

Horry County South Carolina and Carolina Southern Railroad Infrastructure Project 2012

TIGER IV DISCRETIONARY GRANT APPLICATION

**HORRY COUNTY GOVERNMENT, SOUTH CAROLINA RAILROAD
INFRASTRUCTURE PROJECT LOCATED IN HORRY AND MARION
COUNTIES, SOUTH CAROLINA AND COLUMBUS COUNTY, NORTH
CAROLINA**



Submitted by:

**HORRY COUNTY, SOUTH CAROLINA IN COLLABORATION WITH
MARION AND COLUMBUS COUNTIES AND CAROLINA SOUTHERN
RAILROAD**

Prepared March 16, 2012

Horry County South Carolina and Carolina Southern Railroad Infrastructure Project 2012



“TIGER IV”

GRANT APPLICATION

Project Name: Horry County, South Carolina and Carolina Southern Railroad Infrastructure Project

Project Type: Rail Project

Funds Requested: \$ 12,791,733

Contact: Diana M. Seydlorsky
Horry County Government
1301 Second Street
Conway, South Carolina 29526
843-915-7031
seydlord@horrycounty.org

DUNS #: 093876811

Horry County South Carolina and Carolina Southern Railroad Infrastructure Project 2012

Table of Contents

Description of Project.....	page 4
Quantitative Facts.....	pages 4 - 7
Project's Long-Term Outcomes.....	pages 4 - 7

PRIMARY SELECTION CRITERIA

Long-Term Outcomes	pages 7 - 18
State of Good Repair	pages 7 - 9
Economic Competitiveness	pages 9 - 10
Livability	pages 10 - 13
Environmental Sustainability	pages 12 - 13
Economic Competitiveness	pages 13 - 17
Job Creation and Economic Activities	pages 19 - 21

SECONDARY SELECTION CRITERIA

Benefits Cost analysis Table 1	page 17
Net Societal Benefits according to the BCA	pages 18 - 19
Financing	page 19
Innovation	page 22
Partnership	pages 20 - 22
Other/NEPA	page 23
Completion Dates	page 23
Technical Feasibility	page 23
Financial Feasibility	page 23
Transparency and Accountability	page 24 - 25
Map 1	page 25
Pre-Application changes	page 25
Sun News article	pages 27 - 28

Appendix

Appendix A: Cost Estimate <http://www.horrycounty.org/depts/finance/cdbg/AppendA.pdf>

Appendix B: Benefit-cost Analysis

<http://www.horrycounty.org/depts/finance/cdbg/AppendB.pdf>

Appendix C: Support Letters <http://www.horrycounty.org/depts/finance/cdbg/AppendC.pdf>

Appendix D: NEPA <http://www.horrycounty.org/depts/finance/cdbg/AppendD.pdf>

Appendix E: Project timeline <http://www.horrycounty.org/depts/finance/cdbg/AppendE.pdf>

Appendix F: Federal Wage Rate Certificate

<http://www.horrycounty.org/depts/finance/cdbg/AppendF.pdf>

Appendix G: Railroad mileage figures of urban vs. rural

<http://www.horrycounty.org/depts/finance/cdbg/AppendG.pdf>

Horry County South Carolina and Carolina Southern Railroad Infrastructure Project 2012

Project Summary

Description of Project: A total project cost of \$14,563,693 TIGER IV grant will rehabilitate the 89.14 mile track structure, and seven bridges that have reached the end of their useful lives of the Carolina Southern Railroad. **The Railroad has been shut down since May 26, 2011 due to critical infrastructure issues** regarding new FRA bridge requirements. The grant is a regional partnership approach between three counties and two states, Horry and Marion, South Carolina counties, and Columbus County, North Carolina. This rehabilitation project will enable Carolina Southern Railroad (CSR) to resume rail service to shippers in 2012 and beyond by improving the critical infrastructure of the rail line used by numerous customers including Santee Cooper and Grainger, who depend on coal deliveries. The federal funds will be used to rehabilitate the seven bridges and make needed repairs/replacements of the rail. The matching funds will be used for ballast labor for all ballasts and materials related to the project. The community has come together with a \$1.772 million dollar match on a rural project that does not require match per the Tiger IV guidance. However, without the federal dollars needed to complete the bridge work, Horry, Marion, and Columbus Counties will not have the resources to start and/or complete the project. This project is a three-county two-state regional project. Without the federal resources, Horry, Marion, and Columbus Counties will not be able to fund this project due to budget constraints. Furthermore, CSR will not be able to re-open and freight service will be lost to the region.

Currently, Carolina Southern Railroad is under a voluntary shut-down due to required maintenance on several bridges along the rail line. This shut down has caused Carolina Southern Railroad to lay off nearly all of their employees. On May 24, 2011 the Federal Railroad Administration (FRA) commenced a bridge inspection on the CSR and the Waccamaw Coastline Railroad (the Horry County portion of rail). A total of 52 out of 187 bridges were inspected. There were seven bridges with critical defects. On May 26, 2011 the CSR voluntarily ceased operations in order to bring a certified bridge engineer in to inspect the critical bridges and prepare a plan of repairs. Based on the engineer's recommendations, CSR made repairs on the problem bridges. CSR resumed operations on August 8, 2011. On August 24, 2011 the FRA again inspected the bridges and recommended ceasing operations until all bridge repairs were completed.

Quantitative Facts

Project Overview

The Region

Horry County is the northeastern most county in the State of South Carolina. Encompassing 1,134 square miles, it is also the largest. Horry County was incorporated in 1801. Surrounded on the three sides by ocean, rivers, and swamps, Horry developed a distinctive culture, which gave rise to its name, "The Independent Republic of Horry County." From the time of incorporation, Horry County stood off the edge of South Carolina, both literally and figuratively.

Horry County South Carolina and Carolina Southern Railroad Infrastructure Project 2012

Myrtle Beach is located in Horry County and is in the center of a long coastal beach known as the Grand Strand. The Grand Strand is 60 miles long with a populated area ranging from only a few blocks to a couple of miles wide. The land is low and the entire section is quite flat, with no elevations exceeding 50 feet above sea level. There are many more trees and wooded regions than are usually found in a beach area. The beaches are of white sand and the coastal water is very clean, as there are no harbors, shipping or major industries in the area.

It is important to note that the comparatively low average unemployment rates in Horry County masks a vulnerable economy that is heavily dependent on tourism and seasonal activity. The region's dependence on tourism, services and retail sector employment generally translates into lower wage job opportunities that rely on fluctuating demand and are susceptible to economic downturns. Many of these jobs are also part time or temporary and lack key benefits such as health insurance. The vulnerability of the local economy is evidenced by the substantial increase in unemployment that is directly attributable to the current housing downturn and accompanying recession.

The interruption of direct rail service has reduced the economic competitiveness and economic development opportunities in the tri-county communities, causing loss of jobs and reduction in the standard of living. Restoration of this rail service will bring back a vital transportation link that will allow the region to conduct trade with other parts of the United States in a manner that integrates transportation modes. A mature transportation system with multimodal linkages supports the diversification of industries and business sectors suitable for the region. This, in turn, provides a variety of employment and wage opportunities that contribute to making communities healthy.

The railroad infrastructure provides a “green” alternative to commercial trucking. Over long distances, railroads move products more efficiently than trucks on highways. Depending on the commodity type, a single rail car can move more than four times the amount of product than a single truck. This brings a reduction in greenhouse gas emissions by diverting truck trips to rail movements. Without direct rail service, Horry, Marion and Columbus counties will rely almost exclusively on trucks for land-based transport, severely limiting the region's ability to participate in the sustainable transportation future the nation is moving toward. The upgrade to this railroad will improve fuel efficiency and reduce emissions, thereby improving air quality and the quality of life for residents in the areas that Carolina Southern Railroad serves.

Located off Main Street in Conway, is one of the few remaining train depots in South Carolina. Painstakingly restored to its former glory, the Carolina Southern Railroad has become a frequent destination for freight services, passenger cars and observational locomotives. Originally erected in late 1886, the first train steamed into the Conway Depot in December of 1887. Carolina Southern stands as a permanent landmark in Southern History.

Carolina Southern Railroad Company owns and operates several freight railcars, passenger cars and the City of Myrtle Beach Club Car. The City of Myrtle Beach Club Car travels east along Highway 501 crossing the Intracoastal Waterway, stopping at the City of Myrtle Beach Train Depot located on 852 Broadway in Myrtle Beach, South Carolina. Carolina Southern Railroad is a proud member of the Carolina Rails system with connections running from

Horry County South Carolina and Carolina Southern Railroad Infrastructure Project 2012

Whiteville, North Carolina to Mullins, South Carolina, and from Chadbourn, North Carolina to Conway, South Carolina. Carolina Southern Railroad is also responsible for operation of the Waccamaw Coast Line, a railway running from Conway, South Carolina to Myrtle Beach, South Carolina.

Carolina Southern Railroad serves customers that produce the following commodities: lumber/wood products; rolled paper; wallboard; coal; aggregates; stone; bricks and masonry; wheat; grain; processed foods; agricultural chemicals and materials; and fertilizer. Major customers include Santee Cooper, Martin Marietta, Builder's First Source, Atlantic Publishing, Perdue, and Southern States Cooperative. The railroad line is accessible via several industrial parks located throughout Whiteville, North Carolina, Marion, Loris and Conway, South Carolina, and connects with the Waccamaw Coastline Division in Conway, South Carolina.

