Delta Southern Railroad, Inc. three years ago as the General Manager following a successful career with Watch Companies, LLC, where he served in roles of increasing responsibility within their division, as the Safety and Operations Manager, Trainmaster, Track Superintendent, and General Manager of Switching Operations. Throughout Mr. Trevino's twenty-five-year railroad career, he has achieved several industry designations, including Designated Supervisor of Locomotive Engineers (DSLE), Certified Locomotive Engineer, and Certified Railroad Conductor.

*Christopher Crockett*, Operations Manager and Trainmaster of Delta Southern Railroad, Inc., served six years in the U.S. Army prior to commencing his Railroad career in 2009 on the Delta Southern Railroad, Inc. Mr. Crockett began his tenure at DSRR working on the Maintenance of Way team. After five years of service, he transitioned to train service as a conductor and locomotive engineer. Mr. Crockett furthered his training by completing Track Inspector and Safety training courses in November 2020. Shortly thereafter, Mr. Crockett was promoted to Trainmaster. He now serves in the dual capacity of Operations Manager and Trainmaster.

#### **B. Accounting and Financial Management and Readiness for Grant Funding**

Jon Ryan, DSRR Chief Executive Officer, is responsible for oversight of the Project funding, including any funds awarded from this application, and the grant progress reports. Mr. Ryan's current role with DSRR includes planning and forecasting, examining short-term and long-term liquidity needs, analyzing new business ventures, development of pricing strategies for new business, capital planning and development, compliance reporting for West Branch Intermediate Holdings, LLC, and reviewing capital markets and economic trends.

### **X. Planning Readiness for Track 2 Project Development and Track 3 – FD/ Construction**

This Project follows Track 2—Project Development and Track 3—FD/Construction. DSRR is committed to the successful completion of this Project and has proactively completed the following steps toward developing this Project and upgrading the DSRR network.

#### **A. Initial Cost Analysis and Review**

-In 2021, Jon Ryan, CEO, commissioned a Geotechnical Engineering Report from Terracon, to present results of subsurface exploration. As well as geotechnical service to explore the technical feasibility of the Bypass Track construction project. The report was delivered on July 26, 2021 at a cost of \$13,500. A copy of this report is included in Appendix H.

Concept engineering plans for the bypass track were commissioned from Lazenby by Mr. Ryan in July 2021. The plans were procured at a cost of \$92,626.15. A copy of the concept drawings can be found in Appendix I.

Mr. Ryan also commissioned an Environmental Assessment from Garver, specifically to evaluate and report on wetlands delineation for the area surrounding the proposed project component 2, Bypass Track Installation. The evaluation was conducted on May 25, 2021. This report was commissioned at an expense of \$6,475.44 and was delivered to the Army Corps of Engineers on September 24, 2021. A copy of the report delivered to the Army Corps of Engineers is included in Appendix J.

These pre-construction costs, totaling \$112,601.59, are not included in the Project cost and are not included in the grant application. DSRR understands that these costs will not be reimbursable. However, DSRR is committed to the project and wanted to provide a strong foundation for the grant application.

### **B. Project Schedule**

In November of 2022, a Project Schedule for the Safety Improvement and Rehabilitation (Attachment 3) was developed. Upon obligation of funds and Environmental Planning approval, construction efforts can begin with issuing RFPs and materials purchase. Design work for each Project Component will commence in 2023, and initial construction is slated to begin in 2024. DSRR has identified partners who are prepared to initiate the design phase in each Project Component.

### **C. Technical Feasibility**

DSRR plans to request competitive RFPs for design and bids for construction using established internally approved processes. The Project and all respective Project Components will adhere to all NDOT and FRA railroad standards, along with all other Federally recognized guidelines pertaining to the Project.

### **D. State and Regional Transportation Plans**

#### *State Transportation Plans*

The [LaDOTD State Freight Plan<sup>10</sup>](#), adopted in 2015 and revised in 2020, states that rail access is crucial for Louisiana's industries. The plan supports investments in shortlines as a way to enhance rail access and ensure the availability of cost-effective shipping for Louisianan industries.

### **E. Assessment of Project Risks and Mitigation Strategies**

This section outlines the procedures for addressing design errors, requests by other agencies, unanticipated conditions or commitments, and force majeure. Accordingly, these are the most significant threats that could delay the schedule, and their associated mitigation strategies:

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[http://wwwsp.dotd.la.gov/Inside\\_LaDOTD/Divisions/Multimodal/Marine\\_Rail/Misc%20Documents/2020%20Louisiana%20Rail%20Plan.pdf](http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Multimodal/Marine_Rail/Misc%20Documents/2020%20Louisiana%20Rail%20Plan.pdf)

- *Contractor delays:* The current schedule includes one year for pre-planning and 3.5 years for construction of all Project Components. During the process, there will be meetings with appropriate contractors to mitigate this potential schedule threat.
- *Environmental planning process delays:* DSRR will engage an Archeological and Cultural Resource Management Specialist to help accurately prepare required documentation for NEPA (i.e., a Categorical Exclusion worksheet).
- *Railroad operations delaying construction:* Mitigation of this threat will require close coordination between DSRR and our contractors related to peak time needs and potential scheduling conflicts.
- *Weather impacts:* The construction schedule assumes heavy rainfall during the Spring months. The schedule could be improved should the region experience minimal rainfall and/or should DSRR schedule specific construction planning activities during Spring months.

As final design proceeds, costs may increase as information is acquired and requirements are established. An allowance for cost increases is included in the contingency amount of \$2,728,953.80, but any cost increases will be mitigated in the design process. There are also opportunities during the construction stage to aggressively manage scope changes, which could further reduce costs.

#### **XI. Design Readiness for Track 3 (FD/Construction)**

In 2021, Jon Ryan, CEO, commissioned a Geotechnical Engineering Report from Terracon, to present results of subsurface exploration and geotechnical service to explore the technical feasibility of the Bypass Track construction project. Findings as to the subsurface soil conditions, groundwater conditions, site preparation and earthwork needs and evaluation of existing ballast and sub-ballast, along with a projection of ballast and sub-ballast needs for the project were determined through this report. The report was delivered on July 26, 2021, at a cost of \$13,500. A copy of this report is included Appendix H.

Concept engineering plans for the bypass track were commissioned from Lazenby by Mr. Ryan in July 2021. The plans were procured at a cost of \$92,626.15. A copy of the concept drawings can be found in Appendix H.

#### **XII. Environmental Readiness for Track 3 FD/Construction Projects**

Garver USA has performed wetland delineation on approximately 15.76 acres containing Zone A and Zone AE floodplains along the Tallulah Branch of the DSRR. A total of 119 LF of stream and 0.33 acre of wetlands (potentially jurisdictional features) were identified within the study areas. The proposed project would impact 32 LF of streams and 0.001 acres of wetlands. (Appendix I). Additionally, DSRR has reached out to Terry Thomas, Louisiana SPOC for EPA, by phone and email to inform him of the Delta Southern Railroad, Inc. (DSRR) Safety Improvement and Rehabilitation Program.

DSRR plans to submit a Categorical Exclusion Worksheet for construction Project Components 1, and 2-6, Tallulah Mainline Track Upgrade; Tallulah Sidings Upgrades; Sterlington Mainline Track Upgrade; Sterlington Sidings Upgrades; and Bluelinx Siding Upgrade, respectively, as

these projects will likely qualify for Categorical Exclusion according to the FRA’s Procedures for Considering Environmental Impacts, specifically item 4(c)(16), which includes minor rail line additions that do not significantly involve acquisition of a significant amount of right-of-way, nor significantly alter the traffic density characteristics of the existing rail line.

Appendix J includes a draft of the CE worksheet, in addition to the Environmental Assessment prepared by Garver, noted previously in section X.A. Initial Cost Analysis and Review. Some portions of the Draft CE Worksheet are pending review by a DSRR contracted Environmental Planning and Permitting Consultant, to be contracted upon Grant Award and prior to Grant Obligation.

### **XIII. DOT Strategic Goals**

The DSRR Rail Enhancement and Safety Improvement Project aligns with the following DOT strategic goals:

#### **A. Safety**

This Project fosters a safe transportation system for the movement of goods and reduces the risk of fatalities or serious injuries across the transportation system. Specifically, this Project will upgrade expected track and rail sidings to prevent derailment. Also, DSRR’s hiring practices ensure that the entire workforce is appropriately and thoroughly trained to carry out their responsibilities with the utmost safety.

#### **B. Equitable Economic Strength and Improving Core Assets**

##### *Infrastructure Investment and Job Creation*

This Project will contribute to economic progress stemming from infrastructure investment and associated job creation. Specifically, this Project will create 341 job-years, increasing accessibility to good-paying jobs with free and fair choice to join a union.

##### *Support Resilient Supply Chains and Economic Opportunity*

This Project will promote the efficiency and resilience of supply chains by increasing the DSRR rail capacity. The Louisiana markets for grains, fertilizers, aggregates, chemicals, farm equipment, and other agriculture will directly benefit from the safety and rail improvements outlined in this proposal.

#### **C. Equity and Barriers to Opportunity**

The Rural Area in which this Project takes place includes East Carroll Parish Opportunity Zone 22035000200. This Project will result in a \$1.66 million benefit and 55.5 job-years for low-income individuals in Opportunity Zone Tract 22035000200 in East Carroll Parish, LA<sup>11</sup>. This benefit is calculated in the Benefit-Cost Analysis by the short-term increase in employment and labor income resulting from capital expenditures in key industries employing low-income individuals (Appendix E). This benefit is especially significant considering that Tract

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<sup>11</sup> (Census Tract 2, Lake Providence, Louisiana, 2021)

22035000200 is an economically distressed community that contains high rates of low-income individuals, as is evidenced by the Federal Opportunity Zone designation.

#### **D. Change and Sustainability**

This Project reduces the harmful effects of climate change and anticipates necessary improvements to prepare for extreme weather events. Specifically, this Project increases the resiliency of the DSRR track by rehabilitating mainline track by replacing deteriorating and aging materials with more durable materials and reinforcing track infrastructure as needed. The result of this Project will be a longer life cycle of the track.

This Project also avoids transportation by truck by enabling bulk commodities of approximately 5,500 annual carloads to move via rail versus over 20,000 annual truck movements required for the same commodities. Transportation by truck would expend excessive fuel emissions, increasing land and air pollution.

#### **E. Transformation**

This Project improves the nation's rail network by installing new infrastructure for increased capacity, while ensuring proper maintenance is carried out for DSRR's aging assets. Specifically, this Project improves supply chain resilience by upgrading the rail and sidings and replacing ballast to ensure the rail line's longevity, efficiency, and safety.

*Appendix A    Benefit-Cost Analysis*



**2022 CRISI Grant Application**

**Project Title:** Delta Southern Railroad, Inc. (DSRR) Rail Enhancement and Safety Improvement Program

Appendix A: Benefit-Cost Analysis

December 1, 2022

**Delta Southern Railroad, Inc. (DSRR)**  
**Safety Improvement and Rehabilitation Program**

## **I. Section 1: Executive Summary**

Delta Southern Railroad (DSRR) is a wholly owned subsidiary of West Branch Intermediate Holdings, LLC., with STB-approval pending to become a wholly owned subsidiary of Patriot Rail, LLC. It operates on two independent line segments approximately 60 miles apart in Monroe and Tallulah, Louisiana for a total of 51 miles of excepted track serving two port facilities located on the mighty Mississippi River – Lake Providence Port and Madison Parish Port. This project will focus on both the Sterlington and the Tallulah Branches of the DSRR.

DSRR proudly works with our well-respected railroad and interchange partners, Kansas City Southern Railroad (KCS) and Union Pacific Railroad (UP) to serve clients with rail access to the Meridian Speedway and U.S. Hwy 20.

The central southern location provides a strategic position within the logistics footprint for moving products from the southern ports to destinations north, east, and west within the vast rail network. Combined, DSRR's rail lines handle over 2,000 carloads of traffic annually with over 100% organic growth forecasted over the next 5 years which includes a variety of commodities such as grain, aggregate, agricultural, chemicals, and forest products.

Specifically, this project seeks to rehabilitate 39.54 miles of excepted track by replacing ties and ballast, rehabilitate six (6) rail sidings and construct a bypass track within the existing railroad right-of-way; in order to meet increased rail demand from local industry; to alleviate interchange point congestion; to increase the rail network's resiliency against major natural disasters by increasing accessibility to transload locations; to alleviate congestion at road crossings; and to provide rail access to non-rail served industries.

The total project cost is \$17,625,183.20 (2022\$) and this proposal seeks a 75% match of FRA funding in the amount of \$13,218,887.40 with DSRR committed to a 25% contribution in the amount of \$4,406,295.80.

Louisiana Department of Transportation (LaDOTD) has provided a letter of support and, if funds are available at the time, will contribute up to \$1.5M to support the Rail Enhancement and Safety Improvement Program project. Should LaDOTD funds be unavailable at the time of grant award, DSRR will provide the entirety of the 25% match pledged.

This financial award will allow DSRR to increase safety and assist in meeting infrastructure needs to accommodate increased rail traffic from local industry; maximize fluidity; reduce turn times of chemicals, grain, agricultural products, and aggregate material, and increase safety to support much needed carload growth for this region.

DSRR is a Class III railroad that operates across two separate branches, comprised of 51 miles of predominately excepted track, with safety as our number one priority. DSRR owns the former Missouri Pacific Railroad line from Tallulah to Lake Providence (the line north of Lake Providence to McGhee, AR was abandoned by DSRR.) DSRR is currently operating only from Tallulah to the Madison Parish Port, approximately 7 miles. DSRR has two sites available for transloading at Tallulah and accommodates rail car storage.

This project specifically addresses the following challenges:

1. *Deterioration of Track:* The Project will address the deteriorating condition of main line rail along the Sterlington Branch and Tallulah Branch which require significant rehabilitation due to the condition of the track and to avoid future failures and traffic disruption. If not rehabilitated, the current traffic count will cause rapid deterioration of the line, resulting in a failure by component, likely becoming inoperable within five (5) years. Project Components 1 and 4, the Tallulah Mainline Track Upgrade and the Sterlington Mainline Track Upgrade, respectively, will rehabilitate the rail and is necessary to prevent increased degradation of the track, to continue and improve operations, and to provide safe and efficient rail service to new and existing customers
2. *Limited efficiency due to Sub-Par Infrastructure:* The Project will address the sub-par infrastructure by rehabilitating the rail and ties, rehabilitating six (6) new sidings and associated crossings, and constructing a new bypass track. This project will increase safety and reduce transit times across the system, improve efficiency and benefit local industries in aggregate, metals, grains, and other agricultural products. Increased efficiency is vital in supporting the ability of our local industries and to compete in the global marketplace by enabling customers' continued access to rail infrastructure.
3. *Limited access to transload locations.* All six (6) Project Components will address the sub-par infrastructure by rehabilitating the rail and ties, rehabilitating six new sidings and associated crossings, and constructing a new bypass track. As motor carrier freight tends to be expensive and causes higher emissions and safety risks, logistics managers require more affordable, reliable modes of transportation, especially in rural areas. DSRR currently does not have enough adequate locations in the form of transload or sufficient sidings for customers to transload, which is particularly disadvantageous for local customers without direct rail access as well as for DSRR's interchange partners. This project will increase safety and reduce transit times across the system, improve efficiency and benefit local industries in aggregate, metals, grains, and other agricultural products. Increased efficiency is vital in supporting the ability of our local industries and to compete in the global marketplace by enabling customers' continued access to rail infrastructure.

The Delta Southern Railroad, Inc. (DSRR) Rail Enhancement and Safety Improvement Program project will enable DSRR to improve safety and meet increased rail demand from local industry on both branches. The Tallulah branch requires rehabilitation on the Tallulah mainline track and the rehabilitation of the Tallulah sidings and a bypass track near Madison Parish Port. The Sterlington branch requires rehabilitation on the Sterlington mainline track and the rehabilitation of the Keystone siding, Sterlington Yard siding and the Bluelinx siding.

The project will alleviate congestion along the Tallulah and Sterlington branches and will improve efficiency by enabling DSRR to serve customers without having to relocate storage rail cars and transload customer cars that are located along the railroad's mainline track. Rehabilitation of the rail sidings will create transload locations that can provide rail access to local non-rail served industries in the DSRR area, providing economies of scale to identified rail inaccessible industries. This project will address potential derailments and unsafe track conditions by replacing ties and ballast across the 39.54 miles of mainline and sidings on the two branches of the DSRR.

DSRR operates 95.5% within Rural Areas as designated by the Census Bureau. The Rural Area of the Tallulah branch, in which DSRR operates, requires DSRR to provide dependable service to its customers, particularly grain and chemical customers who experience time sensitive transportation needs, and interchange Class I and Class III partners. DSRR must maintain reliable transportation service, without a delay or disruption in service, to KCS interchange and to local industries. Specific industries which will directly benefit from this project include grain, aggregate material, agricultural products, cotton, coal, chemicals, fertilizer, forest products, metals, sand, clay and soda ash products. Furthermore, these transload locations would provide rail access to non-rail served industries in the DSRR area, providing the economies of rail to inaccessible industries.

By strengthening the DSRR's safety, fluidity, and capacity, through Rehabilitation, this project strengthens operations across both the Tallulah Branch and the Sterlington Branches. This project strengthens the entire DSRR system through increased carload capacity, positively impacting the fifteen (15) Rural cities and towns along the Tallulah Branch: Hollybrook, LA; Sondheimer, LA; Transylvania, LA; Talla Bena, LA; Tallulah, LA; Roosevelt, LA; Grimes, LA; Atherton, LA; Lake Providence, LA; Engelwood, LA; Ashly, LA; Mansford, LA; Omega, LA; Enoka, LA; Alsatia, LA; as well as the three (3) Rural cities and towns along the Sterlington Branch: Lamkin, LA; Monroe, LA; and Sterlington, LA.

Furthermore, this project will result in approximately \$1.66 million in short-term impacts that benefit low-income individuals in Opportunity Zone Number 22035000200, titled Census Tract 2, Lake Providence, LA; located in East Carroll Parish, LA in which all four sidings will be rehabilitated, a bypass track will be installed and 39.54 miles of rail will be rehabilitated. This benefit is calculated in the Benefit-Cost Analysis by the short-term increase in employment and labor income resulting from capital expenditures in key industries employing low-income individuals. This benefit is especially significant considering that Opportunity Zone 22035000200 is an economically disadvantaged community that contains high rates of low-income individuals, as is evidenced by Federal Opportunity Zone designation.

#### *Project Component 1: Tallulah Mainline Track Upgrade*

This program involves replacing ties and fouled ballast material from MP 471 to MP 498.4 along the Tallulah Branch of the DSRR track. This program encompasses 28 miles of excepted track operated by DSRR in Northern Louisiana. Approximately twenty-four thousand (24,000) new ties and fresh ballast will be installed across 28 miles of track, as necessary, to improve railroad safety and quality. DSRR will change out failed and defective ties and fouled ballast with new components.

