Rail Capacity Expansion
For the South Texas Region

TIGER II Discretionary Grants – National Infrastructure Investments FY 2010 Appropriations Act

Garcitas Creek Bridge

Colorado River Bridge

Rail bridge capacity upgrades will reduce truck movements in South Texas

PORT CORPUS CHRISTI

PORT OF BROWNSVILLE
WORLD CLASS
Rail Capacity Expansion
For The South Texas Region

PROJECT INFORMATION

Type of Project:  Port/Rail

Project Location:  TEXAS-14, Brazoria, Matagorda, Jackson & Victoria Counties
TEXAS-14, Buckeye, Matagorda County
TEXAS-14, Vanderbilt, Jackson County

Urban/Rural Area:  Rural areas

Funding Amount Requested:  $16,500,000

DUNS Number/CCR:  806782553

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Project Summary – South Texas Rail Capacity Project

This application is submitted by the Texas Department of Transportation (TxDOT), in coordination with the Port of Corpus Christi Authority and the Brownsville Navigation District, to the U.S. Department of Transportation’s Transportation Investment Generating Economic Recovery II (TIGER II) Discretionary Grants Program and requests a total of $16.5 million in funds for the completion of rural rail capacity infrastructure improvements in South Texas.

Freight rail service between South Texas and points north is weight limit restricted by the condition of structures along 91 miles of rural mainline rail track between Angleton and Placedo. These weight and dimensional capacity limits negatively impact freight movement efficiency for the Lower Rio Grande Valley, Laredo, the Port of Corpus Christi, the Port of Brownsville and industrial shippers on the Middle Texas Coast.

The elements of the South Texas Rail Capacity Project are located in rural Brazoria, Matagorda, Jackson and Victoria Counties on the Texas Gulf Coast.

The project would complete capacity upgrades on a section of joint-use track known as the Angleton Subdivision. The project will require reconstruction of two large rail bridges and improvements to 31 smaller timber structures so that each one fully complies with the 286,000 pounds per rail car maximum weight standard. Cost estimates for the project components are:

- Colorado River Bridge: $5,933,000
- Garcitas Creek Bridge: $4,489,000
- 31 Culverts and Timber Structures: $6,078,000

It is anticipated that a Federal Railroad Administration NEPA review will confirm that the project is eligible for a Categorical Exclusion allowing it to move quickly to construction.

This project would:

1. Provide nearly $38.22 million in net public benefits or $2.40 in public benefits for every dollar spent;
2. Create more than 179 jobs;
3. Reduce CO emissions by 14 tons and CO2 emissions by 7,096 tons and 3.9M gallons of fuel;
4. Reduced truck miles traveled by more than 110 miles;
5. Provide nearly $6.3 in pavement maintenance cost savings;
6. Provide more than $22.3M in shipper and logistics cost savings for new and existing rail customers; and
7. Promote attainment of National Ambient Air Quality Standards
Figure 1 – South Texas Rail Capacity Project Location

The South Texas Rail Capacity Project includes two railroad bridges and 31 smaller structures that restrict the weight and size of all rail traffic on the line used by multiple carriers.
Project Description

TxDOT, in coordination with the Port of Corpus Christi Authority and the Brownsville Navigation District, seeks to complete a proposed South Texas Rail Capacity Project that will significantly expand rail transportation capacity in the portion of Texas south of Houston. It will improve the freight movement efficiency of maritime commerce at Corpus Christi and Brownsville and of rail shipping in the international regions surrounding Brownsville and Laredo. This project addresses capacity, competition and congestion challenges faced by the region.

The project has broad support from the railroads served by the proposed improvements including the BNSF Railway (BNSF), Union Pacific Railroad (UP), Brownsville and Rio Grande International Railroad (BRG), serving the Port of Brownsville, and Corpus Christi Terminal Railroad (CCTR) serving the Port of Corpus Christi and the City of Laredo.

The project will upgrade a 91-mile section of mainline track known as the UP & BNSF Angleton Subdivision. Project components include reconstruction of Union Pacific railroad bridges over the Colorado River and Garcitas Creek plus 31 culvert and timber structures. All would be upgraded from a 268,000 pound load rating to a 286,000 pound loads rating for cars into and out of the South Texas region. These load restricted structures limit both cargo dimensions and car load capacity by 18,000 pounds for rail traffic flowing in and out of South Texas on this line.

