United States Department of Transportation

CONSOLIDATED APPROPRIATIONS ACT, 2014
"FY 2014 TIGER DISCRETIONARY GRANTS"

GRANT APPLICATION

Project Name:	**Northeast Texas Rail Preservation and Economic Development Project**
Project Type:	Rural Freight Rail Transportation Project
Federal Funds Requested:	$11,009,895
Total Project Cost:	$11,009,895
Lead Applicant:	Northeast Texas Rural Rail Transportation District (NETEX)
Applicant Type:	Rural Rail Transportation District
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DUNS #:	190915020
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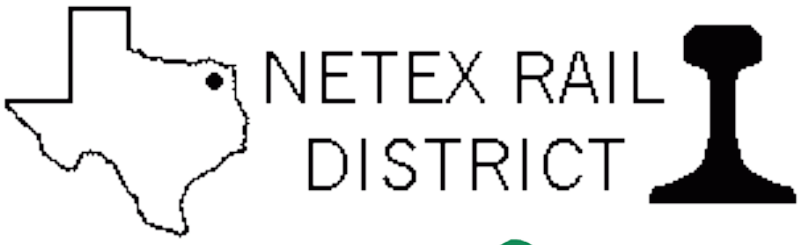


Table of Contents

I. Project Description 1
a. Project Schedule 4
b. Transportation in the Project Area 4
c. No-Build Scenario 6
d. Build Scenario 10

II. Project Parties 10

III. Grant Funds and Sources/Uses of Project Funds 13
a. Technical Feasibility 14
b. Legislative Approvals and Letters of Support 15
c. Statewide Transportation Improvement Program 16
d. Financial Feasibility 16

IV. Selection Criteria 17
a. Long-Term Outcomes 17
i. State of Good Repair 18
ii. Economic Competitiveness 19
iii. Livability 21
iv. Environmental Sustainability 21
v. Safety 22
b. Job Creation and Economic Stimulus 23
c. Innovation 24
d. Partnership 25
e. Results of Benefit-Cost Analysis 25

V. Project Readiness and NEPA 27

VI. Federal Wage Rate Certification 28

VII. Summary 28

VIII. Application Materials & Resources 28

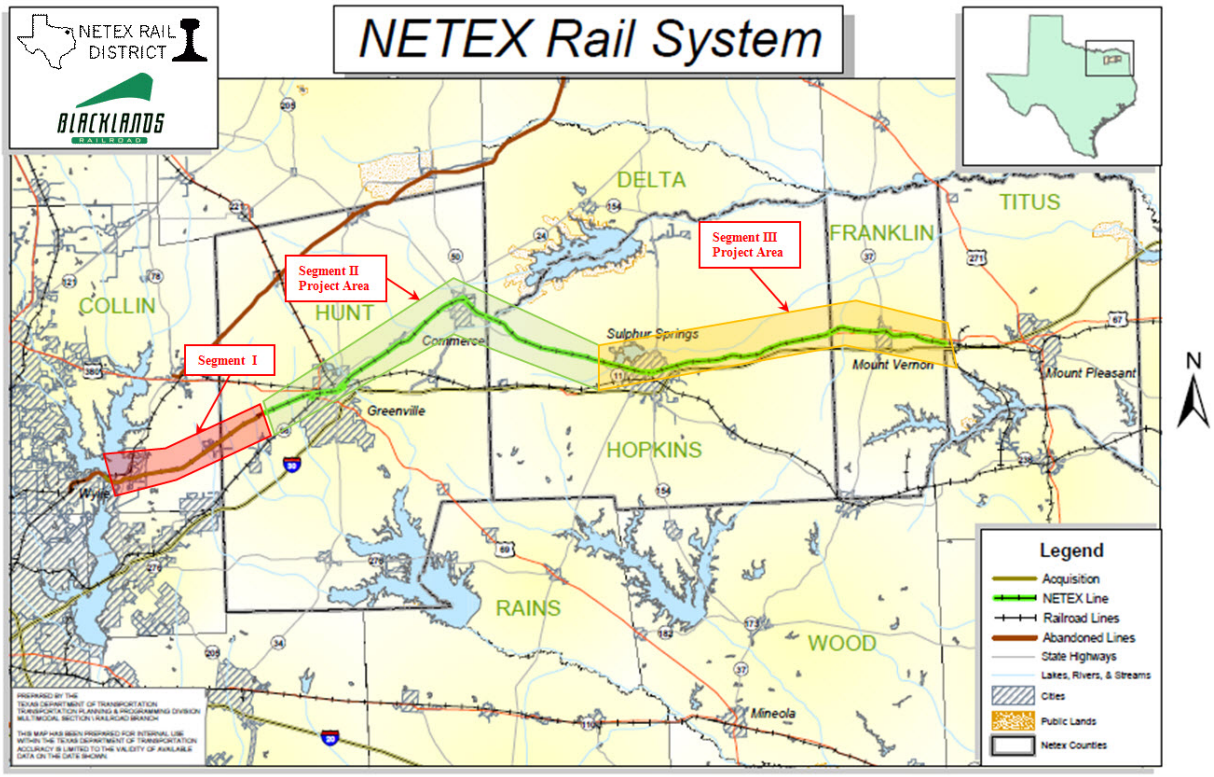
Attachments:
Federal Wage Rate Certification Statement 30
Benefit-Cost Analysis Spreadsheet *
NETEX Rehabilitation Project Map *
Categorical Exclusion Worksheet (NEPA/CATEX) *
CATEX Local Agency Response Letters *
Legislative Approvals and Letters of Support *
Supplemental Images *

* These materials are provided on the NETEX TIGER Grant Application web page at www.NETEXrail.org/tiger/.

I. Project Description

This proposed $11,009,895 Northeast Texas Rail Preservation and Economic Development Project - Rail Rehabilitation Project is a collaborative effort of the lead applicant Northeast Texas Rural Rail Transportation District (NETEX), Blacklands Railroad (BLR), and the local/regional Economic Development Corporations (EDC's). Rehabilitation will occur from Milepost (MP) 555, west of Greenville, Texas, to Milepost (MP) 524, west of Sulphur Springs, Texas (Segment II) and from Milepost (MP) 524, to Milepost (MP) 489.4 near Winfield, Texas (Segment III). The total distance is 65.6 miles of mainline track and 4 miles of sidings and spurs. All work will be done on existing Rights of Way. No bridge work is included in this grant application. The total project area is high-lighted in green and yellow on the system map in Figure 1. Segment I is not included in this project proposal.

Figure 1 – NETEX Rail System Map



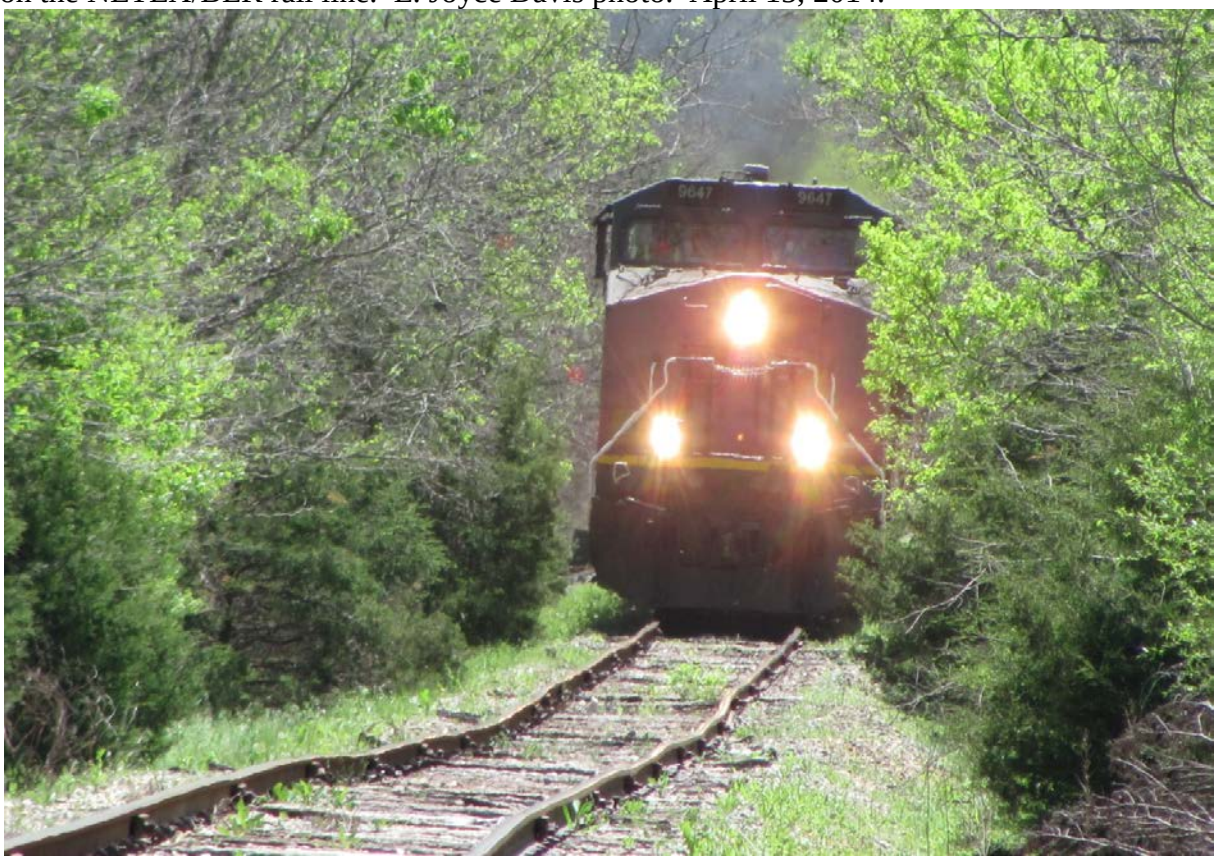
NETEX was formed in 1994 by Hunt, Hopkins, Franklin, and Titus Counties, Texas, to prevent the abandonment of Southern Pacific's "Cotton Belt C-Branch" line between Mount Pleasant, Texas and Wylie, Texas. Collin and Delta Counties subsequently became members of the NETEX Rail District. The NETEX controlled infrastructure provides connectivity between the North American Freight Rail Network via interchanges with the Union Pacific (Mount Pleasant, Texas), Kansas City Southern (Greenville, Texas) and the Dallas, Garland, and Northeastern Railroad (Greenville, Texas).