#### *Project Component 2: Bypass Track Construction*

This project Component involves construction of a bypass track, approximately 1.3 miles in length, near Talla Bena, Louisiana, along the DSRR rail line. This will entail eight hundred – fifty 850 ties per mile and fresh ballast to be installed.

#### *Project Component 3: Sidings at Hollybrook Ware, Hollybrook Gin, and Sondheimer*

This project Component involves rehabilitating approximately 1,800 feet of rail siding from MP 474.3 to MP 474.4 in Hollybrook, LA, 720 feet of rail siding from MP 474.50 to MP 474.95 in Hollybrook, LA, and 1,100 feet of rail siding from MP 487.34 to MP 487.72 in Sondheimer, LA. All sidings will require tie replacement (850 ties per mile) and fresh ballast.

#### *Project Component 4: Sterlington Mainline Track Upgrade*

This program involves replacing ties and fouled ballast material from MP 566 to MP 553.86 along the Sterlington Branch of the DSRR track. This program encompasses 13 miles of excepted track operated by DSRR in Northern Louisiana. Over sixteen thousand (16,000) railroad ties will be replaced, and about four thousand (4,000) tons of rock will be installed across 13 miles of track, as necessary, to improve railroad safety and quality. DSRR will change out failed and defective ties and fouled ballast with new components.

#### *Project Component 5: Sterlington Sidings at Keystone and Sterlington Yard*

This project Component involves rehabilitating approximately 1,400 feet of rail siding from MP 556.01 to MP 555.5 and 2,500 feet of rail siding from MP 554.57 to MP 558.77 both in Sterlington, LA. These sidings will require new rail, new ties, rock installation and surface and line upgrade.

#### *Project Component 6: Bluelinx Siding Upgrade*

This project Component involves upgrading and expanding the existing siding from approximately 500 feet to 1,000 feet from MP 558.59 to MP 558.77 in Monroe, LA. This siding will require the addition of double end siding, one turnout, dirt work, rock and surface and line upgrade.

Implementing the Rail Enhancement and Safety Improvement Program project will considerably affect DSRR's ability to improve rail competitiveness in our market territory, increase reliability, reduce trip, and transit time, and improve system resilience. Benefits and efficiencies include meeting the demand for additional rail, increased efficiency of acceptance of large freight loads, increased accessibility, reduced truck traffic, and increased reliability. Consistent with the Biden-Harris Administration's Executive Order 14008, Tackling the Climate Crisis at Home and Abroad, this project will increase the resiliency of Louisiana's freight transportation in the face of climate change impacts. Without implementation of the Rail Enhancement and Safety Improvement Program project will result in a 20% decline of the current 2,000 annual carloads over 5 years with complete failure expected by 2032.

This analysis consists of an assessment of commodities moving across the Tallulah and Sterlington Branch lines, through each of the proposed sidings, and the use of the bypass track. The assessment of potential divertible cargo in 2027 is over 400 thousand tons annually that could be diverted from truck to rail of which nearly 150 thousand tons would be new traffic that will be added once the rehabilitation project is complete.

Under the no-build scenario, DSRR is unable to provide rail accommodations for inbound aluminum from Mobile, inbound aggregates from Arkansas, outbound woodchips to IP plants on the East coast, and inbound lumber from Canada and Pacific Northwest, along with transloaded products such as soybean oil, grain, timber, corn, and vegetable oil. The DSRR currently handles over 2,000 carloads annually and expects significant organic growth; this study considers the challenges of the current network as well as new carload growth from customers in the area that are waiting for the rehabilitation of the track and the addition of the new sidings.

Challenges include continued safety across the entire network due to deferred maintenance issues. Additional challenges include 1) the loss of transload growth for soybean oil, grain, timber, corn, and vegetable oil, 2) the loss of unit blocks of outbound woodchips, 3) the loss of inbound soy oils, the loss of inbound unit blocks of aggregate to a national aggregates firm, 4) the loss of current carloads across the entire network as the ballast and ties continue to deteriorate and 5) the

weakening of the system against heavy rainfall and flooding, which due to hurricanes and changing weather patterns are common to this region.

### 1) *Limited trackage to meet growing industry need*

Without the rehabilitated Tallulah siding in Hollybrook Warehouse-North, short haul moves such as imported aluminum from Brazil would continue to be trucked into the local area from Mobile, AL. and shippers will have limited options for receiving these carloads by rail. The upgraded facilities will allow for 400 carloads of inbound aluminum annually. Without the new siding, DSRR will be unable to handle this new traffic, and the product would continue to move by truck to the local market.

Throughout this BCA, we use 50% of new carloads for calculation purposes as suggested by the rule of half and as illustrated in the 2022 Cost Analysis Guidance for Discretionary Grant Programs document. DSRR estimates this new siding will initially handle 400 carloads in the base year (2027). Therefore, in the base year there are 200 new carloads affected ( $400 \text{ new} * 50\% = 200$ ). The truck miles saving for this section average 251 miles.

The Tallulah Sondheimer Transload & Bypass upgrades give us the ability to handle eager customers looking to move grain, soybean oil, timber, corn, & vegetable oil to displace regional truck origins. For example, the grain in 25 car blocks is to be railed from Kansas City, MO. to Tallulah, LA. and then loaded onto barge for export. The southern route for exporting grain is faster and more efficient as the grain is loaded on the barges at a more southern point. Grains are currently being trucked from lower Midwest points, such as Kansas City, MO, to St Louis, MO. to barge for export.

The new transload operations supporting local operations will create 70 new car spots, which equates to a 21,000-carload capacity annually at full utilization. Our initial full forecast for this facility is 1,900 cars annually, however, to be conservative the forecast has been reduced by 25% to 1,425 carloads annually in 2027. Therefore, in the base year 712 carloads are affected ( $1,425 \text{ new} * 50\% = 712$ ). The truck miles saving for this section average 400 miles.

### 2) *Limited Truck Capacity*

For intermediate haul moves, the growing driver shortage and other issues that have disrupted the trucking supply chain, shippers are looking at rail for security and stability. As such, we have a new opportunity to handle outbound woodchips at the Hollybrook Gin (South) siding for one of the largest paper firms in the United States. This traffic is currently moving by truck from local origins to points east such as Georgetown, SC and will shift to rail once the track has been rehabilitated and is able to handle the volume. The truck miles saving for this section average 620 miles.

Currently lumber is moving Canada and the Pacific Northwest. Receivers on the DSRR are looking to move this volume to the BlueLinx facility in Monroe, LA, necessitating the upgrade of the siding, as Canadian lumber is pushing deep into the US with aggressive pricing and superior quality compared to local Southeast stock. This demand shift has already occurred, and this receiver is hoping to take this truck traffic off the road and add it to rail. The truck miles saved for this section average 2,165 miles.

This combined traffic for these commodities is expected to grow by an average of 5% per year for the foreseeable future. Without the new siding and upgraded main line, it is estimated that limited capacity and congestion will limit our ability to handle roughly 660 carloads per year starting in 2027. In the base year there are 330 carloads affected ( $660 \text{ new} * 50\% = 330$ ).

### 3) *Limited efficiency and fluidity*

Increased customer growth and production for our customers is pushing them away from truck and towards rail, opening opportunities for our rail service. For longer-haul moves there are opportunities at our Sterlington Yard & Keystone siding. We will increase aggregates in unit trains of 75 carloads coming in from Hatton, AR. The inbound aggregates are currently moving by truck to a national asphalt and concrete firm whose list of projects include the Mississippi River Bridge at Greenville, MS. and a Natural Gas Electric Generator Plant in Memphis, TN. Without the new siding and upgraded main line, it is estimated that limited capacity and congestion will limit our ability to handle roughly 900 carloads per year starting in 2027. In the base year there are 450 carloads affected ( $900 \text{ new} * 50\% = 450$ ). The truck miles saving for this section average 799 miles.

### 4) *Rehabilitation of Main Line*

The condition of the main line and the sidings to efficiently move carloads has severely limited our ability to serve current customers as well as the demonstrated pent-up demand mentioned above. The DSRR currently direct-serves chemical customers shipping products such as oils/brake fluids and their byproducts, as well as liquid fertilizers. In 2022 current customers represent about 2,027 carloads annually. These direct-served customers have indicated that improved rail conditions will permit more truck-diversion to rail and allow carloads to grow by roughly 5% per year to 2,396 carloads by 2027.

Due to the condition of the ballast and ties our ability to continue to serve our customers at the current levels is in danger. We expect that, without rehabilitation, the track will start failing in 2027 and our ability to handle carloads will drop annually from 2027 to 2031 by 20% per year, with complete failure by component by 2032. Without the new siding and upgraded main line, it is estimated that congestion will limit our ability to handle all 2,396 carloads per year starting in 2027. Eventually, all 2,396 of these carloads for current customers on our line would need to move to truck.

### 5) *Hardening of Infrastructure*

Not calculated as a dollar amount benefit in this BCA, but just as important, is the hardening of the infrastructure against adverse weather events. This line is particularly sensitive to the event of hurricanes, heavy rainfall and flooding, which tend to be more common in this region.

Our upgraded track, sidings and transload facilities will positively impact our customers by reducing the possibility of derailments and delays, ensuring we have available capacity in adverse weather conditions.

In the event of heavy rainfall and flooding in which a customer's location is inaccessible by rail, customers would not be able to direct-receive or transload on our line. The rail sidings rehabilitated in this project would resolve this issue and ensure DSRR service can continue in the event of an adverse weather event. This project is especially imperative considering the

impact of climate change, which is causing more frequent and more intense heavy rainfall events.

A detailed carload forecast has been created through 2027. For the current customers as well as the new transload operations customers across the network; a 5% growth factor was applied from 2027 through 2046. Under the build scenario growth will continue as forecasted and there will be no disruption of service or missed opportunities.

The Rural Area in which DSRR operates necessitates DSRR provide dependable services to its customers and partners. DSRR must maintain reliable transportation service to chemical customers, grain exporters, aluminum importers, paper plants in the east, and local farmers without a delay or disruption in service. Specific industries which will directly benefit from this project including farmers goods, metals, agriculture, woodchips, and chemicals including firms such as Angus Chemical, BlueLinx & Complex Chemical. A table summarizing the changes expected from the project (and the associated benefits) is provided below.

*Table ES 1: Summary of Infrastructure Improvements and Associated Benefits*

| Status or Baseline & Problems to be Addressed                                   | Changes to Baseline / Alternative                                                                                                                                                                                                           | Type of Impacts                                                                                                                                        | Population Affected by Impacts                                                                      | Benefits                          | Summary of Results (\$2020, 7% Discounted)<br>* |
|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|-----------------------------------|-------------------------------------------------|
| Project Component 1: Tallulah Mainline Track Upgrade                            | For the Tie Rehabilitation Program and each of the six Rail Sidings at Hollybrook Ware, Hollybrook Gin, Sondheimer, Keystone, Sterlington, and BlueLinx the unsafe rail and track conditions will be addressed, and capacity will be added. | On road motorists up to 250 miles of Tallulah, LA and Sterlington, LA                                                                                  | Reduction Highway Congestion, Travel Time, and Vehicle Operating Costs from truck diversion to rail | Monetized reduced congestion time | \$143,357,201                                   |
| Project Component 2: Bypass Track Construction                                  |                                                                                                                                                                                                                                             | The fifteen (15) Rural cities along the Tallulah Branch, the three (3) Rural cities along the Sterlington Branch and surrounding counties in Louisiana | Reduced emissions from truck diversion to rail                                                      | Monetized reduced pollution       | \$151,420,741                                   |
| Project Component 3: Sidings at Hollybrook Ware, Hollybrook Gin, and Sondheimer |                                                                                                                                                                                                                                             | Goods shippers and receivers                                                                                                                           | Reduced transportation costs from truck diversion to rail                                           | Monetized shipping savings        | \$39,332,063                                    |
| Project Component                                                               |                                                                                                                                                                                                                                             |                                                                                                                                                        |                                                                                                     |                                   |                                                 |

|                                                                                                   |  |                                                                                            |                                                                               |                                      |                                                                                                         |
|---------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|--------------------------------------|---------------------------------------------------------------------------------------------------------|
| 4:<br>Sterlington<br>Mainline<br>Track<br>Upgrade                                                 |  | Federal<br>and state<br>(Louisiana)<br>government<br>s                                     | Reduced highway<br>maintenance costs<br>from truck diversion<br>to rail       | Monetized<br>maintenanc<br>e savings | \$31,330,594                                                                                            |
| Project<br>Component<br>5:<br>Sterlington<br>Sidings at<br>Keystone<br>and<br>Sterlington<br>Yard |  | On road<br>motorists<br>up to 250<br>miles of<br>Tallulah,<br>LA and<br>Sterlington,<br>LA | Reduced accident<br>costs from truck<br>diversion to rail                     | Monetized<br>Safety<br>Benefits      | \$4,191,277                                                                                             |
| Project<br>Component<br>6: Monroe<br>Siding at<br>Bluelinx                                        |  | Local<br>citizens and<br>businesses                                                        | Short-term economic<br>impacts from<br>construction/plannin<br>g expenditure* | Job years,<br>employment<br>income   | See Table<br>12: Short-<br>Term<br>Impacts in<br>Key<br>Industries<br>Employing<br>Low-Income<br>People |

\*Short-Term Economic Impacts from construction/planning expenditure are not included in the benefit-cost analysis and are only included for informational purposes in the Economic Impact Analysis.

The period of analysis used in the estimation of benefits and costs corresponds to 23 years, including 3.5 years of construction and 19.5 years of operation. The total project costs are \$17,625,183.20 (2022 dollars) and are expected to be financed by Federal (CRISI) and private (DSRR) funds as well as the LADoTD pledged up to \$1.5M to fund a portion of the Expansion and Rehabilitation project according to the distribution shown in Table ES-2.

Table ES 2: Summary of Project Costs and Anticipated Funding Sources, 2020\$

| Funding Source                | Project Contribution Amount | Percentage of Total Project Cost |
|-------------------------------|-----------------------------|----------------------------------|
| CRISI Federal Funding Request | \$13,218,887.40             | 75%                              |
| Non-Federal Funding/Match     | \$4,406,295.80              | 25%                              |
| Total Project Cost            | \$17,625,183.20             | 100%                             |

A summary of the capital costs and operation and maintenance (O&M) cost changes by year are shown in Table ES-3 below.

Table ES 3: Cost Summary Table

| Calendar Year | Capital Cost (2022\$, Undiscounted) | Operations & Maintenance * (2022\$, | Total costs (Unde-flated | Total Costs (deflated to 2020\$) | Deflated Costs (@ 7% discount) | Deflated Costs (@3% discount) |
|---------------|-------------------------------------|-------------------------------------|--------------------------|----------------------------------|--------------------------------|-------------------------------|
|---------------|-------------------------------------|-------------------------------------|--------------------------|----------------------------------|--------------------------------|-------------------------------|

|              |                     | Undiscounted)      |                     |                     |                     |                     |
|--------------|---------------------|--------------------|---------------------|---------------------|---------------------|---------------------|
| 2024         | \$9,077,464         | \$0                | \$9,077,464         | \$8,215,650         | \$8,215,650         | \$8,215,650         |
| 2025         | \$7,230,044         | \$0                | \$7,230,044         | \$6,498,436         | \$6,073,305         | \$6,309,161         |
| 2026         | \$1,148,720         | \$0                | \$1,148,720         | \$1,025,301         | \$895,538           | \$966,445           |
| 2027         | \$168,955           | \$112,781          | \$281,736           | \$249,809           | \$203,918           | \$228,611           |
| 2028         | \$0                 | \$113,534          | \$113,534           | \$100,000           | \$76,290            | \$88,849            |
| 2029         | \$0                 | \$114,297          | \$114,297           | \$100,000           | \$71,299            | \$86,261            |
| 2030         | \$0                 | \$115,071          | \$115,071           | \$100,000           | \$66,634            | \$83,748            |
| 2031         | \$0                 | \$115,855          | \$115,855           | \$100,000           | \$62,275            | \$81,309            |
| 2032         | \$0                 | \$116,650          | \$116,650           | \$100,000           | \$58,201            | \$78,941            |
| 2033         | \$0                 | \$117,456          | \$117,456           | \$100,000           | \$54,393            | \$76,642            |
| 2034         | \$0                 | \$118,273          | \$118,273           | \$100,000           | \$50,835            | \$74,409            |
| 2035         | \$0                 | \$119,102          | \$119,102           | \$100,000           | \$47,509            | \$72,242            |
| 2036         | \$0                 | \$119,942          | \$119,942           | \$100,000           | \$44,401            | \$70,138            |
| 2037         | \$0                 | \$120,794          | \$120,794           | \$100,000           | \$41,496            | \$68,095            |
| 2038         | \$0                 | \$121,659          | \$121,659           | \$100,000           | \$38,782            | \$66,112            |
| 2039         | \$0                 | \$122,536          | \$122,536           | \$100,000           | \$36,245            | \$64,186            |
| 2040         | \$0                 | \$123,425          | \$123,425           | \$100,000           | \$33,873            | \$62,317            |
| 2041         | \$0                 | \$124,328          | \$124,328           | \$100,000           | \$31,657            | \$60,502            |
| 2042         | \$0                 | \$125,244          | \$125,244           | \$100,000           | \$29,586            | \$58,739            |
| 2043         | \$0                 | \$126,173          | \$126,173           | \$100,000           | \$27,651            | \$57,029            |
| 2044         | \$0                 | \$127,117          | \$127,117           | \$100,000           | \$25,842            | \$55,368            |
| 2045         | \$0                 | \$128,075          | \$128,075           | \$100,000           | \$24,151            | \$53,755            |
| 2046         | \$0                 | \$129,047          | \$129,047           | \$100,000           | \$22,571            | \$52,189            |
| <b>TOTAL</b> | <b>\$17,625,183</b> | <b>\$2,411,357</b> | <b>\$20,036,540</b> | <b>\$17,889,196</b> | <b>\$16,232,103</b> | <b>\$17,030,697</b> |

*Note: This is the incremental Operations and Maintenance (O&M) cost between the Build Case and No-Build Case. In 2024, 2025, & 2026 O&M costs remain at zero as project is not yet in operation, thus there is no change in O&M costs. In 2027 the project becomes operational. In 2032 onwards, in the No-Build case there are no facilities to maintain, thus leaving O&M at zero. The incremental O&M then becomes only the O&M costs of the build scenario as the no-build O&M is zero, i.e., there is an increased O&M amount.*

A summary of the relevant data as well as the annual net benefits used in the Benefit-Cost calculations are shown in Table ES-4 (in 2020\$). First, nominal benefits and costs are calculated, then a 0% inflation factor is added, then the calculations are discounted at 7% and 3%, per the 2022 BCA guidance. Based on the Benefit-Cost Analysis presented in the remainder of this document, the project is expected to generate \$369.6 million in discounted benefits, with \$16.2 million in discounted costs, using a 7% real discount rate. Therefore, the project is expected to generate a Net Present Value of \$353.4 million and a Benefit/Cost Ratio of 22.8 to 1 (See Table 19).

