TIGER II GRANT APPLICATION

for the Portageville Bridge Replacement Project

Submitted by:

New York State Department of Transportation

In Partnership with:

NORFOLK SOUTHERN

CANADIAN PACIFIC RAILWAY
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1.0 PROJECT DESCRIPTION

The Portageville Bridge Replacement Project sponsored by the New York State Department of Transportation (NYSDOT) proposes to replace the existing, high-level, single-track, freight rail bridge, originally constructed in 1875 (see Figure A), with a new, modern freight rail bridge on a new alignment approximately 50 feet south of the existing structure (see Figure B). The bridge is located at milepost 361.66 on Norfolk Southern Railway Company’s Southern Tier Route between Buffalo and Binghamton, New York and nestled in New York’s 14,350-acre Letchworth State Park in Livingston and Wyoming Counties. Once construction of the structure is complete, freight rail operations will permanently shift to the new bridge, while the existing structure is dismantled and its steel recycled. A portion of the existing structure on the eastern side of the Genesee River, which the bridge spans, could be preserved and utilized as a lookout point for patrons of Letchworth State Park, with a kiosk detailing the bridge’s history through present day.

PORTAGEVILLE BRIDGE QUICK FACTS

LOCATION:
- Located near the town of Portage, New York
- Found within Letchworth State Park
- Milepost 361.66 on Norfolk Southern’s Southern Tier Corridor between Buffalo & Binghamton
- Spans the Genesee River

SOUTHERN TIER CORRIDOR:
- Bridge connects one of only two-east west rail corridors in New York State
- It is the most direct freight rail route between Buffalo, Binghamton and New York City
- 10 short line railroads utilize bridge
- 2 Class I railroads utilize bridge
- A Canada-U.S. trade corridor

BRIDGE FACTS:
- Single-track rail structure
- Six wrought iron towers built in 1875
- 3 spans of steel pin-locked trusses built in 1903
- 10 spans of steel deck plate girders built in 1903
- 819 feet long
- 245 feet above the Genesee River gorge

CURRENT CONDITION:
- Structurally deficient & operationally obsolete
- Weight restriction of 273,000 lbs per rail car, below industry-standard 286,000 lbs
- Speed restriction of 10 mph instead of 35 mph timetable
- Emergency closure & repairs on 9/9/2009
- Park patrons frequently trespass on bridge

PROPOSED PROJECT COST-SHARE:
- $17,750,000 TIGER II grant
- $17,750,000 NS & CP
- $3,500,000 NYSDOT

PROJECT IMPROVEMENTS:
- Improves rail service to and from Canada
- Removes weight restriction for the entire Southern Tier corridor
- Preserves a lifeline for 10 short line railroads
- Enhances service reliability for trains routed to Pan Am Southern in upstate New York and New England
- Sustains new intermodal service soon to be launched between Buffalo and the Ports of NY & NJ along the Southern Tier
- Keeps the Southern Tier Corridor intact
- Promotes economic development on the Southern Tier

BENEFIT-COST RATIO:
- From 7.5 to 15.4
This $39 million project, proposed as a public-private partnership between NYSDOT, U.S. Department of Transportation (USDOT), and two Class I freight railroads—Norfolk Southern (NS) and Canadian Pacific (CP)—which together will cover at least 50% of the project’s construction cost-share—will permanently resolve lingering structural and operational deficiencies that have long been identified. The new bridge will be designed to handle the freight rail industry standard of 286,000 pounds per rail car, improve train operating speeds to 35 miles per hour over the bridge (versus the current restricted speed limit of 10 miles per hour), preserve one of only two east-west rail corridors within New York State, and enhance the prospect for freight rail growth for 10 short line railroads which access the Southern Tier Route through the Empire Link interchange agreement with NS. Finally, a new bridge will allow NS and CP to meet the demands for freight rail traffic in New York, New England, the Midwest, Canada and beyond (see Figure C).

2.0 CURRENT TRANSPORTATION CHALLENGES: THE PORTAGEVILLE BRIDGE’S DETERIORATING CONDITION

The 135-year old Portageville Bridge is the weakest link in the Southern Tier Route, the most direct rail route connecting Buffalo with Binghamton and New York City; however, it is approaching the end of its useful design. The existing, 819-foot-long steel viaduct spans the Genesee River 245 feet above the floor of the gorge, connecting the Southern Tier Route with the east and west sides of Letchworth State Park. Corrosion and fatigue for a bridge of this age are expected, yet the level of deterioration has significantly impacted freight rail service for both local and through train traffic.

Operational constraints, including weight and speed restrictions over the bridge coupled with extensive maintenance and inspection requirements; safety concerns for both Letchworth State Park patrons and railroad maintenance and locomotive crews; and the growing importance of the corridor for local, regional, national, and international freight movements; make it clear that the bridge needs to be replaced. A modern, new structure will lift the operational constraints, enhance corridor-wide train performance, improve safety, strengthen industrial development opportunities, leverage rail infrastructure investments made in other parts of the network, and preserve an important corridor for decades to come.

The first operational constraint the Portageville Bridge presents is its limited load-carrying capability, which is restricted to 273,000 pounds per rail car. The ability for freight railroads, particularly Class I railroads, to carry 286,000 pounds per rail car is paramount, as this weight is the current industry standard. Heavier freight traffic must be routed entirely around the Southern Tier—which results in longer transit times, more fuel consumed, reduced energy efficiency, and higher transportation cost to consumers (see Figure D on the next page).

The second operational constraint is the speed restriction of 10 miles per hour. Track geometry would permit speeds of 35 miles per hour; however, the structural fatigue necessitates far slower speeds. For trains in excess of one mile long, which are not uncommon for freight trains originating from Canada or the Midwest, the Portageville Bridge significantly impacts transit times and causes congestion on the rail corridor.
Because of the current weight limitations on the Portageville Bridge, this coal train cannot be routed over the Southern Tier Corridor and instead must travel over a more circuitous route.

The third operational constraint is the significant maintenance and inspection requirements. On September 9, 2009 an inspection of the bridge discovered broken rivets, structural cracks, and significant corrosion (see Figures E and F). Engineers deemed it unsafe to continue operations and subsequently closed the bridge. The disruption led to train service delays and sent a powerful reminder to the rail industry, shippers, and the State of the impact that would be felt should the existing structure be taken permanently out of service.

Fourth, the Portageville Bridge poses a safety hazard for park patrons and railroad employees. Park visitors frequently trespass on railroad property to catch a glimpse of the Genesee River from 245 feet above on top of the bridge, despite fencing and other preventive measures undertaken by NS. Moreover, in light of the extensive maintenance and inspection requirements, the bridge poses a safety hazard for railroad employees who must perform the dangerous work to keep the bridge in operation (see Figure G). A new, modern bridge on an adjacent alignment will reduce the need to perform unscheduled maintenance and inspections beyond standard procedures for new railroad structures. Additionally, the creation of a viewing platform from a portion of the existing bridge’s eastern platform, after the remaining superstructure is dismantled, would reduce the desire for park patrons to trespass on the new bridge. Also, the railroad will install automatic gates that will block pedestrian access to the new bridge.

Finally, as traffic volumes along the Southern Tier continue to grow and will need to traverse the Portageville Bridge, the bridge becomes increasingly important and integral to continued growth, its operational constraints are amplified. Today, even a temporary disruption could discourage development of new intermodal service lanes, limit industrial development projects along the Southern Tier, and negatively impact freight rail services in New England, Canada, and the Midwest.

3.0 PROJECT PARTIES

- New York State Department of Transportation (NYSDOT) – NYSDOT is the project’s applicant, the official grant recipient, and is providing $3.5 million to the project, currently on-going, for preliminary engineering.
- Norfolk Southern (NS) – NS owns the Portageville Bridge, which is part of the Southern Tier Route acquired in 1999 as part of the Conrail transaction, and is providing—together with CP—at least 50 percent of the project’s total construction cost share.
- Canadian Pacific (CP) – CP maintains haulage rights along the Southern Tier from Buffalo to Binghamton and comprises approximately 25 percent of the total carload traffic over the Portageville Bridge annually. CP will contribute a portion of the total private cost share toward the bridge replacement, proportionate to the percentage of total carload traffic the railroad comprises over the bridge. CP will provide—together with NS—at least 50 percent of the project’s construction cost share.
4.0 GRANT FUNDS AND SOURCES/USES OF PROJECT FUNDS

Financial Plan: The figure below includes a detailed cost-allocation for the proposed project, by spending item, year, and by contributor.