In 1995, NETEX purchased 31 miles of track from Milepost (MP) 524, west of Sulphur Springs Texas, to Milepost (MP) 555, west of Greenville, Texas. This section of the line (Segment II)

was purchased through a grant-funding agreement with the Texas Department of Transportation (TxDOT). In 2000, NETEX purchased 34.6 miles of track from Milepost (MP) 489.4 at the Franklin County/Titus County line to Milepost (MP) 524, at Sulphur Springs, Texas. This section of the line (Segment III) was purchased through a US Department of Agriculture grant. In 2003, NETEX purchased the 23.2 mile segment of right-of-way (Segment I) from Simtrott, west of Greenville, Texas, to east of Wylie, Texas. The tracks and ballast had been removed from this line segment prior to the time of the purchase. The Simtrott to Wylie, Texas NETEX property (Segment I) is **not** included in the rehabilitation project covered in this FY2014 TIGER grant application.

The primary activity of this "fast track" rehabilitation project is the replacement of 94,854 cross ties with associated ballast and installation, surfacing work, rail alignment, profile correction, and vegetation removal necessary to achieve and maintain FRA Class 2 track standards, allowing an increase to 25 mph track speed. Most of the cross ties have exceeded their expected service life and are severely deteriorated. A “very poor state of repair” exists due to the lack of maintenance before NETEX purchased the rail line. The condition of deteriorated cross ties, poor rail alignment, profile, and vegetation encroachment creates a safety issue for train crews. The vegetation encroachment also creates a safety issue for the traveling public at road crossings on the NETEX/BLR rail line. Figure 2 illustrates these conditions.

Figure 2 – Deteriorated cross ties, poor rail alignment and profile, and vegetation encroachment on the NETEX/BLR rail line. L. Joyce Davis photo. April 15, 2014.



The six-county region is interested in preserving the railroad line because rail-served industry produces jobs, adds to the county tax base and the local Economic Development Corporations report that rail transportation access is one of the key criteria of industry searching for new locations. The potential for rail-served industrial development in this region, located to the Northeast of the Dallas – Fort Worth Metroplex (with a population over 6.5 million) is very strong. The local Economic Development Corporations market to and supply prospective businesses and developers' information needed to discover an optimum site location to move in to, develop or re-develop. As of the date of this application, there are at least 45 properties totaling approximately 1100 acres, available that can be rail-served along the NETEX corridor. Some are owned by the local EDC and others are private. In addition, there is a developer-owned 6,600 acre tract west of Greenville, Texas that is slated to be developed into a rail industrial park. The sections of the line to be rehabilitated through FY2014 TIGER funds are strategically situated parallel to Interstate 30, which is a part of the High Priority Corridor 55. The proximity of the line to existing highway infrastructure also enables the railroad to serve an extended market through its ability to offer transloading opportunities to off-line customers.

NETEX and Blacklands Railroad serves a region in the Northeast corner of Texas, encompassing a large, rural agricultural region that has experienced the development of an ongoing and growing industrial component. Rail has made a comeback as a vital component of the freight transportation system in the region. Aggressive efforts by NETEX and the Blacklands Railroad have increased business on the line from 453 carloads in 1999 to 3492 carloads in 2013, an increase of 671%. The line is in need of rehabilitation to address a poor tie condition, rail alignment, and profile deficiencies that currently limit freight movements to 10 mph due to the FRA "Excepted Track" classification. The NETEX line is constructed of predominantly 112# jointed rail, which is in <u>good</u> condition, on ties that date from the 1930's to the 1980's. Funds committed to the FY2014 TIGER proposed project will be used to achieve and maintain FRA Class 2 standards, thus permitting 25 mph operation. Federal Railroad Administration (FRA) track safety standards (49 CFR 213.109) require at least eight (8) good ties, per 39' section of tangent track and curves of less than 2 degrees, or nine (9) good ties per 39' section of turnouts and curved track over 2 degrees, are needed to maintain track at Class 2 standards.

The rehabilitation project will consist of:

1 Replacement of 94,557 main line and siding crossties *
2. Replacement of 297 switch ties *
3. Installation and regulation of 36,717 tons of ballast
4. Surfacing and alignment of 69.6 miles of track (including siding and/spurs)
5. Vegetation removal 502 acres
6. Tie Disposal
7. Joint Bolt Tightening
8. Installation of 20 insulated joints
9. Material Delivery
10. Project Management/Administration
11. Contingency

* Includes plates and spikes

To enhance livability in the region, the NETEX rail line, operating as "Excepted Track," must be rehabilitated to assure a long-term, continued operation for shippers and receivers within the region. Rehabilitation of the NETEX rail line will provide a dependable transportation alternative that will facilitate economic development along the rail corridor. The rehabilitated rail line will encourage the diversion of freight from highway to rail, lowering the cost of highway maintenance, reducing cost to shippers, enhancing safety for the traveling public, reducing fuel consumption, lowering greenhouse gases, and will provide a safe environment for the handling of Hazardous Materials.

a. Project Schedule

When the FY 2014 TIGER grant is approved for $11,009,895 implementation of this "fast-track" project can begin as soon as October 2014 with project completion expected in February 2016. The expected project schedule is shown in Table 1.

Table 1 – Project Schedule

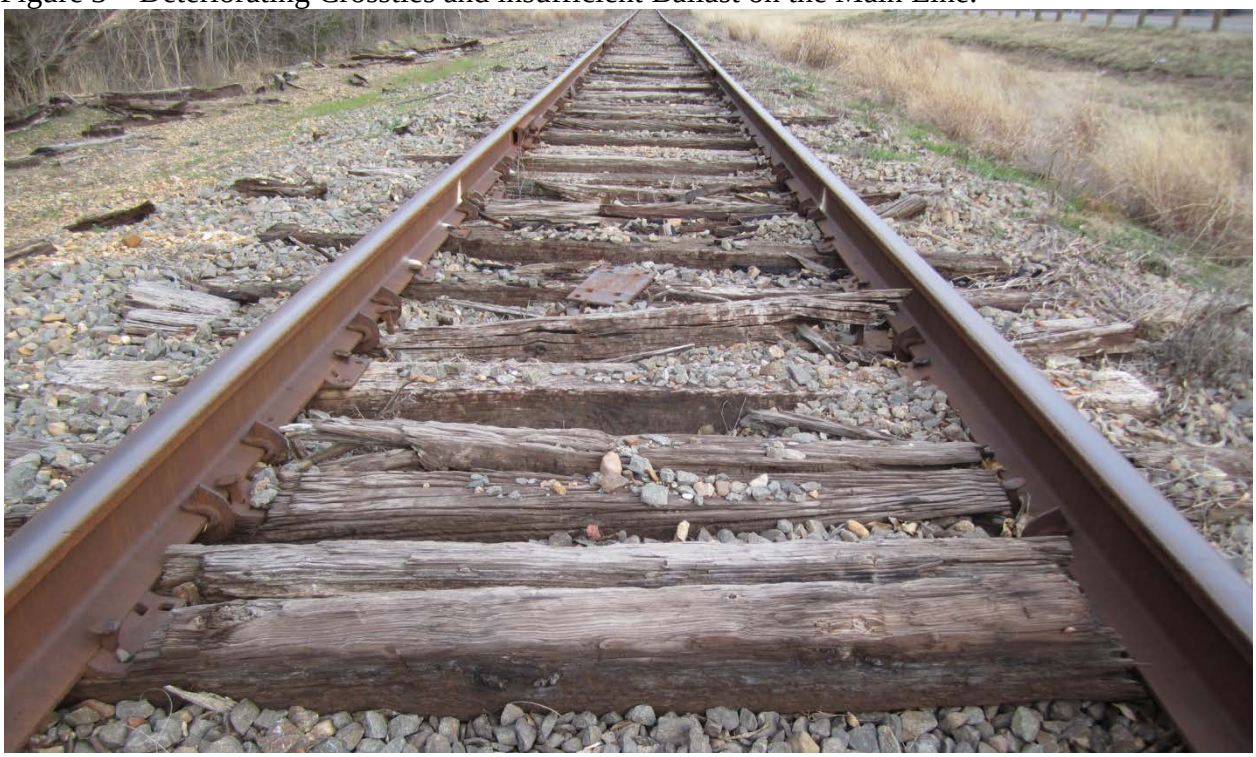
Task	2014
FY 2014 TIGER Grant Application	April
STIP Revision	N/A
Plans & Specifications Development	July
Review & Approvals of Project Documents	July
Project Contract Letting & Contract Approval	Aug-Sept
Project Implementation (Rail Line Rehabilitation)	Oct 2014-Feb 2016

