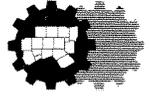




Regional Transportation Council

The Transportation Policy Body for the North Central Texas Council of Governments
(Metropolitan Planning Organization for the Dallas-Fort Worth Region)



March 9, 2012

The Honorable Ray LaHood
Secretary of Transportation
US Department of Transportation
1200 New Jersey Avenue
Washington, DC 20590

Dear Secretary LaHood:

Please find enclosed the 2012 Transportation Investment Generating Economic Recovery (TIGER) Discretionary Grant Program application for the Belt Line Road Grade Separation Project. This application is submitted by the North Central Texas Council of Governments (NCTCOG), the Metropolitan Planning Organization for the Dallas-Fort Worth region, to the United States Department of Transportation (USDOT).

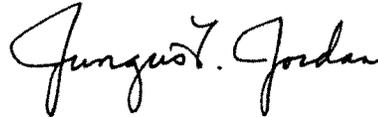
This project depresses Belt Line Road under Union Pacific Railroad (UPRR) and BNSF Railway Company (BNSF) rail lines alongside the Interstate Highway (IH) 35E interchange near the historic downtown area of Carrollton, Texas. It also lowers the IH 35E frontage roads as they approach the Belt Line Road intersection, and it requires new overpasses for Broadway Street, UPRR, and BNSF rail lines over Belt Line Road, as well as new overpasses for Main Street, BNSF, and Cotton Belt rail lines over the frontage roads. These roadways and rail lines carry a large number of vehicles and trains each day, and the lowering of the IH 35E/Belt Line Road interchange would eliminate multiple at-grade railroad crossings that can tie-up traffic up to 10-12 times per day. This location is home to six passenger rail lines, two of which are currently in operation by Dallas Area Rapid Transit (DART).

Separating the multiple modes of travel will improve connectivity, increase traffic flow and alleviate traffic congestion, which will also positively impact economic development. Maintaining acceptable connectivity and mobility is critical for the local and state economy. This project will not only alleviate roadway and rail congestion, but it will aid in improving local air quality by reducing emissions from idling vehicles and improving traffic flow through the area. The resulting emissions reduction will aid the region in reaching and/or maintaining federal air quality standards. In addition, the Cotton Belt and BNSF rail lines are targeted for future passenger rail implementation per the Dallas-Fort Worth region's long-range transportation plan, the *Mobility 2035 Plan*. The removal of at-grade crossings, improved safety, and increased travel speeds associated with this project will be essential in establishing a high-performance commuter rail system and enabling Carrollton to become a future hub for multiple fixed-route transit lines. Finally, downtown Carrollton is implementing sustainable development projects as part of these passenger rail/roadway improvements.

March 9, 2012

Again, the mobility and congestion benefits of the Belt Line Grade Separation Project would enable significant safety and air quality improvements for the City of Carrollton, but it also provides a key element to expanding the multimodal and sustainable economic development vision for the Dallas-Fort Worth region. Thank you for your full and fair consideration of this application. If you have any questions regarding this project, please contact Michael Morris, P.E., Director of Transportation at the North Central Texas Council of Governments at (817) 695-9241.

Sincerely,

A handwritten signature in black ink that reads "Jungus Jordan". The signature is written in a cursive, flowing style.

Jungus Jordan
Chair, Regional Transportation Council
Councilmember, City of Fort Worth

RH:hc

cc: Michael Morris

**TIGER DISCRETIONARY GRANT PROGRAM
Project Application**

Name of Project: Belt Line Road Grade Separation Project

Agency Submitting Project: North Central Texas Council of Governments (MPO)

Other Project Parties: City of Carrollton (Partnering Agency)
Texas Department of Transportation (Implementing Agency)

Primary Contact:

Name: Michael Morris
Phone Number: 817-695-9241
Email Address: mmorris@nctcog.org
Street Address: 616 Six Flags Drive
Arlington, TX 76005

Type of Project: Road and Bridge
Freight Rail Grade Separation
Future Passenger Rail Grade Separation

Project Location:

City: Carrollton
County: Dallas County
State: Texas
Congressional Districts: District 24 (Rep. Kenny Marchant)