*Table ES 4: Summary of Pertinent Data, Quantifiable Benefits and Costs*

| Calendar Year | Project Year | Benefiting VMT (Diverted to Rail) | Total Benefits (\$2022 Undiscounted) | Total Costs (\$2022), Undiscounted | Total Benefits, Less Costs (deflated to 2020\$) | Benefits (7% discount) | Benefits (3% discount) |
|---------------|--------------|-----------------------------------|--------------------------------------|------------------------------------|-------------------------------------------------|------------------------|------------------------|
| 2024          | 1            | 0                                 | \$0                                  | \$9,077,464                        | \$8,215,650                                     | \$0                    | \$0                    |
| 2025          | 2            | 0                                 | \$0                                  | \$7,230,044                        | \$6,498,436                                     | \$0                    | \$0                    |
| 2026          | 3            | 0                                 | \$0                                  | \$1,148,720                        | \$1,025,301                                     | \$0                    | \$0                    |
| 2027          | 4            | 3,621,782                         | \$11,335,599                         | -\$281,736                         | \$12,521,350                                    | \$10,425,070           | \$11,687,419           |
| 2028          | 5            | 5,336,534                         | \$16,795,183                         | -\$113,534                         | \$18,819,622                                    | \$14,433,689           | \$16,809,839           |
| 2029          | 6            | 6,507,907                         | \$20,595,661                         | -\$114,297                         | \$23,052,879                                    | \$16,507,682           | \$19,971,876           |
| 2030          | 7            | 7,783,075                         | \$24,789,963                         | -\$115,071                         | \$27,707,845                                    | \$18,529,541           | \$23,288,633           |
| 2031          | 8            | 9,169,491                         | \$29,205,851                         | -\$115,855                         | \$32,613,434                                    | \$20,372,282           | \$26,599,015           |
| 2032          | 9            | 10,675,090                        | \$34,001,353                         | -\$116,650                         | \$37,928,861                                    | \$22,133,143           | \$30,020,334           |
| 2033          | 10           | 11,208,844                        | \$35,701,421                         | -\$117,456                         | \$39,771,284                                    | \$21,687,337           | \$30,558,020           |
| 2034          | 11           | 11,769,287                        | \$37,486,492                         | -\$118,273                         | \$41,702,721                                    | \$21,250,384           | \$31,105,150           |
| 2035          | 12           | 12,357,751                        | \$39,360,816                         | -\$119,102                         | \$43,727,523                                    | \$20,822,141           | \$31,661,935           |
| 2036          | 13           | 12,975,639                        | \$41,328,857                         | -\$119,942                         | \$45,918,220                                    | \$20,432,640           | \$32,276,253           |
| 2037          | 14           | 13,624,420                        | \$43,395,300                         | -\$120,794                         | \$48,145,000                                    | \$20,019,960           | \$32,852,497           |
| 2038          | 15           | 14,305,641                        | \$45,565,065                         | -\$121,659                         | \$50,479,560                                    | \$19,615,626           | \$33,439,048           |
| 2039          | 16           | 15,020,924                        | \$47,843,318                         | -\$122,536                         | \$52,927,180                                    | \$19,219,490           | \$34,036,129           |
| 2040          | 17           | 15,771,970                        | \$50,235,484                         | -\$123,425                         | \$55,493,400                                    | \$18,831,408           | \$34,643,969           |
| 2041          | 18           | 16,560,568                        | \$52,747,258                         | -\$124,328                         | \$58,184,033                                    | \$18,451,232           | \$35,262,798           |
| 2042          | 19           | 17,388,597                        | \$55,384,621                         | -\$125,244                         | \$61,005,180                                    | \$18,078,818           | \$35,892,853           |

|      |    |                 |                   |                       |                   |                   |                   |
|------|----|-----------------|-------------------|-----------------------|-------------------|-------------------|-------------------|
| 2043 | 20 | 18,258,0<br>26  | \$58,153,85<br>2  | -\$126,173            | \$64,041,0<br>00  | \$17,735,5<br>21  | \$36,578,7<br>16  |
| 2044 | 21 | 19,170,9<br>28  | \$61,061,54<br>5  | -\$127,117            | \$67,144,2<br>13  | \$17,377,1<br>82  | \$37,231,4<br>90  |
| 2045 | 22 | 20,129,4<br>74  | \$64,114,62<br>2  | -\$128,075            | \$70,398,1<br>46  | \$17,026,2<br>25  | \$37,896,2<br>27  |
| 2046 | 23 | 21,135,9<br>48  | \$67,320,35<br>3  | -\$129,047            | \$73,810,2<br>02  | \$16,682,5<br>06  | \$38,573,1<br>80  |
|      |    | 262,771,<br>896 | \$836,422,6<br>14 | -<br>\$20,036,54<br>0 | \$909,652,<br>266 | \$369,631,<br>877 | \$610,385,<br>384 |

*\*First calculate the number of diverted trucks. Diverted Trucks = (# Build Case Train Carloads less # of No-Build Case train carloads) \* number of trucks per carload. Next, calculate the number of reduced truck vehicle miles. Reduced Truck Vehicle Miles = Truck Route Miles \* Number of Diverted Trucks. For full calculation breakdowns see Section 6 Tables 2 and 3; for annual demand numbers see section 10.2 Annual Demand Projections.*

The summary of the monetized benefits of the Delta Southern Railroad Inc. (DSRR) Rail Enhancement and Safety Improvement Program project is included below in Table ES-5.

*Table ES 5: Benefit Estimates by Long-Term Outcome over the study period, 2020\$*

| Long-Term Outcomes               | Benefit Categories                                                                                                 | 7% Discount Rate             |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------|------------------------------|
| Quality of Life                  | Reduction Highway Congestion, Travel Time, and Vehicle Operating Costs from Displacing Heavy Truck Travel to Rail. | \$143,357,201                |
| Environmental Sustainability     | Emission Savings from Diverting Heavy Truck Travel to Rail                                                         | \$151,420,741                |
| Economic Competitiveness*        | Reduced Transportation Costs from Diverting Heavy Truck Travel to Rail                                             | \$39,332,063                 |
|                                  | Short-term economic impacts from construction/planning expenditure*                                                | Job years, employment income |
| Highway Maintenance Cost Savings | Reduction in Maintenance Costs from Displacing Heavy Truck Travel to Rail                                          | \$31,330,594                 |
| Safety                           | Reduced Accident Costs from Diverting Heavy Truck Travel to Rail                                                   | \$4,191,277                  |
| <b>Total Benefit Estimates</b>   |                                                                                                                    | <b>\$369,631,877</b>         |

Note: \* Excluding the short-term employment impacts of the project and noise pollution costs

In addition to the monetized benefits presented in Table ES-5, the project would generate benefits that are difficult to quantify, and thus are not included in the analysis. A brief description of those benefits is provided below.

#### Safety

- *Hazardous materials movement:* Rail is the safest way to transport hazardous materials. The value of rail as a safer form of hazardous materials transportation has not been

monetized. It is expected ethanol, fertilizer, and chemicals will be approximately 100 carloads inbound or outbound annually. The DSRR enhancements are essential to support these movements and to prevent this freight from being diverted to trucks. The improvements of the DSRR would allow the transportation of these materials by the safest method available.

- *Other safety benefits:* Highway accidents should diminish as freight is diverted from trucks to railcars; rail accidents should decrease in turn. This benefit category captures the change in safety costs including the value of lives and injuries saved by eliminating trucks from the highway (.156 fatalities and 5.3 injuries for every 100 million truck miles [FMCSA data]), and direct economic costs associated with crashes caused by trucks.

## **II. Section 2: Introduction**

This document provides detailed technical information on the economic analyses conducted in support of the Grant Application for the Delta Southern Railroad (DSRR) Rail Enhancement and Safety Improvement Program project.

Section 3, Methodological Framework, introduces the conceptual framework used in the Benefit-Cost Analysis (BCA). Section 4, project Overview, provides an overview of the project, including a brief description of existing conditions and proposed alternatives; a summary of cost estimates and schedule; and a description of the types of effects that Delta Southern Railroad Inc. (DSRR) Rail Enhancement and Safety Improvement Program project is expected to generate. Section 5, General Assumptions, discusses the general assumptions used in the estimation of project costs and benefits, while estimates of travel demand and traffic growth can be found in Section 6, Demand projects. Specific data elements and assumptions pertaining to the long-term outcome selection criteria are presented in Section 7, Benefits Measurement, Data, and Assumptions, along with associated benefit estimates. Estimates of the project's Net Present Value (NPV), its Benefit/Cost ratio (BCR), and other project evaluation metrics are introduced in Section 8, Summary of Findings and BCA Outcomes. Section 9, BCA Sensitivity Analysis, provides the outcomes of the sensitivity analysis. Additional data tables are provided in Section 10, Supplementary Data Tables, including annual estimates of benefits and costs, as well as intermediate values to assist in the review of this application.

## **III. Section 3: Methodological Framework**

The Benefit-Cost Analysis (BCA) is a conceptual framework that quantifies, in monetary terms, as many of the costs and benefits of a project as possible. Benefits are broadly defined. They represent the extent to which people impacted by the project are made better-off, as measured by their own willingness-to-pay. In other words, central to BCA is the idea that people are best able to judge what is “good” for them by improving their own well-being or welfare.

The BCA adopts the view that a net increase in welfare (as measured by the summation of individual welfare changes) is a good thing, even if some groups within society are made worse-off. A project or proposal would be rated positively if the benefits to some are large enough to compensate for the losses of others.

Finally, the BCA is typically a forward-looking exercise, seeking to anticipate the welfare impacts of a project or proposal over its entire lifecycle. Future welfare changes are weighted against today's changes through discounting and de-flating, which is meant to reflect society's general preference

for the present, as well as broader intergenerational concerns. Deflating is the process of using a factor to reduce costs and benefits from 2022 dollars to 2020 dollars. Benefits from the Benefit Cost Analysis Guidance for Discretionary Grant Programs March 2022 (Revised) are already in 2020 dollars, and 2022-dollar costs have been de-flated to 2020 dollars using guidance from the cbo.gov Budget and Economic Outlook - 2022 to 2032.

The specific methodology developed for this application was developed using the above BCA principles and is consistent with the CRISI guidelines. In particular, the methodology involves:

- *Establishing existing and future conditions* under the build and no-build scenarios
- *Assessing* benefits with respect to each of the long-term outcomes identified in the Notice of Funding Opportunity (NOFO)
- *Measuring* benefits in dollar terms, whenever possible, and expressing benefits and costs in a common unit of measurement
- *Using DOT guidance* for the valuation of travel time savings, safety benefits, and reductions in air emissions, while relying on industry best practice for the valuation of other effects
- *Discounting* future benefits and costs with the real discount rates recommended by the DOT (7%, and 3% for sensitivity analysis); and
- *Conducting* a sensitivity analysis to assess the impacts of changes in key estimating assumptions

#### **IV. Section 4: Project Overview**

The Delta Southern Railroad (DSRR) Rail Enhancement and Safety Improvement Program project is a critical freight rail project that will have a significant impact on the region and the nation.

Delta Southern Railroad (DSRR) is a Class III railroad operating across two branches comprised 51-miles of excepted track. DSRR operates through eighteen (18) Rural cities and towns along the Tallulah and Sterlington Branches: Alsatia, Ashly, Atherton, Englewood, Enoka, Fairbanks, Grimes, Hollybrook, Lake Providence, Lamkin, Monroe, Omega, Roosevelt, Sondheimer, Sterlington, Talla Bena, Tallulah, and Transylvania, Louisiana

Under the Rail Enhancement and Safety Improvement Program project, DSRR will rehabilitate six (6) rail sidings in Hollybrook, Sondheimer, Keystone, Sterling, and Bluelinx in order to meet increased rail demand from local industry; to alleviate interchange point congestion; to increase the rail network's resiliency against major heavy rainfall and flooding by increasing accessibility to transload locations; to alleviate congestion at road crossings; and to provide rail access to non-rail served industries. This project will rehabilitate 39.54 miles of ties and ballast as well as construct a new bypass track, which will improve safety, as well as meet industry rail demand, increase capacity, alleviate congestion at road crossings, and improve the short line railroad infrastructure.

This project will provide significant benefits to the region, state, and nation through:

1. improving freight rail efficiency and capacity;
2. avoiding the diversion of existing freight from rail to truck;
3. avoiding truck miles traveled;
4. avoiding highway maintenance costs;
5. avoiding increased transportation costs;

6. avoiding increased congestion costs;
7. avoiding accident costs (fatalities and injuries); and,
8. creating jobs.

DSRR is the only rail line providing service to the cities and businesses in the immediate area, which includes serving a diverse group of customers engaged in industries such as various grains, woodchips, oils, metals, and chemicals (including hazardous materials). The project area encompasses an area that is especially sensitive to reliable rail transportation.

DSRR provides transportation of products in and out of northern Louisiana and without appropriate improvements the line will experience limited capacity and service reliability, threatening future transportation network efficiency, freight mobility, and economic growth.

#### **A. 4.1: Base Case, Build Case and Alternative**

**Base Case (No-Build Case):** In the base case, DSRR will face Challenge 1 (page 5) and not undertake the construction of the new sidings in Sondheimer and Hollybrook Gin (South). Without these sidings being constructed carload customers, such as soy oils, grains, and timber products in need of transload services will not be served. These customers are waiting for capacity on our line. Without this project, DSRR will not be able to provide these needed transload services and these commodities will continue to move by truck.

Diverted truck miles are estimated to move an average of 400 truck miles for transloaded products such as oils, grains, and for timber in the local market. This estimate of truck miles is considered very conservative as the availability of a transload option will induce more rail to the region. In the base case, there is no rail-to-rail diversion; therefore, there are no rail-to-rail diversion miles calculated in this study.

In Challenge 2 (page 5), without the sidings being constructed, new customers that are looking to start new operations on our line will not materialize. We have customers that are experiencing ongoing issues due to the national driver shortage and are looking to start operations. The first is a major paper manufacturer that is looking to move woodchips by rail from the local market to the points on the East Coast such as Georgetown, SC. A second customer is looking to move unit trains of grain to the rehabilitated Old Bunge Export Facility from the Kansas City area. A third customer is currently receiving aluminum from Mobile, AL.; accepting these loads would relieve current truck traffic congestion. If the main line is not rehabilitated and the sidings are not constructed, traffic would continue to move by truck.

In the base case, Challenge 3 (page 5), congestion and delays will continue and planned customer upgrades on our line will not be able to take advantage of our improved services and will not switch to rail for inbound carload of timber. This customer's new product line and new processes are able to take advantage of more rail friendly commodities. We also have a production facility on our line that, due to their product success, are devoting their production line to a new product whose feedstock is more rail friendly.

We also have a buildings materials firm customer in our area that could receive transloaded aggregate for use in construction projects within the greater region, but due to capacity constraints on our line we are unable to handle these unit trains for them. Both commodities come from the Midwest region.

The main line track has significant deferred maintenance from the prior owners and is in immediate need of rehabilitation for safety reasons and to continue efficient operations. In 2027, we are forecasted to be moving 2,396 carloads. In 2027, without rehabilitation, we expect the deterioration of this line to reach a point where we would lose the ability to handle 20% of our volume and expect the line to continue to deteriorate by 20% until the line completely fails in 2032.

**Build Case:** In the build case, the DSRR Rail Enhancement and Safety Improvement Program project for the sidings in Sondheimer Transload, Hollybrook Warehouse-North, Sterlington Yard, Keystone, Hollybrook Gin-South, and BlueLinx siding are constructed. The mainline ties and ballast on both branches are rehabilitated, and the bypass track work is completed. Forecasted traffic remains and rail services increase across the network as forecasted.

The forecasted 2,396 annual carloads of current traffic are not lost but continue to grow at 5%. The 400 carloads of aluminum, 900 carloads of aggregates, 360 carloads of woodchips, 300 carloads of timber, as well as the 1,900 carloads of transloaded Soy Oils, Grain, Timber, corn and vegetable oil begin to move on schedule, new growth continues as forecasted at 5% and the network is hardened for all customers across the DSRR network. The benefits of the build case are attributed to the avoidance of truck use. In keeping with BCA guidance, 50% of the new carloads forecast are used for calculation purposes. See detailed forecast below.

| Carload, Rail & Truck Miles by Category             |       | Description                                                                                                                                                          |
|-----------------------------------------------------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Existing Tallulah & Sterlington customers/ Carloads |       |                                                                                                                                                                      |
| Percent of Rail Diverted from Highways (%)          | 100%  | Existing business on the Tallulah & Sterlington mainlines lost due to deteriorating track. Useful life of the track without rehabilitation is 10 years.              |
| Carloads (2027)                                     | 2,396 |                                                                                                                                                                      |
| Average rail miles                                  | 500   |                                                                                                                                                                      |
| Average new truck miles                             | 400   |                                                                                                                                                                      |
| Tallulah Sondheimer Transload & Bypass*             |       |                                                                                                                                                                      |
| Percent of Rail Diverted from Highways (%)          | 100%  | Sondheimer Transload (Tallulah) new carload growth. *See opportunity list. 1,900 carloads reduced 25% to 1,425.                                                      |
| Carloads (2027)                                     | 1,425 |                                                                                                                                                                      |
| Average rail miles                                  | 500   |                                                                                                                                                                      |
| Average new truck miles                             | 400   |                                                                                                                                                                      |
| Tallulah Hollybrook Warehouse-North siding          |       |                                                                                                                                                                      |
| Percent of Rail Diverted from Highways (%)          | 100%  | Inbound Aluminum (400 carloads) - Local traffic diverted from truck to the Hollybrook Warehouse-North siding                                                         |
| Carloads (2027)                                     | 400   |                                                                                                                                                                      |
| Average rail miles                                  | 314   |                                                                                                                                                                      |
| Average truck miles                                 | 251   |                                                                                                                                                                      |
| Sterlington Yard & Keystone siding                  |       |                                                                                                                                                                      |
| Percent of Rail Diverted from Highways (%)          | 100%  | Inbound Aggregates split between Sterlington yard (600) and Keystone siding (300) - Interstate traffic diverted from truck to the Sterlington Yard & Keystone siding |
| Carloads (2027)                                     | 900   |                                                                                                                                                                      |
| Average rail miles                                  | 999   |                                                                                                                                                                      |
| Average new truck miles                             | 799   |                                                                                                                                                                      |
| Tallulah Hollybrook Gin-South siding                |       |                                                                                                                                                                      |

|                                            |       |                                                                                                                  |
|--------------------------------------------|-------|------------------------------------------------------------------------------------------------------------------|
| Percent of Rail Diverted from Highways (%) | 100%  | Outbound Woodchips (400 carloads)<br>- Interstate traffic diverted from truck to the Hollybrook Gin-South siding |
| Carloads (2027)                            | 360   |                                                                                                                  |
| Average rail miles                         | 775   |                                                                                                                  |
| Average new truck miles                    | 620   |                                                                                                                  |
| Bluelinx Siding                            |       |                                                                                                                  |
| Percent of Rail Diverted from Highways (%) | 100%  | Inbound Lumber (300 carloads) - Interstate traffic diverted from truck to the BlueLinx siding                    |
| Carloads (2027)                            | 300   |                                                                                                                  |
| Average rail miles                         | 2,886 |                                                                                                                  |
| Average new truck miles                    | 2,165 |                                                                                                                  |

## B. 4.2: Project Cost and Schedule

Table 4: Cost Schedule by Quarter, actual 2022\$

| Description            | 2024        |             |             |             |
|------------------------|-------------|-------------|-------------|-------------|
|                        | Q1          | Q2          | Q3          | Q4          |
| % Of Total Expenditure | 12.88%      | 12.88%      | 12.88%      | 12.88%      |
| Cost by Quarter        | \$2,269,366 | \$2,269,366 | \$2,269,366 | \$2,269,366 |
| Description            | 2025        |             |             |             |
|                        | Q1          | Q2          | Q3          | Q4          |
| % Of Total Expenditure | 14.27%      | 14.27%      | 6.25%       | 6.25%       |
| Cost by Quarter        | \$2,514,307 | \$2,514,307 | \$1,100,715 | \$1,100,715 |
| Description            | 2026        |             |             |             |
|                        | Q1          | Q2          | Q3          | Q4          |
| % Of Total Expenditure | 1.84%       | 1.84%       | 1.42%       | 1.42%       |
| Cost by Quarter        | \$323,814   | \$323,814   | \$250,546   | \$250,546   |
| Description            | 2027        |             |             |             |
|                        | Q1          | Q2          | Q3          | Q4          |
| % Of Total Expenditure | 0.48%       | 0.48%       | 0.00%       | 0.00%       |
| Cost by Quarter        | \$84,478    | \$84,478    | \$0         | \$0         |

Table 1 shows the breakdown of the project costs by quarter by year. Construction begins in 2024 Q1 and completes by the end of 2027 Q2. Of the total project cost of \$17.625 million; \$9.077 million will be expended in 2024, \$7.230 million in 2025, \$1.148 million will be expended in 2026, and \$.168 million will be expended in 2027. For analysis purposes, construction years are 2024 through 2027 Q2, as it is anticipated the work will be completed by the middle of 2027. The project impact analysis period is then analyzed for 19.5 years from 2027 Q3 through 2046.