PORTAGEVILLE BRIDGE REPLACEMENT PROJECT BUDGET

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<th>Project Components</th>
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<th>TIGER II Funded</th>
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<td><strong>TOTAL</strong></td>
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PORTAGEVILLE BRIDGE REPLACEMENT PROJECT BUDGET – SPENDING BY QUARTER

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5.0 THE HISTORICAL & CONTEMPORARY CONTEXT OF THE PORTAGEVILLE BRIDGE & SOUTHERN TIER CORRIDOR

New York’s sixth governor, Governor DeWitt Clinton, witnessed the Erie Canal’s economic success in the northern portion of the state and promised to bring the people of the Southern Tier the same: an accessible avenue of commerce that would parallel the Erie Canal’s connections between the Great Lakes and the Hudson River. Governor Clinton and the New York State Legislature chartered the New York & Erie Railroad in April 1832.

The New York & Erie Railroad grew quickly and in 1845 the eastern and western ends of the line were extended even before the original line between Dunkirk and Piermont was completed. The Buffalo & New York City Railroad sprung up as a west end branch, which required a bridge at the town of Portage over the Genesee River in the Genesee Valley. Designed by engineer Silas Seymour, the bridge was a wooden engineering feat – towering 245 feet above the Genesee River’s Upper Falls and spanning 819 feet across. At the time it opened on August 14, 1852, it was the tallest and longest wooden railroad bridge of its kind in the world (see Figure H).

In its 135-year history the bridge has had a handful of owners. Its original owner, the Erie Railroad, later merged with the Lackawanna Railroad to become the Erie Lackawanna in 1960, which, in turn, became part of the Conrail system after the bankruptcy of the Penn Central Railroad. During the Conrail tenure, the Southern Tier received little investment; and therefore, it remained underutilized, financially neglected, and underappreciated. Norfolk Southern acquired the Southern Tier as part of the Conrail transaction in 1999 and has since shown an interest in revitalizing the Southern Tier Corridor with substantial investments in new infrastructure.

5.1 RECENT SOUTHERN TIER RAIL INFRASTRUCTURE INVESTMENTS

Since NS acquired this line segment from Conrail in 1999, numerous improvements have been undertaken on the Southern Tier Route, including bridge replacements, rail yard improvements, and track upgrades.

<table>
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<th>Bridge</th>
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These improvements in 2002, 2004, and 2007 totaling over $9 million, cannot be utilized to their full potential until the Portageville Bridge is brought to a comparable operating level. Indeed, these assets and all the other bridges along the Tier capable of handling 286,000-pound traffic remain stranded investments until the Portageville Bridge is replaced with a new, modern structure.
NS has also invested over $10 million in recent years to reassemble, expand, and improve its operations at Bison Yard, the westernmost part of the Southern Tier in Buffalo, New York. Bison Yard, which had been considered redundant and was largely dismantled by Conrail is now a major multi-use facility that:

1.) serves as a crew change point for through trains;
2.) functions as a flat switchyard for local operations;
3.) includes an automotive distribution terminal for Ford and Chrysler vehicles with 50 railcar spots and the capacity for 2,424 vehicles;
4.) includes a Just-in-Time (JIT) Rail Center, one of only three on Norfolk Southern’s network, offering truck-competitive transportation options for automotive parts originating within a 150-miles radius of the Buffalo JIT Center and destined for Mexico; and
5.) includes an intermodal facility which performed 37,400 lifts (a lift is counted each time a trailer or container is lifted onto or taken off a railcar) in 2009.

The Portageville Bridge’s current condition jeopardizes the Bison Yard’s investments as it relates to growing freight rail opportunities and improving freight rail service to existing customers to their full potential along the Southern Tier. Furthermore, it diminishes rather than enhances the opportunity to increase Buffalo’s position as an international gateway for Canadian freight rail trade to New York City and the East Coast, and vice versa.

Currently, through an estimated $9 million public-private partnership between NYSDOT and NS, key rail infrastructure improvements are underway to enhance the Southern Tier between Binghamton and Waverly, New York. This 35-mile, section has posed a hindrance to optimal train performance for some time. The improvement project will install a new signal system, replace jointed rail with continuously welded rail (CWR), install new crossties and retire redundant infrastructure (Figure J). These efforts will markedly improve train operating speeds, reduce track maintenance, and enhance the entire Southern Tier. NYSDOT is providing $3.5 million as its share of the $9 million partnership.

That being said, should the Portageville Bridge be taken out of service, these recent private and public investments in the Southern Tier would be stranded and most of the intermodal trains, which comprise 50 percent of Southern Tier train starts, will be lost. The freight traffic that does remain will likely be handled by trucks.

5.2 THE EMPIRE LINK

The railroad has not only invested resources into the corridor, it has also created a unique Southern Tier partnership that is serving as a model for the rest of the country. On May 29, 2008, Norfolk Southern and 10 New York-based short line railroads announced the creation of a program to convert short-haul truck movements to rail. The “Empire Link” allows these short line railroads to market the excess capacity on the Southern Tier main line between Binghamton and Silver Springs, New York (to which the Portageville Bridge connects), as well as on branch lines between Corning and Geneva, and between Waverly and Ludlowville, allowing the short lines to connect and interchange traffic with each other by accessing the Southern Tier. The map on the next page identifies the participating Empire Link railroads (see Figure K).

“The recent collaboration of the American Short Line and Regional Railroad Association’s Eastern Region Short line members and Norfolk Southern is one of the most creative business initiatives to come about in the last 15 years,” said Rich Timmons, ASLRRRA president, at the time of the Empire Link announcement. “We expect positive results for shippers, communities, and big and small railroads alike.” Shortly after the Empire Link initiative was created, the country entered a deep
recession, which impacted the freight rail industry. As the economy improves, NS and the participants in the Empire Link hope to make progress in achieving the goals set out in this unique program. Notwithstanding, there has been a dramatic increase in rail traffic over the bridge that originates or terminates on the shortlines. The participants to the program are optimistic about its future success in diverting short haul truck moves to rail, as evident by the testimony of Mr. Mike Smith, President of the Finger Lakes Railway. Mr. Smith says “In June of 2008, sixteen shortline railways in NY and western PA worked with NS to synchronize their Marketing & Sales efforts between Buffalo and Binghamton. NS performs as the overhead carrier between these railways who market business to and from each other. Shortline railways are experts at customized pick up and delivery service to customers while NS is the experienced “Hook and Haul” carrier for the route between Buffalo and Binghamton. This program is called the Empire Link and has seen progress on many interchanges that have successfully removed circuitry, sped up rail service from origin to destination and provided truck competitive pricing.

The Portageville Bridge, located along the NS Southern Tier Line that is used as the Empire Link, is a strategic “Link” in moving freight to and from the Empire Link partners. FGLK and the other shortline partners in the Empire Link “Think the Link” program strongly support NS and its TIGER II grant proposal. The Portageville Bridge project once completed will enhance our rail service offering while keeping our focus on cost effective rail rates and efficient direct routing to and from our important and growing customer base.”
The 10 short lines participating in the Empire Link are the Bath and Hammondsport Railroad; Central New York Railroad Corp.; Finger Lakes Railway; Livonia, Avon and Lakeville Railroad; the New York, Susquehanna & Western Railway Corp.; Ontario Central Railroad; Owego & Harford Railway; Rochester and Southern Railroad; Wellsboro and Corning Railroad; and Western New York & Pennsylvania Railroad.