Type of Jurisdiction: Urban Area

TIGER Funds Requested: \$30,000,000

Total Project Cost: \$74,826,400

DUNS Number: 10-246-2256

TIGER ID: Nctcog201292923

Table of Contents

| | |
|---|-----------|
| I. Project Description | 1 |
| II. Project Parties | 3 |
| a. North Central Texas Council of Governments (Submitting Agency) | 3 |
| b. City of Carrollton (Partnering Agency) | 3 |
| c. Texas Department of Transportation (Implementing Agency)..... | 4 |
| III. Grant Funds and Sources/Uses of Project Funds..... | 4 |
| IV. Selection Criteria..... | 5 |
| a. Long-Term Outcomes | 9 |
| i. State of Good Repair | 10 |
| ii. Economic Competitiveness | 10 |
| iii. Livability..... | 11 |
| iv. Environmental Sustainability | 11 |
| v. Safety | 12 |
| b. Job Creation and Near-Term Economic Activity | 12 |
| c. Innovation | 13 |
| d. Partnership | 13 |
| i. Jurisdictional and Stakeholder Collaboration..... | 14 |
| ii. Disciplinary Integration | 14 |
| e. Results of Benefit-Cost Analysis..... | 15 |
| V. Project Readiness and NEPA..... | 16 |
| a. Project Schedule..... | 16 |
| b. NEPA Status..... | 16 |
| c. Legislative Approvals..... | 16 |
| d. State and Local Planning | 17 |
| e. Technical Feasibility..... | 18 |
| f. Financial Feasibility | 18 |
| VI. Federal Wage Rate Certification | 18 |
| VII. Material Changes to the Pre-Application Form | 20 |

List of Exhibits

| | | |
|-------------|---|----|
| Exhibit 1: | Project Location | 2 |
| Exhibit 2: | Proposed Grade Separation Project | 2 |
| Exhibit 3: | Project Funding Sources..... | 4 |
| Exhibit 4: | Project Cost Estimate | 4 |
| Exhibit 5: | Demographics of Project Area | 5 |
| Exhibit 6: | Population Density In and Near Project Area..... | 6 |
| Exhibit 7: | Major Employers Near Project Area | 6 |
| Exhibit 8: | Median Income Near Project Area | 7 |
| Exhibit 9: | Minority Populations Near the Project Area | 8 |
| Exhibit 10: | Environmental Justice Communities Near Project Area | 8 |
| Exhibit 11: | Identification of Project Benefits..... | 9 |
| Exhibit 12: | Benefit-Cost Analysis..... | 15 |
| Exhibit 13: | Schedule by Phase | 16 |

I. Project Description

The location of the Belt Line Road Grade Separation Project is shown in [Exhibit 1](#). Belt Line Road is a six-lane major arterial that runs east-west through downtown Carrollton. Interstate Highway 35E (IH 35E) crosses over Belt Line Road within the project area. The proposed project depresses Belt Line Road under the Union Pacific Railroad (UPRR) and Burlington Northern Santa Fe Railway (BNSF) rail lines east of the IH35E interchange. The northbound and southbound IH 35E frontage roads would be depressed to intersect with the reconstructed Belt Line Road. Both the northbound and southbound IH35E frontage roads would be grade separated with the BNSF and Cotton Belt rail lines south and north of Belt Line Road, respectively. New roadway and pedestrian overpasses for Broadway Street over Belt Line Road, and roadway overpasses for Main Street and 4th Street over the IH35E frontage roads are also included in the project. [Exhibit 2](#) provides a graphic rendering of the proposed improvements.

Targeted Transportation Challenges

Today, Belt Line Road is a major east-west arterial street that carries between 35,000 and 40,000 vehicles per day from IH 35E to Josey Lane, approximately one mile east of IH 35E. Additionally, Belt Line Road carries nearly 10 percent truck/ heavy vehicle traffic. To further complicate matters, there is a railroad maintenance/ switch yard, known as Mercer Yard, located about one-quarter mile north of Belt Line Road on the BNSF line. The switching and sorting of rail cars results in temporary shutdowns of Belt Line Road at various times during the day. This is further exacerbated by the daily railroad traffic that averages between 10 and 12 crossings per day. Long range transportation plans call for the introduction of passenger rail service on both the Cotton Belt and BNSF lines, which, when implemented, would further disrupt traffic along Belt Line Road and the IH 35E frontage roads under current conditions.

