
U.S. Department of Transportation

National Infrastructure Investments Grant Program

“TIGER II”

GRANT APPLICATION

Project Name: El Paso Rail Relocation

Project Type: Freight Rail Planning

Funds Requested: \$ 1,680,000

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Project Description: This TIGER II Planning Grant will fund planning and design activities to relocate BNSF railroad yard located in the economically disadvantaged Chihuahuita community in the Southwest region of El Paso to a proposed central location site near which could improve existing and future rail operations in El Paso. The railroad yard is within the proposed Border Highway West corridor that begins at SH 20 (N. Mesa Street) to Fonseca Drive, a distance of approximately 15.7 miles. The existing railroad yard occupies approximately 44 acres and is bound North by US 85 (Paisano Drive); in the South by US/Mexico border; in the East by Park Street and in the West by US 85 (Paisano Drive).

The proposed rail yard relocation would enhance access to Chihuahuita neighborhood since the existing railroad yard imposes a near landlocked barrier that impedes access to this community.

Rating Criteria No. 1

Purpose and Outcomes: The existing location of the BNSF railroad yard is an impediment to viable intermodal transportation being considered in the region (See Map of Chihuahuita Neighborhood Plan). The proposed relocation of the BNSF railroad yard would minimize the disruptions associated with rail operations' such as reductions in emissions from idling trains and trucks and elimination of blocked crossings which will serve to reduce congestion caused by freight traffic in Downtown El Paso. The relocation will provide additional options to reduce Interstate 10 Highway congestion in Downtown El Paso by allowing the construction of a new Highway reliever route – the Border Highway West corridor



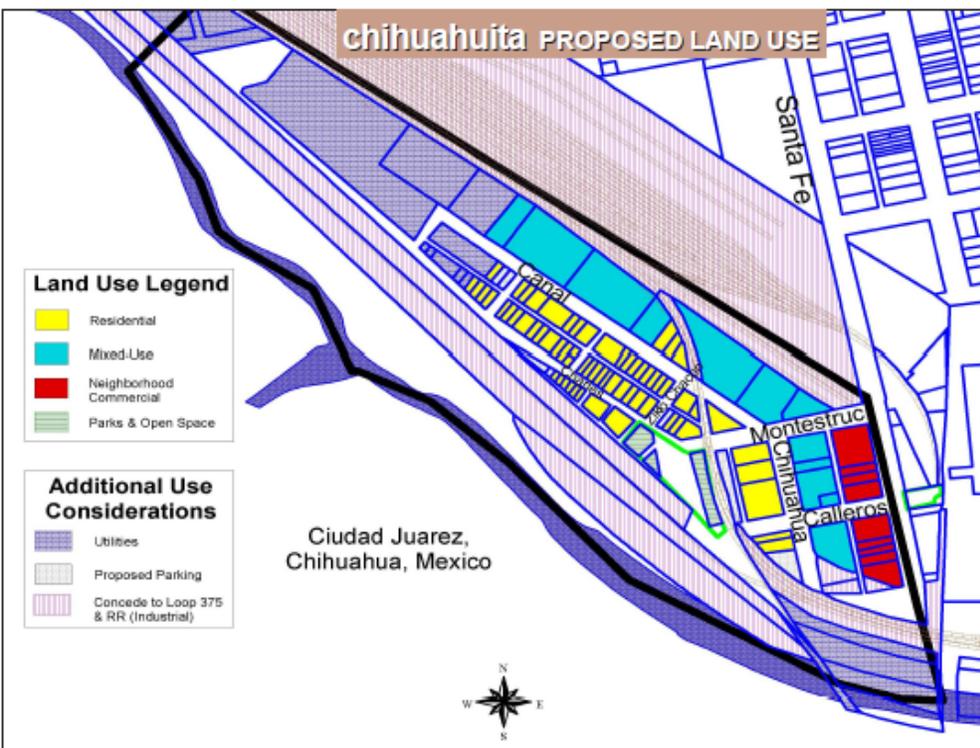
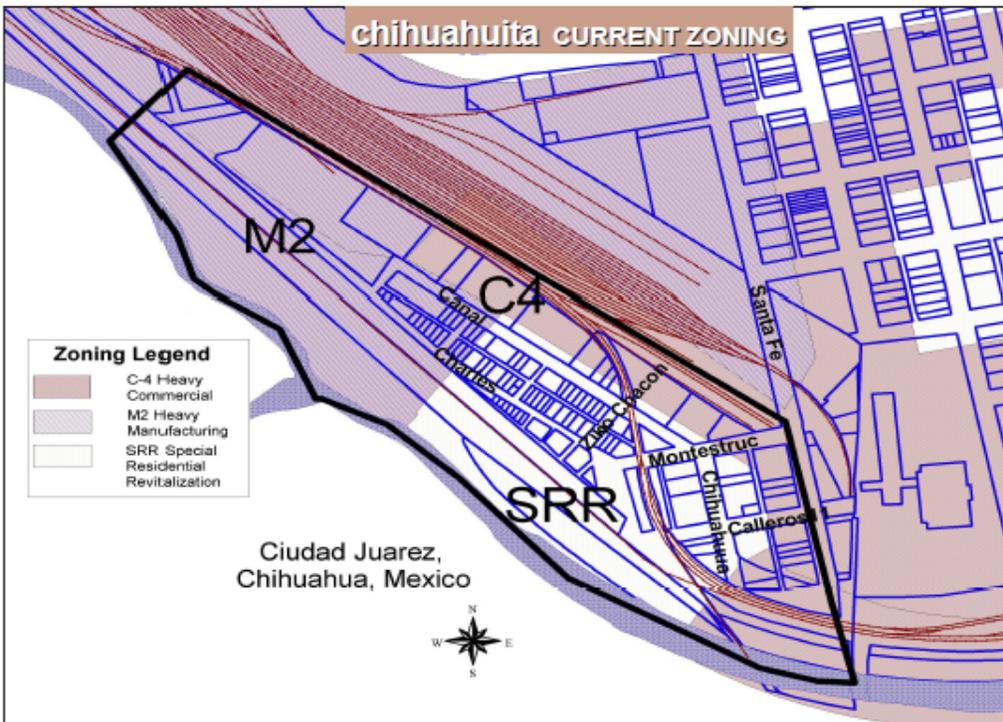
roadway project.