BNSF has trackage rights to operate over the Union Pacific Angleton Subdivision. This line is the only access route to South Texas available to BNSF, a major transporter of U.S. agricultural commodities destined for export. Weight restrictions on this 91-mile section put this corridor at a competitive disadvantage compared to other longer corridors. Each rail car is loaded 18,000 pounds below maximum capacity and compete against alternate, longer routes with cars loaded to maximum weight. In practice this means a competitor can haul 1,000 tons of additional grain using an identical 110-car grain train. That extra grain is the equivalent of 40 truckloads. The net result is that goods for local consumption cost more and import-export traffic ends up carrying burdened with higher freight costs.

Upgrades in the South Texas Rail Capacity Project will replace maintenance intense bridges, culverts and timber structures with facilities built to the latest design standards that can handle oversized cargos and cars loaded to the maximum weight limit. The resulting rail improvements will make South Texas and the U.S. more competitive in the world market. This increase in national competitive position is particularly true for export shipments of grain produced in a dozen Great Plains states.

With strategic planning and optimization of assets South Texas has avoided the severe transportation bottlenecks and congestion facing other U.S. regions. To continue growth and create new jobs in South Texas the rail capacity in and out of the region must be expanded.

Lastly, the Corpus Christi Ship Channel has been authorized and permitted for deepening to 52 feet. At the same time the Brownsville Ship Channel is authorized to 42 feet and a study is underway to determine the feasibility of deepening to 48 to 50 feet. The existing deepwater channels and future deepening provide a combination that will make the Texas export market much more competitive with ports in other regions. Shifting some cargoes to South Texas ports will also reduce congestion from Houston and other heavily congested port cities.

The Project is located in rural Brazoria, Matagorda, Jackson and Victoria Counties. This 91-mile section of railroad passes through farm and pasture land and the following communities: Brazoria (est. 2008 pop.
3,056), Sweeny (3,894), Bay City (18,520), Buckeye (16), Blessing (871), La Ward (220), Lolita (553) and Vanderbilt (419).

The chart below shows how rail traffic had grown at the Port of Corpus Christi and the Port of Brownsville, the recent recession has diminished volumes but, both Ports are expected to be back on the growth curve in 2010.

**Table 1 – Loaded Rail Cars to and from Corpus Christi and Brownville Port Facilities**

<table>
<thead>
<tr>
<th>Year</th>
<th>Corpus Christi</th>
<th>Brownsville</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>12,897</td>
<td>35,527</td>
<td>48,424</td>
</tr>
<tr>
<td>2006</td>
<td>15,871</td>
<td>40,113</td>
<td>55,984</td>
</tr>
<tr>
<td>2007</td>
<td>26,787</td>
<td>37,047</td>
<td>63,834</td>
</tr>
<tr>
<td>2008</td>
<td>39,949</td>
<td>30,102</td>
<td>70,051</td>
</tr>
<tr>
<td>2009</td>
<td>31,345</td>
<td>22,299</td>
<td>53,644</td>
</tr>
</tbody>
</table>

Several cargo categories are likely to expand further at Brownsville and Corpus Christi port terminals when the South Texas Rail Capacity Project is completed and in service. They include:

**Grain Exports** – The one export grain elevator at Brownsville is served by the Union Pacific and BNSF and will benefit from inbound rail efficiency. The two export grain elevators at Corpus Christi are expanding to meet current and future demand for grain export capacity. Both Corpus Christi facilities can handle the large 110-car shuttle trains that are delivered by the Class I railroads which serve the port.

The South Texas rail expansion project will allow trains to haul 18,000 pounds more product per car or 1,000 tons of additional grain on each 110-car train. By having a more efficient rail/port/elevator network in South Texas, farmer across America will be less likely to be forced to stockpile grain on the ground waiting for transportation. Combining smooth Class 1 rail movements and two high throughput elevators with the future deepening of the Corpus Christi Ship Channel to 52 feet will allow South Texas to efficiently load the largest grain ships calling on the Gulf Coast.
Wind Turbine Equipment Imports - The fastest growing commodity at the Port of Corpus Christi in recent years has been electric power wind turbine components destined for North American wind farm projects. Most wind turbine components move in large unit trains from the port to a staging location near their final destination. The Port of Corpus Christi has invested $16.5 million in facilities and staging yards to be able to quickly and efficiently unload ships carrying wind power equipment. The Port has approximately 60 acres of open storage with rail track access for loading trains. It is not uncommon to have multiple trains at port facilities loading wind turbine components. Corpus Christi is currently handling ship to rail movements for seven multi-national equipment manufacturers.