The Categorical Exclusion, provided with the NETEX TIGER application materials at www.NETEXrail.org/tiger/, resulted in a finding of no significant impact. NETEX, the Blacklands Railroad, and NETEX's Consulting Engineer will develop the plans and specifications for the project, and coordinate with Grant Managers in the appropriate federal agency, to complete the Project Summary, Statement of Work, and Assurances and Certifications, along with any other required information or documentation.

b. Transportation Infrastructure in the Project Area

This rehabilitation project will address the challenge of rail efficiency for customers along the NETEX rail line throughout the region. The major challenge to NETEX and BLR is the lack of funds necessary to make a complete rehabilitation of the "very poor state of repair" of the rail line. The last significant tie replacement project was performed in 1986 by the prior owner, Southern Pacific Railway. At this time only selected bad ties were replaced to maintain operations. Many ties on the line have date nails that show installation in the late 1930's into the 1950's. The ties on the NETEX line are generally 25 years old and older and are in bad to fair condition. Typically, these deteriorated ties cause sub-standard alignment and profile of the track and do not provide adequate support of the rail as visible in Figures 2 and 3. Existing, typical main line track cross tie and ballast conditions are shown in Figure 3.

Figure 3 – Deteriorating Crossties and insufficient Ballast on the Main Line.



The "very poor state of repair" of tie deterioration, alignment, and profile conditions, contribute to the NETEX line's classification as "Excepted Track." On "Excepted Track," the Federal Railroad Administration (FRA) regulations limit operating speeds to 10 mph and restrict the movement of hazardous materials to no more than five (5) hazardous cars per train. A majority of the spurs and sidings on the line are in a "very poor state of repair." The results of deteriorating siding conditions create a safety issue for train crews and interruptions of customer service as evidenced in Figure 4.

Figure 4 – Cars off the rail on a siding in Commerce, Texas due to severely Deteriorated Crossties that contribute to Gauge Variances.

Vegetation growth along the tracks is a safety hazard for train crews and train operations. In addition to the safety hazards created by sight-line obstructions, vegetation and trees growing too near the track pose an ongoing risk of track blockage and service disruptions. Vegetation removal for the FY2014 TIGER project is estimated to be necessary on 502 acres of rights of way. Vegetation encroachment along the mainline is shown in Figures 2 and 5.

Figure 5 – Fallen Tree Blocking the Tracks in Commerce, Texas.

Revenue increases generated over the past decade by BLR operations, and other external sources have not been sufficient, to allow NETEX to invest in a major rehabilitation effort needed to overcome the "very poor state of repair." The "very poor state of repair" is the result of deferred maintenance by the prior owner, Southern Pacific Railway (SP). For the past five years the Blacklands Railroad and NETEX have contributed a yearly average of approximately $980,000 toward maintenance of the NETEX line. NETEX routinely appropriates the funds received from operations, land, and utility lease payments, for the purpose of maintaining the rail line.

c. No-Build Scenario

The Project "no build" scenario consequences for NETEX include the following:

- Higher transportation costs and lower profits for rail customers
- Reduction of market options for customers
- Lost economic development opportunities for EDC's and rural communities
- Loss of local tax base needed to fund basic government services

- Increases in highway traffic accidents due to increased truck traffic
- Increased road consumption/damage costs on county roads and state highways
- Increased energy use and emissions

NETEX is a public, non-profit entity that has been pouring revenues back into the infrastructure. For sixteen years, Blacklands Railroad has also been investing large sums of their revenue into the installation of ties, ballast, and repairs.

The rehabilitation of the NETEX line is necessary for further economic development in the region and continued operation of the line. If the line of excepted track is not rehabilitated, rail transportation of freight could certainly become uneconomical and unsafe causing rail service to cease. Freight traffic of any surviving businesses would have to be diverted to the region's highways, travelling some distance to (of from) a suitable bulk commodity transload facility or to (or from) the ultimate destination.

Local EDC's and shippers feel that at least 25% of the product scheduled for rail shipment in 2015 and beyond would be lost due to business reductions, closures or relocations based on increased transportation cost alone, and additional logistics issues would most likely increase that number to 35%. The remaining 75% of 2015 projected freight would be moved over to trucks and the No-Build Analysis is based on this conservative 25%/75% projection.

A lack of sufficient revenue to overcome years of deferred maintenance is not just a NETEX problem or a Blacklands Railroad problem; it is an infrastructure investment problem that hundreds of railroads, shippers, and local public officials are dealing with all across the U.S. The answer is a concentrated maintenance effort over the whole line performed in 12 – 18 months, and then the efficiency and reliability of the line will produce higher revenues and profits. Without this concentrated rehabilitation effort, and lack of additional financial funding options remaining for NETEX, the line could be abandoned due to poor economics and/or lack of adequate safety. The No-Build Scenario Benefit-cost analysis model, included with the application materials on the NETEX TIGER website at www.NETEXrail.org/tiger/, captures the increased public costs associated with diverting 75% of the 2015 projected rail carloads over-the-road via trucks.

As of March 2014, 2015 rail car traffic is projected to be 4,612 carloads. The No-Build scenario estimates 75% of these carloads will be converted to trucks in an estimated 15,722 truckloads and shipped various distances to (or from) a transload facility, and some freight will move totally via trucks from shipper to consignee (and NETEX has seen examples of this over their 20 year history when rail service was less reliable than it is today). Based on the range of bulk type products currently transported by Blacklands Railroad, and the available bulk transload facilities (or lack thereof) that are within reasonable distances from the NETEX corridor, three realistic logistic alternatives have been determined to be the most likely result:

1. 25% of the remaining product to be shipped will be trucked ~65.6 miles to (or from) a transload location.
2. 25% of the remaining product to be shipped will be trucked ~131.2 miles to (or from) a transload location.

3. 25% of the remaining product to be shipped will be trucked ~400 miles from shipper to consignee without transloading material to rail.

The NETEX line primarily serves shippers of bulk commodities in rail cars with high cargo weight. Transloading facilities capable of handling these shipments and material are not readily accessible in Northeast Texas. Recently there have been several large intermodal container transloading yards constructed around the Dallas – Fort Worth metroplex, however NETEX customers do not utilize containers for these bulk type products. In reality, trucks will most likely have to travel farther than the distances estimated.

The lower transportation rates of rail carriers, compared to trucking rates, increases the profitability of rail customers. Research conducted for USDOT by the UT Center for Transportation Research, sponsored by the Southwest Region University Transportation Center and Texas A&M Transportation Institute thoroughly modeled rail vs. truck scenarios and determined trucking to be twice as expensive per payload ton than rail (Report No. SWUTC/13/600451-00066-1, http://d2dtl5nnlpfr0r.cloudfront.net/swutc.tamu.edu/publications/technicalreports/600451-00066-1.pdf).

The cost savings to rail shippers and receivers provides a positive economic impact for the region. Rail freight transportation also has a lower rate of greenhouse gas emission per ton mile versus trucking, thereby having a positive impact on the environment and livability of the region. As a result of this increase in heavy truck miles being diverted to local and state highways other public impacts result in increased traffic congestion, highway pavement maintenance, injuries increase and fatalities.

Freight movement has a significant impact on U.S. Highways, Texas State Highways and Rural County Roads. Research conducted for TxDOT by the UT Center for Transportation Research (Project 0-4169, http://ftp.cc.utexas.edu/research/ctr/pdf_reports/0_4169_1.pdf) identified the impact of major truck traffic generators, on rural roads in Texas, and conducted extensive surveys of rural stakeholders and rural truck trip generators. The research found that over 17% of the Interstate highways, 10% of the state highways, and 13 % of the rural roadbed miles in the NETEX region were rated “Poor” or “Very Poor”. The demand of maintenance efforts to counteract these conditions continues to place a burden on the budgets of rural roads, state highways, and interstate highways. TxDOT research also found that truck volumes are increasing at a rate of 3% annually in the region. The conclusion of the research stated that…”Increasing truck numbers and axle loads on rural pavements and the identified pavement maintenance cost is possibly an indicator that TxDOT will find it increasingly challenging to maintain its extensive rural road system …“Available strategies to TxDOT includes the promotion of rural rail…” Rail is the most fuel efficient and environmentally friendly method of ground transportation of freight.

While freight volume has increased since operations began in 1999, additional growth is being limited due to the continuing deterioration of the infrastructure. Restricted train speeds of 10 mph effects the BLR’s ability to provide on time delivery and prompt switching services.

Potential customers view these constraints as undesirable for their operations, thereby limiting opportunities to increase business along the corridor.

One new Blacklands rail customer, Martin Marietta Materials, has recently begun accepting delivery of heavy materials via unit trains for transload at their new facility at the west end of the rail line that traverse the entire NETEX rail line from the eastern interchange with the Union Pacific. The train shown in Figures 2 & 6 was the first of many of these unit trains expected. Martin Marietta Materials anticipates approximately 650-700 car loads this year, possibly growing to 1000 in 2015. A letter notifying the Blacklands Railroad of these expected loads is included in the application materials on the NETEX TIGER Application Website at www.NETEXrail.org/tiger/.