chihuahuita NEIGHBORHOOD PLAN Planning, Research & Development

The proposed relocation plan adheres to El Paso Downtown Redevelopment 2015 Plan, MPO regional mobility plans and is consistent with the following Livability Principles:

1(a) Provide More Transportation Choices: The relocation of the BNSF railroad would accentuate multimodal transportation opportunities and at the same time revitalize the economic base of the region. The approximately 44-acre railroad yard site in the Central Business District (CBD) would be rezoned to a mix-use land use that would allow for affordable housing units; light commercial development and light

rail considerations.



The El Paso Sun Metro has an existing bus facility in this locale that would complement a planned Transit Oriented Development. The Border Highway West corridor roadway project that was previously planned to span the railroad yard with grade-separated structure would now be reconsidered for a cost-effective at-grade connection to complement the developed of new transit opportunities in the area. Based on the El Paso Downtown Redevelopment 2015 Plan, the international Bus Terminal near Santa Fe Street, the improved roadway connectivity and other multimodal transportation options including Light rail would improve the quality of life, safety for the general public, and offer reliable transportation choices that would reduce vehicle miles traveled, household transportation cost and potentially the nation's reliance on foreign oil.

1(b) Promote Equitable, Affordable Housing: The relocation of the BNSF railroad would complement the Downtown El Paso Redevelopment and Incentive Districts Plan (See El Paso Downtown 2015 Plan). The Redevelopment boundary is drawn to capture areas in need of reinvestment where lots are vacant, tenancy is low and where commercial spaces are underutilized. The existing BNSF railroad yard could be best used to create new and help revitalize existing downtown neighborhoods where mixed use zoning would improve the quality of life for the residents of the area. Moreover, the vacant lots could be redeveloped for affordable and market rate housing opportunities for singles, families, students and seniors.

Currently, the Chihuahuita Neighborhood has Special Residential Revitalization (SRR) zoning in the residential core of the neighborhood that allows for mixing residential environments with workplaces and services. Within the boundaries, there is also C-4 (Commercial) and M-2 (Heavy Manufacturing) zoning (See maps of Chihuahuita current and proposed Zoning). This grandfathered mixed use zoning allows industrial and commercial businesses to co-exist with residential uses. Re-zoning to a mixed use of commercial and residential is expected to spur employment opportunities for this economically distressed El Paso community; thus enhancing the quality of life in the region. Re-locating the rail yard would reduce vehicular idling at blocked railroad crossings there by reducing emissions and adding the region's efforts to reach attainment for carbon monoxide(CO) and particulate matter 10 (PM-10). Relocating the rail yard would reduce train noise and vibration impacts on the neighborhood of Chihuahuita.

According to the Texas Real Estate Business, July 2010 Publication, "If affordable housing is not built into the equation early on, land values along rail transit lines escalate and do not captured for the overall benefit for the public (who financed the rail lines and created the value increase)." When land values escalate, higher rents are required for the return on the investment used for such developments. If affordable housing is not included for low-income families in the redevelopment plans for the rail yard then the full benefits of the relocation will not be realized. Studies have shown that "low-income individuals make up the vast majority of transit users" and also make up a large part of the work force employed in the service industry. According to the US Census Bureau data, the per capita income for the El Paso County is \$13,421 and \$14,388 for the City of El Paso. About 25.2% of the El Paso County and 22.2% of the City of El Paso population are below the poverty line.