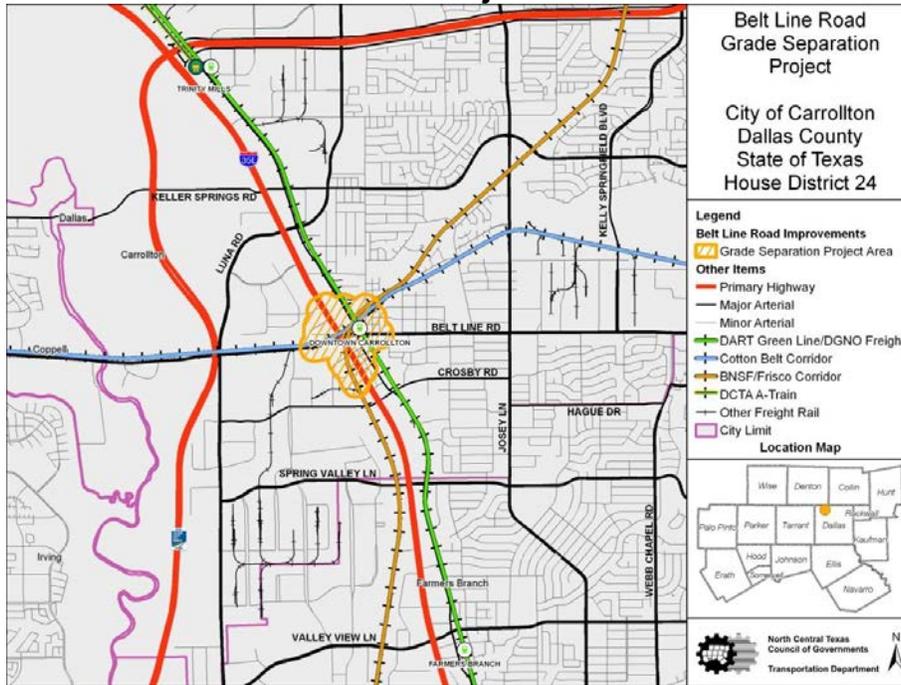
Challenges Addressed

Grade separating the rail movements from roadway traffic on Belt Line Road and the IH 35E frontage roads will improve both roadway and rail system performance. The grade separations will yield operational improvements; including safety benefits as six road/rail points of conflict will be removed. The grade separations will permit inclusion of high frequency passenger rail service on one or both freight rail lines without leading to further disruption in roadway operations, helping to meet long-range system planning needs. The grade separations will have beneficial impacts on the livability and sustainability of historic Downtown Carrollton, improving walkability and accessibility between current and future transit centers, and enhancing economic conditions for transit-oriented development. The Texas Department of Transportation (TxDOT) has accepted the proposed redesign of Belt Line Road, including the lowering of the IH 35E frontage roads, as part of the final schematic for the IH 35E Managed Lanes Project – South Section Environmental Assessment (EA) that has been submitted and subsequently approved by the Federal Highway Administration (FHWA).

Urban vs. Rural Need

The project is located within the urban community of Carrollton, within Dallas County. The project is entirely within the Dallas-Fort Worth (DFW) urbanized area.

Exhibit 1: Project Location



Source: NCTCOG March 2012

Exhibit 2: Proposed Grade Separation Project



Source: City of Carrollton, 2009

II. Project Parties

a. North Central Texas Council of Governments (Submitting Agency)

The North Central Texas Council of Governments (NCTCOG) is a voluntary association of cities, counties, school districts, and special districts which was established in January 1966 to assist local governments in planning for common needs, cooperating for mutual benefit, and coordinating for sound regional development.

It serves a 16-county metropolitan region comprised around the two urban centers of Dallas and Fort Worth. Currently, the Council has 233 members, including 16 counties, 165 cities, 23 independent school districts, and 29 special districts. The area of the region is approximately 12,800 square miles, which is larger than nine states, and the population of the region is over 6.4 million, greater than that of 35 states.

NCTCOG's structure is relatively simple; each member government appoints a voting representative from the governing body. These voting representatives make up the General Assembly which annually elects a 15-member Executive Board. The Executive Board is supported by policy development, technical advisory, and study committees, as well as a professional staff of 235.