Figure 6 – First unit train traversing the entire NETEX rail line negotiating varying grades on April 15, 2014. L. Joyce Davis photo.

This new business, while beneficial for the local economy and desirable as a source of revenue for the railroad, makes the rehabilitation of the line even more urgent as railcar counts and tons per mile increase with unit-trains traversing the line, placing additional stress on, and accelerating the deterioration of the track. Train handling on the varying grades common on the NETEX line is also made more difficult and inefficient due to the present 10 mph speed restriction.

d. Build Scenario

As in many rural areas, Northeast Texas has experienced a downward trend in employment during the recession, though Texas has fared as well or better than many States due to Energy, Ports, and Mexico. The proximity of this transportation corridor with the growing Dallas-Fort Worth Metroplex also provides promising signs of the potential for industrial sector growth in this region; however, these opportunities are threatened by the conditions of the current rail infrastructure.

The rehabilitation of the NETEX line to Class 2 standards will allow 25 mph train operations along the entire route. Assuming that no stops were made, at 10 mph or less, a train crew operating both directions of the rail line (132 miles) require a minimum of 13.5 hours. The BLR often has to utilize two train crews for this operation, which could be accomplished by one crew operating at 25 miles per hour track speed. Rehabilitating track speeds to Class 2 standards is necessary to maintain existing operations, increase efficiency, increase capacity, maintain safety and facilitate the diversion of additional freight transportation from our overcrowded highways to rail. The rehabilitation will also provide for economic development opportunities along the rail line producing additional jobs and local tax base. The Economic Development Corporations and the counties that make up the Northeast Texas Rural Rail Transportation District have a very close working relationship with NETEX, and two of the NETEX board members are EDC Executive Directors. NETEX and Blacklands Railroad know that rehabilitation of the line is critical to the continuation of rail service to existing customers and the EDC's report that opportunities to locate new industry along the corridor has been lost due to the physical condition of the railroad infrastructure. And for the Public, these rural counties report the railroad is a key component in the counties' ability to provide community services (roads, police/sheriff protection, and healthcare services) from the counties' tax base.

The Build Scenario is a straight-forward concentrated maintenance/rehabilitation project to counteract the years of deferred maintenance and depreciating condition of the asset. The project consists of replacing 40% of the ties, adding ballast, and surfacing as described above in "I. Project Description."

The result of this Build Scenario will facilitate a steady increase in annual railcar shipments, the location of new industry along the rail corridor, and population growth. In addition, the NETEX line represents rail capacity, in–and-out of the Dallas-Fort Worth Metroplex, in which both Kansas City Southern and Union Pacific have expressed an interest. Discussion related to traffic routing is currently ongoing, though it is too early at this time to draw any conclusions or project the potential number of daily unit trains that could run over the NETEX corridor under trackage rights agreements.

II. Project Parties

The entities collaborating on this proposed FY2014 TIGER project are the Northeast Texas Rural Rail Transportation District (NETEX), a political subdivision of the state of Texas; the Blacklands Railroad (BLR), contract operator; and the local/regional Economic Development Corporations (EDC's).

The Blacklands Railroad provides freight rail service to customers located along approximately 66 miles of existing mainline track. BLR has been successful in marketing their services and has increased traffic on the line from 453 carloads in 1999 to 3492 carloads in 2013, a 671% increase in sixteen years. Traffic dropped somewhat in 2011 as a result of the declining global economy, BLR interchanged 2235 loaded cars, a modest 6% decrease from 2010. This was minor in comparison to the industry-wide decreases of over 16%. BLR and NETEX have averaged dedicating approximately $980,000 annually, during the past 5 years for track improvements at critical locations to keep the line in operation. The BLR's track maintenance cost to revenue is 29% compared to a recent industry average of 18% for class one railroads. BLR has increased maintenance investment along with revenue to maintain a safe operating railroad. The BLR has committed to maintaining the line at Class 2 status upon completion of the proposed Rehabilitation project.

The Blacklands Railroad was honored as the 2011 Short Line Railroad of the Year by *Railway Age* magazine. In April of 2009 the BLR was nominated as one of the ten (10) best short line railroad operators by *Railway Age* magazine. BLR has received multiple JAKE awards for safety, reflecting a strong commitment to good maintenance practices and safe operations. The notable success of the Blacklands Railroad is also being highlighted in a feature article in the June 2014, "Special Shortline and Regional Issue" of *Trains* Magazine in an article entitled, "Blacklands - Growing Strong in Texas" (p.24). BLR has consistently received recognition from customers for the quality and responsiveness of service. This is clearly reflected in the strong carload growth to date, even with the poor condition of the infrastructure. BLR customers located on the NETEX line are accessed via spurs or sidings.

Economic Development Corporations in the region have collaborated with the BLR and NETEX to attract rail transportation business to the line. The Economic Development Corporations diligently continue to market the availability of rail service to potential customers, though track condition has limited their success. The BLR serves numerous local and regional industries and businesses located along the route, including agricultural interests, plastics manufacturers and users, steel and metal industries, chemical processors, aggregate companies, and other miscellaneous customers.

The EDC's supporting this application, and depending on this rehabilitation for future success and growth are listed below. Please feel free to contact them directly to discuss their past experiences and examples of prospective industry for this Northeast Texas Corridor.

Greg Sims – President/CEO
Greenville Economic Development Corporation
2500 Stonewall St., 8th Floor
Greenville, Texas 75403
T 903-455-1197 Ext. 303
gsims@ci.greenville.tx.us

www.greenvilletxedc.com

Bonnie Hunter – Executive Director
Commerce Economic Development Corporation
1119 Alamo Street
Commerce, Texas 75428
T 903-886-1121
bonnie.hunter@commercetx.org
www.commercetx.org

Derrell London – Board President/Executive Director
Delta County Economic Development Corporation (est. 2013)
10 County Road 3060
Cooper, Texas 75432
T 903-395-2656
London.Derrell@gmail.com

Roger Feagley – Executive Director
Sulphur Springs/Hopkins County Economic Development Corporation
1200 Enterprise Lane
Sulphur Springs, Texas 75482
T 903-439-0101
roger@ss-edc.com
www.ss-edc.com

Teresia Wims - Director
Mount Vernon Economic Development Corporation
PO Box 597
Mount Vernon, Texas 75457
T 903-537-4495
edc@comvtx.com
www.comvtx.com

Charles L. Smith, CEcD – Executive Director
Mount Pleasant Economic Development Corporation
1604 North Jefferson
Mount Pleasant, Texas 75455
T 903-572-6602
charleslsmith@mpcity.org
www.mpcity.org

The proposed NETEX FY2014 TIGER project in northeast Texas includes four of the six counties of the NETEX rail district: Hunt, Delta, Hopkins, and Franklin Counties. Counties in the project area are located in two Workforce Development Areas (WDA) as defined by the Texas Workforce Commission. (www.twc.state.tx.us/) Workforce Development Area four (4) includes (Hunt County) and Workforce Development Area seven (7) includes (Delta, Hopkins,

and Franklin Counties). Smaller cities (under 10,000 population) that fall within the project area are Commerce (8,222) in Hunt County, Cooper (2,008) in Delta County (Cooper is located 12 miles north of the rail line), and Mt. Vernon (2679) in Franklin County. Medium size cities with over 10,000 population are Sulphur Springs (15,578) in Hopkins County and Greenville (25,834) in Hunt County. Table 2 provides 2012 census estimates of demographic information for the NETEX counties that are within the project limits. (source: quickfacts.census.gov/)

Table 2 – Demographic Data for NETEX Counties in Project Area (2012 census data)

County	Population	Income Per Capita	% Minority Ethnicity	Persons Below Poverty %
Hunt	87,056	$22,424	26.1	19.4
Delta	5,323	$20,303	18.7	18.1
Hopkins	35,424	$21,423	25	18.0
Franklin	10,643	$27,875	19.8	14.1

With the exception of Hunt County, all these counties have small populations. The most populous county, Hunt, has fewer residents than many medium-sized cities within the U.S. The largest city in the project area is Greenville, Texas with a population of 25,834. All of these counties are rural and are classified as economically disadvantaged. All of these counties, except for Franklin, have a per capita income lower than the state per capita average of $25,809. All of the counties included in the proposed project, except for Franklin County, reflect poverty percentage rates higher than the Texas state average of 17.4%.

III. Grant Funds and Sources/Uses of Project Funds

The proposed rehabilitation of the NETEX line from MP 555 to MP 489.4 would be funded by a FY2014 TIGER grant. The development and securing of plans, specifications, estimates, and environmental clearances for the project will be performed by the NETEX Project Implementation Team. The NETEX Project Implementation Team will perform all planning, reporting and administration requirements of the grant upon approval of funding. The Project Implementation Team will consist of representatives from NETEX, Blacklands Railroad, PowerTech Development, and Crouch Engineering; providing experienced technical and financial expertise in the management of rail rehabilitation and maintenance projects.

The majority of the FY2014 TIGER funds will be used for actual rehabilitation of the rail infrastructure and project management activities. As a rural project in an economically disadvantaged region, the successful implementation of this total rehabilitation project is dependent on the infusion of FY2014 TIGER federal funds. Material and labor activity costs are based on past incurred cost to NETEX/Blacklands for maintenance projects and proposed bid estimates. Expected materials requirements and associated costs for the project are shown in Table 3.