5.3 RECENT INDUSTRIAL DEVELOPMENT PROJECTS

Norfolk Southern has also developed a strong industrial development program to attract and retain industries on the Southern Tier. Carload and industrial development activity along the Southern Tier has increased markedly in recent years and is expected to grow with time. Notably, the drilling industry, and the numerous spin off companies which support it are just now beginning to extract deposits of natural gas in the Southern Tier region and in the abutting region of north central Pennsylvania. As more well permits are granted, demand for tens of thousands of annual carloads of sand, diesel fuel, brine, and pipe are possible—much of it originating hundreds of miles away in states like Michigan and Illinois.

The Portageville Bridge is part of an efficient freight access route, and is precisely where the demand will be. However, if the Southern Tier were to be severed, even temporarily, some of this freight would be lost to long-distance, heavy-haul trucks; and even a small percentage of freight moved by truck is significant in light of the expected high volumes. There is no doubt these trucks will accelerate the wear and tear to highways not only in New York but throughout the states they must travel through before arriving in New York. Moreover, because of the energy-intensive nature of moving heavy freight long distances, trucking will consume far greater quantities of diesel fuel and will pump out equally significant amounts of air pollution than would occur if that freight moved not only by rail, but along the most efficient rail routes, which include the Southern Tier.

The new industrial projects, both ongoing and potential along the Southern Tier, are a promising sign for an area of New York which for decades has been plagued with some of the state’s highest levels of unemployment and population decline due to the exodus of the manufacturing industry. While unemployment for places such as Elmira and Binghamton still hover around 8% as of June 2010, the prospect for economic development are improving as new drilling companies and their support organizations locate within the area, hiring people within the area, purchasing goods within the area, and consequently expanding the tax base. In the process, major investments are bringing back on-line many formerly served rail sites and yards, which in turn are enhancing the quality of life for those who call these communities home.

The Center at Horseheads in Horseheads, New York is a microcosm of this recent freight rail resurgence along the Southern Tier. As recently as two years ago, this 500-acre industrial park constructed in the 1940s as a military depot by the Army Corps of Engineers sat largely vacant and had a correspondingly small amount of freight rail demand – requiring fewer than 100 carloads. In the first 7 months of 2010, with the infusion of new tenants tied to the natural gas industry setting up shop at the facility, carload demand spiked by more than 1,000% to more than 1,100 cars, largely of sand and pipe. And as demand picks up, the facility should handle anywhere between 8,000 to 12,000 carloads annually. To meet this new demand, Norfolk Southern is investing approximately $500,000 to improve the rail spur connecting into the facility, while the industrial park is expected to spend more than $1 million in track upgrades. Sand and pipe are just some of the products moved by rail along the Southern Tier Route, by way of the Portageville Bridge (see Figures L and M).
Industrial development tied to these new opportunities will not be eliminated in the event the Southern Tier is severed; nevertheless, the higher transportation costs associated with moving freight by more circuitous route or by truck will result in less capital available to purchase additional goods and hire additional employees. Therefore, the full benefits of this new industrial development and the associated freight rail investments cannot be fully optimized without the Portageville Bridge’s replacement.

Finally, there is a natural reluctance on the part of businesses to make significant capital investments in order to locate on a rail-served site or expand rail service unless there are assurances that the service can be consistent, reliable, and cost-competitive. The Portageville Bridge’s operational constraints and deteriorating condition make potential industrial development projects along the Southern Tier and in other locations predicated on the corridor’s preservation far less enticing, resulting in projects being delayed, scale back in scope, or eliminated from the drawing board entirely.

5.4 NEW INTERMODAL SERVICE – BUFFALO TO THE PORTS OF NEW YORK & NEW JERSEY

Since the 1990s, the Port Authority of New York and New Jersey (PANYNJ) has invested heavily in on-dock rail infrastructure projects out of a desire to increase container throughput at the port, which it sees as a way to alleviate the heavy truck traffic that chokes roadways around the port and slows freight movements. Referred to as the ExpressRail System, this $600 million rail program undertaken at each of the Port’s three major container terminals has created rail facilities and support tracks that work in concert with the Port’s other strategic investment to augment capacity, enhance throughput, and optimize the inherent strengths of each freight transportation mode (see Figure N).

For several years now, NS and the PANYNJ have discussed the possibility of introducing an intermodal service lane between the Port and Buffalo along the Southern Tier Route—the most direct, double-stack cleared intermodal route between the two metropolitan regions. One of the chief obstacles preventing the introduction of this new intermodal service up until now has been the deteriorating condition of the Portageville Bridge. As this new intermodal lane will require the hiring of additional train crews as well as dedicated rolling stock assets including railcars and locomotives, among other resources, the uncertainty of the bridge, and therefore route’s future, has been too significant a barrier to overcome. That is, until now, following an agreement between PANYNJ and NS to launch this new service by late 2010 or early 2011.

This new service is welcome news for the greater Buffalo-Niagara region, which is identified by PANYNJ as one of the dense trade clusters where there is a substantial volume of containers that originate or terminate as a result of moving through the Port of New York and New Jersey. Much of this current container traffic moves by truck between the two regions and is concentrated principally along interstates, but could just as easily move along the Southern Tier’s parallel rail route. By developing reliable intermodal rail service along this lane, without the current disruptions encountered by the Portageville Bridge, much of today’s container truck traffic could be absorbed by rail. This new intermodal service would accelerate Buffalo’s role as part of the PANYNJ’s port inland distribution network (PIDN), which will help accommodate the precipitous growth in container traffic at PANYNJ.

The Virginia Port Authority did just that in 1988, constructing an inland port in Front Royal, Virginia, 220 miles away from the Port of Hampton Roads. Norfolk Southern’s daily intermodal train shuttle service between the two regions has exceeded all expectations, and has accomplished two goals. First, it relieved truck traffic congestion in the Hampton Roads area by accelerating port throughput by moving more freight into and out of the port by rail. Second, it served as a catalyst for economic development, spurring more than $599 million in economic investments in the Front Royal area in the past two decades as major manufacturers and shippers have sought to locate near the facility to gain the greatest cost-savings and therefore benefit (see Figure O).
It is believed those results could be replicated between Buffalo and the PANYNJ—provided the Southern Tier remains intact. Replacing the Portageville Bridge will ensure greater service consistency and reliability necessary to continue, uninterrupted, this new business, with the opportunity to divert an increasing share of freight movements to rail between these two regions. Conversely, if after this new service between Buffalo and PANYNJ is launched there is an extended disruption because the Portageville Bridge has to be taken out of service, either temporarily or permanently, much if not all of this traffic will revert back to truck. Ultimately, for this new service to remain robust over the long run a long-term solution for the Portageville Bridge must be in place.

6.0 CANADIAN PACIFIC RAILWAY & U.S./CANADA TRADE IMPLICATIONS

North American Free Trade Act (NAFTA) commerce is another important and on-going component of the Southern Tier Route and Portageville Bridge. The Buffalo-Niagara gateway is a major international artery for trade, facilitating $82 billion annually, or roughly 15 percent of the total trade conducted between the world’s two largest trading partners. The region serves as the second largest international gateway for U.S.-Canada trade by virtue of its central location, providing access within 500 miles to 55 percent of the U.S. population and 63 percent of the Canadian population, as well as 75 percent of Canada’s manufacturing activity and 55 percent of the U.S.’s manufacturing activity.

Approximately 25 percent of current rail carload traffic over the Portageville Bridge originates on the Canadian Pacific Railway, which has haulage rights on the Southern Tier down to Binghamton (see Figure P). Understanding the importance of the Portageville Bridge to the railroad and the efficiency gains which can be accomplished by replacing the fatigued structure, Canadian Pacific has agreed to contribute financially to the construction of a new bridge.

The opportunity to expand the amount of cross-border traffic moved by rail is significant and the Southern Tier could be an important part of that equation, delivering even more freight more efficiently between the U.S. East Coast and Canada. According to the Greater Buffalo-Niagara Regional Transportation Council’s (GBNRTC) Niagara Frontier Urban Area Freight Transportation Study, approximately 75% of the region’s freight travels by truck today. And while the opportunity to expand international freight rail service along the Southern Tier exists, the Southern Tier’s inefficient and unreliable performance due to the Portageville Bridge stymies growth opportunities. In other words, the Portageville Bridge currently serves as a barrier to international trade, diminishing rather than enhancing U.S. competitiveness.