Prior to the layoffs, Carolina Southern Railroad employed 25 people. These employees are long term. Due to the economy, seven of these employees were laid off. Since the initial bridge inspection in May 2011, an additional 14 have been laid off. The company is currently operating with two full time employees and two part time employees. With the new track repairs CSR will be able to return all of the 21 full time positions previously employed before the bridge inspections, add an additional crew consisting of two more employees on the train crew, and add four new positions on the track crew as permanent retained positions.

Some of the current rail that is used for the Carolina Southern Railroad was manufactured in 1905. Currently, the trains have had to reduce speed to be able to safely provide freight delivery to regional customers. For many years, freight railcars have had a maximum weight load of 263,000 pounds. In an effort to maximize freight movement capacity, and to keep up with the increasing weight maximums for over-the-road trucks, the rail industry now moves cars at a maximum load weight of 286,000 pounds. In the near future, discussion among the industry is that the maximum load weight will be 315,000 pounds. This makes the need for replacement of 85 pound rail with heavier 132 pound rail even more critical as the heavier weights will make the already brittle rail deteriorate at an even quicker pace.

The goal is to get the railroad up and running so that they can resume much needed hauling of materials to the tri-county customers. The rail service enables shippers to reduce their operating costs versus truck transportation, enabling reinvestment and expansion, and creation of new jobs and/or recall laid off workers. The majority of the rail project (93.35%) qualifies as a rural project as per the NOFA page 50299 V. Projects in Rural Areas. There is a small percentage of 6.65% that is categorized as an urban area. This percentage is de minimis, and as set forth in the NOFA, Horry County is applying as a rural area applicant. Horry County and its partners will provide \$1,771,960 match as a non-federal cost share to the total project cost of \$14,563,693. This exceeds the minimum required match for the rural grant application.

The Horry County-owned/CSR-owned railroad extends from Myrtle Beach, South Carolina to Columbus County, North Carolina back to Mullins, South Carolina or Marion County.

The rural counties served by the rail (Marion, Columbus and parts of Horry) are Economically Distressed Areas as defined by the Federal Highway Administration. The long-

Horry County South Carolina and Carolina Southern Railroad Infrastructure Project 2012

term viability of coal delivery to Santee Cooper for electricity and other area businesses depends on permanent, low-cost transportation.

Tiger IV funds will enable a regional approach to make necessary repairs and lasting improvements to the rail line's track structure and bridges that will support economically sustainable train operations for the next 50 years. It will also enable the region to be in compliance with new federal regulations effective 2015.

The project significantly meets all six Primary Selection Criteria identified by the US DOT NOFA, including job creation and economic stimulus.

The project is ready to start as it qualified for a "Categorical Exclusion" under the National Environmental Policy Act (NEPA).

The project is a regional approach and has enthusiastic support of its communities, counties, cities, state agencies, and elected officials at the state, local, and federal levels. Horry County is a proven successful project administrator of past and recent federal and state-funded projects.

With the rehabilitated rail, CSR will be able to accommodate additional freight volumes and thereby provide direct cost savings such as, savings on fuel, demurrage, employee overtime, and maintenance. All savings can be passed on to their customers and ultimately the consumers. Economic productivity has many components, but transportation costs and alternatives must be considered among them.

The proposed capital investments are critical to retain and expand upon current and long-term job opportunities in this region. The project will provide short-term benefits in terms of construction jobs to the region, and multiple long term benefits.

Project's Long-term Outcomes

As discussed below, the long-term outcomes of this project will help the near-term economic recovery of the region, create new jobs, significantly improve the environment, and provide maximum long-term economic benefits to the region. This will directly assist those most affected by the unprecedented economic downturn.

State of good repair: In order to appreciate the current challenges of the short line industry some historical context is important.

Following World War II, rail volumes began to decline over a period of 50 years. This decline was exacerbated by the construction of the interstate highway system in the 1950s and 1960s. The nation's large railroads identified rail branch lines where traffic had fallen to financially unsustainable levels. The railroads were largely unable to sell or abandon these lines due to the Interstate Commerce Commission regulations in place at the time. As these "economically challenged" lines were identified, railroads significantly reduced the amount of capital invested in the line and deferred needed repairs and maintenance. This disinvestment

Horry County South Carolina and Carolina Southern Railroad Infrastructure Project 2012

translated into slower operating speeds and more erratic service, which further compromised their level of utility to a shipper or receiver.

In 1980, Congress passed the Staggers Act. This Act dramatically changed the rules and regulations governing large railroads and provided a mechanism to divest branch lines that could not justify reinvestment. While some short lines have existed since the 1800s, the short line industry, as we know it today, was created as a result of the opportunities provided by the Staggers Act. Today, there are over 500 short line railroads operating 50,000 miles of track in 49 states, which is more than one-third of our nation's network. And short lines that once existed in sparsely populated areas are now finding themselves located in some of the fastest growing regions of the country.

In spite of decades of underinvestment, short line railroads are still able to preserve and protect rail service for customers and communities that would otherwise have lost access to the national rail network. One primary reason is the nature of their lower overhead and streamlined cost structures. However, the struggle to overcome years of previous neglect is continuous. Although short lines reinvest in their property as much as they can, this often amounts to maintaining the status quo, not making the improvements necessary to upgrade the infrastructure to divert additional truck traffic to rail. If an efficient, dependable, safe railroad does not exist, shippers are competitively disadvantaged and will continue to move their goods by truck instead of rail. Public-private partnerships created through the administration of federal and state grants are one way to address the infrastructure needs of short line railroads.

This project will provide upgraded infrastructure in northeastern South Carolina and southeastern North Carolina and is consistent with relevant State, local and regional efforts and plans to maintain freight rail service. The upgrades will last approximately 30 years even though the NPV calculations are done using 20 years as per the TIGER III Federal Register guidance. CSR is committed to keeping the infrastructure in a state of good repair during the life of the asset, and ongoing maintenance cost is included in the overall benefit-cost analysis for this project.

Horry County proposes to conduct railway capital maintenance work that is necessary to restore the rail service, rail tracks, and seven bridges to a state of good repair. There are a total of 13 bridges along the 84 miles. However, four **bridges have been repaired to date using local funds.** The goal of the project is to maintain and grow rail freight use on over 84 miles of rail corridor. The loss of freight rail service has had a damaging effect on this region. The proposed state of good repair work program will address deferred maintenance of the existing track structure. Performing these repairs will enable more cost-effective operations and reduce annual operating costs. Specific work entails rail tie replacement, surfacing of the existing track, and replacement of outdated and deteriorating rail. The project will bring the track into compliance with FRA track safety standards and also in compliance with the FRA 2015 regulations. These infrastructure improvements are detailed in the cost estimate.¹

¹ See Appendix A.

Horry County South Carolina and Carolina Southern Railroad Infrastructure Project 2012

Today, the railroad is temporarily shut down due to critical infrastructure issues identified by the Federal Railroad Administration on at least seven bridges. The affect of the shut down if left unimproved threatens future transportation network efficiency, mobility of goods and economic growth due to the poor condition of the railroad. This project, if funded, will improve freight mobility and safety by rehabilitating these bridges and over 84 miles of track.

This project would reduce the lifecycle costs of the rail line allowing for funds to be focused on maintaining track conditions instead of temporarily fixing the infrastructure for short-term benefits. By spending \$14.564 million on the railroad in 2012 - 2013, the short line will have to spend \$0.97 million on a NPV basis over the next 20 years to keep the infrastructure in a state of good repair. Because the rail line is shut down, there is no incremental amount that can be spent to preserve rail service.

It is also important to note that an added benefit for diverting truck traffic to rail is track maintenance costs are absorbed by the private sector whereas highway maintenance costs are absorbed by the public sector. Therefore, a decrease in trucks on the highway lowers the future financial burden placed on public agencies.

The project, if funded, will have these long-term outcomes:

- ⇒ Promote the preservation and improvement of freight system infrastructure;
- ⇒ Facilitate approximate freight system capacity and redundancy, to enhance operational efficiency, and to achieve minimal life-cycle costs;
- ⇒ Enhance the safety and security of the freight transportation system; and
- ⇒ Facilitate freight transportation system improvements, policies, and investment strategies that will enhance economic development and quality of life for the tri-county regional areas.

Economic Competiveness: Short lines provide a great economic advantage to companies that need to move their goods in a cost-efficient manner. Railroads are more reliable than trucks on long distance routes and companies have set up distribution centers along rail corridors to lower inventory costs. As a consequence, rail transportation will become more attractive to shippers because of improved velocity and more reliable service.

The following snapshot of the railroad provides an example of how companies have been able to increase their efficiency, effectiveness, and competitiveness through the use of rail and is illustrative of the future growth that will result from this project being funded.