Table 3 – Expected Project Materials Requirements and Costs

Item	Unit	Quantity	Unit Cost	Total
Tie Removal & Replacement *	Each	94,557	$74.68	$7,062,123
Switch Tie Removal & Replacement	Each	297	$206.50	$61,331
Ballast	Ton	36,717	$27.72	$1,017,900
Track Surfacing	Mile	69.6	$6,600.00	$459,360
Joint Bolt Tightening	Mile	69.6	$2,700.00	$187,920
Insulated Joints	Each	20	$1,150.00	$23,000
Locomotive and Depot Lease Conversions				$340,000
Tie Disposal	Each	94,854	$1.50	$141,834
Vegetation Removal	Acre	502	$1,100.00	$552,200
Material Delivery	Mile	65.6	$3,889.54	$255,154
Project Management and Administration	%	4%		$404,033
Engineering and Contingency	%	5%		$505,041
Total				**$11,009,895**

NOTE: (*) Includes spikes and plates.

a. Technical Feasibility

The project is composed of typical railroad infrastructure rehabilitation work and is within the technical abilities of many contractors in the state of Texas. Once the project is cleared and the plans and specifications completed, the Project Implementation Team will:

- Initiate Contractor Prequalification
- Initiate a Competitive Bidding Process
- Conduct the Bid Process, Bid Opening and Tabulation
- Evaluate Bids and Select Bid Awards
- Review Contractor Bonding, licenses and Insurance
- Provide on-site Project Management
- Review material submittals
- Maintain the Project Schedule
- Conduct weekly status/progress meetings to monitor contractors' conformance to the plans and specifications
- Document Tasks with Photos

Contract negotiations and signatures typically take eight (8) weeks from the letting date, making this a "fast track" project. This Project involves standard, proven freight railroad infrastructure materials, components and designs. No technical risks to the budget and schedule as proposed are anticipated, aside from normal rehabilitation and cost risks for which appropriate contingency amounts have been included. The Project Implementation Team is well versed in the

work included in this project, and has performed these functions in Texas and other States during the past twenty years.

b. Legislative Approvals and Letters of Support

The lists below identifies customers, legislators, officials, government entities, non-profit organizations, and others who have documented their support by providing formal letters. Complete copies of these project support letters are included with the application materials on the NETEX TIGER Application Website at www.NETEXrail.org/tiger/.

- Union Pacific Railroad - Brenda Mainwaring, Vice President - Public Relations
- Martin Marietta Materials - Tim Stone, Sales Manager
- Martinek Grain & Bins, Inc. - Tonya Martinek
- Feeders Supply Company - Kenneth Jasmer
- International Sulphur, Inc. - Wade Powell - Plant Manager
- FSTI Chemicals and Logistics, Inc. - Stoney Barton, CEO
- Fleshmann's
- Pilgrim's Pride
- Quanex
- Custom Commodities
- New Phoenix Metals

- US Senator John Cornyn - TX
- US Representative Ralph M. Hall - TX 4th District
- TX Senator Robert F. Deuell, M.D. - TX Senate District 2
- TX Representative Larry Phillips - TX House District 62; Chair, Transportation Committee
- Ark-Tex Council of Governments - Charles L. McMichael, President
- Sulphur River Regional Mobility Authority (SuRRMA) - Delbert Horton, PhD; Chair
- Texas A&M University-Commerce - Dan R. Jones, PhD; President
- Hon. John Horn - Hunt County Judge & NETEX Board Member
- Hon. Herbert Brookshire - Delta County Judge
- Hon. Robert Newsom - Hopkins County Judge
- Hon. Brian Lee - Titus County Judge & NETEX Board Member
- Greenville Board of Development - Greg Sims, President/CEO & NETEX Board Member
- Commerce EDC - Bonnie Hunter, Executive Director
- Delta County EDC - Derrell London, President/Executive Director
- Sulphur Springs/Hopkins County EDC - Roger Feagley, Executive Director
- Mt. Vernon EDC - Teresia Wims, Executive Director
- Mt. Pleasant EDC - Charles Smith, Executive Director & NETEX Board Member
- Collin County - Duncan Webb, JD; Pct. 4 Commissioner & NETEX Board Member

- Franklin County - Sam Young, Pct. 4 Commissioner & NETEX Board Member
- Franklin County Auditor - Tina R. Phillips, CPA
- City of Commerce - Marc Clayton, City Manager
- City of Sulphur Springs - Marc Maxwell, City Manager
- NETEX Rail District - Members of the Board of Directors
  - Cletis Millsap - Chair & Hopkins County representative
  - Nathan Bailey - Secretary & Hopkins County representative
  - Harley Davis, EdD - Delta County representative

c. Statewide Transportation Improvement Program (STIP)

Hunt County, in which a portion of the project is located, is a member county in the North Central Texas Council of Governments (NCTCOG) Metropolitan Planning Organization (MPO) with transportation projects included in the 2013-2016 STIP through the MPO's TIP. The MPO's TIP also provides for the examination of portions of the NETEX ROW as a future passenger rail corridor. Hunt County is predominantly rural in nature but was recently added to the NCTCOG. Delta, Franklin, and Hopkins Counties are in a rural area and the project will be added to the state's Rural Transportation Improvement Program (RTIP) plan.

d. Financial Feasibility

The project scope is a basic rehabilitation of deteriorated ties and replenishment of adequate ballast to support a Class 2 track standard. The Implementation Team will be the principal administrator for this project when funded, contracting to experienced track maintenance service companies with a long successful history in performing this exact work scope on similar infrastructure. The Implementation Team has the qualified staff and expertise necessary to administer the grant funds and manage the contractor rehabilitation/maintenance activities of this project. Implementation Team members have been directly involved in the development of major and minor rail infrastructure rehabilitation projects, on both state and privately owned infrastructure.

The cost estimates herein are based upon recent regional cost experience and bid proposals with limited adjustments for materials price fluctuations and personnel costs. NETEX and the Implementation Team are confident that the project can be completed within budget and on time, achieving the desired results. Blacklands Railroad has demonstrated the ability to generate annual revenue sufficient to financially support a routine maintenance program to insure that the rail line will be maintained at Class 2 track standards, or better, after the rehabilitation is complete and the infrastructure has been improved to Class 2 standards. The rehabilitation of the NETEX line, with a FY2014 TIGER grant is a “sustainable” project that is necessary to provide short and long-term benefits for the region, state and national railway system.

IV. Selection Criteria

In order for northeast Texas industry to compete in the marketplace, the rail service needs to be reliable and as efficient as possible. Carrying out the proposed Project will help the industrial sector be more competitive, reduce wear and tear on the highways and bridges, limit the transportation impacts on climate change, and increase transportation safety and mobility options. Presently, the line as a whole does not provide sufficient speed to efficiently support current shipper's operational needs, let alone opportunities for additional growth due to the visibly poor overall condition.

A comprehensive benefit-cost analysis was performed that covers a forecast period extending through calendar year 2035. The operational and commercial aspects of the railroad and the shippers were examined in detail in order to identify the more significant internal and external benefits that are expected to result from the Project. The basis for the BCA was a comparison of "build" vs. "no-build" scenarios for the Project. The stream of Project benefits that is expected to accrue in future years was then monetized and discounted to present-day valuations using rates of 3% and 7% as specified in the most recent TIGER BCA guidance. The analysis supporting the benefits calculation has been summarized in this section. Detailed documents showing study methodology have been provided in the accompanying attachments on the NETEX TIGER website at www.NETEXrail.org/tiger/. In addition to the quantifiable benefits, the Project is expected to provide social benefits and employment benefits that were not monetized for the purpose of this application. A summary of benefits is provided in Table 4.

Table 4 – Summary of Benefits Matrix

Baseline and Problem to be Addressed	**Change to Baseline**	**Type of Impacts**	**Population Affected by Impacts**	**Economic Benefit** *Principal Benefits*		**Summary of Results**		**Page Reference in BCA**
Outdated/ inferior rail infrastructure causing inefficient rail operations and inability to transport cars above 10 mph and high volume unit-train traffic.	Replace 40% of the ties, add ballast, and resurfacing.	Improves rail operating efficiency and facilitates a turnaround of declining economic growth.	Improves economic competitive-ness of existing shippers and promotes industrial growth, helping these rural communities maintain economic viability.	-State of Good Repair -Economic Competiveness -Safety -Livability -Environmental Sustainability -Residual Value	$ 29,699,262 $133,621,994 $114,023,829 $ 6,099,489 $ 78,835,416 $ 3,383,698	Project Cost -Benefits at 7% -Benefit-Cost Ratio (7%) -Benefits at 3% -Benefit-Cost Ratio (3%)	$11,009,895 **$159,876,894** **14.5** **$ 250,843,025** **22.8**	See Section IV Narrative and BCA: Excel Spreadsheet. Tabs in BCA Spreadsheet are clearly labeled for each sub-analysis.

a. Long Term Outcomes

The analysis indicates that the Project will provide significant long-term benefits to the region and the nation as described in detail below. Project benefits were quantified only through the year 2035 in this analysis; however, the benefits will continue to accrue well beyond that time. This project will result in a series of positive long–term outcomes:

State of Good Repair: Replacing on average 40% of the deteriorated ties on 65.6 miles of main line and 4.0 miles of sidings in the corridor, will provide infrastructure that could reasonably be expected to last 60 to 75 years. In addition the exorbitant annual maintenance and repair costs would be reduced to the industry norm and by keeping thousands of trucks off of the roads; this project will reduce highway maintenance costs.