According to the USDOT’s “Global Connectivity Strategic Goal,” which is part of its Strategic Plan 2006-2011, the Department is to “facilitate an international transportation system that promotes economic growth and development.”

By supporting the Portageville Bridge Replacement Project, the USDOT will improve the performance of the
entire rail corridor, which links to regional, national, and international markets. For example and as mentioned in the previous section, intermodal service is set to begin soon between Buffalo and the Ports of New York and New Jersey along the Southern Tier. As the 20th largest container port in the world, the third largest in the U.S. and the largest on the East Coast, the Ports of New York and New Jersey have an opportunity to leverage an enhanced Southern Tier corridor in moving even more container traffic through the ports to Canada and the interior of the U.S., and vice versa.

7.0 PAN AM SOUTHERN

In addition to better optimizing an international trade corridor, the Portageville Bridge also plays an integral role linking rail movements from the West Coast and Midwest with eastern New York and New England as part of Pan Am Southern, LLC.

On March 10, 2009, the Surface Transportation Board approved the creation of Pan Am Southern (PAS), a joint venture between NS and Pan Am Railways. PAS involves approximately 436.8 miles of rail lines in New York, Massachusetts, Vermont, New Hampshire, and Connecticut. In the transaction, NS agreed to contribute $137.5 million, of which $87.5 million would go toward improving rail infrastructure on the 155 miles of main line track between Ayer, Massachusetts and Mechanicville, New York (see Figure Q).

These improvements are expected to bring a new level of rail competition and service in upstate New York and New England, but the joint venture's long-term success is predicated on the Southern Tier remaining intact and in service at all times. For trains originating in the Midwest that are destined for New England by way of NS and PAS, they are routed on the Southern Tier at Buffalo, taken down to Binghamton, crossing the Portageville Bridge approximately in the middle of the track segment. At Binghamton, the trains move onto Canadian Pacific's route until arriving in Mechanicville, at which point it becomes PAS and continues eastward toward Ayer, Massachusetts.

As part of NS's $87.5 million in capital improvements along PAS, a new $40 million intermodal facility and automotive terminal at Mechanicville, located approximately 25 miles northeast from Albany, New York, will markedly increase

Figure Q. Map of the Pan Am Southern rail network.

Figure R. Conceptual engineering design of the proposed Mechanicville Intermodal Facility and Automotive Terminal, a $40 million rail investment predicated on an intact Southern Tier.
Norfolk Southern’s intermodal capacity in the capital district will for the first time introduce an automotive ramp. After its first full year in operation, the new facility will have the capacity to perform 35,000 lifts annually and handle 3,000 vehicles (see Figure R). This new facility is expected to spur more than $100 million in economic development as integrated logistics and warehousing distribution centers as well as manufacturers locate and expand area operations near the terminal. If repairs to the Portageville Bridge take it even temporarily out of service, the result would be immediate and would have negative consequences for PAS intermodal traffic. The more prolonged the disruption, the more adverse the impact, resulting in significant economic development implications for the greater Albany region.

Additional capital improvement projects include the new $8 million San Vel Automotive Facility in Ayer, Massachusetts, which opened in 2010 and is positioned to serve the Boston metropolitan area and other points in New England with finished automobiles. The remainder of the capital improvement spending is directed toward removing long-term slow orders that limit train speeds to 10 miles per hour, increasing vertical clearances under certain bridges along the route to accommodate multi-level automotive rail cars more efficiently, and increasing load carrying capacity for bridges to the industry standard 286,000-pounds per railcar. Service disruptions could easily eliminate efficiency gains. Similarly, the PAS corridor is limited to the weight of the weakest link along the route—the Portageville Bridge.

8.0 CONSISTENCY WITH STATE & LOCAL PLANNING EFFORTS

In the 2009 State Rail Plan, NYSDOT laid out its 2020 vision for a freight rail system that will serve New Yorkers well, that is a preferred choice for shippers, one that will connect our communities and industries to the national and international freight network. The project to replace the NS’s railroad bridge over the Genesee River in Letchworth State Park will substantially help the state fulfill that vision and will help achieve two of the Rail Plan’s goals: 1) to increase freight rail market share by 25% with resulting decreased growth to truck traffic and energy consumption and 2) to service businesses upstate and downstate via an integrated rail network that is restored to good condition and maintained in a state of good repair.

The Rail Plan (available at https://www.nysdot.gov/divisions/policy-and-strategy/planning-bureau/state-rail-plan) identifies the bridge as one of 10 bottlenecks in the State’s Class I rail network. In identifying the bridge as a major bottleneck that must be addressed, the report states that, “the weight restrictions and low operating speeds significantly impact the line’s overall capacity. Any long-term closing of the Portageville Bridge would threaten the vitality of the entire route between Buffalo and Binghamton.” Moreover, the report identified the Southern Tier network as “critical to the state’s long-term economic vitality.”

From the beginning of its ownership of the Southern Tier, NS has worked with the state and local communities to try to find a solution to replace the Portageville Bridge through a public-private partnership. During the same period, it has made considerable expenditures to repair the Portageville Bridge and keep the corridor intact. Its recent acquisition of Pan Am Southern further cements its commitment to retaining the Southern Tier as an intact piece as it will use the corridor to access New England markets from the west.

Significantly, the metropolitan planning organizations as well as local and county economic development offices that are adjacent to or near the Southern Tier, have all identified the replacement of the bridge as a critical component in advancing their own economic and transportation needs. For example, the GBNRTC indicated that replacing the Portageville Bridge is a necessary rail investment as the Southern Tier will provide better access for the Buffalo Gateway to the Port of New York and New Jersey. Other communities and planning organizations within the state have acknowledged the economic development, transportation and environmental benefits this project promises to deliver as expressed in their strong letters of support and their own previous transportation studies citing the need to replace the bridge. The GBNRTC study is available at http://www.gbnrtc.org/planning/freight/ while local and state letters of support for the Portageville Bridge TIGER II application are available in the “Support Letters” Appendix.

The local, state, and national implications are stark, as this route plays an important role for cross-border NAFTA trade with Canada, is used by many shortline railroads, the Canadian Pacific, and helps sustain freight rail investments and business in other portions of the
country. For many of the communities, a severed Southern Tier would eliminate the direct connection now available between the Buffalo Gateway and Binghamton, New York City, and New England. Consequently, this would result in more circuitous freight rail routing that would likely lead to more freight movements by commercial trucking, and would discourage industrial development projects predicated on freight rail’s efficiency, economy, and reliability in the region.

The project makes a strong case for the preservation of an important transportation corridor. The state declared the need to preserve the existing rail system as a long-term transportation asset. This includes maintenance of the rail network through strategic programs to keep rail operations viable. NYSDOT took the first step in this effort to preserve this corridor by providing $3.5 million in public funds for preliminary engineering and preparation of an Environmental Impact Statement. It is not far-fetched to state that corridors of this magnitude will be extremely difficult to assemble again. The corridor does not only impact New York State, but connects the Buffalo Gateway and the rest of New York and New England to the Midwest, providing connectivity to the rest of the nation. Building the new bridge is critical, for without it there is a chance that the corridor will be severed and freight that moves on it today will move to the state’s highways. As shown in the Cost-Benefit Analysis section, detour options would increase costs and inefficiencies, and may result in diverting some of this freight to the highway.

Maintaining the integrity of the Southern Tier is also important as it relates to the nation’s national defense and military preparedness. As NYSDOT pointed out in the State Rail Plan, the Department continues to work with the United States Military Surface Deployment and Distribution Command’s Transportation Engineering Agency to provide updates affecting the national Strategic Rail Corridor Network (STRACNET). The Southern Tier Corridor is a civilian rail line important to national defense. Lines designated for STRACNET within each corridor, and for most connectors to military installations and activities requiring rail service, meet defense readiness requirements for maintenance condition, clearance and gross weight capability. While the Southern Tier meets the clearance requirements, because of weight limitations, the corridor is not in compliance with the gross weight capability requirements; it may therefore hamper the needs of the military to move equipment in a timely and efficient manner.