## C. 4.3: Effects on Long-Term Outcomes

### Quality of Life Through Reduction in Highway Congestion, Travel Time, and Vehicle Operating Costs from Displacing Heavy Truck Travel to Rail

The proposed DSRR project will divert freight from road to rail resulting in a reduction in the use of public highways by heavy trucks. This represents a reduction of congestion, travel time savings and a reduction in operating costs to the remaining on-road motorists. Noise pollution is also

reduced but is not monetized in this BCA; however, noise can and does affect human health and wellbeing, reduces productivity, and causes damage to the natural environment. There are many possible origin/ destinations for the volume moving through the improved network. Since it is impossible to model all potential O/D's, representative rail routes have been selected for this analysis. These routes represent the most likely scenario and are used to calculate the public benefits achieved when rail transportation is used to reduce vehicle miles travelled across the National Highway System.

### **Environmental Sustainability Through Emission Savings from Diverting Heavy Truck Travel to Rail**

Freight carried over the rail network imposes less environmental impacts for the same amount of cargo than those imposed by trucks on the highway network. This benefit category estimates the value of the reduced environmental emissions associated with transporting goods on rail as opposed to by truck. The reduced amounts of Nitrogen Oxide (NOx), Carbon Dioxide (CO2), and Particulate Matter (PM2.5) are calculated and monetized.

### **Economic Competitiveness Through Reduced Transportation Costs from Diverting Heavy Truck Travel to Rail**

Rail shipping rates tend to be lower than truck shipping rates on a per ton-mile basis. As such, diversion of highway freight to rail can generate cost savings to shippers. The DSRR enhancements allow shippers a greater choice of transportation modes. Furthermore, these improvements increase schedule reliability, one of the key challenges facing a railroad in terms of product delivery. In the absence of such improvements, shipments would likely be carried by truck at a greater cost.

Transportation cost savings are quantified using the calculation of the volume of truck miles avoided and relative shipping rates. Transportation cost savings for new traffic are quantified using the calculation of 50% of the volume of truck miles avoided and relative shipping rates. The benefits in this category are counted as public because the difference in transportation prices between rail intermodal and truckload freight accrue directly to the shipper and receiver, lowering the final price consumers pay.

Shipping costs savings for existing rail users have the potential of spurring dynamic changes in land-use, manufacturing, and industrial re-organization. Research conducted for USDOT/FHWA\* indicated that reduced shipping costs could enable shifts in mode choice and investments in productivity in the 'medium term'. In addition, these combined savings could increase further based on industrial re-organization, and the shifting of warehousing or just-in-time manufacturing to realize even lower transportation costs.

Economists call the difference between the amount people actually pay for something and the amount they would pay for the next most costly alternative, "consumer surplus." Consumer surplus is a monetary quantity that equates to the economic value (EV) of the reduced costs to mode-shifting shippers in this project. The change in consumer surplus is evaluated using the equation provided below. This equation assumes the "rule-of-half" is being used. The rule of half is a simplification that assumes a linear approximation of the travel demand curve<sup>12</sup>.

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12 <https://ops.fhwa.dot.gov/publications/fhwahop15034/index.htm>

## Highway Maintenance Cost Savings Through Reduction in Maintenance Costs from Displacing Heavy Truck Travel to Rail

An avoidance of heavy trucks on the highway system reduces highway maintenance costs and, in particular, pavement resurfacing and maintenance costs. Typically, this benefit is realized in terms of increased cycle times between maintenance work orders. This benefit category captures the reduced maintenance cost associated with diverting goods from truck to rail.

## Increased Safety Through Reduced Accident Costs from Diverting Heavy Truck Travel to Rail

Fatality and injury rates per mile of freight carried by truck are greater than the fatality and injury rates for an equal volume of cargo when shipped by rail. This benefit captures the different accident rates per truck-mile and train-mile and the reduced amounts of injuries and fatalities of truck diversion to rail.

The main benefit categories associated with the project are mapped into the five long-term outcome criteria set forth by the DOT in the table below.

*Table 5: Expected Effects on Long-Term Outcomes and Benefit Categories*

| Long-Term Outcomes           | Categories Benefit or Impact                                                                                         | Description                                                               | Monetized | Quantified | Qualitative |
|------------------------------|----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|-----------|------------|-------------|
| Quality of Life              | Reduction in Highway Congestion, Travel Time, and Vehicle Operating Costs from Displacing Heavy Truck Travel to Rail | This represents the time savings of the remaining on-road motorists       | √         |            |             |
| Environmental Sustainability | Emission Savings from Diverting Heavy Truck Travel to Rail                                                           | Trains emit fewer pollutants than trucks per ton- mile.                   | √         |            |             |
| Economic Competitiveness     | Reduced Transportation Costs from Diverting Heavy Truck Travel to Rail                                               | Railway shipping costs per ton-mile are lower than truck shipping costs.  | √         |            |             |
|                              | Short-term Economic Impacts*                                                                                         | Number of jobs expected to be created by the project, and related income. |           | √          |             |

|                                  |                                                                           |                                                                                     |   |  |   |
|----------------------------------|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---|--|---|
|                                  | Induced Localized Demand                                                  | Improved capacity will induce additional businesses to ship who would otherwise not |   |  | √ |
| Highway Maintenance Cost Savings | Reduction in Maintenance Costs from Displacing Heavy Truck Travel to Rail | Maintenance of railroads is less costly per ton-mile than highway maintenance       | √ |  |   |
| Safety                           | Reduced Accident Costs from Diverting Heavy Truck Travel to Rail          | Trains have a lower injury and fatality rate per ton-mile traveled than trucks      | √ |  |   |

*\*Note: This impact is quantified but is NOT included in the Benefit-Cost Analysis.*

## V. Section 5: General Assumptions

The BCA measures benefits against costs throughout a period of analysis beginning at the start of construction planning in 2024 and includes 19.5 years of operations (2027 Q3 to 2046) after construction completion in 2027 Q2. Note that all costs will occur from 2024 through 2027 Q2, after which the mainline rehabilitation, rail sidings, and bypass track will be completed.

The monetized benefits and costs are estimated in 2020 dollars with future dollars discounted in compliance with CRISI requirements using a 7% real discount rate and sensitivity testing.

The methodology makes several important assumptions and seeks to avoid overestimation of benefits and underestimation of costs. Specifically:

- Input prices are expressed in 2020 dollars;
- Benefits and costs are discounted to the year 2020;
- The period of analysis begins in 2024 and ends in 2046. It includes project development and construction years (2024 – 2027 Q2) and 19.5 years of operations (2027 Q3 - 2046);
- A constant 0% inflation factor is assumed through the period of analysis
- A constant 7% real discount rate is assumed throughout the period of analysis. A 7% and 3% real discount rate is used for sensitivity analysis; and
- Unless specified otherwise, the results shown in this document correspond to the effects of the Full Build alternative (defined in section 4.1 as “Build Case”)

## VI. Section 6: Demand Projections

The demand projections are based on the number of carloads that will remain on the rail system, as well as the additional projected carloads that will be added in the build scenario. In the build case, carloads are forecasted in detail through 2027 and will then grow at 5% for new carloads and 5% annually for all current carload traffic counts based on the current 2027 forecast carload values.

In the no-build case, carloads are equivalent to the build case amount from 2024 through 2027. New transload operations across the network do not happen because there are no sidings or bypass track to serve customers. Carload counts begin to drop by 20% starting in 2028 due to component failure of the network. Carload traffic is expected to continue to decrease by 20% a year from 2028 through 2032 at which point the entire network would have failed.

The difference between the no-build case carload count and the build case carload count is used to determine the number of diverted (or avoided) on-road trucks. The difference in carloads is multiplied by an average of 3.7 trucks/carload to determine the number of avoided trucks. The average number of tons per truck (25 tons/truck) is then multiplied by the number of diverted trucks to determine the number of diverted tons.

In the no-build case, industry growth from customers across the network—without the rail infrastructure in place to accommodate this growth—is not expected to happen and will cause expected carloads to divert from rail traffic to truck traffic.

### A. 6.1: Methodology

Below is the structure and logic of the key demand components on which the studied impacts are based, including diverted truckloads, and diverted truck miles.

- Number of rail carloads on DSRR without the safety and infrastructure improvements, by year (carloads) less the number of rail carloads on DSRR with the enhancements, by year (carloads) equals number of rail carloads diverted from trucks after rehabilitation, by year (carloads)
- Number of carloads diverted from trucks after improvements, by year (carloads) times the average number of trucks per rail car (trucks) equals total number of trucks, by year (trucks)
- Total number of trucks, by year (trucks) times the average tons of cargo per truck (tons/truck) equals total number of tons diverted
- The sum of the total number of trucks per year (trucks) times the average miles (miles) for each of the listed opportunities equals the number of truck miles diverted (truck miles)

### B. 6.2: Assumptions

Table 3 below lists the key assumptions/inputs used in calculating the number of train carloads (build case), number of train carloads (no-build case), number of diverted trucks (build case), and diverted tons, diverted truck miles, and increased (equivalent) train miles.

*Table 6: Assumptions used in the Estimation of Demand*

| Variable Name                                   | Unit  | Value | Source/Comment                                   |
|-------------------------------------------------|-------|-------|--------------------------------------------------|
| Rail Route Mileage – Base Case (average)        | Miles | 500   | Current carloads average 500 rail miles.         |
| Truck Route Mileage – Base Case (average)       | Miles | 557   | Current and new carloads average 557 truck miles |
| Rail Route Mileage – Alternative Case (average) | Miles | 706   | Current and new carloads average 706 truck miles |

|                                           |                |      |                               |
|-------------------------------------------|----------------|------|-------------------------------|
| Number of Carloads / Train                | Carloads       | 25.0 | DSRR provided for unit trains |
| Average Tons of Cargo per Truck           | Tons per Truck | 25.0 | Capacity hauling in trucks    |
| Average Number of Trucks per Rail Carload | Truckloads     | 3.70 | DSRR Calculated Average       |

### C. 6.3: Demand Projections

The resulting projections for the number of train carloads (build case), number of train carloads (no-build case), number of diverted trucks (build case), diverted tons, diverted truck miles, and increased (equivalent) train miles are presented in the table below. Section 10.2 also shows a year-by-year breakdown of these projections.

As mentioned previously, these six sidings and the bypass track will work together to overcome three distinct challenges faced by the DSRR and the local community of shippers and receivers. Therefore, separate have been performed for each of the unique new traffic opportunities.

*Table 7: Demand Projections*

| Category                                 | Unit                             | 2027      | 2036       | 2046       |
|------------------------------------------|----------------------------------|-----------|------------|------------|
| Current Train Carloads (No-Build Case)   | # Carloads/year                  | 2,774     | 0          | 0          |
| Current Train Carloads (Build Case)      | # Carloads/year                  | 2,774     | 4,303      | 7,010      |
| New Train Carloads (Build Case)          | # New Carloads/year (1/2)        | 771       | 2,393      | 3,898      |
| Total Train Carloads (Build Case)        | # New Carloads/year (1/2)        | 3,545     | 6,696      | 10,908     |
| New Train Carloads (Build Case)          | # New Carloads/year (100%)       | 2,725     | 4,227      | 6,886      |
| Total Train Carloads (Build Case)        | # New Carloads/year (100%)       | 5,499     | 8,531      | 13,896     |
| <b>Diversión</b>                         |                                  |           |            |            |
| Diverted Trucks (Build case)             | # Trucks/year (New Trucks @ 1/2) | 5,041     | 23,743     | 38,675     |
| Total Tons of Cargo Diverted             | # Tons (New Tons @ 1/2)          | 156,556   | 640,933    | 1,044,012  |
| Total Truck Mileage Diverted - Base Case | # Truck-miles (New Miles @ 1/2)  | 3,621,782 | 12,975,639 | 21,135,948 |
| Total Train Mileage Diverted - Base Case | # Train-miles (New Miles @ 1/2)  | 1,224,550 | 4,387,155  | 7,146,213  |

\*New carloads at 50% of forecast. New Carloads start Q3 2027, therefore 2027 carloads are reduced an additional 50%.

## VII. Section 7: Benefits Measurement, Data, and Assumptions

This section describes the measurement approach used for each benefit or impact category identified in Table 2 (Expected Effects on Long Term Outcomes and Benefit Categories) and provides an overview of the associated methodology, assumptions, and estimates.

## A. 7.1: State of Good Repair

To quantify the benefits associated with maintaining the existing transportation network in a state of good repair, *Reduction in Maintenance Costs from Displacing Heavy Truck Travel to Rail* is monetized.

### i. 7.1.1: Methodology

#### *Reduction in Maintenance Costs from Displacing Heavy Truck Travel to Rail*

An avoidance of heavy trucks on the highway system reduces highway maintenance costs and, in particular, pavement resurfacing and maintenance. Typically, this benefit is realized in terms of increased cycle times between maintenance work orders. This benefit category captures the reduced maintenance cost associated with diverting goods from truck to rail. The total diverted truck miles are applied to highway maintenance costs per mile to calculate highway maintenance costs.

#### *Model of Reduction in Highway Maintenance*

- Total rail carloads on DSRR diverted by year times the carload to truck ratio equals the total truckloads diverted, by year
- Total truckloads on DSRR diverted by year times the amount of rail miles (by opportunities) diverted divided by the rail circuitry factor equals total truck vehicle miles traveled by year
- Highway pavement cost per truck mile (\$/truck mile) times the total diverted truck miles by year equals the total cost of maintenance from truck travel by year

### ii. 7.1.2 Assumptions

The assumptions used in the estimation of State-of-Good-Repair benefits are summarized in the table below.

Table 8: Assumptions used in the Estimation of State-of-Good-Repair Benefits

| Variable Name                            | Unit        | Value      | Source                                                                                                                          |
|------------------------------------------|-------------|------------|---------------------------------------------------------------------------------------------------------------------------------|
| Pavement maintenance cost per truck mile | 2020\$/mile | \$0.299814 | <a href="#">2000 update to FHWA's 1997 Federal Highway Cost Allocation Study, \$0.166 / VMT inflated to 2020 at 3% annually</a> |
| Rail Route Mileage                       | Miles       | 314        | Current and new carloads average 706 truck miles                                                                                |
| Truck Route Mileage                      | Miles       | 251        | Current and new carloads average 557 truck miles                                                                                |
| Rail Circuitry                           | #           | 1.25       |                                                                                                                                 |

### iii. 7.1.3 Benefit Estimates

*Reduction in Maintenance Costs from Displacing Heavy Truck Travel to Rail* is roughly \$886 thousand in the opening year (2027) and exceeds \$31.3 million in savings (discounted at 7%) over the study period.

Table 9: Estimates of State-of-Good-Repair Benefits, 2020\$

| Over the Project Lifecycle | In Project Opening Year (2027), Discounted at 7% | In Constant Dollars | Discounted at 7% |
|----------------------------|--------------------------------------------------|---------------------|------------------|
|----------------------------|--------------------------------------------------|---------------------|------------------|

|                                                                           |           |              |              |
|---------------------------------------------------------------------------|-----------|--------------|--------------|
| Reduction in Maintenance Costs from Displacing Heavy Truck Travel to Rail | \$886,387 | \$78,782,815 | \$31,330,594 |
|---------------------------------------------------------------------------|-----------|--------------|--------------|

## B. 7.2: Economic Competitiveness

Induced Regional Benefits to Shippers and Receivers assumes that a proportion of the enhanced capacity in the build scenario will be utilized by ‘induced’ shipments. That is to say that some volume of the enhanced capacity forecast is made up of carloads that are not currently moving in the base case (in addition to existing demand). The presence of the rail capacity along the DSRR railroad will create new business opportunities through providing access to markets that were previously non-economical. For example, increased speeds and upgraded capacity will bring new regional opportunities to local commodity producers and processors. The induced component of the forecast has been excluded from the cost-benefit analysis as to be conservative. As such, it can be said that induced demand will further improve the output metrics of this analysis, as there would be no additional capital costs needed.

The proposed project would contribute to enhancing the economic competitiveness of the nation through improvements in the mobility of goods within and across the study area. In this analysis, one measure of mobility presented is the out-of-pocket *Transportation Cost Savings*.

Also presented in this section are estimates of the short-term economic impacts of the project (7.2.4 *Estimation of Short-Term Economic Impacts*), as recommended in the Notice of Funding Availability for CRISI.