Economic Competitiveness: Increasing the railroads efficiency, trip times, and service reliability will help maintain a shipper's or receiver's product/service costs. Ensuring the future availability of the rail line will also keep the transportation cost element of the shippers'/receivers' businesses competitive with other competition that also benefits from rail shipments in other areas of the U.S.

Job Creation: This project will immediately create 143 total job-years and will directly support future job creation in an economically distressed area.

Livability: Supporting the growth of industrial sector jobs in these rural Counties will ensure improved economic well-being for thousands of families in Northeast Texas and in locations around the U.S. where these products are either shipped or delivered.

Sustainability: Supporting rail freight transport will reduce highway congestion, emissions, and fuel consumption in the trucking sector.

Safety: Replacing 40% of the existing ties will reduce the potential for derailments. Continuation and growth of annual rail car shipments will reduce truck traffic, reducing highway accidents, injuries, and deaths.

i. State of Good Repair

State of good repair benefits in this project come in two categories: (1) the reduced cost to maintain rail infrastructure once it is improved; and (2) the reduction in highway maintenance costs as trucks are kept off of the regions roads. Total NPV Net Benefits are shown in Table 5.

Table 5 – 20-Year State of Good Repair Benefit Net Present Value (NPV)

20-Year State of Good Repair Benefit NPV		
	3% Discount	7% Discount
Total NPV Net Benefits	$21,136,204	$13,963,176

Railroad Infrastructure Maintenance Cost Savings

The savings between the "build" and "no-build" options for the cost to maintain NETEX's infrastructure over the 20-year analysis period is $10,885,637 at a 3% discount and $7,461,714 at 7%. These savings would be made possible by benefits generated as a result of the FY2014 TIGER Grant investments. A year-by-year breakdown of this category's benefit stream can be found on the "3c BCA" and "3f Maint Costs" tabs in the provided BCA Spreadsheet.

Due to the inherent possibility of the deteriorated ties failing, maximum operating speeds are limited to 10 mph to reduce the risk and impact of a derailment. Since the majority of these ties have exceeded their useful life, a large percentage (40%) are in need of replacement in the near future to ensure continued safe operation and to allow the continued use of 286,000 lb. rail cars on this line. The Project will upgrade the 69.6 miles with new ties and ballast. It is anticipated that the frequency of delays caused by emergency repairs to the line will also be reduced.

A short and long-term outcome of the NETEX line being returned to a "state of good repair" will be assurance to current and potential rail customers that the rail line will be there to serve their needs, which will in-turn, allow them to plan for growth. NETEX does not have the financial resources to completely rehabilitate the 69.6 miles of line to a minimum FRA Class 2 status that would permit an increase in track speed to 25 miles per hour. Rehabilitation utilizing a FY2014 TIGER grant would put NETEX and the operator, Blacklands Railroad, in a position to develop a routine maintenance plan, utilizing the annual resources from the BLR and NETEX, to sustain the line in a "state of good repair." A lease agreement between NETEX and Blacklands Railroad requires the BLR to be responsible for operations and routine maintenance of the rail line. The Region 5 FRA inspectors routinely visit the line to monitor track conditions. If defective conditions are found, Blacklands Railroad will be required to perform the maintenance necessary to maintain the track at FRA Class 2 standards.

Highway Maintenance Cost Savings

The Project will save $10,250,567 in highway pavement damage at a 3% discount, and $6,501,462 at 7% over the next 20 years. Without this project, the future surface transportation network is threatened as NETEX and BLR will not be able to move freight efficiently due to track conditions, and the lack of sufficient capacity affects certain industries that wish to expand their operations. The NETEX system is a surface transportation asset that – if left unimproved – threatens future transportation network efficiency, mobility of goods, and economic growth in the area. Improvement of any portion of the line contributes to lower maintenance and operating costs, but improvements to the entire line must be completed to bring the full economic benefits to existing and prospective rail customers.

Upon completion of these improvements, customers will be able to ship goods with confidence at 25 mph to the interchange points with UP and KCS. This will have two distinct impacts. First, the downward spiral of existing rail traffic diversion to trucks will be avoided. Second, the wave of new traffic associated with existing customer growth, new industrial customers locating on the line, and the real potential for Class I railroads to utilize the corridor for capacity and time savings in-and-out of the Dallas/Ft. Worth Metroplex. All of this will keep tens of thousands of additional trucks off of the highways. A year-by-year breakdown of this category's benefit stream can be found on the "3c BCA" and "3i TIGER Assump" tabs in the provided BCA Spreadsheet.

ii. Economic Competitiveness

All things being equal, rail transportation is dramatically cheaper than truck transportation. Unfortunately, for rail customers in Northeast Texas, all things are *not* equal because the NETEX

rail corridor is in poor condition, draining available NETEX and BLR resources just to maintain the infrastructure in the same poor condition, not improve it. Though the track speed and reliability of the infrastructure isn't very good, the shippers still realize that rail transportation of their raw materials, goods, and products is substantially cheaper when shipping by rail.

By upgrading this line to FRA Class 2 track standards, avoiding discontinuation of rail service, this Project will save railroad customers $91,373,285 at a 3% discount, and $57,953,861 at 7% over the next 20 years in additional transportation cost diverting shipments to trucking. Total Transportation Cost Savings NPV Net Benefits are shown in Table 6. A year-by-year breakdown of this category's benefit stream can be found on the "3c BCA" tab in the provided BCA Spreadsheet.

Table 6 – 20-Year Economic Competitiveness Benefit Net Present Value (NPV)

20-Year Economic Competitiveness Benefit NPV		
	3% Discount	7% Discount
Total Transportation Cost Savings NPV Net Benefits	$ 91,373,285	$ 57,953,861

The existing, "*state of poor repair*" of the line threatens the economic growth and stability of the region. The agricultural industry and other business and industrial related interests served by the rail line could possibly face insolvency if rail service ceases. Agricultural, industrial, and manufacturing shippers and receivers served by the Blacklands on the NETEX rail line include: agricultural commodities, steel, plastics, chemicals, lumber, aggregates, wax, grain, corn, and other miscellaneous businesses and industries. Businesses and industries along the corridor would be adversely impacted if rail service was not available. Economic Development Corporations along the rail line routinely promote the availability of rail service in the region, though the visual condition of the infrastructure is an obstacle if the potential new industry has competitive options elsewhere. The economic stability and growth of the region relies on the continuation and improvement of rail service by NETEX.

In 2007, a study was conducted by Texas A&M University-Commerce that addresses the economic impact to the region if the NETEX line ceased to provide service. The study found that if the NETEX line no longer operated:

- 250 to 600 jobs would be lost in Hopkins and Hunt Counties
- The regional (6-counties) economy would suffer a reduction of $7 to $17 million in revenues annually
- Property values would decrease by up to 25%, which could result in a $600,000 annual reduction in education tax revenues
- Impacts to the highway system would occur due to the increased truck freight. Those impacts are considerable when considering the entire distance from origin to destination and calculating pavement impacts.

Current information on these highway impacts is included on the "3c BCA" and "3i TIGER Assump" tabs in the provided BCA Spreadsheet.

iii. Livability

The NPV of net livability benefits are $4,265,038 using the 3% discount rate and $2,782,455 using the 7% rate. This benefit consists of reduced highway congestion on area roads. This benefit is calculated using increased truck traffic projections outlined above under both state of good repair and economic competitiveness. Total Highway Congestion NPV Net Benefits are shown in Table 7. A year-by-year breakdown of this category's benefit stream can be found on the “3c BCA" and "3i TIGER Assump" tabs in the provided BCA Spreadsheet.

Table 7 – 20-Year Livability Benefit Net Present Value (NPV)

20-Year Livability Benefit NPV		
	3% Discount	7% Discount
Total Highway Congestion NPV Net Benefits	$ 4,265,038	$ 2,782,455

Livability within the region will be enhanced in the short and long-term by maintaining the rail line as a reliable transportation mode for goods and services. Reliable access to goods and services are major components of the livability equation. Preserving and Rehabilitating the NETEX rail line to Class 2 track standards, with a 25 mile per hour speed limit, will provide a foundation for the further upgrading of the line as a major rail carrier, in the Northeastern region of Texas.

In the future NETEX will serve seven million people with this additional freight access to the Dallas/Ft. Worth Metroplex. A significant portion of the NETEX rail operation is in Hunt County, Texas, which is classified as a near-non-attainment county. As the growth of the Dallas/Fort Worth Metroplex continues toward the Northeast, highway congestion is becoming a major concern. Diverting truck traffic to rail reduces highway construction and maintenance costs, reduces greenhouse gas emissions, and creates a safer environment for the traveling public. The rehabilitation of the NETEX rail line will enhance economic development opportunities and bring additional jobs and businesses to the area as a result of an improved regional freight rail transportation system that connects to two Class I railroads and another regional short line railroad. The NETEX interchanges with the Union Pacific (UP) at Mt. Pleasant, Texas; the Kansas City Southern (KCS) at Sulphur Springs, Texas; and the Dallas, Garland, & Northeastern (DGNO) short line railroad at Greenville, Texas.

iv. Environmental Sustainability

Environmental Sustainability benefits in NPV terms are estimated to be just over $ 53,786,904 using the 3% discount rate and approximately $ 34,014,650 using the 7% rate. Total Emissions Reduction NPV Net Benefits are shown in Table 8. A year-by-year breakdown of this category's benefit stream can be found on the “3c BCA” and "3l Emissions" tabs in the provided BCA Spreadsheet.