Other Capacity Demands - With the exceptional growth at the Port of Corpus Christi and the Port of Brownsville, especially in unit train business, it is becoming critical that these seaports continue to expand to support growth in all lines of business. This is true for grain, wind power equipment and other cargoes such as petroleum coke exports to Mexico and bulk fertilizer shipments bound for the Midwest. Both ports are making plans that will allow them to handle an expansion in a combination of commodity lines and to be able to move them simultaneously. In addition to unit train growth, Corpus Christi and Brownsville continue to add individual carload rail business for commodities such as drilling media, edible beans and scrap metal. All of these shipments require expanded rail capacity to support the railroads and shippers.

Commodity Diversion From Truck to Rail – There are substantial opportunities for diverting some commodities moved by truck in South Texas over to rail transportation. This includes some chemical shipments. Diversion of some of these cargoes will result in increased public safety based on the history of chemical transport by rail versus truck. This will result in fewer incidents and fewer hazardous material releases.

Safety is a critical component of railroad and port operations. The proposed South Texas Rail Capacity Project will improve the safety of the U.S. transportation system by reducing the number of over-the-road on the nation’s highways. This will reduce truck/passenger vehicle interaction and the potential for collisions. It is imperative that ports continue to work in tandem with rail carriers to divert additional cargos from trucks to the rail system. If railroads and ports are unable to add capacity the result will be increased truck traffic and higher levels of congestion, emissions, highway deterioration and motor vehicle collisions involving trucks.
The Project

Angleton Subdivision – Bridge Upgrade Program (Refer to Appendix B)

*Colorado River Bridge* - Remove and replace the existing truss bridge structure crossing at milepost 276.52, 1.1 miles north of Buckeye, Texas. The new span will be a 151-foot Through Plate Girder (TPG) span to increase the load rating from 268,000 pounds to 286,000 pounds per rail car. Estimated cost is $5,933,000.

*Garcitas Creek Bridge* - Remove and replace the existing truss bridge structure crossing at milepost 234.19, 6.2 miles south of Vanderbilt, Texas. The new span will be a series of three 60-foot low cord steel beams and will increase the load rating from 268,000 pounds to 286,000 pounds per rail car. Estimated cost is $4,489,000.

*Culvert and Timber Structure Upgrades* - Some 31 culverts and timber bridge structures along the Angleton Subdivision need to be upgraded or repaired to complete the program to fully comply with the 286,000-pound weight allowance. The northernmost of these structures is at milepost 316.46, 7 miles north of Brazoria, Texas. The southernmost structure is at milepost 225.48, near Placedo, Texas. Estimated cost of all structures is $6,078,000.

Project Parties

TxDOT, in coordination with the Port of Corpus Christi Authority and the Brownsville Navigation District, is the proposed recipient of the requested TIGER II grant funds which will be utilized for the South Texas Rail Capacity Project detailed in this application. Both are navigation districts and political subdivisions of the State of Texas.

The Port of Corpus Christi Authority was established by the Texas Legislature in 1922 as the Nueces County Navigation District No. 1. The name was changed by special legislation in 1981 and today the district boundaries include all of Nueces and San Patricio Counties. The port authority is governed by a seven member board of commissioners and is a separate and distinct entity. The mission of the authority is to serve as a regional economic development catalyst while protecting and enhancing its existing industrial base and simultaneously working to diversify is international maritime cargo business.

The Brownsville Navigation District was created in 1936 and operates the Port of Brownsville. The district is guided by an elected board of five commissioners who establish policies, rules, rates and regulations. The Port of Brownsville is the only deepwater port located on the U.S./Mexico border and is the western terminus of the Gulf Intracoastal Waterway system. The port is a major center of industrial development in the economically depressed South Texas region and home to more than 270 companies. The port provides employment, directly and indirectly, to more than 38,000 people statewide with approximately 11,000 of those jobs in the Lower Rio Grande Valley.