### i. 7.2.1 Methodology

#### *Reduced Transportation Costs from Diverting Heavy Truck Travel to Rail*

Rail shipping rates tend to be lower than truck shipping rates on a per ton-mile basis. As such, the diversion of bulk-commodity highway freight to rail can generate significant cost savings for shippers. The improvements on the DSRR railroad will allow shippers another transportation option. Furthermore, these improvements generally improve schedule reliability, one of the key challenges facing a railroad in terms of product delivery. In the absence of such improvements, some shipments would likely be carried by truck at a greater cost to producers.

Transportation cost savings are quantified using the volume of truck miles avoided and relative shipping rates. The benefits in this category are counted as public because the difference of transportation prices between rail carload freight and truckload freight accrue directly to the shipper and receiver, lowering the final price consumers pay.

#### *Model of Reduced Transportation Costs S&L*

- The truck shipping rate (\$/truck-mile) times diverted truck miles (miles/year) less equivalent train ton-miles (ton-miles/year) times the rail shipping rate (\$/ton-miles) equals change in total transportation costs due to displacing heavy truck by year (\$)

### ii. 7.2.2 Assumptions

The table below shows the benefit estimates of out-of-pocket cost savings due to the DSRR Rail Enhancement and Safety Improvement Program. Shipper cost savings from modal switch accounts for roughly 11% of the total benefits generated with this project. The table below provides the inputs used in calculating transportation cost savings.

Table 10: Assumptions used in the Estimation of Out-of-Pocket Transportation Cost Savings

| Variable Name                             | Unit                  | Value   | Source                                                                                                                                                     |
|-------------------------------------------|-----------------------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Average Shipping Rate per ton-Mile, Truck | 2020\$/truck ton-mile | \$0.071 | <a href="#">DAT Average national truck freight rate of \$1.85 per mile divided by average truck tonnage of 26.2 tons.</a>                                  |
| Average Shipping Rate per ton-Mile, Rail  | 2020\$/Rail ton-mile  | \$0.041 | <a href="#">Freight Revenue Per Ton-Mile Adjusted to \$2020, BTS National Transportation Statistics, Table 3-21: Average Freight Revenue Per Ton-Mile.</a> |

iii. 7.2.3 Benefit Estimates

Reduced Transportation Costs from Diverting Heavy Truck Travel to Rail is roughly \$1.112 million in the opening year (2027) and exceeds \$39 million in savings (discounted at 7%) over the study period.

Table 11: Estimates of Out-of-Pocket Transportation Cost Savings, 2020\$

|                                                                        | In Project Opening Year (2027), Discounted at 7% | Over the Project Lifecycle |                         |
|------------------------------------------------------------------------|--------------------------------------------------|----------------------------|-------------------------|
|                                                                        |                                                  | In Constant Dollars        | Discounted at 7 Percent |
| Reduced Transportation Costs from Diverting Heavy Truck Travel to Rail | 1,112,760                                        | \$98,903,029               | \$39,332,063            |

\*Only 50% of transportation cost savings are included in the analysis to approximate the consumer surplus under the transportation demand curve due to a price reduction.

iv. 7.2.4 Estimation of Short-Term Economic Impacts

The Minnesota IMPLAN Group's input-output model has been used to estimate the short-term direct, indirect, and induced effects of this project in terms of employment, labor income, and value-added.

Employment effects represent full-time and part-time jobs created for a full year (unless noted otherwise). Labor income consists of total employee compensation (wage and salary payments, as well as health and life insurance benefits, retirement payments, and any other non-cash compensation), and proprietary income (payments received by self-employed individuals as income). Value-added represents total business sales (output) minus the cost of purchasing intermediate products and is roughly equivalent to gross regional/domestic product.

Estimated spending on project engineering and construction (capital expenditures) between 2022 and 2024 is used to compute short-term economic impacts.

The project is expected to generate 341 job-years during the project development phase. It is also expected to create \$26.69 million in value-added, including \$19.10 million in labor income. A breakdown of short-term impacts by type of effect (direct, indirect, and induced) is provided in the table below.

Table 12: Project Spending and Economic Impacts (Direct, Indirect, and Induced) during Project Development Phase

|                | Spending (Millions of 2020 Dollars) * | Direct | Indirect | Induced | Total   |
|----------------|---------------------------------------|--------|----------|---------|---------|
| Employment*    | \$17.89                               | 154.94 | 66.14    | 120.00  | 341.07  |
| Labor Income** |                                       | \$9.13 | \$4.15   | \$5.84  | \$19.10 |
| Value Added**  |                                       | \$9.76 | \$6.57   | \$10.36 | \$26.69 |

Note: \* Employment impacts from IMPLAN reflect total employment (full-time plus part-time). On average, the ratio of FTE to total employment is estimated at 9%.

Another method to estimate job-years from additional spending uses the Council of Economic Advisors' (CEA) methodology as presented in a 2011 analysis. This method assumes that for every \$92,136 of government spending, one job-year is created. The following table shows the difference in job-year estimates using the IMPLAN and CEA methodologies.

Note that the estimated employment impacts are lower when using CEA's approach. Specifically, the simplified computation produces a more conservative estimate of 229 job-years.

Table 13: Project Spending and Job-Year Estimates with IMPLAN and CEA Methodologies

|          | Spending (Millions of 2020 Dollars) | Direct | Indirect | Induced | Total  |
|----------|-------------------------------------|--------|----------|---------|--------|
| IMPLAN * | \$17.89                             | 154.94 | 66.14    | 120.00  | 341.07 |
| CEA      |                                     | 146.76 |          | 82.49   | 229.25 |

Note: \* Employment impacts from IMPLAN should not be interpreted as full-time equivalent (FTE) as they reflect the mix of full and part-time jobs that is typical for each sector.

A breakdown of short-term economic impacts (using IMPLAN estimates) in terms of employment (job-hours), labor income, and value-added are provided by quarter in the table below.

Table 14: Project Spending and Short-Term Economic Impacts by Quarter

| Period    | Spending (Millions of 2020 Dollars) * | Total Job-Hours** | Direct Job-Hours** | Total Labor Income (Millions of 2020 Dollars) | Total Value Added (Millions of 2020 Dollars) |
|-----------|---------------------------------------|-------------------|--------------------|-----------------------------------------------|----------------------------------------------|
| 2024 - Q1 | \$2.30                                | 79,004            | 35,877             | 2.47                                          | 3.44                                         |
| 2024 - Q2 | \$2.30                                | 79,004            | 35,877             | 2.47                                          | 3.44                                         |
| 2024 - Q3 | \$2.30                                | 79,004            | 35,877             | 2.47                                          | 3.44                                         |
| 2024 - Q4 | \$2.30                                | 79,004            | 35,877             | 2.47                                          | 3.44                                         |
| 2025 - Q1 | \$2.55                                | 87,397            | 39,688             | 2.73                                          | 3.81                                         |

|              |                |                |                |                |                |
|--------------|----------------|----------------|----------------|----------------|----------------|
| 2025 - Q2    | \$2.55         | 87,397         | 39,688         | 2.73           | 3.81           |
| 2025 - Q3    | \$1.12         | 38,261         | 17,374         | 1.20           | 1.67           |
| 2025 - Q4    | \$1.12         | 38,261         | 17,374         | 1.20           | 1.67           |
| 2026 - Q1    | \$0.33         | 11,237         | 5,103          | 0.35           | 0.49           |
| 2026 - Q2    | \$0.33         | 11,237         | 5,103          | 0.35           | 0.49           |
| 2026 - Q3    | \$0.25         | 8,695          | 3,948          | 0.27           | 0.38           |
| 2026 - Q4    | \$0.25         | 8,695          | 3,948          | 0.27           | 0.38           |
| 2027 - Q1    | \$0.09         | 2,938          | 1,334          | 0.09           | 0.13           |
| 2027 - Q2    | \$0.09         | 2,938          | 1,334          | 0.09           | 0.13           |
| 2027 - Q3    | \$0.00         | -              | -              | -              | -              |
| 2027 - Q4    | \$0.00         | -              | -              | -              | -              |
| <b>Total</b> | <b>\$17.89</b> | <b>613,072</b> | <b>278,402</b> | <b>\$19.15</b> | <b>\$26.72</b> |

Notes: \* assuming average weekly hours of 34.5 (Bureau of Labor Statistics estimate).

The table below presents the short-term increase in employment and labor income resulting from capital expenditures in key industries employing low-income people. 55.5 cumulative job-years (or 16.3% of total job-years) are expected to be created in those industries by the end of 2027, bringing in an additional \$1.66 million in labor income.

Table 15: Short-Term Impacts in Key Industries Employing Low-Income People

| Sectors                                   | Employment (Job-Years) | Labor Income (Millions of 2020 Dollars) |
|-------------------------------------------|------------------------|-----------------------------------------|
| Retail Industries                         | 23.0                   | \$0.76                                  |
| Services to buildings and dwellings       | 3.7                    | \$0.09                                  |
| Other business services                   | 3.4                    | \$0.12                                  |
| Food services and drinking places         | 13.3                   | \$0.30                                  |
| Hotel/accommodation services              | 1.9                    | \$0.07                                  |
| Personal care and other personal Services | 10.2                   | \$0.32                                  |
| <b>Total</b>                              | <b>55.5</b>            | <b>\$1.66</b>                           |

Note: Low-income sectors are identified in BLS, *A Profile of the Working Poor*, March 2009; BLS, *Characteristics of Minimum Wage Workers*, March 2009; and Carsey Institute, *Issue Brief No. 2*, Summer 2008. [Executive Office of the President, Council of Economic Advisers, "Estimates of Job Creation from the American Recovery and Reinvestment Act of 2009,"](https://obamawhitehouse.archives.gov/sites/default/files/microsites/Estimate-of-Job-Creation.pdf) Washington, D.C., May 11, 2009; and September 2011 Update<sup>13</sup>

<sup>13</sup> <https://obamawhitehouse.archives.gov/sites/default/files/microsites/Estimate-of-Job-Creation.pdf>

### C. 7.3: Quality of Life

The proposed project would contribute to enhancing livability and quality of life in the study area through the reduction in highway congestion, travel time, noise reduction (noise benefit was not monetized), and vehicle operating costs from displacing heavy truck travel to rail. This represents the time savings of the remaining on-road motorists, improved safety, decreased noise exposure, and increased comfort.

#### i. 7.3.1 Methodology

##### *Reduction in Highway Congestion, Travel Time, and Vehicle Operating Costs from Displacing Heavy Truck Travel to Rail*

The proposed DSRR project will divert freight from road to rail, resulting in a reduction in the use of public highways by heavy trucks. This benefit category estimates the avoided highway congestion costs, value of travel time savings, and the value of vehicle operating costs by applying the total diverted truck miles to a cost per mile for each category.

##### *Reduction in Noise Pollution Costs from Displacing Heavy Truck Travel to Rail*

As a result of the DSRR diverting freight from road to rail, noise pollution on public highways may be abated. Noise pollution occurs from high levels of environmental sound that may annoy, distract or even harm people and animals. While this BCA does not include noise reduction as a monetized benefit, it is important to note that there is a social cost that must be addressed in the future.

According to a 1981 report by the U.S. Environmental Protection Agency (EPA), it was estimated that 24 million people were exposed to high day-night average sound levels (DNLs; greater than 65 dB) of surface transportation noise (19.3 million for highway noise and 4.7 million for rail noise). Although no studies have been conducted to determine surface transportation exposures since then, it is likely that population growth, increased residential development near highways, and increased traffic volume have also increased exposures to highway traffic noise<sup>14</sup>.

Future BCA's may present quantified estimates of noise reduction benefits, considering both the expected change in noise levels (in decibels), and whether the change is expected to occur during the daytime or nighttime. For projects involving modal shift with a reduction in overall vehicle miles traveled is expected to be a significant project outcome.

##### *Model of Reduction in Highway Congestion, Travel Time, and Vehicle Operating Costs*

- Total truck miles diverted, by year (truck miles) times the travel time savings, congestion costs, and vehicle operating costs per truck mile (\$/truck miles) equals the change from displacing heavy truck travel, by year (\$)

#### ii. 7.3.2 Assumptions

The assumptions used in the estimation of the quality-of-life benefits are summarized in the table below.

Table 16: Assumptions used in the Estimation of Quality-of-Life Benefits

| Variable Name | Unit | Value | Source |
|---------------|------|-------|--------|
|---------------|------|-------|--------|

<sup>14</sup> National Academies of Sciences, Engineering, and Medicine. 2010. Technology for a Quieter America. Washington, DC: The National Academies Press. <https://doi.org/10.17226/12928>.

|                                |             |          |                                                                                                              |
|--------------------------------|-------------|----------|--------------------------------------------------------------------------------------------------------------|
| Value of Travel Time Savings   | 2020\$/Hour | \$17.80  | Table A-3: Value of Travel Time Savings (BCA Guidance for Discretionary Grant Programs, 2022) - All Purposes |
| Value of Congestion            | 2020\$/Mile | \$0.1150 | Benefit Cost Analysis Guidance for Discretionary Grant Programs, 2022                                        |
| Vehicle Operating Costs        | 2020\$/Mile | \$0.9400 | Benefit Cost Analysis Guidance for Discretionary Grant Programs, 2022                                        |
| Value of Noise (not monetized) | 2020\$/Mile | \$0.0028 | Benefit Cost Analysis Guidance for Discretionary Grant Programs, 2022                                        |

### iii. 7.3.3 Benefit Estimates

Reduction in Highway Congestion, Travel Time, and Vehicle Operating Costs from Displacing Heavy Truck Travel to Rail is roughly \$4.055 million in the opening year (2027) and over \$143 Million in savings (discounted at 7%) over the study period.

Table 17: Estimates of Quality-of-Life Benefits, 2020\$

|                                                                                                                                     | In Project Opening Year (2027), Discounted at 7% | Over the Project Lifecycle |                         |
|-------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|----------------------------|-------------------------|
|                                                                                                                                     |                                                  | In Constant Dollars        | Discounted at 7 Percent |
| Reduction in Travel Time Savings, Highway Congestion Costs, and Vehicle Operating Costs from Displacing Heavy Truck Travel to Rail. | \$4,055,781                                      | \$360,480,998              | \$143,357,201           |

## D. 7.4: Environmental Sustainability

The proposed project would contribute to environmental sustainability through Emission Savings from Diverting Heavy Truck Travel to Rail.

### i. 7.4.1 Methodology

#### *Emission Savings from Diverting Heavy Truck Travel to Rail*

Freight carried over the rail network imposes less environmental impacts for the same amount of cargo than those imposed by trucks on the highway network. This benefit category estimates the value of the reduced environmental emissions associated with transporting goods on rail as opposed to by truck. The amount of greenhouse gas (GHG) and criteria air contaminants (CAC) are calculated on the basis of pollutants generated per gallon of diesel consumed by truck and train shipping in the base and alternative cases. The monetized value of environmental savings is then calculated by applying the social cost of emissions to the relative difference in truck versus rail emissions.

#### *Model of Emission Savings S&L*

- Diverted truck miles per year (truck miles) divided by truck miles per gallon times the grams of NO<sub>x</sub> per gallon of diesel times the NO<sub>x</sub> cost per ton, less diverted freight truck miles per year divided by rail miles per gallon divided by rail circuitry, times the grams of NO<sub>x</sub> per gallon of diesel times the NO<sub>x</sub> cost per ton
- Diverted truck miles per year (truck miles) divided by truck miles per gallon times the grams of CO<sub>2</sub> per gallon of diesel times the CO<sub>2</sub> cost per ton, less diverted freight truck

miles per year divided by rail miles per gallon divided by rail circuitry, times the grams of CO<sub>2</sub> per gallon of diesel times the CO<sub>2</sub> cost per ton

- Diverted truck miles per year (truck miles) divided by truck miles per gallon times the grams of PM<sub>2.5</sub> per gallon of diesel times the PM<sub>2.5</sub> cost per ton, less diverted freight truck miles per year divided by rail miles per gallon divided by rail circuitry, times the grams of PM<sub>2.5</sub> per gallon of diesel times the PM<sub>2.5</sub> cost per ton

## ii. 7.4.2 Assumptions

The assumptions used in the estimation of sustainability benefits are summarized in the table below.

*Table 18: Assumptions used in the Estimation of Environmental Sustainability Benefits*

| Variable Name                                             | Unit        | Value       | Source                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------------------------------------------------|-------------|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Grams of NO <sub>x</sub> , truck per gallon diesel – 2020 | tons/gallon | 0.000237355 | EPA's MOVES model. Calculated grams/gallon emission factors converted to grams/ton-mile by dividing by an average efficiency of 130 freight ton-miles per gallon, per the Rocky Mountain Institute, Transformational Trucking Charette. This calculation assumes a current tractor-trailer combination loaded getting 6.5 mpg. No empty backhaul is assumed. Amount decreases annually due to realized efficiencies.                                                                   |
| Grams of NO <sub>x</sub> , rail per gallon diesel – 2020  | tons/gallon | 0.0001731   | United States Environmental Protection Agency, Office of Transportation and Air Quality, "Emission Factors for Locomotives", EPA-420-F-09-025, April 2009. Gram/gallon values are converted to grams/ton-mile by dividing an average efficiency of 473 freight ton-miles per gallon. (2009 U.S. average data source in "The Economic Impact of America's Freight Railroads", Association of American Railroad (AAR), May 2010. Amount decreases annually due to realized efficiencies. |
| Grams of PM, truck per gallon diesel – 2020               | tons/gallon | 0.00000557  | Same source as NO <sub>x</sub> truck emission rate.                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Grams of PM, rail per gallon diesel – 2020                | tons/gallon | 0.000003    | Same source as NO <sub>x</sub> train emission rate.                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Grams of CO <sub>2</sub> , truck per gallon diesel – 2020 | tons/gallon | 0.067648063 | Same source as NO <sub>x</sub> truck emission rate.                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Grams of CO <sub>2</sub> , rail per gallon diesel – 2020  | tons/gallon | 0.0111      | Same source as NO <sub>x</sub> train emission rate.                                                                                                                                                                                                                                                                                                                                                                                                                                    |

|                                              |           |           |                                                                                                            |
|----------------------------------------------|-----------|-----------|------------------------------------------------------------------------------------------------------------|
| Grams of VOC, truck per gallon diesel – 2020 | grams/TM  | 0.0448    | Same source as NOx truck emission rate.                                                                    |
| Grams of VOC, rail per gallon diesel – 2020  | grams/TM  | 0.0149    | Same source as NOx train emission rate.                                                                    |
| NOx cost per ton –                           | short ton | see chart | Table A-6: Damage Costs for Emissions per Metric Ton (BCA Guidance for Discretionary Grant Programs, 2022) |
| PM.2.5 cost per ton –                        | short ton | see chart | Table A-6: Damage Costs for Emissions per Metric Ton (BCA Guidance for Discretionary Grant Programs, 2022) |
| CO2 cost per ton –                           | short ton | see chart | Table A-6: Damage Costs for Emissions per Metric Ton (BCA Guidance for Discretionary Grant Programs, 2022) |
| SO2 cost per ton –                           | short ton | see chart | Table A-6: Damage Costs for Emissions per Metric Ton (BCA Guidance for Discretionary Grant Programs, 2022) |
| VOC cost per ton –                           | short ton | see chart | Table A-6: Damage Costs for Emissions per Metric Ton (BCA Guidance for Discretionary Grant Programs, 2022) |

### iii. 7.4.3 Benefit Estimates

*Emission Savings from Diverting Heavy Truck Travel to Rail* including greenhouse gas and criteria air contaminants savings is roughly \$4.360 million in the opening year (2027) and exceeds \$168 million in savings (discounted at 7%) over the study period.