9.0 CONCLUSION

The investments in the Southern Tier and the promising opportunities to move more freight by rail both through the corridor and within it will ultimately only be as strong as the corridor’s weakest link. Taking the bridge out of service either for emergency repairs or an extended period of time while a new bridge is constructed, or, in the most extreme case, taking the bridge out of service permanently without constructing a new bridge will have the same result: the Southern Tier will be severed. Such service disruptions are felt regionally, nationally, and internationally. While most of the freight may continue to move by rail, albeit on other railroads and along other routes, it won’t necessarily result in optimal routing, pricing, and transit times. As transportation planners can attest, inefficiency like this puts freight rail and those industries which rely on it at a competitive disadvantage. If the competitive disadvantage persists long enough, businesses and railroads may falter while shippers select long-distance trucking over freight rail for meeting their transportation needs.

The project is a poster child for the preservation of transportation corridors. The State declared the need to preserve the existing rail system as a long-term transportation asset. This includes maintenance of the rail network through strategic programs to keep rail operations viable.
10.0 BENEFIT-COST ANALYSIS

Evaluation of Expected Project Costs and Benefits

In accordance with the TIGER Grant requirements, Cambridge Systematics (CS) provided a rigorous cost-benefit analysis for the project. The cost-benefit assessment describes current conditions and traffic using the bridge and what will happen if that traffic must be rerouted over more circuitous and less efficient routes. In developing the analysis, CS used information provided by Norfolk Southern, which has a sophisticated network routing tool called Operation Plan Developer (OPD). That system is a tool that describes the current traffic profile that traverses the bridge, as well as forecasts future traffic. The OPD identified the traffic, the operating plan, and the network constraints for the alternatives. The two key metrics are car miles (circuitous miles a car will travel), and car days, or how much time the railcar takes from origin to destination. Furthermore, the analysis calculates the public benefits of reduced emissions, reduced wait times at crossings, reduced highway congestion, and reduced fatalities on the highways should the bridge be replaced and current and future traffic stay on rail. Traffic data and the rerouting assumptions used by CS helped develop this analysis.

CS determined that the project to replace the bridge offers three major types of benefits: (1) growth in freight on NS routes using the Portageville Bridge; (2) no loss of rail traffic now moving over the bridge; and (3) no cost increases for existing NS traffic (and, thereby, customers that depend on its transportation services). Each step was performed for the initial analysis year of 2014 and every subsequent analysis year through 2043. The entire analysis results are summarized in Appendix A.

The methodology examined non-monetized benefits and impacts, including the number of trucks diverted and truck traffic increases avoided with the new bridge. The other non-monetized benefits included:

1. Truck vehicle miles of travel reduction
2. Fuel consumption reduction
3. Carbon emissions reduction
4. NOx Emissions Reduction
5. PM Emissions Reduction
6. Heavy Truck Crash Reduction
7. Direct Line-of-Road Job-Years
8. Indirect and Induced Line-of-Road Related Jobs
9. Direct, Indirect and Induced Construction Job-Years

Using 2009 origin-destination pairs, CS applied scenario forecasts and found attendant assumptions behind those forecasts. CS looked at three scenarios:

- No build (no additional capital expenditures are exhausted to extend the bridge’s life and it closes permanently);
- The bridge is closed and rail traffic is rerouted to other railroads;
- A new, modern bridge is constructed, removing current weight and speed restrictions.

The analysis looked at the impact each scenario would have on current and future freight rail traffic along the Southern Tier, including what commodities are most susceptible to truck conversion should more circuitous routing be required. If the bridge is never replaced, the analysis determined what additional commodities may eventually convert to truck and why. Finally, the analysis looked at what traffic would be lost altogether because those businesses would cease to exist. Figure S and T (on the next page) represent the re-route options should the Portageville Bridge be forced to close and traffic routed over alternative lines. The additional miles range from 38 miles for some merchandise trains to 168 additional miles for two intermodal trains. While 38 miles may not seem all that significant, one option using the Western New York and Pennsylvania (WNYP) poses operational challenges that can create significant delays because of the lack of rail connections in Olean, NY which would provide a direct route between Buffalo and Hornell. The analysis showed that freight rail transportation costs will rise when traffic is detoured over more circuitous and less efficient routes. See Appendix C for a detailed description of the routing options. The study showed that for Option 1, costs will increase by 19% or $18 million, while Option 2 will see an increase of 32% or $30 million. Factors going into the methodology were additional car miles and additional car delays. New York industries that rely on rail will ultimately bear the increases in costs. A good deal of the traffic will migrate or flee to the highway. Indeed, NS expects that the intermodal traffic, being more susceptible to price, will be the more likely sector
Figure S. Depicts current train routing over the Portageville Bridge.

Figure T. Depicts the alternative routing options available should the Portageville Bridge close.
to migrate to the roads. Even the most conservative estimates under the benefit-cost analysis demonstrate the potential harm the closure of the bridge would have on economic recovery in this part of the state, already suffering from long-term economic decline.

There are operational constraints for both options. Option 1 involves using the Western New York and Pennsylvania Railroad from Olean to Hornell, where trains would then access the Southern Tier again. However, the short line route does not have vertical clearance for double-stack intermodal trains. Option 2 involves the CSX route between Buffalo and Albany also poses challenges, including operational constraints that would have to be addressed. This specific route is also slated to become New York State’s designated high-speed passenger rail corridor. The corridor already experiences capacity constraints that have yet to be resolved and accordingly may not be able to accommodate more non-CSX freight trains. Moreover, there is no guarantee that CSX, as the owner of the corridor, would be inclined to grant NS trackage rights. The Water Level route is, after all, CSX’s main east-west corridor into New England. As the Portageville Bridge’s draft environmental impact statement (DEIS) points out, rerouting the traffic would restrict or remove freight rail service to a number of communities, and have the potential for substantial negative impacts to the region’s economy. If the Southern Tier is severed, the state risks losing the gains it has experienced as a result of recent gas exploration and other activity. New York, New England, and the Midwest cannot afford to lose this transportation option, especially as the nation continues to suffer from slower than normal economic growth coupled with high levels of unemployment. This project is clearly an example where retaining current jobs and creating new ones are closely linked to transportation infrastructure.

### 11.0 SELECTION CRITERIA

The table at the bottom of this page highlights the monetized and non-monetized benefits calculated over a 20-year and 30-year period, as determined by CS. The Benefit Cost ratio for the project ranges from 7.5 to 15.4.

### 11.1 STATE OF GOOD REPAIR:

After years of underinvestment since acquiring the corridor from Conrail, NS has taken the first steps toward bringing the entire corridor between Buffalo and Binghamton up to a state of good repair. Indeed, when combined with NS previous investments in the Southern Tier, its investments as a result of PAS and the 50% match it is committed to invest in the Portageville Bridge, this project may represent one of the largest investments of private capital into the railroad network that stretches from Buffalo to the PAS New England region since the bankruptcy of the Northeastern railroad system.