The Port of Corpus Christi Authority and the Brownsville Navigation District are joint grant recipients and no other project parties are referenced in this section and/or in the remainder of this application.
Table 2 - Use of Project Funds

<table>
<thead>
<tr>
<th>Angleton Rail Subdivision Upgrades</th>
<th>Construction</th>
<th>Design/Contg.</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colorado River Bridge</td>
<td>$5,550,000</td>
<td>$383,000</td>
<td>$5,933,000</td>
</tr>
<tr>
<td>Garcitas Creek Bridge</td>
<td>$4,200,000</td>
<td>$289,000</td>
<td>$4,489,000</td>
</tr>
<tr>
<td>Culvert &amp; Timber Structures</td>
<td>$5,686,000</td>
<td>$392,000</td>
<td>$6,078,000</td>
</tr>
<tr>
<td><strong>TOTAL TIGER II GRANT COSTS</strong></td>
<td><strong>$15,436,000</strong></td>
<td><strong>$1,064,000</strong></td>
<td><strong>$16,500,000</strong></td>
</tr>
</tbody>
</table>

Primary Selection Criteria

**Long-Term Outcomes**

The fact that South Texas is capacity constrained directly and adversely impacts the commerce of the United States. The South Texas Rail Capacity Project will provide a variety of long-term benefits resulting principally from improved rail movement efficiencies between the South Texas seaports and inland shipping and distribution points. The rail upgrade project will increase capacity on the existing rail system without increasing noise, emissions or the number of trains. States, local communities, shippers and port terminal operations all stand to benefit from this initiative. South Texas will gain increased tax collections, more reliable freight service and improved highway safety. Local communities will benefit from an increased number of better paying jobs, a diversion of heavy trucks from local roadways and reduced emissions. Shippers will benefit from lower transportation costs, improved service reliability, reduced transport times, and expanded access to rail services. The Port of Corpus Christi and the Port of Brownsville will benefit from increased throughput and an enhanced competitive position that results from additional transportation options.

**State of Good Repair**

The Project will improve rail conditions that currently hinder the efficient flow of freight traffic. Modifying the rail bridges and culvert structures to allow for higher capacity rail cars will provide relief to congested rail and highway corridors by enabling trains to carry more freight per car. By converting truck traffic to rail, and reducing congestion on America’s roadways, the Project will reduce the demand for state and federal roadway maintenance funds. Reduced maintenance costs will free funding for transportation projects that would otherwise be delayed. Benefits associated with reduced congestion over the next 30 years include:

1. Public roadway congestion cost savings of $3.6 million; and
2. Public roadway pavement cost savings of $6.3 million.
Economic Competitiveness

The South Texas Rail Capacity Project will enhance the economic competitiveness of the nation by improving connectivity to ports and increasing market access through enhanced rail service competition. It will improve manufacturers’ and agricultural producers’ ability to compete globally by providing greater opportunities for shipment to any global export market through lower costs and greater reliability. As a result, the Project will:

1. Provide more than $22.3 million in shipper and logistics cost savings;
2. Enhance nationwide rail transportation flows through greater efficiency, added capacity, and expanded flows between South Texas and the rest of the U.S., and more rapid flows to and from the U.S. markets and the rest of the world.

A primary objective of the Project is to improve and maintain U.S. economic competitiveness. The Federal Highway Administration (FHWA) estimates the South Texas region will experience significant growth in freight movement by 2020. A number of factors indicate that the region’s economic competitiveness (both nationally and internationally) depends on a rail and port network that can effectively handle growing volumes of freight and seamlessly link all modes of transportation, including highway, rail and marine. By linking all modes of transportation, the Project will:

1. Help trade and manufacturing market sectors remain competitive in both the global and domestic markets;
2. Promote the development of regional distribution hubs for major retailers or shippers in the region, with potential economies of scale and improved productivity;
3. Improve transit time reliability, allowing firms to reduce inventories and associated costs, a key aspect of just-in-time delivery systems.

One of the major economic competitiveness benefits of the Project will be derived from the ability of the two South Texas ports to continue to expand trade. The ports have had significant growth over the last five years. The ports are not forecasting continued growth at that level but with additional rail capacity they will be positioned to take advantage of opportunities as the overall economy recovers.

The project sponsors have expended resources over the years seeking to get the proposed rail improvements built. The Angleton Subdivision upgrades have not been completed despite of the fact that it has been 19 years since the 286,000 pound per car standard was adopted. Stakeholders in the region have concluded that this Project is unlikely to ever be funded by private investment. Public funding of this critical infrastructure link will be necessary in order for South Texas and the nation to achieve the efficiency benefits identified. This application is for 100% federal funding of the project. This would assure substantial completion by the second quarter of 2012, and as a result, would accelerate the benefits of the Project.

Livability

The South Texas Rail Capacity Project addresses each of the Livability Principles as found in the website linked at the end of this application. Being regional in nature, the Project enjoys support from communities and is central to transportation choice and economic competitiveness. The Project will create incentives to move cargo from truck to rail and reduce roadway congestion and pavement
maintenance while offering the potential for added road capacity. Over the next 30 years freight movements will be shifted to rail as a result of the Project. Consequently, trucks will travel over 110 million fewer miles. The reduction in long-haul truck traffic will result in reduced greenhouse gas emissions by 7,150 tons.