Kevin Phillips, Manager, states in his letter that “Metglas relies on the CSR to deliver 70% of the raw materials (2500MT/month) consumed at our Conway operations for the manufacturing of amorphous metal. If the railroad were to cease operations permanently it would force Metglas to find alternate and much more expensive options for deliver.....This definitely puts Metglas at a distinct disadvantage over our overseas competitors.” E. Michael O’Malley, Vice President, of CSX Transportation states “we rely heavily on our short line partners to help us meet the needs of our customers throughout the network...” Mayor Harper, Tabor City Government, states “...CSR has worked with us on economic development projects that have added jobs in our

Horry County South Carolina and Carolina Southern Railroad Infrastructure Project 2012

area....it is extremely important that CSR continues to be able to provide rail service to business and industry in our region:....” Please refer to their letters of support.

In an article in the Sun Newspaper in March, 2012, it states “Metglas gets shipments of steel that it makes into parts for energy efficient transformers. The absence of the railroad to haul steel into Conway has forced the company not only to spend additional money on truck transportation but it has also led it into changing suppliers in 3 countries so that most of it comes into ports from Charleston and Wilmington, rather than by rail directly from North American manufacturers.” Metglas estimates that hauling supplies by truck instead of rail will cost an additional \$100,000 this fiscal year. Please see pages 26 & 27 for the entire article.

Retaining the workforce base in the region is vital to regional economic competitiveness. The railroad’s recruitment and training program will target this population sector, keeping them gainfully employed within the region. Therefore, the creation of jobs will be a net benefit for the region. As our economy has become a just-in-time supply chain model, the ability to quickly move goods by rail will be important for companies who must keep their inventory costs low to stay competitive through this economic downturn. This project, if funded, will create significant, high wage jobs in an Economically Disadvantaged Area as defined by the Federal Highway Administration. **All of the work-hours will be sourced from economically disadvantaged counties.** The rail line has made a commitment to work with local government agencies and community-based organizations to identify, recruit, and train workers. There may not be enough rail labor in the region to complete this project; therefore, an added benefit will be the training of workers with a new skill set. At the end of this project, employees who worked on this project will be more marketable due to their additional skills. In addition, each new employee will be certified in railroad safety practices, as required by the Federal Railroad Administration.

The loss of direct rail freight service to the region has created a demonstrable economic burden on businesses and the communities. The fact that this region does not have access to the national rail network impacts the nation’s marketplace. The rehabilitation of the rail line will significantly benefit businesses in the tri-county two-state region. Replacement and repair of the railroad and bridges are necessary to provide reliability as well as increased capacity to the rail line.

Carolina Southern Railroad’s customers are experiencing hardships due to the inoperability of the rail line. While many of the companies Carolina Southern Railroad services may opt to ship by truck, this is more expensive and less efficient. In addition, many of these companies have spent resources on equipment to enable their facilities to be serviced by rail. Currently these investments are not being utilized due to the lack of rail service. The rehabilitation of the rail will allow the railroad’s customers to put these investments to use.

The proposed capital investments are critical to retain and expand upon current and long-term job opportunities in this region. The project will provide short-term benefits in terms of construction jobs to the region, and multiple long term benefits. Indirect benefits will be purchasing of supplies, patronage of area restaurants and area stores.

Horry County South Carolina and Carolina Southern Railroad Infrastructure Project 2012

Livability: This project annually will eliminate 604,464 truck-miles from the regional highway system in project year one. This is equivalent of 2,417,856 automobile-miles being eliminated from the regional highway system, as one truck takes the space of approximately four automobiles on a highway.

An additional benefit of removing heavy trucks from the highway system is the reduction in damage to the national highway infrastructure, especially the aging bridges throughout the region. It is estimated that each truck removed from the highway saves \$.056 per mile of highway maintenance costs.² Looking at the future growth that will exist if this project is completed yields, at minimum, \$870,008 in highway maintenance savings over 20 years using a seven percent discount rate.³

Highway congestion in the United States costs \$87 billion in wasted travel time (4.2 billion total hours or nearly a full week for every traveler) and results in 2.8 billion gallons of wasted fuel per year. Using conservative numbers in the benefit-cost analysis (Appendix B) attached to the application, 413,520 trucks will be removed from the highway system over the next 20 years. By project year one, this rail line will be able to transport approximately 147,004 tons of additional cargo by rail. Over the next twenty years, a minimum of 7,391,670 tons of additional cargo will be taken off the highway system. This equates to 543,287,745 truck ton-miles being diverted to rail. The elimination of these trucks from the highway also decreases travel time for the average highway user. This travel time benefit has not been quantified, but clearly exists.

Looking only at the incremental growth that would occur if this project were completed, additional capacity for 32,896 automobiles would be created annually by year one by diverting truck traffic to rail. The benefit of not having to build additional capacity to accommodate these automobiles is unknown and therefore is not quantified in this application. However, according to The American Road & Transportation Builders Association, the cost to construct a new two-lane undivided road in rural areas is at least \$2 million per mile.⁴ Therefore, the cost to build highway capacity for these additional vehicles would be significant.

According to the Federal Highway Administration, the congestion savings per truck mile eliminated from the road system is \$0.0327. Therefore, the congestion savings for this project has a NPV of \$508,022 over 20 years using a seven percent discount rate.⁵

Increasing railroad capacity is a highly effective way to enhance the livability of communities. Each railcar is equivalent to removing approximately four trucks off the highway system. And

² See U.S. DEP'T. OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION, 1997 FEDERAL HIGHWAY COST ALLOCATION STUDY – SUMMARY REPORT, <http://www.fhwa.dot.gov/policy/hcas/summary/sum5.html#marginal> (last visited October 25, 2011).

³ Both of these calculations are conservative in that they assume, at minimum, that each truck would travel only the length of the short line railroad and not further. Some trucks would travel the entire distance from origin to destination and not just to the closest Class I connection point.

⁴ See AMERICAN ROAD AND TRANSPORTATION BUILDERS ASSOCIATION, FAQs, <http://www.artba.org/about/faqs-transportation--general-public/FAQs/#20> (last visited October 25, 2011).

⁵ See U.S. DEP'T. OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION, *supra* note 2.

Horry County South Carolina and Carolina Southern Railroad Infrastructure Project 2012

for certain commodities, five trucks are eliminated from the highway. This application assumes all railcars are equivalent to four trucks and that each truck would make a roundtrip. In 2010 prior to the shut down the rail eliminated the need for 24,472 roundtrip trucks that would otherwise be on the road.

The elimination of truck noise from the road system will also be a benefit to residents in the region. Using an FHWA study that has quantified the cost of noise for every truck-mile at \$0.11, a \$1,708,945 NPV benefit exists by ensuring goods move by rail.⁶ However, this cost is mitigated by the introduction of longer or more frequent trains. A good measure of the cost per additional rail mile could not be located. The application acknowledges that the benefit of removing truck noise would be lower if the rail noise impacts were included. One European study calculated that the impact of increased rail noise in rural areas was Euro 0.05 per locomotive-km which today would equal approximately \$0.041 per locomotive-mile.⁷ Given recent currency fluctuations, the minimum cost of additional rail noise would have a NPV of approximately \$159,242.

Another livability improvement will be to include a new biking and walking path study. The study will cost up to \$50,000 in planning costs. Other grants will be sought and used to fund the actual bike and walking paths. The path will provide more transportation choices and may reduce household transportation costs. If people choose to bike to work, this helps to reduce our nation's dependence on foreign oil, improve air quality, reduce greenhouse gas emissions and promote public health.

Around the miles of tracks are existing communities and neighborhoods. The project, if funded, will help to enhance the unique characteristics of all communities by investing in healthy, safe and walk-able neighborhoods.

An example of one of the communities is the Carolina Forest area located in Horry County. Carolina Forest is a combination of affordable housing, single family homes and multi-family units. There are a combination of renters and homeowners in this community. The biking/walking paths will integrate transportation and housing and provide a vision for sustainable growth. The project will make effective use of federal dollars for a safe mode of transportation along with re-defining affordable housing. Transportation costs now approach or exceed housing costs for many working families. Many families, either renters or homeowners, feel the strain of soaring transportation costs and many are isolated from work opportunities and transportation choices. The bike/walking paths in this area offer an additional mode of transportation to the Carolina Forest plaza and other area businesses where residents can bike or walk to work.

⁶ See U.S. DEP'T. OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION, *supra* note 2.

⁷ TRANSPORTATION COST AND BENEFIT ANALYSIS II – NOISE COSTS, VICTORIA TRANSPORT POLICY INSTITUTE, http://docs.google.com/viewer?a=v&q=cache:9KqrXE4Bpw0J:www.vtpi.org/tca/tca0511.pdf+http://www.vtpi.org/tca/tca0511.pdf&hl=en&gl=us&pid=bl&srcid=ADGEEsIcZiRsbS8AC-vJ2jks5d1Mawvmnbmmg7s_DJQ51PIMY92vbQOZCzg00eC_V7hQxLIMRYviEgA4T8aolgCYqEOgaJ0lkiStfvG6lqalIPDhSta_OiyD07bRFFWUQN5bFpUJzV6&sig=AHIEtbQay2wySwUxkNsghd9vzPPh_2hhLQ (last visited Oct. 25, 2011).

Horry County South Carolina and Carolina Southern Railroad Infrastructure Project 2012

Positive Benefit-Cost Ratio

- 1.47 B-C
- Reduced fuel consumption
- Improved operations
- Increased asset utilization
- Increased safety

Please see Appendix B for the entire cost-benefit analysis.