Table 19: Estimates of Environmental Sustainability Benefits, 2020\$

|                                                            | In Project Opening Year (2027)<br>Discounted at 7% | Over the Project Lifecycle |                         |
|------------------------------------------------------------|----------------------------------------------------|----------------------------|-------------------------|
|                                                            |                                                    | In Constant Dollars        | Discounted at 7 Percent |
| Emission Savings from Diverting Heavy Truck Travel to Rail | \$4,360,226                                        | \$428,208,833              | \$168,331,706           |

## E. 7.5: Safety

The proposed project would contribute to promoting DOT's long-term safety outcomes initiative through a reduction in accident costs (through reduced fatalities and injuries) from diverting heavy truck travel to rail.

### i. 7.5.1 Methodology

*Reduced Accident Costs from Diverting Heavy Truck Travel to Rail*

Fatality and injury rates per mile of freight carried by truck are greater than the fatality and injury rates for an equal volume of cargo when shipped by rail. This benefit captures the different accident rates per truck-mile and per train-mile. The accident value used here is recommended by Benefit Cost Analysis Guidance for Discretionary Grant Programs March 2022 (Revised) accident rate data published by the US DOT.

#### *Model of Reduced Accident Costs S&L*

- Total truck miles diverted (truck-miles) times Truck Fatality Rate per 100 million miles times Value of Fatality equals Reduction in Fatal Accidents.
- Total truck miles diverted (truck-miles) times Truck Injury Rate per 100 million miles times Value of Serious Injury equals Reduction in Non-Fatal Accidents.
- Total truck miles diverted (truck-miles) times Property Damage Cost per 100 million miles equals Reduction in Property Damage.

#### *ii. 7.5.2 Assumptions*

The assumptions used in the estimation of safety benefits are summarized in the table below.

*Table 20: Assumptions used in the Estimation of Safety Benefits*

| Variable Name                | Unit                      | Value        | Source                                                                                                                                                                                          |
|------------------------------|---------------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Value of Fatality            | Per Fatality              | \$11,600,000 | Table A-1: Value of Reduced Fatalities and Injuries (BCA Guidance for Discretionary Grant Programs, 2022) - Crash Type                                                                          |
| Value of Serious Injury      | Per Injury                | \$210,300    | Table A-1: Value of Reduced Fatalities and Injuries (BCA Guidance for Discretionary Grant Programs, 2022) - Crash Type                                                                          |
| Truck Fatality Accident Rate | Fatalities per Crash      | 1.09         | <a href="http://www.fmcsa.dot.gov/safety/data-and-statistics/large-truck-and-bus-crash-facts-2012">http://www.fmcsa.dot.gov/safety/data-and-statistics/large-truck-and-bus-crash-facts-2012</a> |
| Truck Injury Accident Rate   | Injuries per Crash        | 1.44         | <a href="http://www.fmcsa.dot.gov/safety/data-and-statistics/large-truck-and-bus-crash-facts-2012">http://www.fmcsa.dot.gov/safety/data-and-statistics/large-truck-and-bus-crash-facts-2012</a> |
| Property Damage Cost         | Property Damage per Crash | \$4,600      | Table A-2: Property Damage Only (PDO) Crashes (BCA Guidance for Discretionary Grant Programs, 2022)                                                                                             |
| Property Accident Rate Cost  | Accidents per 100m VMT    | 94.20        | <a href="http://www.fmcsa.dot.gov/safety/data-and-statistics/large-truck-and-bus-crash-facts-2012">http://www.fmcsa.dot.gov/safety/data-and-statistics/large-truck-and-bus-crash-facts-2012</a> |

#### *iii. 7.5.3 Benefit Estimates*

*Reduced Accident Costs from Diverting Heavy Truck Travel to Rail* is roughly \$118 thousand in the opening year (2027) and roughly \$4.1 Million in savings (discounted at 7%) over the study period.

*Table 21: Estimates of Safety Benefits, 2020\$*

|  | In Project Opening Year 2027. Discounted at 7 Percent | Over the Project Lifecycle |                         |
|--|-------------------------------------------------------|----------------------------|-------------------------|
|  |                                                       | In Constant Dollars        | Discounted at 7 Percent |

|                                                                  |           |              |             |
|------------------------------------------------------------------|-----------|--------------|-------------|
| Reduced Accident Costs from Diverting Heavy Truck Travel to Rail | \$118,577 | \$10,539,238 | \$4,191,277 |
|------------------------------------------------------------------|-----------|--------------|-------------|

## VIII. Section 8: Summary of Findings and BCA Outcomes

The tables below summarize the BCA findings. Annual costs and benefits are computed over the lifecycle of the project (2024 through 2046). As stated earlier, effectively construction is expected to be completed by the end of Q2 2027. Benefits accrue during the full operation of the project (Q3 2027 through 2046).

*Table 22: Overall Results of the Benefit-Cost Analysis, 2020\$*

| Project Evaluation Metric   | 7% Discount Rate | 3% Discount Rate |
|-----------------------------|------------------|------------------|
| Total Discounted Benefits   | \$369,631,877    | \$610,385,384    |
| Total Discounted Costs      | \$16,232,103     | \$17,030,697     |
| Net Present Value           | \$353,399,774    | \$593,354,687    |
| Benefit / Cost Ratio        | 22.8             | 35.8             |
| Internal Rate of Return (%) | 57.84%           |                  |
| Payback Period (years)      | 6                |                  |

*\*Includes incremental O&M costs and construction/capital costs.*

Considering all monetized benefits and costs, the estimated internal rate of return of the project is 57.84%. With a 7% real discount rate, the discounted \$16.23 million investment would result in \$353.399 million in total benefits and a Benefit/Cost ratio of approximately 22.8 to 1.

With a 3% real discount rate, the Net Present Value of the project would increase to \$593.354 million, for a Benefit/Cost ratio of 35.8.

*Table 23: Benefit Estimates by Long-Term Outcome over the study period, 2020\$*

| Long-Term Outcomes               | Benefit Categories                                                                                                    | 7% Discount Rate | 3% Discount Rate |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------|------------------|------------------|
| Highway Maintenance Cost Savings | Reduction in Maintenance Costs from Displacing Heavy Truck Travel to Rail                                             | \$31,330,594     | \$51,797,031     |
| Economic Competitiveness*        | Reduced Transportation Costs from Diverting Heavy Truck Travel to Rail                                                | \$39,332,063     | \$65,025,390     |
| Quality of Life                  | Reduction in Highway Congestion, Travel Time, and Vehicle Operating Costs from Displacing Heavy Truck Travel to Rail. | \$143,357,201    | \$237,004,041    |
| Environmental Sustainability     | Emission Savings from Diverting Heavy Truck Travel to Rail                                                            | \$151,420,741    | \$249,629,729    |
| Safety                           | Reduced Accident Costs from Diverting Heavy Truck Travel to Rail                                                      | \$4,191,277      | \$6,929,192      |

|                                |  |                      |                      |
|--------------------------------|--|----------------------|----------------------|
| <b>Total Benefit Estimates</b> |  | <b>\$369,631,877</b> | <b>\$610,385,384</b> |
|--------------------------------|--|----------------------|----------------------|

## IX. Section 9: BCA Sensitivity Analysis

The BCA outcomes presented in the previous sections rely on a large number of assumptions and long-term projections; both of which are subject to considerable uncertainty.

The primary purpose of the sensitivity analysis is to help identify the variables and model parameters whose variations have the greatest impact on the BCA outcomes: the “critical variables”.

The sensitivity analysis can also be used to:

- Evaluate the impact of changes in individual critical variables – how much the results would vary with reasonable departures from the “preferred” or most likely value for the variable
- Assess the robustness of the BCA and evaluate whether the conclusions reached under the “preferred” set of input values change significantly by reasonable departures from those values

The outcomes of the quantitative analysis for the Build Case (as defined in section 4.1) using a 7% discount rate are summarized in the table below. The table provides the percentage of changes in the project NPV associated with variations in variables or parameters (listed in rows), as indicated in the column headers

For example, a 15% reduction in Rail and Trucking Shipping Rates leads to a 1.59% reduction in the project NPV

*Table 24: Quantitative Assessment of Sensitivity, Summary*

| Parameters                                           | Change in Parameter Value | New NPV (7% discounted) | Change in NPV | New B/C Ratio (7% discounted) |
|------------------------------------------------------|---------------------------|-------------------------|---------------|-------------------------------|
| Annual Build Carload Growth (Current Rate: 5% /Year) | 1.5% Annual Growth        | \$244,176,158           | - 30.91%      | 16.04                         |
|                                                      | 10% Annual Growth         | \$621,953,721           | 75.99%        | 39.32                         |
| Rail and Trucking Shipping Rates                     | Decrease by 15%           | \$347,792,564           | -1.59%        | 22.43                         |
|                                                      | Increase by 15%           | \$359,592,183           | 1.75%         | 23.15                         |

## X. Section 10: Supplementary Data Tables

This section provides annual benefit estimates associated with the five long-term outcome criteria (State of Good Repair, Economic Competitiveness, Quality of Life, Sustainability, and Safety) for the DSRR Rail Enhancement and Safety Improvement Program project for the Rail Sidings (Build

Case). Supplementary data tables are also provided for some specific benefit categories. For example, tables providing estimates of annual emission reductions (in tons) are provided under Environmental Sustainability.

**A. 10.1: Annual Estimates of Total Project Benefits and Costs**

| Calendar Year | Project Year | Total Benefits (\$2020), Undiscounted | Total Costs (\$2020), Undiscounted | Total Benefits, Less Costs (inflated at 0%) | Discounted Net Benefits at 7% | Discounted Net Benefits at 3% |
|---------------|--------------|---------------------------------------|------------------------------------|---------------------------------------------|-------------------------------|-------------------------------|
| 2024          | 1            | \$0                                   | (\$9,077,464)                      | (\$8,215,650)                               | \$0                           | \$0                           |
| 2025          | 2            | \$0                                   | (\$7,230,044)                      | (\$6,498,436)                               | \$0                           | \$0                           |
| 2026          | 3            | \$0                                   | (\$1,148,720)                      | (\$1,025,301)                               | \$0                           | \$0                           |
| 2027          | 4            | \$11,335,599                          | (\$281,736)                        | \$12,521,350                                | \$10,425,070                  | \$11,687,419                  |
| 2028          | 5            | \$16,795,183                          | (\$113,534)                        | \$18,819,622                                | \$14,433,689                  | \$16,809,839                  |
| 2029          | 6            | \$20,595,661                          | (\$114,297)                        | \$23,052,879                                | \$16,507,682                  | \$19,971,876                  |
| 2030          | 7            | \$24,789,963                          | (\$115,071)                        | \$27,707,845                                | \$18,529,541                  | \$23,288,633                  |
| 2031          | 8            | \$29,205,851                          | (\$115,855)                        | \$32,613,434                                | \$20,372,282                  | \$26,599,015                  |
| 2032          | 9            | \$34,001,353                          | (\$116,650)                        | \$37,928,861                                | \$22,133,143                  | \$30,020,334                  |
| 2033          | 10           | \$35,701,421                          | (\$117,456)                        | \$39,771,284                                | \$21,687,337                  | \$30,558,020                  |
| 2034          | 11           | \$37,486,492                          | (\$118,273)                        | \$41,702,721                                | \$21,250,384                  | \$31,105,150                  |
| 2035          | 12           | \$39,360,816                          | (\$119,102)                        | \$43,727,523                                | \$20,822,141                  | \$31,661,935                  |
| 2036          | 13           | \$41,328,857                          | (\$119,942)                        | \$45,918,220                                | \$20,432,640                  | \$32,276,253                  |
| 2037          | 14           | \$43,395,300                          | (\$120,794)                        | \$48,145,000                                | \$20,019,960                  | \$32,852,497                  |
| 2038          | 15           | \$45,565,065                          | (\$121,659)                        | \$50,479,560                                | \$19,615,626                  | \$33,439,048                  |
| 2039          | 16           | \$47,843,318                          | (\$122,536)                        | \$52,927,180                                | \$19,219,490                  | \$34,036,129                  |
| 2040          | 17           | \$50,235,484                          | (\$123,425)                        | \$55,493,400                                | \$18,831,408                  | \$34,643,969                  |
| 2041          | 18           | \$52,747,258                          | (\$124,328)                        | \$58,184,033                                | \$18,451,232                  | \$35,262,798                  |
| 2042          | 19           | \$55,384,621                          | (\$125,244)                        | \$61,005,180                                | \$18,078,818                  | \$35,892,853                  |
| 2043          | 20           | \$58,153,852                          | (\$126,173)                        | \$64,041,000                                | \$17,735,521                  | \$36,578,716                  |
| 2044          | 21           | \$61,061,545                          | (\$127,117)                        | \$67,144,213                                | \$17,377,182                  | \$37,231,490                  |
| 2045          | 22           | \$64,114,622                          | (\$128,075)                        | \$70,398,146                                | \$17,026,225                  | \$37,896,227                  |
| 2046          | 23           | \$67,320,353                          | (\$129,047)                        | \$73,810,202                                | \$16,682,506                  | \$38,573,180                  |
|               |              | \$836,422,614                         | (\$20,036,540)                     | \$909,652,266                               | \$369,631,877                 | \$610,385,384                 |

## B. 10.2: Annual Demand Projections

| Calendar Year | Project Year | Train Carloads (Build Case) <sup>1</sup> | Train Carloads (No-Build Case) <sup>1</sup> | Diverted Trucks (build case) <sup>2</sup> | Diverted Truck Tons (build case) <sup>3</sup> | Diverted Truck miles (build case) <sup>4</sup> | Diverted Train Miles (build case) <sup>5</sup> |
|---------------|--------------|------------------------------------------|---------------------------------------------|-------------------------------------------|-----------------------------------------------|------------------------------------------------|------------------------------------------------|
| 2027          | 4            | 6,159                                    | 2,774                                       | 12,525                                    | 156,556                                       | 3,621,782                                      | 1,224,550                                      |
| 2028          | 5            | 6,467                                    | 2,330                                       | 15,306                                    | 218,269                                       | 5,336,534                                      | 1,804,320                                      |
| 2029          | 6            | 6,790                                    | 1,835                                       | 18,335                                    | 285,762                                       | 6,507,907                                      | 2,200,369                                      |
| 2030          | 7            | 7,130                                    | 1,284                                       | 21,628                                    | 359,458                                       | 7,783,075                                      | 2,631,512                                      |
| 2031          | 8            | 7,486                                    | 674                                         | 25,204                                    | 439,809                                       | 9,169,491                                      | 3,100,269                                      |
| 2032          | 9            | 7,861                                    | 0                                           | 29,084                                    | 527,297                                       | 10,675,090                                     | 3,609,323                                      |
| 2033          | 10           | 8,254                                    | 0                                           | 30,538                                    | 553,662                                       | 11,208,844                                     | 3,789,789                                      |
| 2034          | 11           | 8,666                                    | 0                                           | 32,065                                    | 581,345                                       | 11,769,287                                     | 3,979,279                                      |
| 2035          | 12           | 9,100                                    | 0                                           | 33,669                                    | 610,412                                       | 12,357,751                                     | 4,178,242                                      |
| 2036          | 13           | 9,555                                    | 0                                           | 35,352                                    | 640,933                                       | 12,975,639                                     | 4,387,155                                      |
| 2037          | 14           | 10,032                                   | 0                                           | 37,120                                    | 672,980                                       | 13,624,420                                     | 4,606,512                                      |
| 2038          | 15           | 10,534                                   | 0                                           | 38,976                                    | 706,629                                       | 14,305,641                                     | 4,836,838                                      |
| 2039          | 16           | 11,061                                   | 0                                           | 40,924                                    | 741,960                                       | 15,020,924                                     | 5,078,680                                      |
| 2040          | 17           | 11,614                                   | 0                                           | 42,971                                    | 779,058                                       | 15,771,970                                     | 5,332,614                                      |
| 2041          | 18           | 12,194                                   | 0                                           | 45,119                                    | 818,011                                       | 16,560,568                                     | 5,599,245                                      |
| 2042          | 19           | 12,804                                   | 0                                           | 47,375                                    | 858,911                                       | 17,388,597                                     | 5,879,207                                      |
| 2043          | 20           | 13,444                                   | 0                                           | 49,744                                    | 901,857                                       | 18,258,026                                     | 6,173,167                                      |
| 2044          | 21           | 14,117                                   | 0                                           | 52,231                                    | 946,950                                       | 19,170,928                                     | 6,481,825                                      |
| 2045          | 22           | 14,822                                   | 0                                           | 54,843                                    | 994,297                                       | 20,129,474                                     | 6,805,917                                      |
| 2046          | 23           | 15,563                                   | 0                                           | 57,585                                    | 1,044,012                                     | 21,135,948                                     | 7,146,213                                      |
| <b>Total</b>  |              | <b>203,653</b>                           | <b>8,898</b>                                | <b>720,594</b>                            | <b>12,838,167</b>                             | <b>262,771,896</b>                             | <b>88,845,026</b>                              |

1 New carload at 50% forecast. 2 Diverted Trucks = Difference in Build and No Build Carloads multiplied by the number of trucks per carload (3.5). 3 Diverted Tons = Number of Trucks multiplied by the average tonnage per truck. 4 Number of Trucks multiplied by the distance traveled. 5 Number of trains multiplied by the rail route distance.