From a sustainability standpoint, the rehabilitation of the NETEX line will provide for a “greener environmental” region. Future generations will benefit from a safer and more livable environment, sustainability of the rail line, economic growth, and reductions in the emission of

hydrocarbons from greenhouse gases. Currently, the major metropolitan areas of Dallas/Fort Worth are in non-attainment status. Hunt County, which is included in this project, is classified as near-non-attainment. Any activities in the region that can reduce both source and non-point source emissions should be actively encouraged. NETEX would require the rail operator to maintain the track in the rehabilitated condition when the project is completed. The improvements would therefore be self-sustaining and the additional companies locating in the region utilizing the rail corridor for access to KCS and UP will provide additional revenues also ensuring this assest is sustainable. This project will meet the immediate needs of the residents of the region without compromising the ablility of future generations to meet their needs.

Table 8 – 20-Year Environmental Sustainability Benefit Net Present Value (NPV)

20-Year Environmental Sustainability Benefit NPV		
	3% Discount	7% Discount
Total Emissions Reduction NPV Net Benefits[1]	$ 53,786,904	$ 34,014,650

A freight train (on average) can move a ton of freight nearly four times farther on one gallon of fuel as can be moved by truck, and each ton-mile of freight moved by rail reduces greenhouse gas emissions by two-thirds or more as compared to highway transportation. One typical freight train handles the equivalent of 280 truck tractor-trailers. The continuation of freight rail shipments, made possible by this project will result in reduced vehicle miles traveled, highway congestion, and vehicle emissions.

v. Safety

By moving heavy trucks off Texas and neighboring States' roads, the Project will eliminate highway accidents involving trucks for at least 20 years. The value of property damage, injuries, and deaths caused by these avoided accidents is $ 78,670,743 at a 3% discount and $ 50,468,357 at 7% as shown in Table 9. A year-by-year breakdown of this category's benefit stream can be found on the "3c BCA" and "3i TIGER Assump" tabs in the provided BCA Spreadsheet.

Table 9 – 20-Year Safety Benefit Net Present Value (NPV)

20-Year Safety Benefit NPV		
	3% Discount	7% Discount
Total Accident Avoidance NPV Net Benefits	$ 78,670,743	$ 50,468,357

Rehabilitation of the NETEX line will also provide safety enhancement to the region by reducing the risk of train derailments, due to operating on an "Excepted Track" condition. Train derailments could have an adverse affect on residences and businesses adjacent to the rail line. Vegetation removal along the line will improve the safety of train crews and the traveling public at grade crossings. These benefits have not been monetized and do not easily fit within the context of a monetized benefit, although the direct and indirect costs to NETEX and Blacklands have driven maintenance costs to almost three times the average short line maintenance

[1] In this total the value of CO2 emissions is calculated in accordance with the *Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866 (February 2010)* and all other emissions are discounted at 3% and 7% rates.

cost/mile. As such, they are mentioned here, but no attempt was made to include these benefits within the BCA.

b. Job Creation and Economic Stimulus

According to the Texas A&M University-Commerce (2007) economic impact study, the continued operation of the NETEX line is a major catalyst for (a) generating employment in the region, (b) continuing taxation revenues, and (c) providing transportation options for economic development.

The project is located in Northeast Texas and incorporates a large portion of the Blackland Prairie region of the state, one of the most agriculturally rich areas in the south-central U.S. The Blackland Prairie supports numerous farms, ranches, dairies, and agricultural businesses. Other major businesses in the area include manufacturing, natural resources and mining, and construction. Many of the companies moving materials over the BLR are relatively small and rail transportation of materials is essential to their profitability.

The rehabilitation of the NETEX line will provide for the continuation of service to the existing customers and add capacity for further rail-oriented economic development efforts in the region. The project will generate contracted jobs in the short term and additional permanent jobs as economic development efforts continue. Efforts will be made to provide opportunities for employment of low-income and unemployed individuals within the three economically distressed counties that are included in the project. These three counties, Hopkins, Delta and Hunt are served by two Workforce Development Areas (WDA) of the Texas Workforce Commission. FY2014 TIGER grant funding will provide individuals employed by the project an opportunity to gain broadly transportable workforce skills as maintenance of way workers in the railroad industry. **Small and disadvantaged business enterprises, including veteran-owned and service disabled veteran owned businesses, will be encouraged to participate in the project.** The project will require compliance with Federal laws ensuring a safe environment and fair treatment for American workers, and implementation of best practices that are consistent with U.S. civil rights and equal opportunity laws ensuring that all individuals, regardless of race, gender, age, disability, or national origin, have the opportunity to benefit from FY2014 TIGER grant funding.

The impact of the FY2014 TIGER project expenditures on the economy of the United States was estimated using an employment impact multiplier recommended by the Council of Economic Advisors (CEA), one job per $76,923 of government expenditures, or 1.3 jobs per $100,000 of government expenditures. Estimates of job generation related to the project, using the CEA Employment Multiplier, are shown in Table 10. The cumulative impact of the project amounts to 143 job-years, including, 92 direct and indirect job-years and 51 induced job-years. During the rehabilitation period, the project will generate on average 61 direct and indirect jobs each year that would last the entire year, with an average of 34 induced jobs per year. The project schedule is estimated to be 1.5 years. The average number of jobs per year is equal to Total Job-Years (143) ÷ Project Schedule Years (1.5) = 95. Sixty-four percent (64%) are Direct or Indirect Jobs and thirty-six percent (36%) are Induced Jobs.

Table 10 – Employment Impact of Project Expenditures Based on the CEA Employment Multiplier, Number of Jobs-Years Created, Total, and Annual Jobs: (www.whitehouse.gov/assets)

Effect Type	Total Job-Years (1.5)	Average Number of Jobs per Year*
Direct and Indirect	92	61
Induced	51	34
Total	**143**	**95**

NOTE: (*) Number of jobs lasting the entire year during the project implementation period.

c. Innovation

The preservation and continued operation of the NETEX line has required an innovative approach by the state since the acquisition of the line was considered. In 1995, the Texas Legislature appropriated $2 million for the purchase of the line from just west of Greenville to Sulphur Springs. In 2000, NETEX purchased the segment from Sulphur Springs to Winfield with a $1.3 million U.S. Department of Agriculture grant. Critical maintenance to keep the line operable has been funded by BLR, as revenues materialize, and by NETEX from limited funds remaining from the 1995 appropriation and some lease revenues. The management of the line by NETEX and the operation of the line by Blacklands Railroad proved to be a successful collaboration and an innovative approach to providing for economic development opportunities in region and the state of Texas. Examples of innovation by the railroad are also demonstrated through the implementation of convenient trans-load facilities, such as those shown in Figures 7 & 8, to provide customized rail service to off-track customers throughout the northeast Texas region.

Figure 7 – Local rancher off-loading liquid feed supplement.

Figure 8 – Off-loading plastic pellets for manufacturing.

Performing a concentrated rehabilitation/maintenance project to quickly raise the track Class and substantially reduce the exorbitant annual repair/maintenance costs in itself is not an innovative approach to preserving an important asset. Innovation is demonstrated by the NETEX Board's approval to pursue both a RRIF loan and TIGER grant in parallel. The whole line (Segment II and III) needs to be rehabilitated and NETEX is willing to repay a RRIF loan to rehabilitate the

NETEX owned Section III infrastructure. If a TIGER Grant was awarded for the TxDOT owned Segment II and a RRIF loan for Segment III, the RRIF Loan would essentially represent a 50/50 match for the TIGER Grant.

d. Partnership

The NETEX (a state agency) lease/service agreement with the BLR and the shippers themselves constitute a true long-term public-private partnership to provide essential freight transportation services to a rural, economically disadvantaged region in Northeast Texas. The rehabilitation of the NETEX line is necessary for further economic development in the region and continued operation of the line. If the line of excepted track is not rehabilitated, rail transportation of freight could certainly become uneconomical and unsafe causing rail service to cease. Freight traffic of any surviving businesses would have to be diverted to the region's highways, travelling some distance to (or from) a suitable bulk commodity transload facility or to (or from) the ultimate destination. NETEX and BLR have established collaborative relationships with Economic Development Corporations along the corridor to promote the utilization of rail services and market the region to potential businesses and industries who would benefit from rail access. See II. Project Parties.

e. Results of Benefit-Cost Analysis

A detailed benefit-cost analysis is provided in the BCA Spreadsheet provided on the NETEX TIGER Application Website at www.NETEXrail.org/tiger/. The benefit-cost analysis captures the increased public costs associated with diverting 75% of the 2015 projected rail carloads over-the-road via trucks as defined in section "*c. No-Build Scenario"* above. A discussion and explanation of the Project Benefits summarized in Table 11 is provided below.