Results of Benefit-Cost Analysis: A benefit-cost analysis (BCA) was conducted for this project, reflecting all Tiger IV guidelines. It is important to note that a BCA is not a comprehensive measure of the project's total economic impact, as many benefits cannot be readily quantified or occur under conditions of uncertainty.

However, to the maximum extent possible given the available data, the BCA prepared in connection with this Tiger grant application reflects quantifiable economic benefits.

Environmental Sustainability: The project has significant environmental benefits resulting from moving freight by rail as opposed to by truck. Railroads are 4 times more fuel-efficient than trucks and are able to move one ton of freight 480 miles on one gallon of fuel. A single truck requires the same highway capacity as almost 4 automobiles. Additionally, the Environmental Protection Agency (EPA) estimates that for every ton-mile, a typical truck emits roughly 3 times more nitrogen oxides and particulates than a locomotive.

Based on a Transportation Research Board presentation using EPA Fleet Average Projections for 2010, trucks will produce approximately .83g/ton-mile of NO_x and locomotives approximately .24g/ton-mile. Currently, federal government studies value the cost of NO_x reduction to be approximately \$4,000 a ton per year. Using incremental growth that would result from the improved rail infrastructure, over a 20-year period, the reduction in NO_x emissions could be valued up to \$655,380 using a seven percent discount value.

Pollutants of Concern: Most freight transportation is powered by diesel engines, which are major sources of emissions of nitrogen oxides (NO_x), Sulfur Dioxide, and particulate matter (PM). NO_x reacts with volatile organic compounds (VOC) to form ground-level ozone, commonly known as smog. Ground-level ozone can trigger a variety of health problems, including aggravated asthma, reduced lung capacity, and increased susceptibility to respiratory illnesses like asthma, pneumonia, and bronchitis. Many scientific studies have linked breathing PM to a series of significant health problems including aggravated asthma, difficult breathing, chronic bronchitis, myocardial infarction (heart attacks) and premature death. Diesel exhaust is of specific concern because it is likely to be carcinogenic to humans by inhalation and may additionally cause non-cancer respiratory effects.⁸

⁸ See U.S. DEP'T. OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION, CHAPTER 2: NATIONAL FREIGHT TRANSPORTATION TRENDS AND EMISSIONS, <http://www.fhwa.dot.gov/environment/freightaq/chapter2.htm> (last visited Oct. 25, 2011).

Horry County South Carolina and Carolina Southern Railroad Infrastructure Project 2012

Freight truck transportation is a major source of greenhouse gas (GHG) emissions, which contribute to global climate change. By far the most important greenhouse gas to monitor is carbon dioxide (CO₂).⁹ In 2003, truck freight accounted for more than 21 percent of transportation-related GHG emissions while rail freight accounted for 2.4 percent.¹⁰ Several Class I Railroads have CO₂ Emissions Calculators included in their websites for rail versus truck comparisons. For the same freight shipment data above, using CSX Carbon Calculator¹¹ and a cost of \$33.00 per carbon ton as stated in the Federal Register Notice for TIGER I, the reduction in CO₂ emissions is valued at approximately \$677,398 over the next 20 years using a seven percent discount value.

Emissions of Sulfur Dioxide and volatile organic compounds also will be reduced through this project. The benefit of reducing these greenhouse gases has not been quantified.

Economic Competitiveness: This project will have an impressive impact on local, regional, and national economic competitiveness by reducing rail shipping costs for all shippers, allowing them to improve their logistics practices and expand markets for both domestic and possibly international shipments. This will improve the competitive position of local business enterprises while reducing our nation's dependence on foreign oil sources.

Fuel savings: It is important to provide some context to the benefits the short line provides already. In 2010, the short line burned 64,940 gallons of fuel. In 2010 if all of the freight on the short line had been diverted to trucks, 259,760 gallons of fuel would be required—a difference of 194,820 gallons each year. This provides a transportation cost savings of \$745,187 (using an average price of \$3.825/gallon for diesel fuel as of October 24, 2011).¹²

Looking at only the incremental growth resulting from truck-to-rail diversions, and using Department of Energy estimates for the cost of diesel fuel each year for the next 20 years, over a 20-year period, the fuel savings is valued up to \$ 5.9 million, using a seven percent discount value (\$1,978,053 in fuel needed to move the cargo by rail versus \$7,912,213 million in fuel needed to move the cargo by truck).¹³

A key goal of the Obama Administration is to reduce America's dependence on foreign oil, which will serve the purpose of increasing the country's energy security, while at the same time

⁹ See above footnote 8.

¹⁰ See ASSOCIATION OF AMERICAN RAILROADS, FREIGHT RAILROADS OFFER A SMART EFFECT WAY TO REDUCE GREENHOUSE GAS EMISSIONS, <http://www.aar.org/environment/environment.aspx> (last visited Oct. 25, 2011).

¹¹ See CSX, TOOLS, http://www.csx.com/?fuseaction=customers.emissions_carboncalculator (last visited Oct. 24, 2011).

¹² See U.S. ENERGY INFORMATION ADMINISTRATION, GASOLINE AND DIESEL FUEL UPDATE, <http://www.eia.doe.gov/oog/info/gdu/gasdiesel.asp> (last visited Oct. 25, 2011).

¹³ See DEP'T. OF ENERGY, ENERGY INFORMATION ADMINISTRATION, ANNUAL ENERGY OUTLOOK 2011 WITH PROJECTIONS TO 2035.

Horry County South Carolina and Carolina Southern Railroad Infrastructure Project 2012

reducing the carbon footprint caused by transportation modes. The improvement of air quality in these regions is a direct result of this goal and the “green” nature of rail is a perfect complement to existing policies. The investment to rehabilitate the rail line will directly affect the PM_{2.5}, GHG, and Ozone levels in the region within which the railroad operates by working to keep the region in attainment. The proposed project is one small step towards energy independence and a cleaner environment.

There will be no adverse environmental impacts related to wetlands and endangered species because the project is Categorically Excluded. The railroad is an existing freight rail and will not affect any wetlands or endangered species.

The infrastructure project is shovel-ready with an approved NEPA.

Safety: A recent Federal Motor Carrier Safety Administration (FMCSA) study stated that in 2008 the number of large trucks involved in fatal crashes per 100 million vehicle miles traveled was 1.79.¹⁴ Using FMCSA data, the NPV for lives saved would be \$1,668,552. The same **FMCSA study stated that in 2008 the number of large trucks involved in** crashes that resulted in injuries per 100 million vehicle miles traveled was 29.1. To be conservative, this application assumes that all the injuries would be minor (i.e. Maximum Abbreviated Injury Scale Level 1). The NPV for the value of preventing injuries is \$54,251.¹⁵ The economic impact of these crashes is \$10,562 per accident, which also assumes that all the crashes are classified as a MAIS Level 1 accident.¹⁶ The benefit of eliminating these crash impacts has a NPV of \$47,750 over a 20-year period.

In addition, on average one railcar eliminates four trucks from the highway system and assuming that a truck would travel to and from the destination, (i.e. make a roundtrip), 30,393,720 truck-miles are eliminated from the highway system over 20 years if this project is completed.

Horry County has embraced the U.S. Department of Transportation’s recent Rural Safety Initiative and understand the importance of improving safety in areas of the country that have suffered from reduced funding during these challenging budget times.¹⁷ In fact, when drafting an earlier rural highway safety policy, NHTSA drew from the success that the Horry County Police

¹⁴ See U.S. DEP’T. OF TRANSPORTATION FEDERAL MOTOR CARRIER SAFETY ADMINISTRATION, 2008 LARGE TRUCK CRASH OVERVIEW, <http://www.fmcsa.dot.gov/facts-research/LTCO2008/2008LargeTruckCrashOverview.aspx> (last visited Oct. 24, 2011).

¹⁵ The fraction of the Value of a Statistical Life used for a MAIS Level 1 accident is .0020. Memorandum from Tyler Duval, Assistant Secretary for Transportation Policy & D.J. Gribbin, General Counsel to Secretarial Officers/Modal Adm’rs (Aug. 2, 2005) <http://ostpxweb.dot.gov/policy/reports/080205.htm>.

¹⁶ See U.S. DEP’T. OF TRANSPORTATION NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION, THE ECONOMIC IMPACT OF MOTOR VEHICLE CRASHES 2000, <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.131.9418&rep=rep1&type=pdf> (last visited Oct. 25, 2011).

¹⁷ See U.S. DEP’T. OF TRANSPORTATION, RURAL SAFETY INITIATE, <http://www.dot.gov/affairs/ruralsafety/ruralsafetyinitiateplan.htm> (last visited Oct. 25, 2011).

Horry County South Carolina and Carolina Southern Railroad Infrastructure Project 2012

Department and South Carolina law enforcement generally has had in rural traffic enforcement.¹⁸ The safety benefits of moving freight by rail instead of truck will further help address safety issues on the rural roadway system. According to the U.S. Department of Transportation, rural roads carry less than half of America's traffic yet they account for over half of the nation's vehicular deaths.¹⁹

The short line's infrastructure is in poor condition, affecting the safety of the line. The entire track is under a temporary shut down due to critical issues. Prior to the shut down, train velocity was at 10 miles per hour to avoid derailments. In addition, there was 1 area of the track that was on a five mile per hour slow down.