For mixed-use/mixed-income Transportation Oriented Developments (TOD) to be feasible, the following must occur: (a) Zoning must allow for rental units (b) Density must be promoted by providing bonuses for affordable housing since land prices dictate density to facilitate affordability (c) Parking must be reduced for Transportation Oriented Developments and for the affordable housing component (d) Creative public/private financing such as tax-increment financing, municipal management District such as the newly created El Paso Downtown Re-investment district. Sales tax rebates are needed to fill in the

significant loan and equity gaps created as a result of affordable housing rents and the cost of TOD land in comparison with the total development budgets.



El Paso Downtown 2015 Plan

1(c) Enhance Economic Competitiveness: TxDOT’s proposal is to perform the planning study and preliminary engineering for relocating the existing BNSF rail yard and provide a logical new reliever route for highway traffic in the vicinity of the existing of the BNSF rail yard in El Paso. The BNSF’s El Paso rail yard is currently landlocked and unable to expand to meet future increased freight traffic demand. Relocating the rail yard will improve freight operations and help reduce congestion caused by freight train movements in downtown El Paso area. In addition, a new rail yard would allow for future freight expansion and allow the existing rail yard area to be utilized for other transportation or redevelopment opportunities. This relocation provides a logical route for a new reliever highway/interstate roadway that would carry a substantial amount of future traffic. By relocating the existing BNSF yard, the proposed new reliever could be constructed at grade instead of a more expensive grade-separated roadway over the rail yard.

The strategic location of El Paso as a Border city to Mexico improves economic competitiveness for the region. According to an analysis of potential future development found in the Leinberger-Lesser Study for the El Paso Downtown Partnership determined that “in light of its proximity to Juarez, the significant volume of expenditures by Mexican nationals, convention delegates to the city, ease of access, and an underserved local population, significant demand potential existed for expanded retail space downtown.” According to the El Paso Downtown 2015 Plan, an estimated 30% to 40% of overall retail sales were attributed to visitors from Mexico. Some retailers estimate this number to be as high as 90% of their sales. International sales data confirms that Mexico continues to be the largest export market for Texas products. Texas shipments to Mexico exceeded \$124.6 billion in 2008. In 2008, the value of imports from Mexico through El Paso surpassed \$28.03 billion. The city remains the second largest importer/exporter along the U.S. southern border.

The Leinberger-Lesser study indicated that, “attracting quality retail into Downtown is a critical catalyst to the area’s revitalization. With a strong mix of retail, dining, and entertainment, the existing BNSF rail yard in Downtown El Paso has the potential to evolve into an area where residents shop, dine, and play.” With a mixed use land zoning designation the potential exists for educational opportunities; retail

services; improved transportation networks and sustainable and reliable employment opportunities for residents of this region. The Center for Transit Oriented Development estimates that by 2030, 16 million households will desire housing near transit, and more than one half of the potential demand for this housing is likely to come from households that have incomes below the area median income, thus making the need for affordable mixed-income TOD housing all the more acute.

The question becomes, “How do we maintain equity in economic competitiveness among a diverse socio-economic group of people in the existing BNSF rail yard area”? One positive force is that younger generations who are likely residents of at least the rental portions of TOD developments – are very open to multi-culturalism and urban lifestyles. However, securing the zoning and development approval from the City of El Paso for rental housing in BNSF rail yard neighborhoods creates an open forum for anti-density advocates. If affordable housing is not considered in a mixed-use land zoning, private owners/developers typically develop downtown areas as luxury residential projects. If this happens rent will no longer be affordable to low-income families who will be employed as service workers in the retail, restaurants and schools that will be part of the mixed-use community. Should workers be required to use personal vehicles to commute back to their jobs in the proposed BNSF rail yard relocation area, the benefit of transit efficiency will not lower vehicle miles travelled.

1(d) Support Existing Communities: One option to alleviate the traffic impacts in the Chihuahuita neighborhood is to use the existing BNSF rail yard area is for improvements for the El Paso Sun Metro System to provide more reliable bus service to the University of Texas at El Paso campus and other outlying areas of the city. Increasing levels of visitation especially from Mexico will require improvements to the existing transit system. Hence, appropriate Federal Transit Administration funds or grants must be sought for the operation improvements of existing transit system. The encouragement of public/private projects for redevelopment of the BNSF rail yard will infuse substantial investment in the form of expanded retail opportunities, entertainment venues, and mixed use housing developments that will improve the economic outlook for the area and the City of El Paso as a whole.