Since 1974, NCTCOG has served as the Metropolitan Planning Organization (MPO) for the DFW area. NCTCOG's Department of Transportation is responsible for the regional planning process for all modes of transportation. The department provides technical support and staff assistance to the Regional Transportation Council (RTC) and its technical committees, which compose the MPO policy-making structure. In addition, the department provides technical assistance to the local governments of North Central Texas in planning, coordinating, and implementing transportation decisions.

b. City of Carrollton (Partnering Agency)

The City of Carrollton is located in the heart of the Dallas-Fort Worth area and is a vibrant corporate and residential community. According to the 2010 Census, its population was 119,097. Carrollton's location and business cost advantages attract and support a diverse local economy. Over 5,000 businesses call Carrollton home. Manufacturing, construction trades and wholesale trades are some of the largest economic sectors as well as finance, insurance and real estate. Residents are drawn to the City for its high quality of life, abundant parks, excellent schools and safe neighborhoods. Carrollton is a northern suburb of Dallas, Texas located about 15 miles northwest of downtown Dallas.

c. Texas Department of Transportation (Implementing Agency)

The Texas Legislature originally established the Texas Department of Transportation (TxDOT) in 1917 as the Texas Highway Department. TxDOT's workforce of more than 12,000 employees is made up of engineers, administrators, designers, architects, sign makers, accountants, purchasers, maintenance workers, travel counselors and many other professions. Headquartered in Austin, TxDOT is made up of 21 divisions and 6 offices. The project is located in the TxDOT–Dallas District which plans, designs, builds, operates and maintains the state transportation system in the following counties: Collin, Dallas, Denton, Ellis, Kaufman, Navarro and Rockwall.

III. Grant Funds and Sources/Uses of Project Funds

[Exhibit 3](#) details the funding sources of the project. [Exhibit 4](#) details the estimated costs of the project that would be funded through this TIGER Discretionary Grant. All costs are in 2011 dollars.

Exhibit 3: Project Funding Sources

| Funding Source | Type | Funding Amount | Percent of Total |
|--|-----------------------------|---------------------|------------------|
| City of Carrollton | GO Bonds | \$395,420 | 0.5% |
| City of Carrollton | GO Bonds | \$955,180 | 1.3% |
| City of Carrollton | GO Bonds | \$1,549,400 | 2.1% |
| City of Carrollton | GO Bonds | \$2,600,000 | 3.5% |
| Dallas County | Grant | \$3,980,000 | 5.3% |
| NCTCOG | DFW RTR-DA1 | \$1,581,680 | 2.1% |
| NCTCOG | DFW RTR DE1 | \$20,000,000 | 26.7% |
| NCTCOG | CMAQ | \$3,820,720 | 5.1% |
| TxDOT | Prop 14 | \$3,000,000 | 4.0% |
| Total of Local, State, and Regional Funding Sources | | \$37,882,400 | 50.6% |
| FHWA | Congressional CAT10 Earmark | \$5,555,200 | 7.4% |
| TxDOT | Match to CAT10 Earmark | \$1,388,800 | 1.9% |
| Total of Federal Funding Sources | | \$6,944,000 | 9.3% |
| US DOT | TIGER Discretionary Grant | \$30,000,000 | 40.1% |
| TIGER Discretionary Grant Request | | \$30,000,000 | 40.1% |
| TOTAL PROJECT FUNDING | | \$74,826,400 | 100.0% |

Exhibit 4: Project Cost Estimate

| Cost Category | Amount | Funding Source | Funding Amount | Percent of Category |
|--------------------------|--------------|----------------------------|----------------|---------------------|
| Right of Way Acquisition | \$9,000,000 | Local, State, and Regional | \$9,000,000 | 100.0% |
| Project Engineering | \$4,800,000 | Local, State, and Regional | \$4,800,000 | 100.0% |
| Construction Cost | \$61,026,400 | Local, State, and Regional | \$24,082,400 | 39.5% |
| | | Federal | \$6,944,000 | 11.4% |
| | | TIGER Discretionary Grant | \$30,000,000 | 49.2% |

IV. Selection Criteria

To determine how the project aligns with each of the primary and secondary selection criteria, it is necessary to define the area under examination to calculate the elements of the benefit-cost analysis. All costs are reported in 2011 dollars.

Study Area Description

The study areas analyzed for this project consist of a two- and five-mile radius around the intersection of Belt Line Road and IH 35E. [Exhibit 5](#) shows population and employment in those study areas and includes demographics for the City of Carrollton and Dallas County. The study areas have a balanced, sustainable mix of housing and employment opportunities. The NCTCOG 2040 Demographic Forecast projects population increases between 2010 and 2035 of 29 percent and 28 percent for the two-mile and five-mile radius areas, respectively. Employment within the two study areas is expected to grow by 29 percent and 24 percent between 2010 and 2035.