Structurally deficient and operationally obsolete, the 135-year old Portageville Bridge is quickly approaching the end of its useful life as a rail freight carrying structure. The detection of structural cracks and broken rivets on a September 9th, 2009 inspection forced a three-day shut

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**TABLE: MONETIZED BENEFIT-COST CATEGORIES**

<table>
<thead>
<tr>
<th>Category</th>
<th>First Year (2014)</th>
<th>20-Year Cumulative</th>
<th>30-Year Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>State of Good Repair</td>
<td>$950,751</td>
<td>$21,557,113</td>
<td>$34,612,725</td>
</tr>
<tr>
<td>Economic Competitiveness</td>
<td>$17,223,366</td>
<td>$390,518,492</td>
<td>$627,027,811</td>
</tr>
<tr>
<td>Liveability</td>
<td>$2,054,914</td>
<td>$46,592,624</td>
<td>$74,810,467</td>
</tr>
<tr>
<td>Sustainability</td>
<td>$5,948,868</td>
<td>$99,019,026</td>
<td>$139,060,254</td>
</tr>
<tr>
<td>Safety</td>
<td>$512,302</td>
<td>$11,615,815</td>
<td>$18,650,690</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$26,690,201</strong></td>
<td><strong>$569,303,070</strong></td>
<td><strong>$894,161,947</strong></td>
</tr>
</tbody>
</table>

NPV @ 3% Discount Rate         | $385,412,581      | $538,458,615       |

BCR @ 3% Discount Rate         | 11.0              | 15.4               |

NPV @ 7% Discount Rate         | $261,712,924      | $320,340,689       |

BCR @ 7% Discount Rate         | 7.5               | 9.2                |
### History of Repairs to the Portageville Bridge (2000-2010)

<table>
<thead>
<tr>
<th>Year</th>
<th>Expenditures</th>
<th>Contractor</th>
<th>Scope of Work</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Capital</td>
<td>Expense</td>
<td>The L.C. Whitford Co.</td>
</tr>
</tbody>
</table>
| 2000 | 0% | 3% | $23,000 | 1- Repair of cracked members of the steel truss  
2- Repair of the cracked column web in one of the steel bents.  
3- Replacing 2 small sections of one of the truss members with severe corrosion.  
4- Adding steel hanger bars to reinforce truss joint at the location of repair No.3 above. |
| YR Total | — | — | $23,000 |
| 2002 | 57% | 20% | $402,000 | $139,000 | The L.C. Whitford Co. |
| | 57% | 20% | | 1- Repair of masonry abutments and backwalls using cast-in-place concrete.  
2- Construction of four concrete wingwalls at east and west abutments to stabilize embankment for track support and to limit track access by vandals, passerby, and tourists.  
3- Heat shortening and tightening of eyebars in truss span No.9. |
| YR Total | $402,000 | $139,000 |
| 2006 | 26% | 18% | $186,000 | $129,000 | Fenton Rigging & Contracting  
The L.C. Whitford Co.  
Littell Steel Company |
| | 26% | 18% | | 1- Repair of the cracked column web of a steel bent  
2- Construct two steel foot bridges between piers at the base of the gorge. They provided safe access to tower piers and bents for bridge inspection.  
3- Repair of one of the most deteriorated and cracked concrete piers.  
4- Heat shortening and tightening of eyebars in truss spans No.7 and No.11. |
| YR Total | $186,000 | $129,000 |
| 2009 | 0% | 10% | $19,500 | $30,000 | $23,300 | 
Modjeski & Masters  
The L.C. Whitford Co.  
Littell Steel Company |
| | 0% | 10% | | 1- Emergency design work in connection with replacing a fractured eyebar.  
2- Emergency repair work in connection with replacing a fractured eyebar.  
3- Fabrication of three sets of hairpins as spare parts for future emergency repairs. |
| YR Total | — | — | $72,800 |
| 2010 | 16% | 39% | $16,400 | $115,000 | $230,000 | $25,000 | 
Non-Destructive Testing  
Cleveland Electric Laboratories  
The L.C. Whitford Co. |
| | 16% | 39% | | 1- Inspection of all eyebars (prompted by detecting a fractured one during a routine inspection in September of 2009).  
2- Installation of fiber optic stress monitoring system to detect strain/stress spikes in preselected eye bars.  
3- Replace the existing hairpin with a new one under a low post-tensioning load. |
| YR Total | $115,000 | $271,400 |
| TOTAL | $703,000 | $635,200 |

**Notes:**
1. The above table does not include the following expenses:
   A. The in-house labor that was spent on preparing plans, contract documents, and project management of repair works that were carried out in 2009 and 2010 except for the installation of stress monitoring system.
   B. The in-house labor that has been and will be expended for more frequent inspection of the bridge and overseeing the newly installed monitoring system.
2. It can be observed that capital expenditures have fallen as the maintenance expenditures have risen during the past 10 years.
3. There are other problems with girder seats and bents that will require attention in the future.
4. A few photographs are included with this correspondence to depict the necessity for more frequent inspection and repair to the bridge which has resulted in such a disproportionate maintenance expenditure in comparison with other bridges.
down of the bridge to operations and the subsequent severing of the Southern Tier. Figure U shows an NS Maintenance of Way employee making those repairs. Approximately $1.354 million has been spent between maintenance and inspections on the bridge since 2000 and as the table on the next page demonstrates, costs are escalating as the bridge ages.

To ensure the safety of the bridge and rail operations, since September 2009 NS has increased its inspection frequency to every three months and has installed real-time stress monitors on critical members. As fatigue and corrosion have taken their toll, the bridge has for years remained weight-restricted to a load carrying capacity of 273,000 gross weight pounds instead of the Class I railroad standard 286,000 pounds. The entire corridor is thus limited to 273,000 pounds per rail car. Heavier trains are routed around the Southern Tier entirely, resulting in longer shipping distances. The bridge’s weight restrictions also impact other rail corridors which must route trains over the bridge, since these other corridors are equally constrained to the bridge’s maximum allowable weight. As discussed previously, this has immediate implications for PAS and Canadian traffic on CP.

Meanwhile, the bridge’s 10-mile-per-hour speed restriction impacts train velocity along the rest of the Corridor, adding to transit times and service reliability. When a train approaches the bridge, it must reduce speed to 10 miles per hour and not increase or accelerate again until the last car, sometimes a mile or longer away, has cleared the bridge (see Figure V). Building a new bridge would remove significant operational constraints and would preserve and enhance the Southern Tier corridor for decades to come. It bears repeating that prior to the Conrail split and the merger into the NS and CSX systems, the Southern Tier Route remained substantially underutilized and experienced deferred maintenance, even more so as the communities adjacent to it continued to undergo steady decline in industrial production, jobs, and population. NS will own and maintain the new bridge and will be responsible for upkeep and maintenance once this one-time public investment has been made. Unlike a highway or vehicular bridge project, this $17.5 million public investment ends any need for on-going use of tax dollars. The substantial cost-share by NS and CP into the bridge as part of this project increases the certainty the railroads will retain the entire Southern Tier corridor and remain a significant and viable transportation force in the state, while promoting economic development along their right-of-way.

11.2 ECONOMIC COMPETITIVENESS:

Besides serving as a through transportation corridor linking the Midwest with New England, the Southern Tier serves three distinct markets: the Buffalo-Niagara region, with its strategic location for trans-border trade; the Elmira-Chemung area, a traditional agricultural and manufacturing region, that is now seeing a surge in rail traffic due to the extraction of mineral resources and other industrial activity; and Binghamton, which serves as a mini rail hub for east-west traffic as well as direct connections to New England, the New York Metropolitan region, and points south.

The Buffalo-Niagara Gateway is strategically located to take advantage of the ever-growing increase in NAFTA-related trade. This project would strengthen the Buffalo Gateway, and aid the region’s goals of using its strategic location to expand international trade, the rail activity.
As an intact corridor, the Southern Tier provides connectivity for PANYNJ-Buffalo, giving port industries direct rail access to and from Canadian markets, which the railroads and the state would like to see grow. The timing by NS to expand intermodal operations is a welcome development, as a recent Niagara Frontier Transportation study estimates that freight movements through the Buffalo/Niagara area will increase to 93 million tons by 2035 from 47 million in 2004, while cross-border traffic will triple from 6.4 million to 18.2 million tons during this same period. As GBNRTC stated, most of the international traffic coming over the Gateway is on the highway, creating significant bottlenecks at the border crossings. If the Southern Tier is severed, that means even fewer goods will move by rail because NS will no longer have direct and seamless connections to New England and PANYNJ from Buffalo.

The Elmira-Chemung area still retains a strong industrial and manufacturing economy that depends upon efficient and cost-effective freight rail service. Indeed, a recent report by the Elmira-Chemung Transportation Council revealed that manufacturing companies had the highest amount of sales and revenues and employed as many people as health care and social assistance and even compensated at a higher annual rate of pay. The recent surge in industrial activity due to gas and other natural resource explorations in the area will help support this trend.