Over the past 10 years there have been nine derailments. Although rail is one of the safest modes of transportation, there is a constant focus on reducing the number of track-related derailments. The rehabilitation project proposed in this application will assist in ensuring that the track condition on the short line property allows for safe operations as train velocity increases over the years. As mentioned previously, short line railroads generally have suffered from a lack of investment in infrastructure for decades. Rail ties and the track structures have deteriorated creating a maintenance backlog that has been difficult to address with low cash flows.

A negative impact to safety will be the introduction of more railcar-miles due to this project. Over 20 years, an additional 7,598,430 railcar-miles will be introduced to the rural area. The chance of grade-crossing accidents increases as longer trains operate on the short line. The cost of this impact is unknown, but the increased chance of accidents that could result in injuries or fatalities is acknowledged.

Livability: Highway congestion in the United States costs \$87 billion in wasted travel time (4.2 billion total hours or nearly a full week for every traveler) and results in 2.8 billion gallons of wasted fuel per year. Using conservative numbers in the benefit-cost analysis (Appendix B) attached to the application, 413,520 trucks will be removed from the highway system over the next 20 years. By project year one, this rail line will be able to transport approximately 147,004 tons of additional cargo by rail. Over the next 20 years, a minimum of 7,391,670 tons of additional cargo will be taken off the highway system. This equates to 543,287,745 truck ton-miles being diverted to rail. The elimination of these trucks from the highway also decreases travel time for the average highway user. This travel time benefit has not been quantified, but clearly exists.

Looking only at the incremental growth that would occur if this project were completed, additional capacity for 32,896 automobiles would be created annually by year one by diverting truck traffic to rail. The benefit of not having to build additional capacity to accommodate these automobiles is unknown and therefore is not quantified in this application. However, according to The American Road & Transportation Builders Association, the cost to construct a new two-

¹⁸ See US DEP'T OF TRANSPORTATION NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION, RURAL INITIATIVE FOR TRAFFIC SAFETY, <http://www.nhtsa.gov/people/injury/enforce/ruralinit.html> (last visited Oct. 25, 2011).

¹⁹ See U.S. DEP'T. OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION, PUBLIC ROADS, <http://www.fhwa.dot.gov/publications/publicroads/08july/alongroad.cfm> (last visited Oct. 24, 2011).

Horry County South Carolina and Carolina Southern Railroad Infrastructure Project 2012

lane undivided road in rural areas is at least \$2 million per mile. Therefore, the cost to build highway capacity for these additional vehicles would be significant.

According to the Federal Highway Administration, the congestion savings per truck mile eliminated from the road system is \$0.0327. Therefore, the congestion savings for this project has a NPV of \$508,022 over 20 years using a seven percent discount rate.

State of Good Repair: The majority of the funds will be spent on rehabilitating the bridges, so that the train can re-open and start hauling freight again. The rest of the funds will be on rehabilitating the railroad tracks in Horry, Marion, and Columbus counties, which are located in North and South Carolina.

Given the caveats, the computed benefit-cost ratio for the infrastructure project is 1.47 using a seven percent discount rate. The BCA compares the capital construction costs to the quantifiable benefits of the project for 20 years following the improvements. After 20 years, the railroad may have to be rehabilitated again, so no residual project value was assumed past 2031.

The quantifiable project benefits are as follows:

1. Highway capacity for new roads
2. Reduced noise from trucks
3. Reduced crashes/safety benefits
4. Reduced damage to roads
5. Reduced emissions

Table 1 BCA Analysis

Construction costs	\$ 14,563,693
Evaluated Benefits	
Highway capacity for new roads	\$ 7,300,064
Reduced noise	\$ 1,708,946
Net safety benefits	\$ 1,770,553
Reduced damage to roads	\$ 9,290,245
Reduced emissions	\$ 1,332,780
Total Evaluated Benefits	\$ 21,402,588
Net Present Value	\$ 16,714,167
Benefit/Cost Ratio	1.47

A discount rate of 7% was used as recommended by the Federal Tiger guidance in the NOFA. The project benefits are presented in the above table that demonstrates that the project's long-term benefits clearly outweigh the project's costs. It also summarizes the cost and the quantifiable benefits of the project in terms of Present Value. The present value of the project's capital cost and maintenance costs for the 2012-2032 is \$14.6 million. The benefits have an estimated present value of \$21.4 million over the next 20-year period, yielding the 1.47 BCA ratios.

Horry County South Carolina and Carolina Southern Railroad Infrastructure Project 2012

What if we don't do it scenario: The alternative to this critical project would be further deferment of maintenance for the track structure that would lead to further deterioration of the rail and bridges. This would mean the loss of critical jobs, no growth in employment and a higher cost for transportation services. In summary, the Carolina Southern Railroad would not re-open for business.

The benefits of the project are derived by comparing Build conditions to No Build conditions. Under the No Build, the railroad will stay closed and no freight will be hauled by the railroad, creating a hardship for area businesses in a three-county two-state area. Also, the railroad personnel will have to look for new jobs. Area businesses may have to lay off personnel due to rail service not running.

Net Societal Benefits of the Project (according to the BCA)

Highway Capacity for New Roads: The capacity needed for the 8,224 trucks that would be eliminated annually starting in year one of this project has not been quantified; however, in Florida (could not find a specific cost for South Carolina) the cost of an additional rural lane is \$384,339.39. The application assumes one additional lane will be needed in year 20 for the 73.5 miles. Benefits are calculated in the BCA yielding a net present value of \$7.3 million.

Reduced Noise: Elimination of truck noise is a benefit to this project, particularly because the Horry County area is an area of tourism. Tourists travel to this area so that they can enjoy the beach areas. They look forward to quiet rest and relaxation. The truck noise is calculated as a benefit of \$.11 per vehicle mile traveled. Benefits are calculated in the BCA yielding a net present value of \$1.7 million.

Safety Benefits: Safety benefits were evaluated separately for rail and truck travel. The reduced truck miles traveled will have a direct impact on reducing highway crashes. The value of lives saved by eliminating trucks from the highway is 1.79 fatalities for every 100 million truck miles. This is assuming \$6 million value of a life. The value of preventing injuries by eliminating trucks from the highway is 29.1 injuries for every 100 million truck miles. A formula of .002 VSL was used to calculate the cost of injury averted. There is also a direct economic cost associated with crashes caused by trucks. Benefits are calculated in the BCA yielding a net present value of \$1.8 million.

Reduced Pavement Damage to Roads: The value of fuel used to move freight by truck is 4 times more costly than moving the freight by rail. This means that rail is 4 times more efficient than freight by truck. A single truck requires the same highway capacity as almost four automobiles. In addition, marginal congestion costs saved are \$.0327 per truck mile. The highway maintenance costs saved is \$.056 per truck mile. Annual benefits beginning in 2013 are calculated in the BCA yielding a net present value over the life of the project as \$9.3 million.

Reduced Emissions: The 8,224 trucks annually removed from the road would remove a substantial volume of pollutants from the air as well as a cost savings of CO2 beginning with the 2013 baseline. The BCA net benefit is \$677,400. The NOx emissions reduction from truck

Horry County South Carolina and Carolina Southern Railroad Infrastructure Project 2012

versus rail is valued at \$4,000 per ton or a net BCA of \$655,380. Benefits are calculated in the BCA yielding a net present value of \$1.3 million.

Other Non-Quantifiable Costs and Benefits: There are a number of other project benefits as well as costs that could not be reasonably quantified for the benefit-cost analysis. Among these are:

- **Elimination of 8,224 trucks annually starting in year one of this project will provide travel time benefits to existing drivers;**
- **Job Creation - The project will encourage contractors to use local labor and provide a preference to veterans and unemployed individuals; therefore, there will be a net benefit since the project will not rely solely on people transferring out of existing jobs.**

Financing

The Horry County, South Carolina and Carolina Southern Infrastructure Project will cost a total of \$14,563,693. The \$12,791,733 TIGER IV grant requested would be the last piece of funding needed to start this project. Horry County and its partners have committed \$1,771,960, or approximately fourteen percent and the commitment letters are attached as Appendix C.

Given the magnitude of the investment, Horry County and its partners are not in a position to invest the required \$14 million to repair the railroad and bridges. Without federal assistance, the project will be delayed indefinitely.

Job Creation and Economic Activities: This project will create significant, high wage jobs in an Economically Disadvantaged Area as defined by the Federal Highway Administration. In total 23,428 work-hours are required to complete the infrastructure improvements. The rail line is committed to doing its part to stimulate the economy; therefore, the rail line will strongly encourage contractors to hire unemployed persons from the region in which the rail line operates to help address the current economic challenges. In addition, all materials, such as crossties and ballast, signal bonding, joints, switch rods and enhancers and other appropriate materials will be purchased from U.S. manufacturers to maintain and create additional jobs. The median hourly wage of rail transportation workers in 2008 was \$21.12, compared with \$13.14 for all transportation occupations.