**C. 10.3: Vehicle Operating Costs: Annual Benefit Estimates**

| <b>Calendar Year</b> | <b>Project Year</b> | <b>Reduction in Maintenance Costs from Displacing Heavy Truck Travel to Rail, Undiscounted</b> | <b>Reduction in Maintenance Costs from Displacing Heavy Truck Travel to Rail, Discounted 7%</b> | <b>Reduction in Maintenance Costs from Displacing Heavy Truck Travel to Rail, Discounted 3%</b> |
|----------------------|---------------------|------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| 2027                 | 4                   | \$1,085,863                                                                                    | \$886,387                                                                                       | \$993,718                                                                                       |
| 2028                 | 5                   | \$1,599,970                                                                                    | \$1,220,610                                                                                     | \$1,421,553                                                                                     |
| 2029                 | 6                   | \$1,951,165                                                                                    | \$1,391,153                                                                                     | \$1,683,092                                                                                     |
| 2030                 | 7                   | \$2,333,479                                                                                    | \$1,554,895                                                                                     | \$1,954,252                                                                                     |
| 2031                 | 8                   | \$2,749,146                                                                                    | \$1,712,030                                                                                     | \$2,235,307                                                                                     |
| 2032                 | 9                   | \$3,200,546                                                                                    | \$1,862,747                                                                                     | \$2,526,541                                                                                     |
| 2033                 | 10                  | \$3,360,574                                                                                    | \$1,827,929                                                                                     | \$2,575,600                                                                                     |
| 2034                 | 11                  | \$3,528,602                                                                                    | \$1,793,763                                                                                     | \$2,625,612                                                                                     |
| 2035                 | 12                  | \$3,705,032                                                                                    | \$1,760,234                                                                                     | \$2,676,594                                                                                     |
| 2036                 | 13                  | \$3,890,284                                                                                    | \$1,727,333                                                                                     | \$2,728,567                                                                                     |
| 2037                 | 14                  | \$4,084,798                                                                                    | \$1,695,046                                                                                     | \$2,781,549                                                                                     |
| 2038                 | 15                  | \$4,289,038                                                                                    | \$1,663,363                                                                                     | \$2,835,560                                                                                     |
| 2039                 | 16                  | \$4,503,490                                                                                    | \$1,632,272                                                                                     | \$2,890,619                                                                                     |
| 2040                 | 17                  | \$4,728,665                                                                                    | \$1,601,762                                                                                     | \$2,946,747                                                                                     |
| 2041                 | 18                  | \$4,965,098                                                                                    | \$1,571,823                                                                                     | \$3,003,966                                                                                     |
| 2042                 | 19                  | \$5,213,353                                                                                    | \$1,542,443                                                                                     | \$3,062,295                                                                                     |
| 2043                 | 20                  | \$5,474,020                                                                                    | \$1,513,612                                                                                     | \$3,121,757                                                                                     |
| 2044                 | 21                  | \$5,747,721                                                                                    | \$1,485,320                                                                                     | \$3,182,374                                                                                     |
| 2045                 | 22                  | \$6,035,108                                                                                    | \$1,457,557                                                                                     | \$3,244,168                                                                                     |
| 2046                 | 23                  | \$6,336,863                                                                                    | \$1,430,313                                                                                     | \$3,307,161                                                                                     |
| <b>Total</b>         |                     | <b>\$78,782,815</b>                                                                            | <b>\$31,330,594</b>                                                                             | <b>\$51,797,031</b>                                                                             |

**D. 10.4: Economic Competitiveness: Annual Benefit Estimates**

| <b>Calendar Year</b> | <b>Project Year</b> | <b>Reduced Transportation Costs from Diverting Heavy Truck Travel to Rail, Undiscounted</b> | <b>Reduced Transportation Costs from Diverting Heavy Truck Travel to Rail, Discounted 7%</b> | <b>Reduced Transportation Costs from Diverting Heavy Truck Travel to Rail, Discounted 3%</b> |
|----------------------|---------------------|---------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| 2027                 | 4                   | \$1,363,179                                                                                 | \$1,112,760                                                                                  | \$1,247,502                                                                                  |
| 2028                 | 5                   | \$2,008,584                                                                                 | \$1,532,339                                                                                  | \$1,784,601                                                                                  |
| 2029                 | 6                   | \$2,449,469                                                                                 | \$1,746,438                                                                                  | \$2,112,934                                                                                  |
| 2030                 | 7                   | \$2,929,422                                                                                 | \$1,951,997                                                                                  | \$2,453,345                                                                                  |
| 2031                 | 8                   | \$3,451,246                                                                                 | \$2,149,262                                                                                  | \$2,806,179                                                                                  |
| 2032                 | 9                   | \$4,017,929                                                                                 | \$2,338,471                                                                                  | \$3,171,790                                                                                  |
| 2033                 | 10                  | \$4,218,825                                                                                 | \$2,294,761                                                                                  | \$3,233,378                                                                                  |
| 2034                 | 11                  | \$4,429,766                                                                                 | \$2,251,869                                                                                  | \$3,296,162                                                                                  |
| 2035                 | 12                  | \$4,651,255                                                                                 | \$2,209,778                                                                                  | \$3,360,165                                                                                  |
| 2036                 | 13                  | \$4,883,817                                                                                 | \$2,168,473                                                                                  | \$3,425,411                                                                                  |
| 2037                 | 14                  | \$5,128,008                                                                                 | \$2,127,941                                                                                  | \$3,491,924                                                                                  |
| 2038                 | 15                  | \$5,384,409                                                                                 | \$2,088,167                                                                                  | \$3,559,728                                                                                  |
| 2039                 | 16                  | \$5,653,629                                                                                 | \$2,049,135                                                                                  | \$3,628,849                                                                                  |
| 2040                 | 17                  | \$5,936,311                                                                                 | \$2,010,834                                                                                  | \$3,699,312                                                                                  |
| 2041                 | 18                  | \$6,233,126                                                                                 | \$1,973,248                                                                                  | \$3,771,144                                                                                  |
| 2042                 | 19                  | \$6,544,782                                                                                 | \$1,936,365                                                                                  | \$3,844,370                                                                                  |
| 2043                 | 20                  | \$6,872,022                                                                                 | \$1,900,171                                                                                  | \$3,919,018                                                                                  |
| 2044                 | 21                  | \$7,215,623                                                                                 | \$1,864,654                                                                                  | \$3,995,115                                                                                  |
| 2045                 | 22                  | \$7,576,404                                                                                 | \$1,829,801                                                                                  | \$4,072,690                                                                                  |
| 2046                 | 23                  | \$7,955,224                                                                                 | \$1,795,599                                                                                  | \$4,151,772                                                                                  |
| <b>Total</b>         |                     | <b>\$98,903,029</b>                                                                         | <b>\$39,332,063</b>                                                                          | <b>\$65,025,390</b>                                                                          |

**E. 10.5: Quality of Life: Annual Benefit Estimates**

| <b>Calendar Year</b> | <b>Project Year</b> | <b>Reduction in Highway Congestion, Travel Time, and Vehicle Operating Costs from Displacing Heavy Truck Travel to Rail, Undiscounted</b> | <b>Reduction in Highway Congestion, Travel Time, and Vehicle Operating Costs from Displacing Heavy Truck Travel to Rail, Discounted 7%</b> | <b>Reduction in Highway Congestion, Travel Time, and Vehicle Operating Costs from Displacing Heavy Truck Travel to Rail, Discounted, 3%</b> |
|----------------------|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| 2027                 | 4                   | \$4,968,506                                                                                                                               | \$4,055,781                                                                                                                                | \$4,546,886                                                                                                                                 |
| 2028                 | 5                   | \$7,320,871                                                                                                                               | \$5,585,058                                                                                                                                | \$6,504,499                                                                                                                                 |
| 2029                 | 6                   | \$8,927,807                                                                                                                               | \$6,365,403                                                                                                                                | \$7,701,205                                                                                                                                 |
| 2030                 | 7                   | \$10,677,134                                                                                                                              | \$7,114,625                                                                                                                                | \$8,941,932                                                                                                                                 |
| 2031                 | 8                   | \$12,579,074                                                                                                                              | \$7,833,615                                                                                                                                | \$10,227,938                                                                                                                                |
| 2032                 | 9                   | \$14,644,515                                                                                                                              | \$8,523,241                                                                                                                                | \$11,560,516                                                                                                                                |
| 2033                 | 10                  | \$15,376,741                                                                                                                              | \$8,363,928                                                                                                                                | \$11,784,992                                                                                                                                |
| 2034                 | 11                  | \$16,145,578                                                                                                                              | \$8,207,593                                                                                                                                | \$12,013,826                                                                                                                                |
| 2035                 | 12                  | \$16,952,857                                                                                                                              | \$8,054,180                                                                                                                                | \$12,247,105                                                                                                                                |
| 2036                 | 13                  | \$17,800,500                                                                                                                              | \$7,903,635                                                                                                                                | \$12,484,913                                                                                                                                |
| 2037                 | 14                  | \$18,690,525                                                                                                                              | \$7,755,903                                                                                                                                | \$12,727,338                                                                                                                                |
| 2038                 | 15                  | \$19,625,051                                                                                                                              | \$7,610,933                                                                                                                                | \$12,974,471                                                                                                                                |
| 2039                 | 16                  | \$20,606,304                                                                                                                              | \$7,468,673                                                                                                                                | \$13,226,402                                                                                                                                |
| 2040                 | 17                  | \$21,636,619                                                                                                                              | \$7,329,071                                                                                                                                | \$13,483,226                                                                                                                                |
| 2041                 | 18                  | \$22,718,450                                                                                                                              | \$7,192,079                                                                                                                                | \$13,745,036                                                                                                                                |
| 2042                 | 19                  | \$23,854,372                                                                                                                              | \$7,057,648                                                                                                                                | \$14,011,930                                                                                                                                |
| 2043                 | 20                  | \$25,047,091                                                                                                                              | \$6,925,729                                                                                                                                | \$14,284,006                                                                                                                                |
| 2044                 | 21                  | \$26,299,446                                                                                                                              | \$6,796,277                                                                                                                                | \$14,561,365                                                                                                                                |
| 2045                 | 22                  | \$27,614,418                                                                                                                              | \$6,669,243                                                                                                                                | \$14,844,110                                                                                                                                |
| 2046                 | 23                  | \$28,995,139                                                                                                                              | \$6,544,585                                                                                                                                | \$15,132,345                                                                                                                                |
| <b>Total</b>         |                     | <b>\$360,480,998</b>                                                                                                                      | <b>\$143,357,201</b>                                                                                                                       | <b>\$237,004,041</b>                                                                                                                        |

**F. 10.6: Environmental Sustainability: Annual Benefit Estimates**

| <b>Calendar Year</b> | <b>Project Year</b> | <b>Carbon Savings from Diverting Heavy Truck Travel to Rail, Undiscounted</b> | <b>Total Non-Carbon Emissions Savings from Diverting Heavy Truck Travel to Rail, Undiscounted</b> | <b>Emission Savings from Diverting Heavy Truck Travel to Rail, Discounted 7%</b> | <b>Emission Savings from Diverting Heavy Truck Travel to Rail, Discounted 3%</b> |
|----------------------|---------------------|-------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| 2027                 | 4                   | \$1,568,675                                                                   | \$3,772,789                                                                                       | \$4,360,226                                                                      | \$4,888,196                                                                      |
| 2028                 | 5                   | \$2,391,075                                                                   | \$5,651,720                                                                                       | \$6,135,810                                                                      | \$7,145,919                                                                      |
| 2029                 | 6                   | \$2,964,516                                                                   | \$7,006,201                                                                                       | \$7,108,984                                                                      | \$8,600,829                                                                      |
| 2030                 | 7                   | \$3,603,509                                                                   | \$8,537,766                                                                                       | \$8,090,244                                                                      | \$10,168,127                                                                     |
| 2031                 | 8                   | \$4,313,884                                                                   | \$10,058,616                                                                                      | \$8,950,471                                                                      | \$11,686,158                                                                     |
| 2032                 | 9                   | \$5,101,927                                                                   | \$11,710,207                                                                                      | \$9,784,815                                                                      | \$13,271,653                                                                     |
| 2033                 | 10                  | \$5,440,726                                                                   | \$12,295,717                                                                                      | \$9,647,450                                                                      | \$13,593,507                                                                     |
| 2034                 | 11                  | \$5,800,651                                                                   | \$12,910,503                                                                                      | \$9,511,802                                                                      | \$13,922,856                                                                     |
| 2035                 | 12                  | \$6,182,967                                                                   | \$13,556,028                                                                                      | \$9,377,854                                                                      | \$14,259,870                                                                     |
| 2036                 | 13                  | \$6,685,910                                                                   | \$14,233,829                                                                                      | \$9,288,614                                                                      | \$14,672,684                                                                     |
| 2037                 | 14                  | \$7,121,948                                                                   | \$14,945,521                                                                                      | \$9,157,215                                                                      | \$15,026,872                                                                     |
| 2038                 | 15                  | \$7,584,874                                                                   | \$15,692,797                                                                                      | \$9,027,482                                                                      | \$15,389,283                                                                     |
| 2039                 | 16                  | \$8,076,289                                                                   | \$16,477,437                                                                                      | \$8,899,400                                                                      | \$15,760,102                                                                     |
| 2040                 | 17                  | \$8,597,882                                                                   | \$17,301,309                                                                                      | \$8,772,952                                                                      | \$16,139,520                                                                     |
| 2041                 | 18                  | \$9,151,444                                                                   | \$18,166,374                                                                                      | \$8,648,122                                                                      | \$16,527,730                                                                     |
| 2042                 | 19                  | \$9,738,868                                                                   | \$19,074,693                                                                                      | \$8,524,893                                                                      | \$16,924,930                                                                     |
| 2043                 | 20                  | \$10,498,500                                                                  | \$20,028,428                                                                                      | \$8,440,950                                                                      | \$17,409,080                                                                     |
| 2044                 | 21                  | \$11,166,586                                                                  | \$21,029,849                                                                                      | \$8,320,171                                                                      | \$17,826,386                                                                     |
| 2045                 | 22                  | \$11,875,235                                                                  | \$22,081,341                                                                                      | \$8,200,958                                                                      | \$18,253,333                                                                     |
| 2046                 | 23                  | \$12,626,832                                                                  | \$23,185,408                                                                                      | \$8,083,294                                                                      | \$18,690,140                                                                     |
| <b>Total</b>         |                     | <b>\$140,492,300</b>                                                          | <b>\$287,716,533</b>                                                                              | <b>\$168,331,706</b>                                                             | <b>\$280,157,174</b>                                                             |

**G. 10.7: Safety: Annual Benefit Estimates**

| <b>Calendar Year</b> | <b>Project Year</b> | <b>Reduced Accident Costs from Diverting Heavy Truck Travel to Rail, Undiscounted</b> | <b>Reduced Accident Costs from Diverting Heavy Truck Travel to Rail, Discounted 7%</b> | <b>Reduced Accident Costs from Diverting Heavy Truck Travel to Rail, Discounted 3%</b> |
|----------------------|---------------------|---------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 2027                 | 4                   | \$145,262                                                                             | \$118,577                                                                              | \$132,935                                                                              |
| 2028                 | 5                   | \$214,037                                                                             | \$163,288                                                                              | \$190,169                                                                              |
| 2029                 | 6                   | \$261,019                                                                             | \$186,103                                                                              | \$225,157                                                                              |
| 2030                 | 7                   | \$312,163                                                                             | \$208,007                                                                              | \$261,432                                                                              |
| 2031                 | 8                   | \$367,769                                                                             | \$229,028                                                                              | \$299,030                                                                              |
| 2032                 | 9                   | \$428,156                                                                             | \$249,191                                                                              | \$337,990                                                                              |
| 2033                 | 10                  | \$449,564                                                                             | \$244,533                                                                              | \$344,553                                                                              |
| 2034                 | 11                  | \$472,042                                                                             | \$239,962                                                                              | \$351,243                                                                              |
| 2035                 | 12                  | \$495,644                                                                             | \$235,477                                                                              | \$358,064                                                                              |
| 2036                 | 13                  | \$520,426                                                                             | \$231,075                                                                              | \$365,016                                                                              |
| 2037                 | 14                  | \$546,447                                                                             | \$226,756                                                                              | \$372,104                                                                              |
| 2038                 | 15                  | \$573,770                                                                             | \$222,518                                                                              | \$379,329                                                                              |
| 2039                 | 16                  | \$602,458                                                                             | \$218,359                                                                              | \$386,695                                                                              |
| 2040                 | 17                  | \$632,581                                                                             | \$214,277                                                                              | \$394,204                                                                              |
| 2041                 | 18                  | \$664,210                                                                             | \$210,272                                                                              | \$401,858                                                                              |
| 2042                 | 19                  | \$697,421                                                                             | \$206,342                                                                              | \$409,661                                                                              |
| 2043                 | 20                  | \$732,292                                                                             | \$202,485                                                                              | \$417,616                                                                              |
| 2044                 | 21                  | \$768,906                                                                             | \$198,700                                                                              | \$425,725                                                                              |
| 2045                 | 22                  | \$807,352                                                                             | \$194,986                                                                              | \$433,991                                                                              |
| 2046                 | 23                  | \$847,719                                                                             | \$191,341                                                                              | \$442,418                                                                              |
| <b>Total</b>         |                     | <b>\$10,539,238</b>                                                                   | <b>\$4,191,277</b>                                                                     | <b>\$6,929,192</b>                                                                     |

## Attachment 1: Project Narrative

### *Appendix B     Funding Commitment Letter - Delta Southern Railroad, Inc. (DSRR) Safety Improvement and Rehabilitation Program*



**DELTA SOUTHERN RAILROAD**

November 30, 2022

Amit Bose, Administrator  
Office of the Administrator  
Federal Railroad Administration  
1200 New Jersey Avenue, SE  
Washington, DC 20590

RE: Delta Southern Railroad, Inc. CRISI Grant Application (FR-CRS-22-004)

Dear Administrator Bose,

This letter of financial commitment is to accompany the Delta Southern Railroad, Inc. (DSRR) Safety Improvement and Rehabilitation Project grant application under CRISI NOFO FR-CRS-22-004. DSRR is a wholly owned subsidiary of West Branch Intermediate Holdings, LLC.

The total estimated cost for the project is \$17,625,183.20. This shall serve as notice that I, Jon Ryan, Chief Executive Officer of Delta Southern Railroad, Inc., have directed that cash funds in the amount of \$4,406,295.80 be secured from General Funds, committed, and encumbered for the DSRR Safety Improvement and Rehabilitation Project, which constitutes a 25% match to the total project cost.

It is respectfully requested that DSRR's funding commitment be given full consideration as expressed in our CRISI grant application for the DSRR Safety Improvement and Rehabilitation Project.

Sincerely,

Jon Ryan  
Chief Executive Officer  
Delta Southern Railroad, Inc.

*Changing the way you move business.*

469 Port Road  
Madison Parish Port  
Tallulah, LA 71282  
318.600.4489  
F. 318.537.9356

DeltaSouthern.net

## Attachment 1: Project Narrative

### *Appendix C Lobbying Certification Statement Letter - Delta Southern Railroad, Inc. (DSRR) Safety Improvement and Rehabilitation Program*



**DELTA SOUTHERN RAILROAD**

November 30, 2022

#### **Lobbying Certification Statement**

Delta Southern Railroad, Inc. (DSRR)

469 Port Road

Tallulah, Louisiana 71282

This statement is submitted as requested by 31 U.S.C. 1352 and U.S. DOT regulations, "New Restrictions on Lobbying," specifically 49 CFR 20.110, group 2 and as attached to DSRR's grant application to the Department of Transportation, Federal Railroad Administration, Consolidated Rail Infrastructure and Safety Improvements (CRISI) Program, funding opportunity FR-CRS-22-004.