Improving the corridor also offers NS and the short line railroads the opportunity to restore and utilize several brown-field sites, particularly in the Elmira-Chemung region (see Figure W). Because of declining traffic and the loss of manufacturing facilities over three or more decades, there are numerous abandoned or underutilized rail yards and terminals scattered in the area that are now being considered to serve industries. Industries and shippers tied to recent economic activity related to natural gas exploration are working with NS and short line railroads to reopen and/or reconstruct these facilities for their transportation needs. This means that there is the potential for strong and real job growth. Indeed, NS recently reopened a defunct rail terminal in the Elmira area, for instance, for freight rail operations. The privately owned Center at Horseheads Industrial Park in Horseheads, New York is currently expanding and improving facilities for new rail customers, bringing in increased employment at the same time. Using closed and underutilized rail facilities and terminals that are brownfield sites serve an important public purpose and need.

Figure W. Prairie Transportation’s recent lease of NS-owned track for sand transloading operations is one recent example of brownfield redevelopment in Elmira, New York.
Lastly, Binghamton will once again have the opportunity to operate as a railroad hub for east-west and north-south rail traffic. That role diminished as manufacturing declined and the interstates were built. However, the city's location could give it a distinct advantage once again. With the purchase of the PAS, NS expects to significantly increase intermodal and other operations into New England from the south and the west and will utilize Binghamton as the location where trains will switch from NS's Southern Tier to CP's route toward Albany.

11.3 LIVABILITY:
The replacement of the Portageville Bridge will enhance the livability of communities across the Southern Tier by 1) developing safer, more reliable and more economical transportation choices, 2) enhancing economic competitiveness, 3) leveraging state and private investments and 4) valuing surrounding communities and neighborhoods.

The project will also result in measurable qualitative improvements in the immediate vicinity of the bridge within Letchworth State Park. Renowned as the “Grand Canyon of the East,” the Park is home to one of the most scenic recreational areas in the country.

Replacing the Portageville Bridge will create a safer and more reliable transportation system by eliminating the existing safety hazards for park patrons and railroad employees. It will also divert freight from truck to rail, with a corresponding improvement in highway safety. A new bridge will provide more economical transportation choices by eliminating the current weight restrictions which require shippers to short-load their cars or utilize more circuitous routes. It will also support the expansion of intermodal services in the corridor. Maximizing the amount of freight carried via rail versus truck over the Portageville Bridge would improve air quality, reduce greenhouse emissions and promote public health to the surrounding communities.

This project would enhance economic competitiveness by supporting the Buffalo-Niagara Gateway, a major international artery for trade. Figure C illustrated the origin and destination of traffic that crosses the Portageville Bridge. The ability to carry 286,000 lbs cars across the new bridge will enhance the competitiveness of industries, not just locally, but across the entire eastern half of the country. Replacing the bridge would also prevent freight from being shifted to highways on the communities adjacent to the Southern Tier.

Replacement of the Portageville Bridge would leverage recent investments in the Southern Tier Route and surrounding areas including Bison Yard, as well as recent and future industrial development projects. Additionally, a new bridge would support the proposed intermodal service between Buffalo and the Ports of New York and New Jersey.

Figure X. View from atop the Portageville Bridge looking down on the Upper Falls and Genesee River.

Letchworth State Park, in the immediate vicinity of the Portageville Bridge, is renowned as the “Grand Canyon of the East.” This unique setting is home to one of the most scenic recreational areas in the country (see Figure X). Each year, thousands of families seeking to connect with America's great outdoors flock to the park to enjoy its miles of trails and waterways for.
everything from hiking, horseback riding and biking to white-water rafting and kayaking; its break-taking views of the park's waterfalls and cliffs; its iconic and unique lodging amenities like the historic Glen Iris Inn; and a host of other outdoor and cultural activities. More park information is available at: http://www.nysparks.state.ny.us/parks/79/details.aspx. Additionally, NYSDOT and NS have proposed a new, patron-friendly viewing platform on a portion of the eastern-side of the current bridge in order provide visitors stunning views, as well as provide an aesthetic attraction that can complement recreational and cultural activities.

11.4 ENVIRONMENTAL SUSTAINABILITY:
As shown in Appendix A, Table 1, CS calculated substantial public environmental benefits from fuel consumption and air emissions reductions. A new bridge ensures that the freight that currently accesses the Southern Tier will continue to do so rather than divert to the highway; otherwise, the double-stack intermodal trains NS currently transports over the bridge could be lost to trucks. At a time when freight railroads, state departments of transportation, and the USDOT nationwide are clearing corridors to handle double-stack intermodal traffic, there is a risk that the nation and New York State will lose an established double-stack cleared route—one of the nation’s oldest and the first east of the Mississippi River. This would represent a modal shift in freight in a direction that is opposite to that desired by federal policymakers. Once traffic is converted to the highway mode, it would place an additional burden on roadways resulting in more gridlock, increasing fuel consumption and attendant air emissions. This shift to trucks would also accelerate the need to expand interstates, resulting in the consumption of more land to accommodate the growth in traffic.

Even if the majority of freight continues to move by rail, a severed Southern Tier will result in more route miles for freight moving by rail between the Buffalo-Canada gateway and Binghamton and New York City. It would also add route miles for through freight trains originating or destined for other rail corridors which currently travel over the bridge.

Through preliminary design and development of the Environmental Impact Statement, NYSDOT and NS have worked closely with the New York State Office of Parks, Recreation and Historic Preservation, not only to identify measures to avoid or minimize the impacts to the surrounding Letchworth State Park, but also to explore opportunities to enhance the park. This coordination will continue through final design and into construction, to preserve the natural beauty of the Genesee River gorge and to ensure that park patrons continue to enjoy the various amenities and activities available.

11.5 SAFETY:
Replacing this aging and obsolete bridge with a modern, new structure will also improve and enhance safety. As discussed previously, park visitors frequently trespass on railroad property to catch a glimpse of the Genesee River from 245 feet above, despite efforts by NS to discourage trespassing through preventive measures such as fencing (see Figure Y). Moreover, at such heights and in light of the extensive maintenance and inspection requirements, the bridge poses a safety hazard for railroad employees who must perform the dangerous work which allows the bridge to remain in operation. A modern, new bridge on an adjacent alignment will reduce the need to perform maintenance and inspections beyond standard procedures for new railroad structures. Additionally, the creation of a viewing platform from a portion of the existing bridge’s eastern platform after the remaining superstructure is dismantled would reduce the desire for park patrons to trespass on the new bridge, as this platform would provide the public an inspirational view of the Genesee River—something currently not available.

Figure Y. This fence along the right-of-way leading to the bridge has failed to deter trespassing.
11.6 JOB CREATION AND ECONOMIC STIMULUS:
The project will produce meaningful job creation and economic stimulus. First, there will be jobs related to the construction of the bridge, both for railroad employees and as well as those engineers and contractors chosen to participate in its design and construction.

However, the state believes that it will also see robust job growth in two other key areas: the jobs created as a result in the increase in international trade at the Buffalo Gateway, and the significant job increases that have resulted from recent boom in local industrial development surrounding the Southern Tier. Efficient freight rail service is a critical piece of regional economic development efforts designed to maximize the job creation potential from these industrial expansions; higher transportation costs will result in fewer employment opportunities for Southern Tier residents.

NYSDOT also sees potential for job growth in the Albany area as well with the upcoming construction of the new intermodal and auto terminal at Mechanicville, whose success is predicated on an intact Southern Tier to handle trains originating or destined for the terminal.

11.7 INNOVATION:
As noted previously, the bridge has several operational constraints that hamper service performance: it cannot handle railcars weighing 286,000 pounds, the industry standard, and speed is restricted to 10 miles per hour. The replacement bridge will be able to accommodate heavier cars, improve speed, and will also continue to accommodate double stack trains. It will help drive diversions to rail intermodal and feeds into other private investments throughout the Southern Tier and in other rail corridors such as PAS that lead to success for that traffic. Additionally, NS, subject to final EIS and negotiations with state parks, will examine innovative bridge design opportunities that enhance the view, operation and security of the bridge.