Table 11 – Summary of Project Benefits

FY2014 TIGER Selection Criteria	**Net Present Value at:**		
	3%		**7%**
State of Good Repair			
Highway Maintenance Savings	$ 10,250,567		$ 6,501,462
Rail Infrastructure Maintenance Savings	$ 10,885,637		$ 7,461,714
Economic Competitiveness			
Shipper Cost Benefits	$ 91,373,285		$ 57,953,861
Livability			
Congestion Relief	$ 4,265,038		$ 2,782,455
Safety			
Accident Benefits	$ 78,670,743		$ 50,468,357
Environmental Sustainability			
Emissions Benefits	$ 53,786,904		$ 34,014,650
Residual Value			
Residual Value of Project Assets	$ 1,454,403		$ 678,818
Net Present Value	$ 250,686,577		**$** 159,861,318
Benefit-Cost Ratio	**22.8**		**14.5**

The benefit streams and project related costs are monetized over a twenty year period and the Net Present Value of these streams derived using real discount rates of 3 percent (and 7 percent as an alternative). The result of the full project is net benefits of $250,686,577 at 3% and $159,861,318 at 7%. The ratio of costs to benefits ranges from 22.8 at a 3% discount to 14.5 at a 7% discount. Table 11 provides the discounted summary in the recommended format per the NOFA and a summary of the benefits in total and by benefit category.

The methodology for each cost and benefit is briefly summarized below. All values and formulas are included in the attached Microsoft Excel BCA Spreadsheet that accompanies this application.

Overview of highway traffic avoided calculations: Many of the benefits above flow from the ability of the project to reduce highway truck traffic on rural roads in Texas and highways across the United States. To estimate highway traffic, the traffic projections of the SLR in a No-Build scenario were first established as a baseline. This model shows that the current and projected 286,000-lb carload capacities would move by truck. This rail traffic is then converted to truck miles. These truck mile figures are used as a variable in many of the following calculations.

State of good repair: This benefit consists of two elements: (1) the reduced cost to maintain rail infrastructure; and (2) the reduction in highway maintenance costs as trucks are kept off of the region's roads. Rail maintenance of way expenses are based on the cost to maintain infrastructure at its current level per historical annual expenditures for the 20-year analysis period. This is then compared to projected maintenance costs after completion of the Project.

Highway maintenance cost savings are calculated by multiplying highway truck miles avoided by the pavement maintenance cost of $0.185 per truck mile, taken from the Federal Cost Allocation Study. The existing literature provides a wide and highly varying estimate of pavement damage.

Economic competitiveness: Reduced rail customer freight rates are the primary competitiveness improvement of the project. Total Build and No-Build truck mileage was used to calculate net additional truck freight rates in a no-build scenario. The projected cost of rail freight rates was then deducted from this figure to calculate a net benefit. There are numerous anecdotal benefits that are projected to come from this project that will have a direct impact on the Texas economy. Monetization of those benefits is beyond the scope of this BCA.

Livability: Reduced truck traffic will reduce highway congestion creating the primary livability benefit. Total truck miles avoided are multiplied by $0.1053 to determine the congestion cost per miles traveled. This figure is taken from the Federal Cost Allocation Study update. As with pavement damage costs, the literature varied widely, and this BCA has used the most recent USDOT number available.

Safety: Removing trucks from our already crowded rural, U.S., and interstate roads in Texas and the U.S. will improve motorist safety. Additional truck miles in the "No-Build" scenario were converted to hundred million vehicle miles traveled, and then multiplied by the Bureau of Transportation Statistics calculated accident rate per 100 million VMT for fatalities, injuries, and

property. This was then multiplied by value loss: injuries and fatalities in accordance with the USDOT Value of Statistical Life in Departmental Analysis; property damage as determined by the National Highway Traffic Safety Administration.

Environmental sustainability: Rail is more fuel efficient than highway trucks, allowing this project to reduce harmful emissions. For each pollutant (VOC, NOx, CO_2, PM, SO_2, and CO) truck miles that would be avoided with the "Build" was multiplied by emissions rates in grams per mile and then divided by grams per ton (long or metric). Rail emissions from the rail traffic were then calculated. Rail emissions were netted against truck emissions and multiplied by the emissions values per ton. The Social Cost of Carbon was calculated in accordance with Executive Order 12866.

Residual Value: The useful life of some project materials installed into the infrastructure usually has value after the 20 year analysis period. An estimate "residual value" of Ties, Ballast, plates, spikes and facilities have been included as a benefit and appropriately discounted. The calculations for residual value are shown on the "3g Residual Values" tab in the provided BCA Spreadsheet.

Overview of project cost calculations: In the calculation of benefits above, some costs naturally led themselves to being netted out against benefits, for example, emissions, freight rates, and maintenance of way expenses. Where this methodology made sense, net benefits were calculated accordingly. Project implementation costs were developed in cooperation with NETEX/BLR and regional costs for similar activities from previous contracted work or proposals. These cost items are itemized with delivery, labor, and material costs on the "3d Material & Labor Cost Estimate" tab in the provided BCA Spreadsheet.

Current year costs: All costs provided in current years (such as pavement damage or freight rates) are indexed for future years at a conservative annual rate of 2.85 percent since they will inevitably increase. The CPI index for the past (20) twenty years averaged an annual rate growth rate greater than 3.0 percent. This escalation appears in calculations for values in future years on the "3c BCA" tab in the provided BCA Spreadsheet. Escalation treatment of CO_2 emissions was calculated in accordance with EO 12866.

Discounting: Calculations of net present value were performed at both 3% and 7% discounts.

Citations: Source citations for inputs are provided in the BCA worksheets where relevant.

V. Project Readiness and NEPA

The NETEX FY2014 TIGER project should be ready for construction to begin within four to five months, upon notice of being selected to receive grant funding. NETEX and Blacklands (as part of a RRIF loan preparation) inspected the project area for the scope of work, drafted a CATEX and sent formal project review requests to the appropriate agencies. NETEX received their approval based on the fact that the work was basically maintenance of ties, ballast and resurfacing on and within the boundaries of the existing rail corridor. NETEX received letters from the following agencies stating no objection to the planned activities:

- Texas State Historical Preservation Office (Austin, Texas)
- Texas Commission on Environmental Quality (Austin, Texas)
- Department of The Army (fort Worth District, Corps of Engineers)
- Natural Resources Conservation Service (Temple, Texas)
- Texas State Soil and Water Conservation Board
- U.S. Fish & Wildlife Service (Arlington, Texas)
- Texas Department of Transportation

The Categorical Exclusions (CATEX) Worksheet and above mentioned CATEX letters of authorization are provided as an accompanying attachment on the NETEX TIGER website at www.NETEXrail.org/tiger/.

VI. Federal Wage Rate Certification

The federal wage rate certification statement is included at the end of this document.

VII. Summary

This project will have a positive impact on the economy at the local, state, and national levels. Rehabilitation of the NETEX line will assure the provision of continued freight rail service in the region, increase rail capacity, and provide economic development and employment opportunities for counties in northeast Texas. The four counties included in the FY2014 TIGER project area are Hunt, Delta, Hopkins, and Franklin. Of these four counties, three counties have per-capita income lower than the state average and a significant percentage of the population is below the poverty level. The project will have a positive direct and indirect impact on economic competiveness, livability in the region, safety enhancement, environmental sustainability, employment levels, and highway maintenance costs. The FY2014 TIGER funds requested will get the 69.6 miles of NETEX mainline track, sidings, and spurs into a "state of good repair" and promote sustainable economic growth in the region. The project has broad support in the region and the state. The funds requested to improve the excepted track to FRA Class 2 standards represent a minimal investment with a good benefits-to-cost ratio. The funding of this Rehabilitation Project will quickly generate jobs and provide short and long-term benefits to the region, state, and nation, making this a responsible and appropriate use of FY2014 TIGER funds.

VIII. Application Materials & Resources

The complete application package submitted by NETEX for FY2014 TIGER Discretionary Grant funds consists of the following components:

Application Form
Application for Federal Assistance (SF-424)
Grant Application Narrative (this document)*
Federal Wage Rate Certification (attached to this document)*
Benefit-Cost Analysis Spreadsheet*
NETEX Rehabilitation Project Map*

Categorical Exclusion Worksheet (NEPA/CATEX)*
CATEX Local Agency Response Letters*
Legislative Approvals and Letters of Support*
Supplemental Images*

* These materials are provided on the NETEX TIGER Grant Application web page at www.NETEXrail.org/tiger/.

NETEX RAIL DISTRICT

NORTHEAST TEXAS RURAL RAIL TRANSPORTATION DISTRICT

April 25, 2014

TIGER Discretionary Grants Program Manager

United States Department of Transportation

Washington DC

Subject: **Compliance with Federal Wage Rate Requirement**

Dear Sirs:

In connection with this Application of the Northeast Texas Rural Rail Transportation District ("NETEX") for a TIGER Discretionary Grant under the Consolidated Appropriations Act, 2014 (P.L. 113–76), for National Infrastructure Investments, NETEX (which is a subdivision of the State of Texas) hereby undertakes to comply with the requirements of subchapter IV of chapter 31 of title 40, United States Code [Federal wage rate requirements] as required by the FY 2014 Consolidated Appropriations Act.

Very truly yours,

Cletis Millsap, Chairman

NETEX Board of Directors

641 Church Street Sulphur Springs, TX 75482

Toll Free 1-877-439-0738 **Phone 1-903-439-0738** **Fax 1-903-439-0809**