The City of El Paso, business and community leaders sponsoring the downtown planning initiatives believe that there needs to be a clear process whereby interested developers or development groups compete to develop these sites based on a program of clear development objectives and within the adopted design guidance. Consequently, the implementation of this program must create a structure to encourage public/private funding of infrastructure, street and service improvements and acquisition of land. The key components for success include:

- ❖ Effective outreach and marketing to investment and urban development sources
- ❖ Clear mechanisms to enable local business and land owners to participate in the growth and economic vitality of the Chihuahuita neighborhood

1(e) Coordinate Policies and Leverage Investment: The City of El Paso, BNSF, and TxDOT will work together through the planning and right of way acquisition process to ensure that the needs and interests of each party as well as the citizens of the area are addressed. The three entities have identified mutual benefits each could receive and will target appropriate federal funding and leverage matching funds to meet the desired outcome of the planning activities. Redevelopment the proposed BNSF rail yard site is within the approved El Paso Downtown 2015 Plan and is consistent with the El Paso MPO long range plan.

The City also worked diligently with state and federal agencies to package grants and federal funds to implement planning activities in the proposed El Paso Downtown 2015 Plan. These included:

- Paso Del Norte Group Foundation (PDNG) - fiscal agent takes the lead and a total of \$759,000 secured for developing Downtown Plan. Funds are broken down as follows:
 - \$250,000 City of El Paso committed to PDNG for developing Downtown Plan
 - \$259,873 Economic Development Administration Grant
 - \$250,000 Private Sector
- Streetscape improvements such as street and sidewalk reconstruction, street lighting, landscaping, to be pursued for funding through the Federal Highway Administration's Urban Systems Program.
- The utilization of Community Development Block Grants to be sought to finance office and commercial/ retail complex improvements in this region.
- Designation of the BNSF railroad yard region as part of Downtown Re-Investment Zone allows the use of revenue bonds for infrastructure and building improvements.
- The use of Urban Development Action Grant money to be pursued for planning and site development for the approximately 43 acres of the BNSF railroad yard.
- Funding for the development of affordable housing and new parking for businesses should target HUD monies.

The City of El Paso building code is being upgraded to take advantage of smart energy for a more efficient utilization of locally generated energy through improved design, high efficiency technologies, and conservation, along with the use of clean renewable resources to create electricity, heat, and transportation fuels. Affordable housing with efficient use of energy is central to attainment of smart energy goals because reduced energy use results in long-term cost savings and these goals will be included in the redevelopment of the BNSF rail yard.

The city of El Paso is nicknamed the “Sun City” and by building green and investing in solar and wind energy for residential units, offices and retail complexes in BNSF rail yard area, the city can save water, energy, building materials, while providing healthy indoor environments that increase worker satisfaction and productivity. In addition to the efficient use of energy in buildings, reducing fossil fuel use and the associated environmental impacts through enhanced technologies and use of alternate fuels in the transportation sector is another major component of smart energy. Implementation of smart energy practices decreases global warming emissions and other pollutants, enhances public health, and reduces spending on fossil fuels. Additionally, promoting smart energy has strong economic development benefits because energy efficiency and renewable energy alternatives generate more jobs in both research and development and implementation and servicing of smart energy technologies for the economically distressed region of El Paso.

The City of El Paso’s use of compressed natural gas fuel on buses and the proposed implementation of a light rail system complement smart energy choices and transit-oriented mixed-use opportunities, which reduces hydrocarbon emissions, and mitigates the non-attainment designation for carbon monoxide (CO) and particulate matter (PM-10) for the region.

The El Paso MPO updates the Transportation Conformity Report (TCR) every four (4) years. FHWA reviews the Conformity Report and if no issues are found then approves the Metropolitan Transportation Plan (MTP) and Transportation Improvement Program (TIP) document. Projects in the MTP and TIP can then proceed through the transportation planning once FHWA approves the TCR. The El Paso County has

Motor Vehicle Emissions Budgets (MVEB) for CO and PM-10 listed in the Texas State Implementation Plan as follows:

Motor Vehicle Emissions Budgets (MVEB) for El Paso Nonattainment Areas

El Paso County	CO	PM-10
Classification	Moderate	Moderate
MVEB tons/day	29.66	12.10

El Paso County was granted an exemption for CO under Section 818 of the 1990 Federal Clean Air Act (FCAA) Amendments. The PM-10 State Implementation Plan (SIP) for the El Paso MPO contains the budget emission set at 12.10 tons per day for El Paso County that cannot be exceeded if conformity of the TIP and MTP with the SIP are to be demonstrated.

The following El Paso MPO table indicates the Vehicle miles traveled (VMT) as estimated by the Travel Demand Model (TDM) for the El Paso region. The figures for PM-10 reflect a summer analysis, and the CO figures are for the winter (November).