The Portageville Bridge is also a vital part of the Empire Link, which itself is an innovative trackage rights agreement between 10 New York short line railroads and NS, targeting short-haul traffic less than 500 miles in upstate New York. These short lines play a key role in many of the small and medium-size communities and industries. Without a new bridge in place, there is every reason to believe that this unique project will end, resulting in loss of traffic volumes and revenues for these short line partners. And since short line railroads are small rail carrier operations, any loss of carloads and revenues could hurt their ability to remain viable and competitive.

11.8 PARTNERSHIP:
Public policymakers on both the state and federal level have come to recognize the substantial public benefits when more freight moves by rail and rail intermodal. Through recent public-private partnerships, New York and other states have embarked on efforts to encourage the transportation of goods on freight rail when those public benefits are clearly identifiable. The project to construct a new rail freight bridge at Portageville to replace the current deteriorating structure that holds the Southern Tier together as a transportation corridor is one of the most important investments in freight rail capacity and infrastructure in this region of the state in many decades. It represents the final piece in a series of investments made along this main line to restore the Southern Tier as a major corridor for moving freight and enhancing economic development.

By filing this application, New York signals to the USDOT that this project is a key priority for the state. NS and CP are prepared to commit at least half the construction funds for the new bridge. The public investment will benefit two Class I railroads and 10 short line railroads that depend on the Southern Tier Corridor for their continued success and viability. This may be a rare occurrence where an investment in a single asset on one railroad route will benefit other private railroads—as evident by their strong letters of support. This partnership is also supported by the Port Authority of New York and New Jersey, Metropolitan Planning Organizations, state legislators, and many more. These letters of support can be found in the “Letters of Support” section of the Appendix.

12.0 PROJECT READINESS

12.1 CONSTRUCTION & NEPA TIMELINE:
To date, review of this project under the NEPA has not been initiated as no federal funds have been applied to the project or are otherwise anticipated and it has not been conclusively determined that any federal permits will be required.
## PORTAGEVILLE BRIDGE PRELIMINARY SCHEDULE

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**TIGER II Grant Application for the Portageville Bridge Replacement Project**

Linking Buffalo, Binghamton, New York City & Beyond by Rail
When the project was initiated in 2008, NYSDOT invited the Federal Highway Administration (NY Division) to coordinate their review under NEPA of SAFETEA-LU project #2487 “Portageville Bridge – Purchase Existing Bridge to Convert to Pedestrian Bridge.” FHWA concluded that while replacement of the Portageville bridge on new alignment is a prerequisite to fulfilling the language of the earmark, the earmark is a separate project with a separate purpose and need from the railroad’s need to replace the bridge. Therefore, FHWA declined NYSDOT’s request to participate in the project as a federal lead agency under NEPA. To date, the earmark has not been utilized.

Following that determination from FHWA in 2008, NYSDOT initiated an environmental review process for this project under New York’s State Environmental Quality Review Act (SEQR) as a non-Type II action and NYSDOT issued a positive declaration under SEQR and began the preparation of a Draft Environmental Impact Statement based on the potential for significant impacts to historic resources, parklands, and visual resources. NYSDOT initiated a public scoping process which included the publication of a Draft Scoping Report and solicitation of input from various Federal and State Agencies, Local Governments, stakeholder groups, and the public at large. NYSDOT held a public scoping meeting on Oct. 1, 2008 which was attended by various Federal and State Agencies, stakeholder groups, and the public. NYSDOT published a Final Scoping Report on March 27, 2009, which reflected the input received from other agencies and the public, and which included a summary documenting NYSDOT’s responses to comments and issues raised during the scoping process.

Following scoping, NYSDOT formed a Citizens Advisory Committee, consisting of representatives from federal and state agencies, stakeholder groups, and the general public. NYSDOT has convened several meetings with the Citizens Advisory Committee to obtain input on the project including identifying potential impacts; soliciting comment on the project alternatives and analysis; and to inform stakeholders of the status of the environmental review.

At the time the NOFA for the TIGER II program was published in the Federal Register, all the analysis and studies necessary to support the SEQR DEIS had been completed, and a preliminary version of the SEQR DEIS was circulating within Norfolk Southern and its consultant team as a prerequisite to review and adoption by NYSDOT.

NYSDOT’s procedures under SEQR are closely aligned with the Federal Highway Administration’s procedures for consideration of environmental impacts under NEPA. Therefore, the DEIS document produced by NYSDOT under SEQR is very similar to the NEPA document it would otherwise prepare with federal involvement. In anticipation of TIGER II funding, NS and NYSDOT have modified the preliminary SEQR DEIS to address NEPA, with the assumption that the Federal Railroad Administration would be the NEPA lead agency. A copy of the preliminary DEIS is included in the application as Appendix F.

Should this project be selected for TIGER II funding, the following steps would be necessary to formally initiate a review of the project under NEPA.

- Confirm the Federal Lead Agency
- Confirm NEPA Class of Action with Lead Agency
- Publish Notice of Intent to prepare EIS in Federal Register
- Supplement SEQR Scoping as necessary for NEPA
- Initiate Section 106 consultation
- Complete the DEIS document for adoption by NYSDOT and the NEPA Lead Agency

NYSDOT believes that it conducted a robust scoping process under SEQR, which will allow the federal lead agency to adopt an abbreviated NEPA scoping process, which can be followed very quickly by adoption and release of the DEIS. As such, NYSDOT believes that the NEPA process can be completed within the required timeframe, even if the project is processed as an EIS.

A detailed timeline of these NEPA efforts is attached (previous page) which includes key milestones for completing the DEIS and advancing construction. This schedule is designed to accommodate the availability of agency resources, given the many projects currently undergoing NEPA review by FRA. The Portageville DEIS, which is substantially advanced, is anticipated to have completed agency and public reviews by May, 2011, with a FEIS issued by September, 2011. All environmental approvals, including applicable state and federal permits, conclusion of the Section 106 and 4f processes, and completion of Land and water Conservation Fund
Act Section 6f conversion approvals, will be secured by October, 2011. Preliminary design will be coordinated such that final design can be complete by December, 2011. Construction is planned to commence in January, 2012. The new bridge will be completed by 2013. Freight rail operations will transition at that time and dismantling of existing bridge will begin 2013 and end by October 2013.

13.0 PROJECT PERFORMANCE MEASURES

If a substantial amount of the TIGER II grant request for this project is awarded, NS pledges to monitor the actual number of revenue carloads traversing the bridge annually following construction and start-up. As part of its long term financial plan, NS will annually report a final year calculation of actual revenue carloads executed. Using this data, NS will report the short and long term performance evaluations, by applying the CS model detailed in the application. Long-term outcomes and other metrics, such as diverted loads, fuel savings, greenhouse gas reductions, avoided heavy-duty truck crashes and traffic fatalities, and total jobs created will be reported. Further, if USDOT awards TIGER funds consistent with this submittal, NS will maintain and operate the publically funded assets for a period of at least 20 years, which will insure that public benefits will continue to accrue.

14.0 FEDERAL WAGE RATE CERTIFICATION

Federal Wage Rate Requirement

Pursuant to Public Law 111-117 of Dec. 16, 2009, 123 STAT. 3037, I Stanley Gee, the Acting Commissioner for the New York State Department of Transportation, certify that the New York State Department of Transportation, the applicant for Transportation Investment Generating Economic Recovery Funds pursuant to this application, will comply with the requirements of subchapter IV of chapter 31 of title 49, United States Code (Federal wage rate requirements) should this application be approved for funding.

Signed: Stanley Gee, Acting Commissioner, New York State Department of Transportation

Date: 8/16/10

15.0 MATERIAL CHANGES

The pre-application filed by NYSDOT identified the project as “Port Viaduct Over the Genesse River”. This project is now called “TIGER II APPLICATION for the Portageville Bridge Replacement Project.”