The Project will also achieve the following livability benefits:

1. Provide travelers with safer and more convenient transportation options;
3. Reduce vehicle travel times; and
4. Improve connectivity between existing modes of transportation.

Another of the Livability Principles, Economic Competitiveness, is at the heart of why the Project is urgently needed. The Project, in addition to reducing congestion, will provide greater, more cost effective and more efficient shipping solutions for U.S. shippers and consumers. The shift of freight shipments from truck to rail is expected to reduce shipping costs, making goods more cost competitive and affordable. Providing more efficient shipping solutions is expected to result in Logistics/Reliability Cost Saving of $22.3M.

The Project will directly benefit two dozen counties in South Texas most of which are rural and the majority of which qualify as economically distressed areas. The Project builds on the value of existing communities in the region and introduces new opportunities for job creation and economic stimulus.

Sustainability

The South Texas Rail Capacity Project will make a valuable contribution to addressing our nation’s energy and environmental challenges. The Project will contribute to environmental sustainability by converting truck trips to rail over the next 30 years. As a result, trucks will travel more than 110 million fewer miles. By reducing truck traffic and shifting freight from the highway to the railway, the environmental and energy security benefits over the next 30 years will include:

1. Save nearly 3.9 million gallons of fuel;
2. Eliminate 7,096 tons of carbon dioxide (CO2) emissions;
3. Reduce nitrogen oxide (NOx) emissions by nearly 38 tons;

TxDOT, the Port of Corpus Christi Authority and the Brownsville Navigation District each have a decades long record of exemplary commitment to environmental stewardship. That commitment will be carried forward in completing the South Texas Rail Capacity Project.

The Port of Corpus Christi Authority has environmental policies which sets forth our principles for environmental management and include commitments to comply with legal and other requirements, prevent pollution, continually improve our processes and communicate our performance to the community. The port authority has a well developed award-winning ISO 14001 Environmental Management System.

The Port of Brownsville has also demonstrated a commitment to a healthy balance between economic development and environmental stewardship. Efforts include the Loma Alta Preserve and the Bahia
Grande Restoration Project which restored over 10,000 acres of wetlands and is one of the largest restoration projects in the country.

Safety

The South Texas Rail Capacity Project will reduce highway collisions and subsequent potential driver injuries and fatalities by reducing truck traffic on roadways in urban and rural areas. The South Texas area has seen increases in truck related crashes since 2006 based on data from the Fatality Analysis Reporting System. Texas is one of the top five states in the country in truck-related accidents and fatalities. By reducing growth in truck traffic and making cost-effective rail options available, the Project will reduce the need to rely on truck transportation, resulting in the following safety benefits over the next 30 years:

1. Public roadway accident cost savings of $5.93 million;
2. A 110 million mile reduction in truck miles traveled; and
3. A reduction in the disparity between truck and car size that often impacts the severity of incidents.

Job Creation and Economic Stimulus

The Project is located in four South Texas counties, two of which are Economically Distressed Areas. Matagorda and Jackson Counties are identified as Economically Distressed Areas and work in these two rural counties will account for 85% of the project’s total $16.5 million cost. Over the next 30 years, it is anticipated the rail project will create more than 179 new direct and indirect jobs. Distribution of these jobs is projected to be in San Patricio, Jackson and Matagorda County. Of the jobs created, 85% will benefit the economically distressed areas of Matagorda and Jackson Counties.

Much of the project costs will go to pay construction and engineering workers for their labor. In addition to this direct impact, a significant portion (approximately 50%) of the income received by construction and engineering workers will be re-spent locally on various items or activities (such as food, clothing, and housing), generating induced economic impacts. Consequently, the Project will have a significant impact on the economies of Jackson and Matagorda Counties in the form of jobs, labor income, and value added which will bring relief to the area. In summary, the Project is expected to:

1. Spur industrial development including site development for new port-related manufacturing, importers and exporters.
2. Create more than 179 jobs mostly in economically distressed areas.
3. Jobs created during the construction phase will benefit all four counties where the project is located. According to the 2000 U.S. Census Bureau data, the overall poverty rate within the U.S. is 9.2%. Nueces County has a poverty rate of 14.7%; Matagorda County has a poverty rate of 14.9% and Jackson County has a poverty rate of 12.2%. The proposed project will create new job opportunities and expanded business opportunities particularly for areas that have experienced higher than average poverty rates in the U.S.