Total Vehicle Miles of Travel El Paso County (Including Intrazonals)

	CO Analysis VMT Winter	PM-10 Analysis VMT Summer
2010 Intermediate Year	15,103,364	14,943,132
2020 Intermediate Year	18,154,612	17,962,013
2025 Intermediate Year	19,086,267	18,883,781
2035 Forecast Horizon Year	20,803,552	20,582,848

Note: CO Analysis is only for Zones in nonattainment areas.

A comparison of the modeled network emissions with the budgets for the County of El Paso yields the following results. All projected emissions fall within the budgets.

El Paso Conformity Analysis Summary (Emissions expressed in tons per day)

Pollutant	Budget	2010	2020	2025	2035
CO	29.66	14.4	13.4	13.0	13.7
PM-10	12.10	7.87/8.23	9.20/9.62	9.68/10.12	10.31/10.77

PM-10 emission include summer/winter figures

1(f) Value Communities and Neighborhoods – The multimodal transportation choices consisting of the proposed Border Highway West corridor project, light rail and Transit Oriented development are expected to bring about travel changes in mode share or vehicle mile traveled per capita. The benefits or outcomes of this proposed program include the following:

- ❖ Improve mobility, reduce congestion, and improve vehicular traffic flow
- ❖ Provide better access to Chihuahuita neighborhood that is currently landlocked
- ❖ Reduction in train noise and vibration impacts on adjacent properties

- ❖ Improve the safety of the traveling public – relocating the rail yard will reduce train switching movements in the area reducing train conflicts with vehicles, mass transit, pedestrian, and bicycle movements thereby creating an enhanced quality of life.
- ❖ Relocating the BNSF rail yard will provide additional options to reduce Interstate 10 (I-10) Highway congestion in Downtown El Paso by allowing the construction of a new highway reliever route – the Border Highway West corridor.
- ❖ Provide safe and convenient access to existing residential and commercial developments along the proposed Border Highway West corridor and at cross street intersections within the project limits.
- ❖ The Border Highway West roadway project is expected to alleviate North American Free Trade Agreement (NAFTA) traffic congestion coming from Mexico
- ❖ Transit Oriented Development in this lower-income region could increase transit ridership and consequently lower vehicle miles travelled for people who are least able to own their cars
- ❖ Air Quality is improved as a result of mass-transit in a Transit Oriented Development especially for the non-attainment designation for the City of El Paso in carbon monoxide (CO) and particulate matter (PM-10)
- ❖ Increases employment opportunities and economic vitality for the region by lowering vehicle miles traveled by an improved roadway network
- ❖ Installation of light rail in this region brings about the need for rail stations, which are prime targets for “transit-oriented” mixed-use opportunities in areas that have been either industrial parks or forgotten areas in urban centers.
- ❖ Reduction in fossil fuel use by virtue of “transit-oriented” mixed-use opportunities and associated environmental impacts through use of alternate fuels is another major component of smart energy with a view to lessening the nation’s dependence on foreign oil.

The full environmental benefits from relocating the BNSF rail yard will not be completely realized until after the construction of the proposed Border Highway project and full implementation of all identified and operational “transit-oriented” mixed-use opportunities.

Studies have shown that the expected benefits or outcomes include the following:

- The transportation sector accounts for more than 43 percent of energy used in the U.S. (Clean Communities on the Move). Relocation of the BNSF railroad yard from its downtown location coupled with multi-modal transportation access will reduce vehicle emissions improving the air quality in the El Paso region.
- Create economic development opportunities and jobs;
- Promote efficient international trade with Mexico. International sales data confirm that Mexico continues to be the largest export market for Texas products. Texas shipments to Mexico exceeded \$124.6 billion in 2008. That same year, the value of imports from Mexico through El Paso surpassed \$28.03 billion. The city remains to be the second largest importer/exporter along the U.S. southern border.
- Vehicle Miles Traveled (VMT) will drop and overall fleet fuel efficiencies will increase in the mixed-use development planned for BNSF railroad yard. Inefficient and fragmented land use patterns are the major driver of VMT. Creating a mixed use development in the BNSF rail yard area will allow people to live and work in the same place eliminating the need to commute to work. Through policies and procurements, the City of El Paso can clean up its own fleets and make it easier for employees and residents to travel without relying on the car.
- Smart energy implementation on a mixed-use residential or commercial structure design makes a huge impact on the overall performance and impact of the building. Therefore, through good site design, new structures in the Chihuahuita community can take advantage of natural light,

solar access, and existing wind breaks, thus saving significant dollars for, lighting, heating, and cooling.

Recreational areas or open space preservation - Recreational areas or open space preservation is protected by El Paso Zoning ordinance in a mixed housing types land uses, with minimal disturbance to the natural terrain.