Exhibit 5: Demographics of Project Area

| Study Area | Demographic | Year | | | |
|--------------------------|--------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| | | 2000 ¹ | 2010 ¹ | 2010 ² | 2035 ² |
| Two-mile Project Radius | Population | 52,991 | 51,220 | 52,428 | 67,431 |
| | Households | 18,254 | 17,724 | 18,774 | 23,987 |
| | Jobs | N/A | N/A | 62,401 | 80,774 |
| Five-mile Project Radius | Population | 275,881 | 300,452 | 324,607 | 416,761 |
| | Households | 116,865 | 129,769 | 115,492 | 147,927 |
| | Jobs | N/A | N/A | 347,224 | 428,955 |
| Geographies | Demographic | 2000³ | 2010³ | 2010² | 2035² |
| City of Carrollton | Population | 109,576 | 119,097 | N/A | N/A |
| | Households | 40,458 | 43,299 | N/A | N/A |
| Dallas County | Population | 2,218,899 | 2,368,139 | 2,397,590 | 3,125,282 |
| | Households | 854,119 | 855,960 | 858,540 | 1,111,813 |
| | Jobs | N/A | N/A | 2,154,528 | 2,928,115 |

Source: ¹ US Census Bureau (Block Group data)

² NCTCOG 2040 Demographic Forecast, February 2011 (Traffic Survey Zone data, subject to additional refinement)

³ US Census Bureau (City and County demographic profile data)

[Exhibit 6](#) displays population densities near the project and [Exhibit 7](#) identifies the locations of major employers near the proposed project. The proposed project would improve roadway connections between local population and employment centers. The proposed project would also improve connectivity to the regional and interstate transportation system, since IH 35E is the primary north-south route between the cities of Denton and Dallas. Belt Line Road provides access to the President George Bush Turnpike and the Dallas North Tollway, in addition to IH 35E. IH35E also connects with IH 635, the President George Bush Turnpike, and the Sam Rayburn Tollway within the five-mile study area.