Schedule
As noted previously, the Project has an approved construction and implementation timeline. With the help of TIGER II Funds, all project activities will be substantially completed the second quarter of 2012. For a construction and implementation timeline, please refer to Appendix B.

Environmental Approvals

It is anticipated that a Federal Railroad Administration NEPA review will confirm that the project is eligible for a Categorical Exclusion allowing it to move quickly to construction. Additional information is provided in the NEPA and ENVIRONMENTAL RELATED FEDERAL, STATE AND LOCAL ACTIVITIES sections of this application.

Legislative Approvals

The South Texas Rail Capacity Project will not require any legislative approvals.

State and Local Planning

The South Texas Rail Capacity Project calls for upgrading a section of rail track that stretches across a 91-mile stretch of sparsely populated coastal plains starting at a point approximately 75 miles south of Houston. No new track, routes, right-of-way or crossings are involved. Planning for this rural rail project has been coordinated with the ports and railroad carriers that use the track.

Technical Feasibility

The Port of Corpus Christi Authority and the Brownsville Navigation District have completed internal reviews to show that the Project is technically and economically feasible to construct, and economically feasible for the railroads to operate over the long term. The knowledge and experience of the sponsoring agencies and railroad companies make the South Texas Rail Capacity Project low-risk from both the engineering and economic perspectives. The preliminary engineering for the project has been completed.

Financial Feasibility

Stakeholders in the region have concluded that this Project is unlikely to ever be funded by private investment. Public funding of this critical infrastructure link will be necessary in order for South Texas and the nation to achieve the efficiency benefits identified. This application is for 100% federal funding of the project. This would assure substantial completion by the second quarter of 2012, and as a result, would accelerate the benefits of the Project.

Secondary Selection Criteria

Innovation

The bridge designs that will be used in the South Texas Rail Capacity Project are the latest industry standard in terms of cost efficiency and life-cycle design. The planned Through Plate Girder (TPG) design for the Colorado River Bridge and the low cord steel beam design for the Garcitas Creek Bridge are efficient, state-of-the-art engineering solutions. With no obstructions above the roadbed, the new bridges will eliminate the existing restrictions limiting the dimensional height and width of cargos.
Partnerships

The South Texas Rail Capacity Project is being proposed by TxDOT, in coordination with the Port of Corpus Christi Authority and the Brownsville Navigation District. It will be accomplished in a coordinated effort involving the applicant, Union Pacific Railroad, BNSF Railway and the ports.

Support for the Project spans a variety of stakeholders. The Project has unified leadership and support from local elected officials, state and federal government, business sector and regional partners. Elected officials/organizations that have expressed support for the Project are listed below. Letters of support listed below can be found by clicking on the following link: Rail Capacity Letters of Support. Appendix - A

- U. S. Representative Solomon P. Ortiz (TX-27)
- U. S. Senator John Cornyn (TX)
- U. S. Senator Kay Bailey Hutchison (TX)*
- Texas Senate, Senator Juan Hinojosa
- Texas Senate, Senator Eddie Lucio, Jr.
- Texas House of Representatives, Representative Todd Hunter
- Texas House of Representatives, Representative Abel Herrero
- Texas House of Representatives, Representative Solomon Ortiz, Jr.
- Texas House of Representatives, Representative Rene Oliveira
- City of Corpus Christi, Texas, Mayor Joe Adame
- City of Brownsville, Texas, Mayor Charlie Cabler
- City of Brownsville, Texas, City Manager Patricio M. Ahumada, Jr.
- San Patricio County Commissioners Court
- Cameron County, Judge Carlos H. Cascos
- Coastal Bend Council of Governments
- Corpus Christi Metropolitan Planning Organization
- Corpus Christi Regional Economic Development Corporation
- Corpus Christi Chamber of Commerce
- Nueces County Rural Rail District
- Interstate Grain Corporation
- WestStar Food Co., LLC
- Sherwin Alumina Company
- Gulf Stream Marine
- Dix-Fairway Terminals LLC

Program Specific Criteria

In 2014, the potential demands for additional rail service may become huge at the Port of Corpus Christi. The Panama Canal expansion will be complete and the port will be moving forward on widening and deepening the ship channel to 52 feet. This will make the Corpus Christi the deepest port on the Gulf Coast. The demand to load deep draft grain ships at the two grain elevators and deep draft bulk carriers at port’s Bulk Terminal will be great. This should spur new marine terminal construction and business opportunities will be increased. A sound and capable rail infrastructure is vital for the port to adequately serve this future demand as rail is by far the most economical surface transportation system to complement marine transportation.
Evaluation of Project Costs and Benefits

The proposed improvements will allow the rail line to transport heavier railcars (from 268,000 to 286,000 pounds each, gross weight), which is rapidly becoming the standard of railcar cargo for bulk. The result will be a decrease in shipping costs and improved freight flow from the port and across the border. The principal impact will be the diversion of freight traffic from trucks to rail. This project will result in operational improvements that will capture market share from trucks leaving the port.