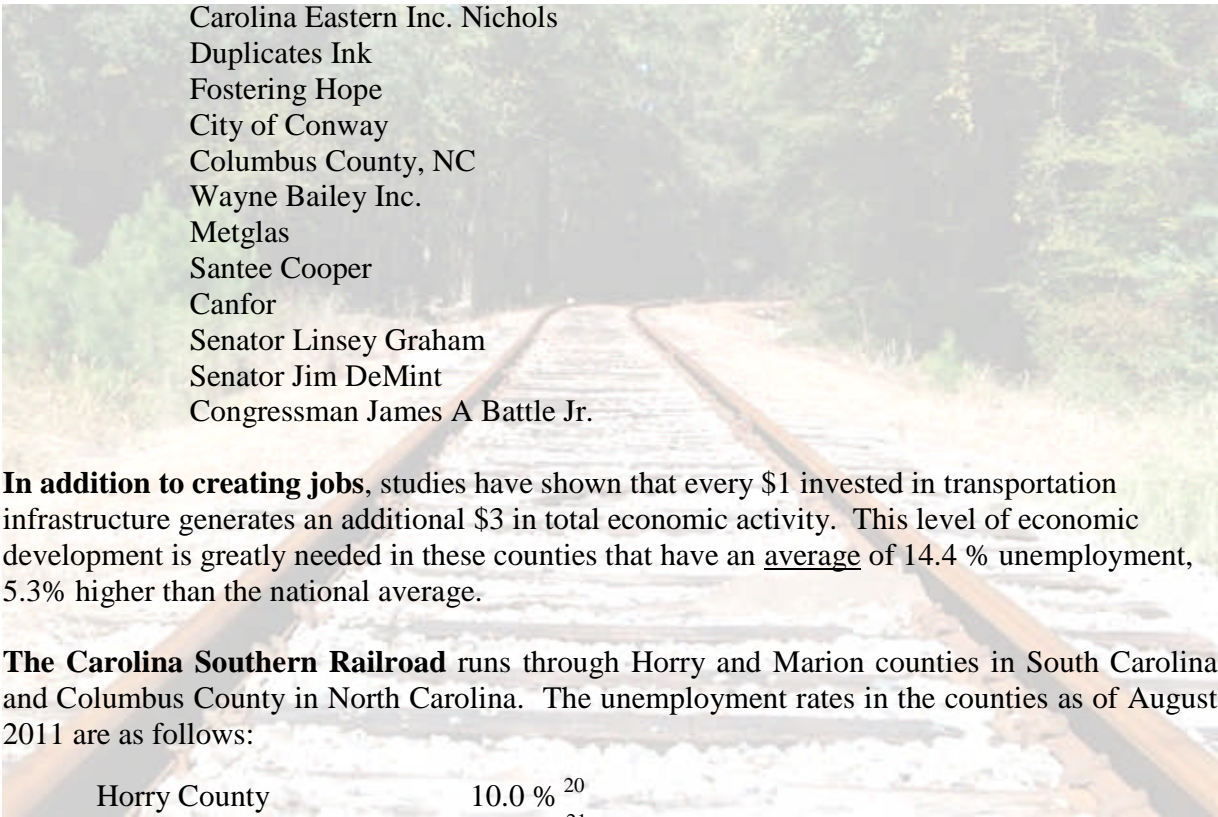
All of the work-hours will be sourced from economically disadvantaged counties. The rail line has made a commitment to work with local government agencies and community-based organizations to identify, recruit, and train workers. There may not be enough rail labor in the region to complete this project; therefore, an added benefit will be the training of workers with a new skill set. At the end of this project, employees who worked on this project will be more marketable due to their additional skills. In addition, each new employee will be certified in railroad safety practices, as required by the Federal Railroad Administration.

All machine operators who will be in charge of a rail gang and all foremen will be required to complete additional FRA certifications. The test involves issues such as track standards, how to coordinate with dispatchers, and rules on when one can occupy track. In addition, car inspectors,

Horry County South Carolina and Carolina Southern Railroad Infrastructure Project 2012

track and signal maintainers, and locomotive engineers will receive a training certificate upon completion of the appropriate courses. These certifications will allow workers to compete for jobs throughout the rail industry after completion of this project.

The local region that will be most affected by this grant is grateful for the rail line commitment to stimulate the local economy as opposed to attracting labor from other regions of the country. The following organizations have been consulted with and support this project:



Carolina Southern Railroad
Columbus County Economic Development
Horry County Community Development
State of North Carolina Department of Transportation
Carolina Eastern Inc. Nichols
Duplicates Ink
Fostering Hope
City of Conway
Columbus County, NC
Wayne Bailey Inc.
Metglas
Santee Cooper
Canfor
Senator Linsey Graham
Senator Jim DeMint
Congressman James A Battle Jr.

In addition to creating jobs, studies have shown that every \$1 invested in transportation infrastructure generates an additional \$3 in total economic activity. This level of economic development is greatly needed in these counties that have an average of 14.4 % unemployment, 5.3% higher than the national average.

The Carolina Southern Railroad runs through Horry and Marion counties in South Carolina and Columbus County in North Carolina. The unemployment rates in the counties as of August 2011 are as follows:

Horry County	10.0 % ²⁰
Marion County	19.9 % ²¹
Columbus County	13.2 % ²²

²⁰ BUREAU OF LABOR STATISTICS LOCAL AREA UNEMPLOYMENT STATISTICS,
[HTTP://DATA.BLS.GOV/PDQ/SURVEYOUTPUTSERVLET;JSESSIONID=D46CA36AA61D57C09CFBD3AF4F07D2B1.TC_INSTANCE5](http://data.bls.gov/pdq/surveyoutputServlet;jsessionid=D46CA36AA61D57C09CFBD3AF4F07D2B1.TC_INSTANCE5) (last visited Oct. 24, 2011).

²¹ BUREAU OF LABOR STATISTICS LOCAL AREA UNEMPLOYMENT STATISTICS,
[HTTP://DATA.BLS.GOV/PDQ/SURVEYOUTPUTSERVLET;JSESSIONID=320A09ED8709EFB83B1FD3DB3E81611A.TC_INSTANCE5](http://data.bls.gov/pdq/surveyoutputServlet;jsessionid=320A09ED8709EFB83B1FD3DB3E81611A.TC_INSTANCE5) (last visited Oct. 24, 2011).

²² BUREAU OF LABOR STATISTICS LOCAL AREA UNEMPLOYMENT STATISTICS,
[HTTP://DATA.BLS.GOV/PDQ/SURVEYOUTPUTSERVLET;JSESSIONID=8C2EB4C165F5BD025CFD83EC2C12724E.TC_INSTANCE5](http://data.bls.gov/pdq/surveyoutputServlet;jsessionid=8C2EB4C165F5BD025CFD83EC2C12724E.TC_INSTANCE5) (last visited Oct. 24, 2011).

Horry County South Carolina and Carolina Southern Railroad Infrastructure Project 2012

The national unemployment rate in August 2011 was 9.1 %.²³

It is important to note that the comparatively lower unemployment rates in Horry County masks a vulnerable economy that is heavily dependent on tourism and seasonal activity. The region's dependence on tourism, services and retail sector employment generally translates into lower wage job opportunities that rely on fluctuating demand and are susceptible to economic downturns. Many of these jobs are also part time or temporary and lack key benefits such as health insurance.

The Council of Economic Advisors (CEA) offers guidance on estimating the number of jobs associated with a government funded transportation project. This guidance provides an estimate of one job created or saved per \$92,136 of government spending from the American Recovery and Reinvestment Act (ARRA). Using the CEA method noting that these are appropriated funds rather than ARRA funds, and assuming an overall main rail expenditure of \$14 million, approximately 157 jobs will be created by this infrastructure capital investment.

Most of the jobs directly associated with this project will be in construction-related industries. Higher paying jobs are often more desirable for communities, as they generate a greater amount of additional taxes and consumption. Construction employment may benefit many individuals in these economically disadvantaged populations, with secondary benefits to the local businesses and communities. The Horry County Community Development Office has a policy for the hiring of low to very-low income residents when a County contract is awarded with federal funds that are over \$25,000.

The Community Development Department has adopted the guidance of Section 3 of the Housing Act of 1968, as amended by section 915 of the Housing and Community Development Act of 1992, which seeks to "ensure that employment and other economic opportunities generated by certain Housing and Urban Development financial assistance shall, to the greatest extent feasible, and consistent with existing Federal, State, and local laws and regulations, be directed toward low- and very low-income persons, particularly those who are recipients of government assistance for housing, and to business concerns which provide economic opportunities to low- and very low-income persons."

Consistent with 24 CFR Part 135, as a recipient of HUD Community Development Block Grant (CDBG) funding, the Horry County Community Development Office requires fulfillment of section 3 obligations on all contracts in excess of \$25,000 that make use of that assistance. These policies are implemented regardless of whether the project is designated as construction. The Horry County Community Development Office works to ensure the provision of employment, training, contracting, and other economic opportunities to its residents and other low-income persons. In doing so, the Community Development Office utilizes section 3 as a

²³ See GOOGLE PUBLIC DATA EXPLORER, [HTTP://WWW.GOOGLE.COM/PUBLICDATA/EXPLORE?DS=z1EBJGK2654C1 &MET_Y=UNEMPLOYMENT_RATE&TDIM=TRUE&FDIM_Y=SEASONALITY:S&DL=EN&HL=EN&Q=UNEMPLOYMENT+RATE](http://www.google.com/publicdata/explore?ds=z1ebjgk2654c1&met_y=unemployment_rate&tdim=true&fdim_y=seasonality:s&dl=en&hl=en&q=unemployment+rate) (last visited Oct. 25, 2011).