I, Jon Ryan, as Chief Executive Officer of Delta Southern Railroad, Inc., and acting in that capacity and by authority vested in me, do certify, to the best of my knowledge and belief, that no federally appropriated funds have been or will be paid by or on this company's behalf to any person for lobbying purposes – to influence or attempt to influence any officer or employee of any Federal Agency and/or any Member of Congress, an employee of a member of Congress, an officer or employee of Congress, or any Federal grant or cooperative agreement.

To provide full disclosure, DSRR maintains membership in American Short Line and Regional Railroad Association (ASLRRRA). Members of that professional organization have attended the ASLRRRA annual Railroad Day on Capitol Hill which is a meet and greet event with elected officials and an opportunity to network with others in the rail industry.

Executed the 30th day of November 2022.

Jon Ryan  
Chief Executive Officer  
Delta Southern Railroad, Inc.

*Changing the way you move business.*

469 Port Road  
Madison Parish Port  
Tallulah, LA 71282  
318.600.4489  
F. 318.537.9356

DeltaSouthern.net

## Attachment 1: Project Narrative

### *Appendix D Appendix D Procurement Statement Letter - Delta Southern Railroad, Inc. (DSRR) Safety Improvement and Rehabilitation Program*



**DELTA SOUTHERN RAILROAD**

November 30, 2022

Amit Bose, Administrator  
Office of the Administrator  
Federal Railroad Administration  
1200 New Jersey Avenue, SE  
Washington, DC 20590  
RE: Delta Southern Railroad, Inc. CRISI Grant Application (FR-CRS-22-004).

Dear Administrator Bose,

This letter regarding property and service procurement is to accompany the Delta Southern Railroad, Inc. (DSRR) Safety Improvement and Rehabilitation Project grant application under CRISI NOFO FR-CRS-22-004. DSRR is a wholly owned subsidiary of West Branch Intermediate Holdings, LLC.

This shall serve as notice DSRR has a system in place for procuring property and services under a federal award under NOFO FR-CRS-22-004 that supports the following applicable provisions in 2 CFR 200 Subpart D-Procurement Standards:

200.318 General Procurement Standards

200.319 Competition

200.320 Methods of procurement to be followed

200.321 Contracting with small and minority businesses, women's business enterprises, and labor surplus area firms

200.323 Contract cost and price

200.324 Federal awarding agency or pass-through entity review

200.325 Bonding Requirements

200.326 Contract Provisions

DSRR's experience collaborating with the Southeast Arkansas Development District for the FY 19-20 INFRA Grant and the FY 19 BUILD Grant, serves as additional evidence that DSRR's procurement system supports the above provisions.

Sincerely,

Jon Ryan  
Chief Executive Officer  
Delta Southern Railroad Inc.

*Changing the way you move business.*

469 Port Road  
Madison Parish Port  
Tallulah, LA 71282  
318.600.4489  
F. 318.537.9356

DeltaSouthern.net

## Attachment 1: Project Narrative

Appendix E Letters of Support - Delta Southern Railroad, Inc. (DSRR) Safety Improvement and Rehabilitation Program

## Attachment 1: Project Narrative

*Kennedy Rice Mill, LLC*

November 30, 2022

Amit Bose, Administrator  
Office of the Administrator  
Federal Railroad Administration  
1200 New Jersey Avenue, SE  
Washington, DC 20590

RE: Delta Southern Railroad, Inc. CRISI Grant Application (FR-CRS-22-004).

Dear Administrator Bose,

I am writing to express my support for the Delta Southern Railroad, Inc. (DSRR) Safety Improvement and Rehabilitation Program (Project) grant application for the Federal Railroad Administration's Consolidated Rail Infrastructure and Safety Improvements Program, opportunity number FR-CRS-22-004.

This \$17.6M Project seeks to upgrade twelve miles of excepted mainline track on the Sterlington branch of the DSRR to Class 1 standards, upgrade twenty-seven miles of mainline track on the Tallulah branch, rehabilitate six rail sidings, and upgrade a bypass track. This Project is necessary for the DSRR to continue to safely handle hazardous materials on the Sterlington Branch and reduce congestion at rail crossings along the DSRR. These projects are necessary to meet growing rail demand from local industry and area ports, and by increasing accessibility to transload locations, benefiting industries unable to access rail directly.

This Project will support the local rural economy, enable industrial rail sector growth, and improve the DSRR capacity and reliability—this Project is truly worthy of investment. Private funds in the amount of \$4,406,295.80, a 25% match to Federal funds, are pledged to this project. This private capital infusion into the local economy will support job growth and stimulate an economy which has been heavily impacted by the COVID-19 pandemic. The Project will have a total benefit of \$369.63 million for the local economy, including a \$1.66 million benefit for low-income individuals in the vicinity of DSRR's operations, which includes the economically distressed Opportunity Zone Tract 22035000200 in East Carrol Parrish, LA.

With these great benefits in mind, I support the Delta Southern Railroad as they seek external funding to support their Safety Improvement and Rehabilitation Program. This Project will support the local rural economy, enable industrial rail sector growth, and improve the rail network's capacity and reliability—this Project is truly worthy of investment.

Sincerely,

Marley Oldham  
VP/General Manager  
318-647-5746

## Attachment 1: Project Narrative

### SENATE STATE OF LOUISIANA

4106 DeSiard Street  
Monroe, LA 71203  
Email: jacksonk@legis.la.gov  
Phone: (318) 343-2877  
Fax: (318) 343-2879  
Toll Free: (855) 872-5197  
116 Sparrow Street  
Lake Providence, LA 71254



**KATRINA R. JACKSON**  
STATE SENATOR ~ DISTRICT 34

#### **COMMITTEES**

Education, Vice Chairwoman  
Agriculture, Forestry, Aquaculture  
and Rural Development  
Insurance  
Finance, Interim Member  
Joint Budget, Interim Member

November 30, 2022

Amit Bose, Administrator  
Office of the Administrator  
Federal Railroad Administration  
1200 New Jersey Avenue, SE  
Washington, DC 20590

RE: DSRR Rail Enhancement and Safety Improvement Program Application for the FY 2022 Consolidated Rail Infrastructure and Safety Improvements Program (FR-CRS-22-004).

Dear Administrator Bose,

I am writing to express my support for the Delta Southern Railroad, Inc. (DSRR) Safety Improvement and Rehabilitation Program (Project) grant application for the Federal Railroad Administration's Consolidated Rail Infrastructure and Safety Improvements Program, opportunity number FR-CRS-22-004.

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With these great benefits in mind, I support the Delta Southern Railroad as they seek external funding to support their Safety Improvement and Rehabilitation Program. This Project will support the local rural economy, enable industrial rail sector growth, and improve the rail network's capacity and reliability—this Project is truly worthy of investment.

Sincerely,

State Senator Katrina R. Jackson  
Louisiana Senate District 34

## Attachment 1: Project Narrative

### LOUISIANA HOUSE OF REPRESENTATIVES

200 Advocate Row, Suite D  
Vidalia, LA 71373  
Email: [hse021@legis.la.gov](mailto:hse021@legis.la.gov)  
Phone: 225.308.4269  
Fax: 225.380.0983



Agriculture, Forestry, Aquaculture, and  
Rural Development, Health and Welfare,  
Transportation, Highways, and Public  
Works, House Select Committee on  
Homeland Security

C. Travis Johnson  
State Representative ~ District 21

November 30, 2022

Amit Bose, Administrator  
Office of the Administrator  
Federal Railroad Administration  
1200 New Jersey Avenue, SE  
Washington, DC 20590

RE: DSRR Rail Enhancement and Safety Improvement Program Application for the FY 2022 Consolidated Rail Infrastructure and Safety Improvements Program (FR-CRS-22-004).

Dear Administrator Bose,

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This Project will support the local rural economy, enable industrial rail sector growth, and improve the DSRR capacity and reliability; it is a Project truly worthy of investment. Private funds in the amount of \$4,406,295.80, a 25% match to Federal funds, are pledged to this project. This private capital infusion into the local economy will support job growth and stimulate an economy which has been heavily impacted by the COVID-19 pandemic. The Project will have a total benefit of \$369.63 million for the local economy, including a \$1.66 million benefit for low-income individuals in the vicinity of DSRR's operations, which includes the economically distressed Opportunity Zone Tract 22035000200 in East Carroll Parish, LA.

With these great benefits in mind, I support the Delta Southern Railroad as they seek external funding to support their Safety Improvement and Rehabilitation Program. This Project will support the local rural economy, enable industrial rail sector growth, and improve the rail network's capacity and reliability. Again, this Project is truly worthy of investment, and I am writing to ask for favorable consideration of DSRR's application.

Sincerely,

A handwritten signature in blue ink that reads "C. Travis Johnson".

C. Travis Johnson, State Representatives/District 21

## Attachment 1: Project Narrative



Inland Rivers, Ports and Terminals, Inc.

4625 Lindell Boulevard,  
Suite 200 - #2179  
St. Louis MO 63108  
[www.irpt.net](http://www.irpt.net)

Rediscover the *strength* of America's Inland Rivers

November 30, 2022

Amit Bose, Administrator  
Office of the Administrator  
Federal Railroad Administration  
1200 New Jersey Avenue, SE  
Washington, DC 20590

RE: Delta Southern Railroad, Inc. CRISI Grant Application (FR-CRS-22-004).

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Sincerely,  
*Aimee Andres*  
Aimee Andres  
Executive Director

## Attachment 1: Project Narrative



November 30, 2022

Amit Bose, Administrator  
Office of the Administrator  
Federal Railroad Administration  
1200 New Jersey Avenue, SE  
Washington, DC 20590

RE: Delta Southern Railroad, Inc. CRISI Grant Application (FR-CRS-22-004).

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Sincerely,

A handwritten signature in black ink, appearing to read 'Joe Conner', is written over a horizontal line.

Joe Conner  
General Manager  
PO Box 320622 | Flowood, MS 39232  
P: (601) 983-0438  
E: [jconner@excelrail.com](mailto:jconner@excelrail.com)  
W: [www.excelrail.com](http://www.excelrail.com)

## Attachment 1: Project Narrative

### LOUISIANA HOUSE OF REPRESENTATIVES

8823 Highway 165 N., Suite 1  
Monroe, LA 71203  
Email: hse014@legis.la.gov  
Office: 318.598.4010  
Fax: 318.598.4019



**COMMITTEES:**  
Civil Law and Procedure  
Health and Welfare  
Labor and Industrial Relations

**MICHAEL ECHOLS**  
State Representative ~ District 14

November 30, 2022

Amit Bose, Administrator  
Office of the Administrator  
Federal Railroad Administration  
1200 New Jersey Avenue, SE  
Washington, DC 20590

RE: DSRR Rail Enhancement and Safety Improvement Program Application for the FY 2022 Consolidated Rail Infrastructure and Safety Improvements Program (FR-CRS-22-004).

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Sincerely,

A handwritten signature in blue ink, appearing to read "Michael Echols", is written over a horizontal line.

State Representative Michael Echols, District 14

## Attachment 1: Project Narrative

### SENATE STATE OF LOUISIANA

7268 Highway 165 North, Suite 209  
Monroe, LA 71203  
Email: [sen33@legis.la.gov](mailto:sen33@legis.la.gov)  
Phone: (318) 582-5524  
Fax: (318) 582-5526



**STEWART A. CATHEY, JR.**  
STATE SENATOR ~ DISTRICT 33

December 1, 2022

#### COMMITTEES

Agriculture, Forestry, Aquaculture  
and Rural Development, Chairman  
Commerce, Consumer Protection, and  
International Affairs  
Labor and Industrial Relations  
Revenue and Fiscal Affairs,  
Interim Member  
Joint Legislative Committee on  
Capital Outlay  
Select Committee on Homeland Security

Amit Bose, Administrator  
Office of the Administrator  
Federal Railroad Administration  
1200 New Jersey Avenue, SE  
Washington, DC 20590

RE: DSRR Rail Enhancement and Safety Improvement Program Application for the FY 2022 Consolidated Rail Infrastructure and Safety Improvements Program (FR-CRS-22-004).

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I am writing to express my support for the Delta Southern Railroad, Inc. (DSRR) Safety Improvement and Rehabilitation Program (Project) grant application for the Federal Railroad Administration's Consolidated Rail Infrastructure and Safety Improvements Program, opportunity number FR-CRS-22-004.

This \$17.6M Project seeks to upgrade twelve miles of excepted mainline track on the Sterlington branch of the DSRR to Class 1 standards, upgrade twenty-seven miles of mainline track on the Tallulah branch, rehabilitate six rail sidings, and upgrade a bypass track. This Project is necessary for the DSRR to continue to safely handle hazardous materials on the Sterlington Branch and reduce congestion at rail crossings along the DSRR. These projects are necessary to meet growing rail demand from local industry and area ports, and by increasing accessibility to transload locations, benefiting industries unable to access rail directly.

This Project will support the local rural economy, enable industrial rail sector growth, and improve the DSRR capacity and reliability—this Project is truly worthy of investment. Private funds in the amount of \$4,406,295.80, a 25% match to Federal funds, are pledged to this project. This private capital infusion into the local economy will support job growth and stimulate an economy which has been heavily impacted by the COVID-19 pandemic. The Project will have a total benefit of \$369.63 million for the local economy, including a \$1.66 million benefit for low-income individuals in the vicinity of DSRR's operations, which includes the economically distressed Opportunity Zone Tract 22035000200 in East Carrol Parrish, LA.

With these great benefits in mind, I support the Delta Southern Railroad as they seek external funding to support their Safety Improvement and Rehabilitation Program. This Project is truly worthy of investment, as it will support the local rural economy, enable industrial rail sector growth, and improve the rail network's capacity and reliability. Thank you for your time and consideration.

Sincerely,

Stewart Cathey, Jr.  
State Senator, District 33

Appendix F: *Individual Siding Figures for Project Components 3 and 5* - Delta Southern Railroad, Inc. (DSRR) Safety Improvement and Rehabilitation Program

**Project Component 3: Hollybrook Gin Siding Location**



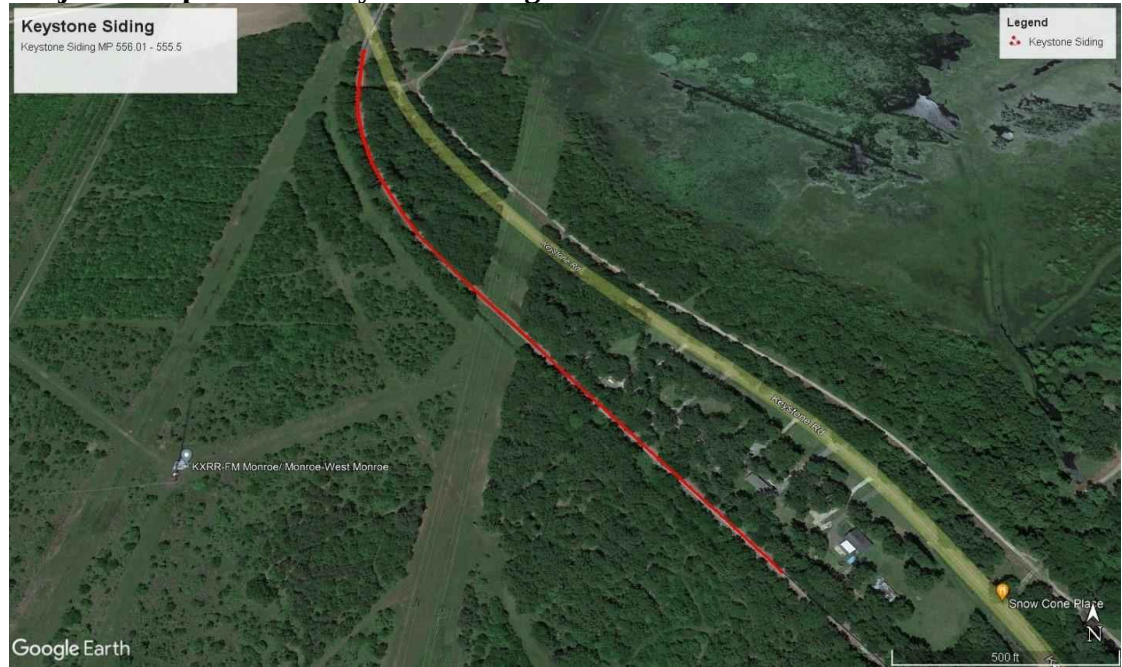
**Project Component 3: Hollybrook Warehouse Siding Location**



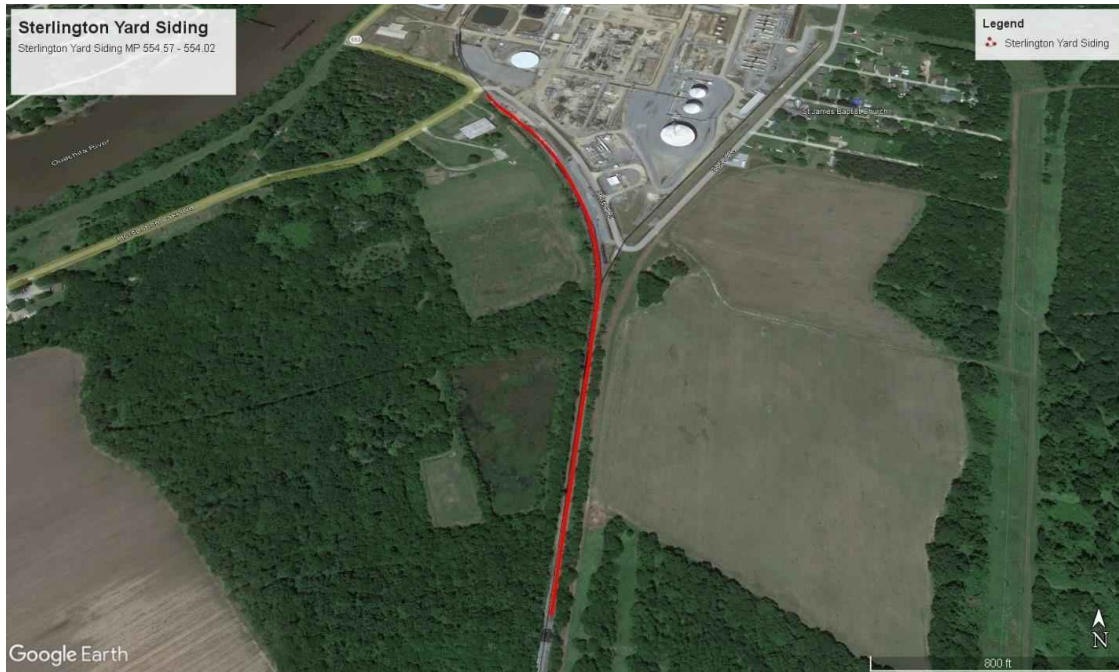
Project Component 3: Sondheimer Siding Location



Project Component 5: Keystone Siding Location



### Project Component 5: Sterlington Yard Siding Location



*Appendices G-J are uploaded as a PDF in Grants.gov due to size of file. It is uploaded as Attachment 12*