The likely truck diversion level is determined by using data from the Freight Analysis Framework (FAF2) database, Port of Corpus Christi and Port Brownsville data on current freight flows and recent studies that show a cross-price elasticity between the two transportation modes equal to 0.67. FAF2 dataset of trucks to estimate divertible volumes by market including markets origin and destinations that would be affected by the Port of Corpus Christi and Port of Brownsville project improvements.

Research indicated that the new improvements would result in a 5 percent reduction in rail related costs resulting in a 3.4 percent market capture (of total divertible truck volumes) from trucks leaving the ports. Diversion reduces truck traffic on the highways over multiple states with the average truck traveling more than 500 miles. The associated reduction in truck miles per diverted truck is determined based on origin-destination distances. Reduced ton-miles are determined assuming an average load of 17 tons. Additional information on diversion forecasts is discussed in Cost-Benefit Analysis Appendix.

Economic Benefits - Public benefits from the Project fall into several categories, including:

1. Reduced shipping costs
2. Environmental benefits
3. Safety benefits
4. Congestion reduction, and,
5. Pavement maintenance cost savings.

These benefit categories are measured in terms of the net impact from diversion; that is, reduced truck costs and increased rail costs per mile or ton-mile. This section presents a brief explanation of the type and magnitude of benefits, as well as the overall public value of the Project. Details on the calculations that support the monetizing metrics for benefit calculations are included in the document which can found at the following link:  www.txdot.gov/business/rail/tiger.htm. This section also explains how results change under alternative data or scenarios (e.g., a three percent discount rate).

Key observations about the sources and magnitude of benefits include:

The project involves strengthening and replacing various bridge-related components along the UP railway corridor between the Port of Corpus Christi and Houston. In particular, the steel structures of two bridges to the north of the Port of Corpus Christi (Garcitas Creek Bridge and Colorado River Bridge) will be substantially replaced and 31 culvert and timber structures (Angleton Sub) will be upgraded. These improvements will lift the existing restrictions on dimensional and railcar load capacity for the corridor. The proposed improvements will allow the rail line to transport heavier railcars (from 268,000 to 286,000 pounds each, gross weight), which is rapidly becoming the standard of railcar cargo for bulk. Without the improvements, bulk going in and out of the Ports of Corpus Christi and Brownsville will not continue to
grow, impacting future operation levels for the Ports. Bulk will be diverted to either other ports or to trucks. In addition, the improvements will increase the height and width of the bridges enabling them to carry larger cargo such as wind turbine towers.

Cost-Benefit Analysis (CBA) provides a consistent and sound method for monetizing the social value of a project, that is, its associated costs and benefits. A critical feature of CBA involves determining the incremental effect of the project which is its improvement with respect to a baseline level of performance (based on forecasts of a ‘business-as-usual’ level of investment). Incremental costs and benefits are tracked over the project planning horizon and discounted to reveal their respective present values so that they may be reasonably compared to the upfront investment. Results from CBAs include: (a) net present value (NPV), defined as the difference between present value benefits and costs; and (b) benefit cost ratio (BCR), defined as the ratio of present value benefits to costs. Projects for which NPV is greater than zero and BCR is greater than one indicate worthy projects. While projects with larger BCR and NPV indicate a relatively larger level of worthiness, they have different implications for total impact. BCR reflects the return on investment (as a percentage above the breakeven point); NPV determines the total value of a project to society. Larger projects generally generate higher NPV but not necessarily higher BCR.

Guidance from the Federal Register indicates that CBAs in support of TIGER II funding requests be performed with defensible and robust methods, data and assumptions. The guidelines stipulate that benefits should be tracked for at least 20 years (possibly more, depending on the project), and present values of costs and benefits should be determined with a seven percent discount rate. Many of the monetizing factors of project performance [e.g. accident costs per vehicle mile traveled (VMT)] are specified in guidelines as well. Other categories and measures of benefits are also acceptable, including qualitative assessments of the potential benefits. The guidelines also suggest that sensitivity analyses for discount rates and other assumptions can be conducted to provide a complete perspective on the range of potential value for the project. This is consistent with Office of Management and Budget (OMB) circulars, A-4 and A-94.