Horry County South Carolina and Carolina Southern Railroad Infrastructure Project 2012

means of promoting its mission of offering “supportive services that foster stability and self-sufficiency.”

On this project there is a 30 percent goal of hiring of low-income residents. An estimated total of up to 60 out of the estimated 150 employed for this project will be low-income residents, which will benefit this economically distressed population and will improve access to more productive employment opportunities for under-employed and disadvantaged populations.

Innovation:As discussed above, the short line has committed to encourage contractors to hire people from the economically distressed counties in which the project is located to create a unique way to ensure that grant dollars are targeted to those who need it most. The railroad will also provide a **veterans’ preference for this project.** This is a major competitive advantage for the application.

The project is consistent with state and local efforts to increase goods shipments by rail. These increases would include both point-to-point rail shipments and rail intermodal goods movement. These efforts seek to diversify freight delivery in the region, leveraging the economic and environmental benefits of modernized and innovating freight rail and intermodal transport.

Partnerships: One of the greatest strengths of this project is that it brings together both the public and private sectors in numerous ways to create a positive result for Horry, Marion and Columbus Counties and their citizens. The importance of the rehabilitation of this rail to the region is evidenced by the diverse parties whom have work cooperatively to develop this planned improvement. The grant application is a regional application encompassing three counties, Horry, Marion, and Columbus, and two states, South Carolina and North Carolina, as well as Carolina Southern Railroad, a family owned small business. In addition, community members, shipping operators, local businesses, and elected officials, all strongly support these improvements (*See Appendix D for Support Letters*). The benefits from improved safety, operation, and functionality of the rehabilitated rail service can readily be recognized. This effort will truly enhance the connectivity of the region and will provide a link to the national rail network.

Railroads in the United States are typically owned and operated by the private-sector. Carolina Southern Railroad is unique as Horry County owns approximately 14 miles of the rail and Carolina Southern Railroad leases the section. This partnership was an effort to preserve critical transportation infrastructure, to keep the line from being abandoned, and to assist the railroad in maintaining existing jobs and creating new employment opportunities. Currently, Carolina Southern Railroad is shutdown and has had to lay off a majority of its employees who are residents of the tri-county area. The rehabilitation will provide a competitive transportation option and maintain a connecting rail to the national rail network. As a result, the counties of Horry and Marion, South Carolina and Columbus County, North Carolina have partnered with Carolina Southern Railroad to ensure this critical infrastructure is put in a state of good repair. This public/private partnership innovative approach believes that the success of the operation will provide a template for preserving rail operations in rural regions that may be in danger of losing freight rail service.

Horry County South Carolina and Carolina Southern Railroad Infrastructure Project 2012

The project is also consistent with state and local efforts to increase goods shipments by rail. These increases would include both point-to-point rail shipments and rail intermodal goods movement. These efforts seek to diversify freight delivery in the region, leveraging the economic and environmental benefits of modernized and innovating freight rail and intermodal transport.

Other: This project is considered rural as a majority of the rail is in a rural area, which will allow it to be more competitive for funding. It is believed that the Carolina Southern Railroad will receive a categorical exclusion from the Federal Railroad Administration.

Pursuant to Council on Environmental Quality's (CEQ) regulation 40 CFR Section 15084, the Federal Rail Administration (FRA) has defined actions that typically do not have significant environmental impacts. As such, this project may fall under the following FRA Categorical Exclusions: 1) maintenance of existing railroad equipment; track and bridge structures; electrifications, communication, signaling, or security facilities; stations; maintenance-of-way and maintenance-of-equipment bases; and other existing railroad-related facilities. "Maintenance" means work, normally provided on a periodic basis, which does not change the existing character of the facility, and may include work characterized by other terms under specific FRA programs; 2) work involving minor rail line additions including construction of side tracks, passing tracks, crossovers, short connections between existing rail lines, and new tracks within existing rail yards, provided that such additions are consistent with existing zoning, do not involve acquisition of a significant amount of right of way, and do not substantially alter the traffic density characteristics of the existing rail lines or rail facilities; and 3) replacement, reconstruction, or rehabilitation of an existing railroad bridge, including replacement with a culvert, which does not require the acquisition of a significant amount of right-of-way. CSR has spoken with an FRA/DOT representative regarding the project and believes that the project will be deemed as categorically excluded. The appropriate documents are attached as Appendix D.

Start and Completion Date: The project will be started within 60 days of an agreement being signed by all necessary parties including the U.S. Department of Transportation and South Carolina Department of Transportation. A detailed project timeline is shown in the chart attached as Appendix F. All work will be performed within the existing right-of-way; therefore, no permits are needed. The 60 days will be spent procuring materials and hiring labor in the region as outlined above. The project will be completed 12 - 24 months after the appropriate project agreement is executed.

Technical Feasibility: The Carolina Southern Railroad has discussed the project in detail with the counties of Columbus, Horry and Marion as well as the South Carolina Department of Transportation and the North Carolina Department of Transportation. (See Appendix C Support Letters)

The scope of work proposed would meet the objectives discussed earlier in the application—allow more trucks to be diverted to rail to reduce congestion on the regional highway system, decrease greenhouse gas emissions, provide a safer highway system, and provide needed jobs for the local community.

Horry County South Carolina and Carolina Southern Railroad Infrastructure Project 2012

Financial Feasibility: The Carolina Southern Railroad has developed a detailed cost estimate for the project and has vetted it with an engineering firm and a railroad construction company to ensure that the cost estimates are realistic. In addition, the short line has committed funds from existing cash flows to maintain the infrastructure improvements for the life of the materials installed. The counties of Columbus, Horry and Marion continue to support investments in rail infrastructure and other intermodal projects, which will ensure that the short line continues to have better connections to other modes of transportation over time. The matching funds committed by Horry County and its partners are identified and can be expended immediately. **The breakdown of match is as follows: Horry County \$600,000 cash match; NC DOT \$350,000 cash match; CSR donated ballast materials (8,800 tons) and paid labor to install ballasts as an in-kind match of \$821,960. The total match of \$1,771,960 exceeds the required match as a rural application does not require matching funds to the grant application.**

Transparency and Accountability: Horry County supports the Administration's desire to have full transparency for all TIGER VI projects. The TIGER VI discretionary grants require regular updates on job creation numbers, funds expended, percentage of work completed, the number of indirect jobs created, etc. The Carolina Southern Railroad has committed to provide monthly figures for all key metrics so accurate reporting can be provided to the U.S. Department of Transportation. Carolina Southern Railroad also has committed to providing data certified by an independent consultant to give the U.S. Department of Transportation additional assurance that funds are being committed and expended as proposed in the application and that the commitments made by the short line railroad are adhered to throughout the life of the project. The wage certification letter is attached as Appendix F.

The administrative organization of the Tiger IV grant is Horry County Government, South Carolina. The Community Development Department along with the Infrastructure and Regulation Division will be dedicated to all grant activities and to the management of the proposed grant funds. The Community Development Director will be responsible for the implementation and tracking of the Grant resources and will work closely with the County Engineer to facilitate and assist in the day-to-day operations of the Grant. The Director has extensive knowledge and experience in planning and managing large and complex interdisciplinary grant program. She has over 20 years experience and has successfully written, received, and implemented over \$85,000,000 in grant funding.

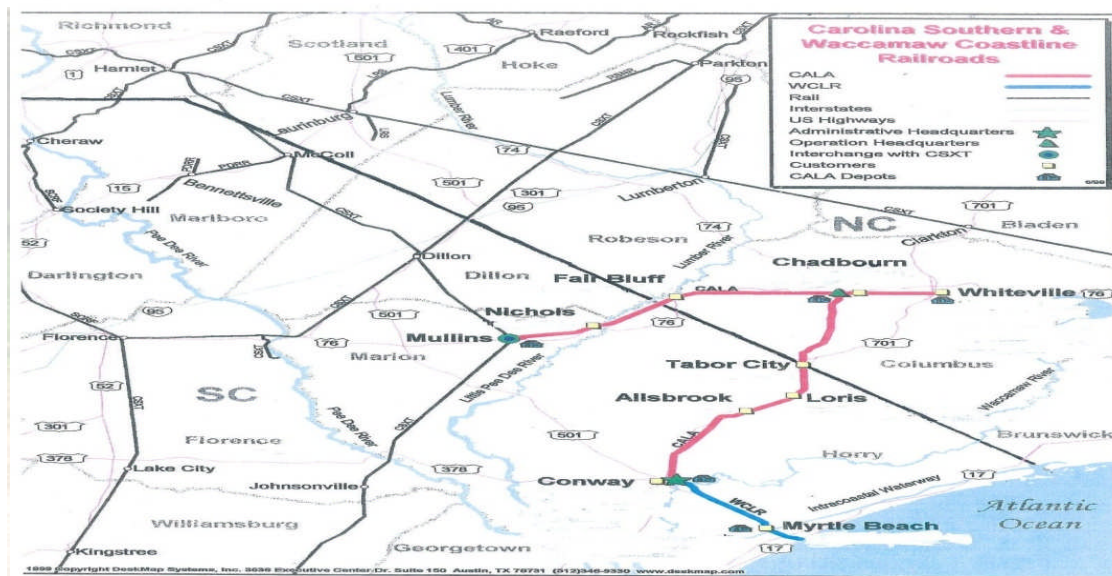
Horry County Government has achieved all previous performance goals and outcomes on federally funded initiatives; successfully designed, implemented and completed numerous capital projects, on time, and within budget; and has a professional support staff to implement and complete all aspects of supervision and contractual obligations of the Horry County Carolina Southern Railroad Infrastructure Project.