Benefits to be realized include:

- Enhances the quality of life for residents of El Paso
- **Concentrate Development and Mix Uses:** concentrate development on smaller areas of BNSF railroad yard than what would generally happen under conventional zoning practice. It provides flexibility to create commercial, civic, educational, and recreational activities with open space and homes.
- **Make Efficient Decisions:** The open space permitting structure encourages smart growth and facilitates a permitting process that is clear, easy to understand, and cost-effective to developers.
- **Protect Land and Ecosystems:** The planning process for open space inherently protects land and water resources and promotes recharge to underlying aquifers. Open space also preserves significant cultural and historic resources early in the planning process.
- **Plan Regionally:** Implemented on a broad scale, open space can have significant regional impacts to watershed hydrology, wildlife habitat corridors and aquifer protection in the vicinity of the Rio Grande River.
- **Expand Housing Opportunities:** Used in conjunction with affordable housing provisions, open space bylaws can expand housing opportunities in the Chihuahuita community.

Rating Criteria No. 2

Typically, trains do not originate or terminate in El Paso, as intermodal and manifest freight bound for or originating in El Paso are cut from through-trains bound for other destinations. Although cargo volumes are increasing, typically they are not consistently of a sufficient carloading volume to make-up a full train destined for a single location. The BNSF serves local intermodal and carload customers while interchanging with Mexico's Ferrocarriles Mexicanos (Ferromex or FXE), at one single yard facility, located in El Paso's historic Chihuahuita neighborhood. Since the existing yard facility is multi-operational, true efficiency for the BNSF would entail a yard facility where their operations are equipped to load and unload containers, and marshal tank cars, grain cars, flat cars, box cars, etc., to the local industries served.

The work scope for this planning grant will build from previous analyses conducted in the West Texas Region, the El Paso MPO, Rail Border Crossing Improvements, the impacts of grade separation projects planned for Ciudad Juarez, as well as border crossing studies that investigated relocation of the rail border crossing from El Paso to Santa Teresa, New Mexico, and will address this multi-operation yard requirement.

All of the transportation modeling programs have already been constructed. A rail network for the entire region has been coded using the Class I railroad preferred Rail Traffic Controller (RTC) modeling software. This model's base case will serve as the mechanism to quantify the public and private benefits associated with relocating the BNSF yard, which will also include the private benefits which may be realized by the Union Pacific Railroad and Ferromex. TxDOT's Statewide Analysis Model (SAM) and the El Paso MPO region travel demand models will be used to quantify roadway network improvements

and shifts in truck and vehicle traffic flows which may result from planned improvements. A regional Grade Crossing Impedance model will be developed to measure travel delays, emissions, and safety at existing at-grade crossings, and will be based on FRA's GradeDec.net and the EPA's Mobil 6 measurement criteria. Evaluation factors which will be used to quantify improvements and establish both public and private benefits are:

- Reductions in VMT
- Improvements to roadway volume/capacity ratios
- Reductions in train delays/100 train miles
- Reductions in overall train delays by corridor
- Improvements to train operating costs
- Increased rail network capacity
- Reductions in the public burden associated with emission reductions
- Reduction in the public burden associated with travel delays
- Improvements to public safety
- Improvements to pedestrian mobility

In addition, rail yard relocation alternatives will be evaluated based on the following criteria:

- Operational Efficiency: Efficiencies will be judged against the existing facilities and operational capabilities equivalent to the existing yard location. Criteria in this category are:
 - Potential for adjacent industrial development
 - Compatibility with local land use and development planning
 - Availability of power, sewage, and water
 - Access/proximity to municipal and/or state highways
 - Compatibility with existing railroad lines and train routing
 - Interchange operations
 - Administrative facilities
 - Rail equipment, infrastructure, materials and fuel storage
 - Repair facilities
 - Freight cargo storage and handling
 - Continued service to the existing customer base
- Cost effectiveness. The criteria in this category are:
 - Relocation cost estimates
- Constructability, with the criteria defined as:
 - Acreage size and availability
 - Municipal and/or state permit requirements

An evaluation matrix will be prepared that provides an objective evaluation of the rating criteria based on a numerical scale and compared to existing operations. Railroad performance measurements, such as train delays, fuel consumption, etc., will be evaluated against the performance measurements calculated in the RTC base case model output. Realistic dollar values, based on actual railroad reported costs obtained from Surface Transportation Board and Association of American Railroads, will be used to calculate associated private benefits.

This TIGER II project, which has a 20 month schedule, will analyze four primary freight rail transportation planning strategies associated with the BNSF rail yard relocation, which are also

designed to improve freight rail connectivity and mobility through the El Paso rail network and to advance the potential to provide an interconnected commuter rail system that promotes urban redevelopment in underrepresented areas of the city with potential connectivity to Las Cruces, New Mexico, Table 1 depicts the work tasks and the assigned duration of that individual task.