The Corpus Christi and Brownsville Bridge Improvements Project would generate shipping benefits for railroad users since it would allow more goods per railcar, reducing overall shipping costs, thus preventing diversion of cargo to alternative (and longer) rail routes as well as to other modes such as trucks.

**Evaluation of Project Performance**

TxDOT is prepared to provide a plan for evaluating the success of the Project and measuring short- and long-term performance, specifically with respect to the economic recovery measures and long-term outcomes specified in this notice. The Port of Corpus Christi has successfully provided this in the past for TxDOT and is experienced and ready to provide the documentation as needed. The applicants will monitor progress of all project-related activities, according to the TIGER II grant requirements.

The applicants are prepared to provide periodic reports to the designated Agency which will include the following information:

1. The amount of grant funds appropriated, allocated, obligated and paid under the appropriation;
2. The number of projects put out to bid under the appropriation and the amount of grant funds associated with these contracts;
3. The number of projects for which the contracts have been awarded under the appropriation and the amount of grant funds associated with these contracts;
4. The number of projects for which work has been completed and the associated amount of grant funds;
5. The number of direct, on-project jobs created or sustained by the grant funds for projects under the appropriation and, to the extent possible, the estimated indirect jobs created or sustained in associated supplying industries, including the number of job-years created and total increase in employment since February 17, 2009; and

TxDOT will submit reports no later than 180 days, one year, two years, and three years after funds have been allocated.

Federal Wage Determination

SEE ATTACHMENT

NEPA

The National Environmental Policy Act (NEPA) requires a consideration of environmental impacts for major federal actions that significantly impact the human environment. This review requirement can be satisfied in three ways depending on the scope of a project. These three methods are: (i) categorical exclusions (CE), which are categories of projects that have been predetermined to have only minimal environmental impacts; (ii) environmental assessments (EAs) that result in a finding of no significant impact; and (iii) environmental impact statements for projects that are expected to have a significant impact.

It is anticipated that the Federal Railroad Administration’s NEPA review of the 33 components of the Angleton Subdivision Upgrades will confirm the project’s eligibility for a Categorical Exclusion. The Project is not environmentally controversial, is consistent with all applicable environmental laws, does not have significant adverse impact on natural environments, does not adversely affect historic properties beyond acceptable mitigation regulations, does not cause significant increase in traffic congestion, is not part of a broader action such that when taken together environmental review would be required, and environmental review is not required by other law. (64 FR 28548)

Categorical Exclusions under the Council on Environmental Quality are those actions that belong to "a category of actions which do not individually or cumulatively have a significant effect on the human environment ... and ... for which, therefore, neither an environmental assessment nor an environmental impact statement is required." (40 CFR 1508.4) In this case, each Angleton Subdivision component qualifies for a categorical exclusion, and the individual portions do not individually or cumulatively have a significant effect on the human environment. The scope of work for each structure is expected to fall under the categorical exclusion of “Replacement, reconstruction, or rehabilitation of an existing railroad bridge.” (64 FR 28547) As part of their support for the project, BNSF and Union Pacific will obtain all appropriate clearances and permits necessary to implement the project.

Environmental Related Federal, State and Local Activities
The proposed project has elements that may require Clean Water Act Section 10/404 authorization from the US Army Corps of Engineers under the National Permit process before construction can be initiated. Compliance with any applicable federal and state regulations will be addressed during this USACE permit evaluation process.

Confidential Information

There is no information in this application deemed as confidential at this time.

Index of Web Sites

Texas Department of Transportation (TxDOT) site for TIGER II support documents are located at www.txdot.gov/business/rail/tiger.htm

The primary Web addresses for the project sponsors are www.portofcorpuschristi.com and www.portofbrownsville.com.

Innovative Construction Techniques can be found at the following Web address: http://www.portofcorpuschristi.com/pdfs/Innovative%20Construction%20Techniques.pdf

Cost Benefit Analysis Methodology can be found at the following Web Address: http://www.portofcorpuschristi.com/pdfs/Cost%20Benefits%20Analysis%20Methodology.pdf

Information on how businesses can partake of the opportunities for capital and maintenance projects, professional services, and other miscellaneous opportunities with the Port of Corpus Christi Authority can be found at the following Web address: www.portccopportunities.com

(End of Narrative Portion of Application)