Horry County has received DOT FAA Airport Improvement Grants; U.S. Department of Homeland Security Grants; Department of Health and Human Services Grants; Department of Interior U.S. Geological Survey Grants, the Energy Efficiency and Conservation Block Grant from the U.S. Department of Energy, and is an urban county entitlement county for Community Development Block Grant funds under the U.S. Department of Housing and Urban

Horry County South Carolina and Carolina Southern Railroad Infrastructure Project 2012

Development. The ARRA stimulus funds Horry County has administered are the Community Development Block Grant Recovery funds; the Homeless Prevention Rapid Re-housing Grant funds; the Department of Energy Energy-Efficiency Grant funds; the Department of Justice, Bureau of Justice JAG funds and the IT Aerial Imagery ARRA funds grant are just some of the grants. The County's single audits are posted on www.harvester/census/gov. The County's Comprehensive Annual Financial Report (CAFR) can be found at www.horrycounty.org.

Map 1: Carolina Southern Railroad Line (Carolina Southern Railroad line in red and the leased Horry County portion is in blue).



Pre-application: The only change to the pre-application is the dollar amount asked for in the grant. The pre-application total amount of the TIGER funds requested was \$12,000,000. This grant application is requesting \$12,791,733, which is based on actual estimates.

Please see page 26 for some pictures of the deteriorated bridges, rails, and ballasts.

Please see <http://www.horrycounty.org/depts/finance/cdbg/AppendH.pdf> for any late letters of support for the Tiger IV application.

Horry County South Carolina and Carolina Southern Railroad Infrastructure Project 2012



Railroad's future in limb



PHOTOS BY STEVE JONES FOR THE SUN NEWS
A crane at Homewood Steel has sat idle since last year's Carolina Southern Railroad shutdown because of infrastructure problems along its route. Homewood unloaded steel directly from trains, but now is having to ship steel by truck from ports in Charleston and Wilmington, N.C., which is more expensive.

Revival of Carolina Southern line may hinge on federal grant

By STEVE JONES
sjones@thesunnews.com

CONWAY | Having railroad service is good business for Horry County, a County Council committee said last week as members voted to move forward with a federal grant application to get Conway-based Carolina Southern Railroad back on the rails.

"The railroad hasn't operated in Horry County for six months and the line's 18 customers in Horry County aren't happy," said Ken Pippin, the railroad's vice president and general manager. "The customers are hurting," Pippin said. "They're screaming. They're yelling."

The committee's action Thursday directed county staff to move forward with an application for a federal grant that would get the money to upgrade

the railroad's infrastructure to the point that Carolina Southern's trains can run their routes.

The railroad shut down voluntarily six months ago after inspectors from the Federal Railroad Administration found weaknesses in some bridges. The agency didn't force the railroad to cease operations, rather railroad owners decided to do so pending a fix to its infrastructure problems.

At first, Pippin and his father, Ken Pippin, anticipated a short-term shutdown. They had applied for an earlier grant from the U.S. Department of Administration. They didn't get that one and are hoping for success the second time around.

The prolonged shutdown, while painful for the Pippins and those businesses that rely on the railroad for supplies,

forced business and government leaders to confront a basic question: "Do we need rail service?" Horry Councilman Jody Prince, the committee chairman, asked at the meeting.

To Dodd Smith, president and chief operating officer of Metglas Inc. in Conway, the answer is easy. Not only is his company one of the railroad's biggest customers, but as a member of the Myrtle Beach Regional Economic Development Corp. he knows a railroad is good for the future as well as the present. Industries looking to open a plant in Horry County are going to have questions about how goods flow in and out of the area.

"It's a hell of a long putt to say we don't have an interstate and we just shut down a railroad," he

See RAILROAD | Page 2D



A federal grant application by Horry County could get idled equipment restarted along the Carolina Southern Railroad line.



Horry County South Carolina and Carolina Southern Railroad Infrastructure Project 2012

RAILROAD

From Page 1D

said. Metglas gets shipments of steel that it makes into parts for energy efficient transformers.

The absence of the railroad to haul the unformed steel into Conway has forced the company not only to spend additional money on truck transportation, Smith said, but it has also led it to changing suppliers in three counties so that most of it now comes into ports in Charleston and Wilmington, N.C., rather than by rail directly from North American manufacturers.

The company estimates that hauling supplies by truck will cost it an extra \$100,000 in the fiscal year that begins in April, Smith said.

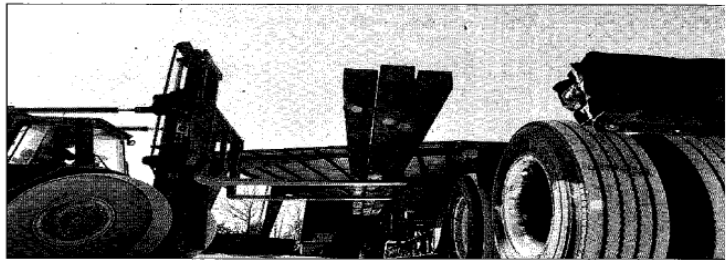
He said Metglas is now trying to put together a trucking system to deliver supplies that competes with the rail cost. If it succeeds, Smith said Metglas is liable to seek cost concessions from Carolina Southern if it gets running again.

"The best solution is to have the rail up and running," he said. "We would rather roll the stuff in by rail to Conway."

Tom Rice, Horry County Council chairman and a member of the Infrastructure and Regulation Committee, is OK with teaming up with Carolina Southern to submit a grant application. But he wants to make sure the grant money, if it is received, is spent properly and that the county is reimbursed for \$500,000 in matching money that will be part of the application.

It must be submitted by Monday and will be seeking \$15 million in federal transportation grant money. That's \$8 million less than the first application sought, but still includes \$7 million for the county to upgrade the track on the line it owns from Conway to Myrtle Beach.

Up to another \$14 million of the grant will be available to administer the work, which the county plans to do by hiring an



Equipment sits unused at Homewood Steel, one of 18 customers hurt by the voluntary shutdown of the Carolina Southern Railroad line. Approval of a federal grant to upgrade bridges in the county could revive the prospects for the railroad and restore the rail link in the county's infrastructure.

By STEVE JESSMORS sjessmore@thesunnews.co

engineering firm and appointing a county employee to oversee its work. Any of the allowable money not spent on administration may be transferred to another part of the overall project.

Carolina Southern will add \$150,000 to the matching money fund by paying the county three years' back franchise fee for the use of the county-owned track. It will add another \$800,000 to the fund in in-kind money that it will pay workers to install ballast along its line that will be financed through the grant.

The N.C. Department of Transportation is adding \$350,000 to the fund. Carolina Southern's line also serves Columbus County, just across the state line from Horry County.

Steve Gosnell, interim county administrator for Horry County, said the matching money fund and the lower grant being applied for were changes made from the first application to increase the chance that the money will be awarded.

Pippin told committee members that the lower amount primarily means that the railroad won't upgrade seven miles of track on its line near Mullins.

Rice wants the agreement between the county to include a

new franchise agreement with Carolina Southern that will increase its annual fee from \$50,000 to \$100,000 to repay Horry County over 10 years for the matching money the county invests in the application. He also wants the railroad's repayment to be tied to its mortgage, so that if it fails to pay, the county can recoup its money from the railroad's capital.

Gosnell said he is not as concerned about the matching money the county will put up for the grant. He said the county's investment would be worth it if the county gets the money to upgrade the track on its line.

The application itself will put the county under no financial obligation, Gosnell said. Should the federal government fund Horry County's grant, County Council will have to vote to accept it and make matching payments.

Smith said that if Carolina Southern is successful and can get rolling again, Metglas may increase its business with the railroad both to ship in other supplies than just steel and to haul the finished product to its buyers.

If the grant is not awarded, it will be time for leaders to consider other options, said Doug Wendel, chairman of the Regional Economic Development

Corp.

He didn't want to discuss detail last week what he might do, but he said one possibility might include a combination of locally backed loans at grants.

"Transportation is critical to the public health and we being, especially when it comes to jobs," he said.

He said Carolina Southern tracks run through a lot of unincorporated Horry County that could become sites for manufacturing plants. Additionally, he said the railroad can haul in loads of lumber, for example, and the relatively low cost of getting it here would mean that houses could be built at less cost.

With that kind of growth, Wendel said the railroad can be self-sustaining.

Rice agreed that rail transportation is valuable to recruit some types of industry, but he wants the county to be careful not to focus so much attention on rail that it ignores other potential areas of job growth.

"What we want to avoid excluding ourselves from some classes of employees," Rice said. "How big of a class of employers is by rail?"

➤ Contact STEVE JONES at 444-1765.