Scope of Work:

The scope of work for this yard relocation project will include the following work tasks:

- Establish an internal Cost Benefit Concept Group (Technical Group) comprised of TxDOT, NMDOT and representatives of the Study Team
 - Establish conceptual range of public benefits
 - Establish conceptual range of private benefits
 - Coordinate efforts and ensure that case definitions and assumptions are consistent throughout the evaluation
- Establish an external Cost Benefit Concept Group comprised of Stakeholders (Role would be filled by MOU Committee)
 - Guide the Cost/Benefit effort
 - Serve in an advisory capacity regarding Study methodology
- Evaluate previously determined alternatives
 - Independently
 - Quantify impact of alternatives to:
 - Transportation infrastructure
 - Environment
 - Socio-economic infrastructure
 - State, Region, and Market Sector
 - Analyze and tabulate advantages and disadvantages
 - Collectively
 - Establish hierarchical matrix
 - No-build alternative

The work product following the draft outline shown below:

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. General Information <ol style="list-style-type: none"> 1.1. Purpose 1.2. Scope 1.3. Overview 1.4. References 1.5. Acronyms/Abbreviations 1.6. Points of Contact <ol style="list-style-type: none"> 1.6.1. Information 1.6.2. Coordination 2. Management Summary <ol style="list-style-type: none"> 2.1. Assumptions/Constraints 2.2. Methodology 2.3. Evaluation Criteria 2.4. Recommendations | <ol style="list-style-type: none"> 3. Description of Alternatives <ol style="list-style-type: none"> 3.1. Current 3.2. Alternatives 4. Costs <ol style="list-style-type: none"> 4.1. Operational Costs 4.2. Non-Operational Costs 4.3. Recurring Costs 4.4. Non-Recurring Costs <ol style="list-style-type: none"> 4.4.1. Capital Investment 4.4.2. Other 5. Benefits <ol style="list-style-type: none"> 5.1. Recurring Benefits 5.2. Non-Recurring Benefits 5.3. Non-Quantifiable Benefits |
|---|---|



6. Comparative Cost/Benefit Summary**6.1. Cost of Each Alternative****6.1.1. Recurring****6.1.2. Non-Recurring****6.1.3. Total Costs****6.1.4. System Life Costs****6.1.5. Present Value****6.1.6. Residual Value Estimate****6.1.7. Adjusted Cost****6.2. Benefits****6.3. Net Present Value****6.4. Benefit/Cost Ratio****6.5. Payback Period****7. Summary and Recommendations***Project Budget:*

A break down of the estimated project cost of \$2,100,000 is shown in Table 1, and the project funding sources are shown below:

- State contribution commitment: \$420,000 (20% of study costs)
- Grant application request: \$1,680,000 (balance of project cost – state contribution).



Project Task	Cost	Month of Completion
A. Analyze Existing Rail Operations	\$150,000	3
Constraints analysis and Rail Traffic Controller (RTC) modeling		
Economic Impact Analysis		
Public - vehicle mobility and safety		
Private - shipper and railroad delay		
B. Evaluate Alternatives and Identify Improvements	\$250,000	4
El Paso location		
New Mexico location		
Addition of BNSF El Paso Subdivision capacity		
Railyard relocation evaluation matrix		
Investigate potential infrastructure upgrade requirements for CR.		
C. Perform Conceptual Design	\$250,000	6
Roadway alignments		
Track alignment		
D. Prepare Conceptual Cost Estimates	\$25,000	7
Mainline		
Yard and facilities		
Maintenance facilities/shops		
Roadway/Interstate		
E. Prepare Preliminary Impact Analysis	\$150,000	10
Community planning		
Business and residences		
Land use and right-of-way acquisition		
Traffic patterns		
Environmental constraints		
Railroad operations (RTC modeling)		
D. Conduct Public Outreach and Coordination	\$25,000	13
Stakeholders and community leaders		
E. Refine and Finalize Alternatives	\$200,000	13
Revise impact analysis		
F. Perform Preliminary Engineering	\$500,000	20
Roadway infrastructure		
Railroad track and facilities		
Drainage		
Urban design and planning		
Revised cost estimates		
G. Economic Impact Analysis	\$250,000	20
Transit-oriented development		
Reduction in fuel consumption and pollutant emissions		
Improved roadway mobility		
H. Prepare Environmental Permits	\$300,000	20
Total	\$2,100,000	

Table 1: Cost and Schedule of Project Tasks



Months	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Analyze Existing Operations																				
Existing yard metrics, data compilation																				
Identify constraints, delays (RTC modeling)																				
Economic impact analysis (public and private)																				
Evaluate alternatives and identify improvements																				
El Paso location(s)																				
New Mexico location(s)																				
BNSF El Paso Subdivision capacity analysis																				
Rail yard evaluation matrix																				
Infrastructure assessment for commuter rail operations																				
Perform conceptual design																				
Roadway alignments																				
Track alignments/yard layouts																				
Establish preliminary costs																				
Mainline																				
Yards/Facilities																				
Maintenance facilities/shops																				
Roadway/Interstate																				
Preliminary Impact Analysis																				
Community Planning																				
Businesses, Residents																				
Land Use/ ROW Acquisition																				
Traffic Patterns																				
Environmental Constraints																				
Railroad Operations/ RTC Modeling																				
Conduct public outreach, coordination with community leaders																				
Stakeholders/community leader meetings																				
Refine and finalize alternatives																				
Revise impact analysis																				
Preliminary Engineering																				
Roadway Infrastructure																				
Railroad Track and Facilities																				
Drainage																				
Urban Design and Planning																				
Revised Cost Estimates																				
Economic impact analysis																				
Transit Oriented Development																				
Fuel consumption/emissions																				
Roadway mobility																				
Economic Impact Analysis/ Benefit Analysis (public and private)																				

Rating Criteria No. 3

Leveraging and Collaboration: The City of El Paso and TxDOT will work together through the planning and right of way acquisition process to secure funding for this planning project. The City and the State have identified mutual benefits each could receive from this project and will provide matching funding to meet the desired outcome of the planning and preliminary engineering activities. Meanwhile, the proposed BNSF rail yard location is within the approved El Paso Downtown 2015 Plan and is consistent with the El Paso MPO long range plan. The long-term benefits for relocating the existing BNSF rail yard are both regional and national in scope. Hence, considerable federal investment, together with local and private sector participation, is necessary to adequately fund this planning project in this economically distressed region of El Paso.

According to the US Census Bureau data, the per capita income for the El Paso County is \$13,421 and \$14,388 for the City of El Paso. About 25.2% of the El Paso County and 22.2% of the City of El Paso population are below the poverty line. The relocation of this rail yard will open the existing location for further business and housing development which will improve the economic outlook for the Chihuahuita neighborhood and the City of El Paso.

The Texas Department of Transportation through the El Paso District will work with the local governments and the MPO to provide the \$ 420,000 match for this effort. If local funding is not available then TxDOT will commit to provide the 20 percent match. Some of the local sources that will be pursued for matching funding are listed below.

- In kind contributions of land, labor, etc., by public agencies and /or private parties



- Chihuahuita is presently within the Empowerment Zone and eligible for a number of benefits. New small business development may be eligible for a number of grants or special funding opportunities
- Continue to aggressively pursue federal funding for the short-term projects based on national and regional commerce benefits due to NAFTA impacts.
- Seek funds through development partners such as Camino Real Regional Mobility Authority (CRRMA)
- The utilization of Community Development Block Grants to be sought to finance office and commercial/ retail complex improvements in this region.
- Designation of the BNSF railroad yard region as part of Downtown Re-Investment Zone to allows the use of revenue bonds for infrastructure and building improvements.
- The use of Urban Development Action Grant money to be pursued for planning and site development for the approximately 44 acres of the BNSF railroad yard.
- Funding for the development of affordable housing and new parking for businesses should target HUD monies.

Rating Criteria No. 4

Capacity: The Texas Department of Transportation has the responsibility for overseeing and managing the largest state and federal highway system in the country. TxDOT's FY 2010 operating budget was over \$8.6 Billion and has over 12,000 dedicated highly trained employees that have built and maintained the finest highway system in the country.

This project will be managed by TxDOT's Rail Division headed by William "Bill" E. Glavin, P.E., who has over 30 years experience in the rail industry. In addition the Rail Division has a well trained professional staff of engineers and planners who have successfully managed several freight rail studies across the state, the Central Texas Rail Relocation Study, the San Antonio Region Freight Study, the Houston Freight Rail Study, the East and West Texas Region Freight Studies and the Corpus Christi and Yoakum Freight Study. These studies analyzed the existing freight networks to identify infrastructure and operational constraints and developed potential infrastructure and operational improvements to improve freight rail operations. The Rail Division will also work closely with TxDOT's El Paso District Office to coordinate with local stakeholders to ensure that local input is received and incorporated into the study.

The Rail Division will utilize consultant services to perform this study and has three consulting firms under contract that have extensive rail experience. Many of the employees with these firms have worked for over 20 years for the Class 1 railroads and have a deep understanding of rail operations and infrastructure requirements. In addition, due to their past experience working at the railroads they have established long term working relationships with key railroad personnel that are critical to the development and completion of projects like this.