Exhibit 6: Population Density In and Near Project Area

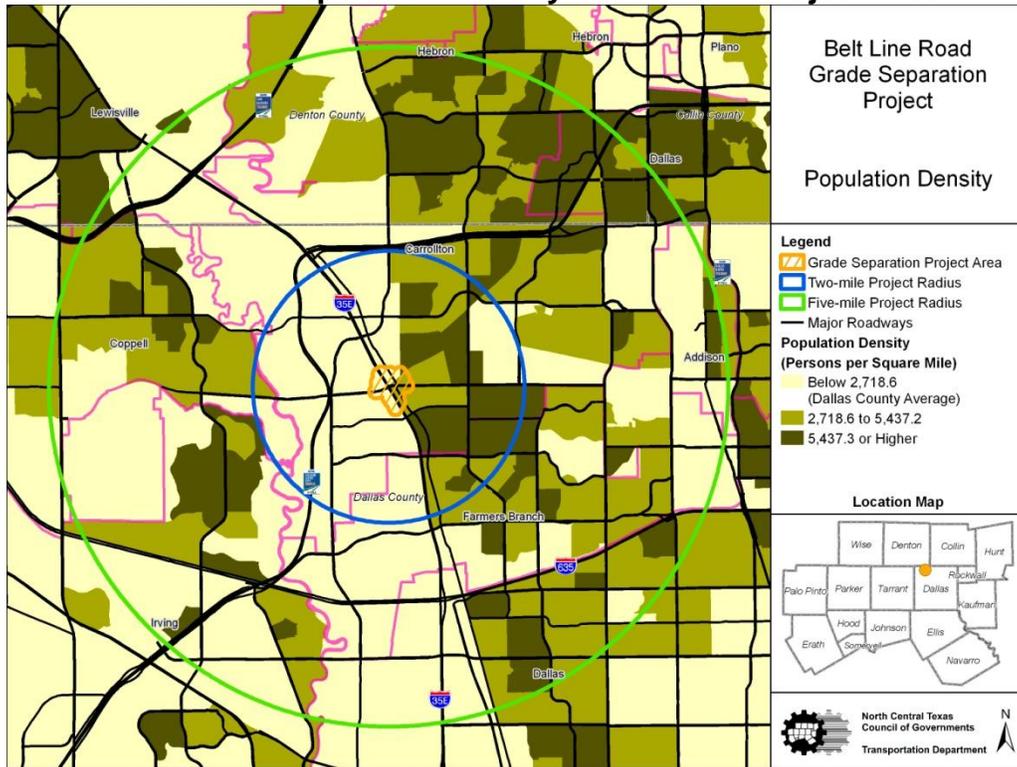
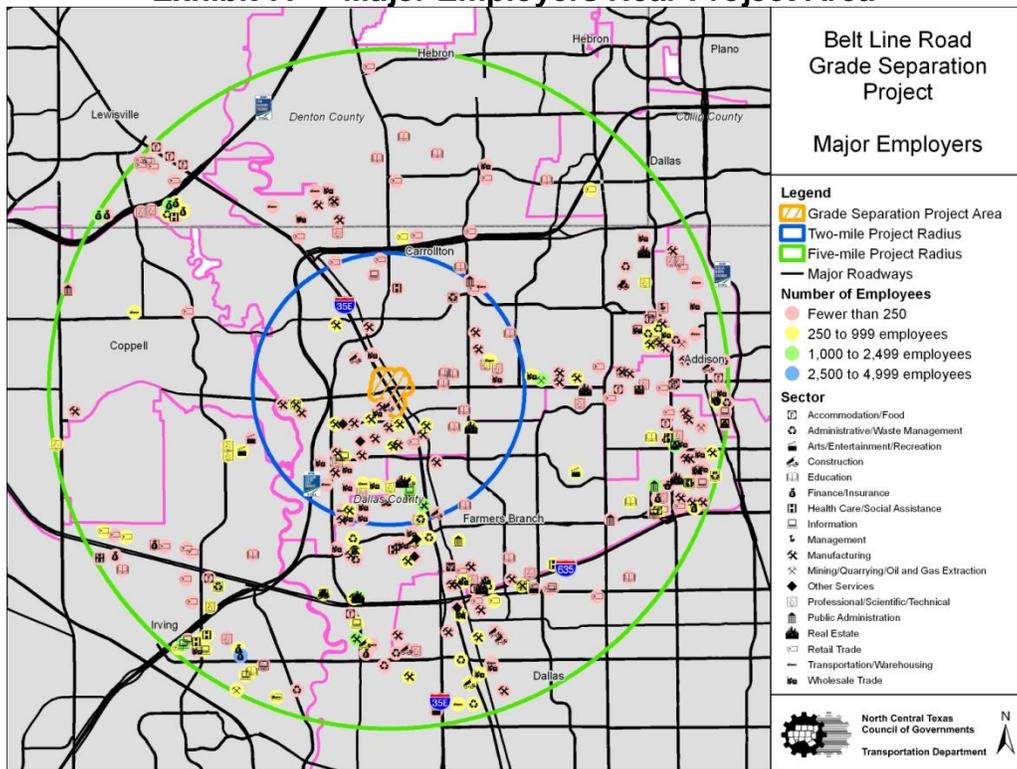


Exhibit 7: Major Employers Near Project Area



Economically Distressed Area

There are two criteria for determining Economically Distressed Areas (EDA): per capita income is 80 percent or less of the national average, or the unemployment rate is one percent or more above the national average. According to the FHWA HEPGIS tool, neither the City of Carrollton nor Dallas County is an EDA as defined under 42 U.S.C. 3161 § 301(a).

Environmental Justice

The purpose of environmental justice analysis is to ensure that transportation projects do not disproportionately impact protected populations, including minorities and low income groups. [Exhibit 8](#) shows median incomes for residents living near the project area based on 2005-2009 American Community Survey data. The lowest median incomes in the study area are southeast of the project between Denton Drive and Josey Lane. [Exhibit 9](#) highlights minority population locations near the project area based on 2010 U. S. Census Data. The areas directly east and southeast of the project have minority populations that are at or above the Dallas County average. [Exhibit 10](#) displays the NCTCOG environmental justice index, a measure developed to highlight concentrations of protected (either minority or low income) populations. Based on this index, the area south and east of the project near has higher protected population concentrations than average. The benefits of the proposed facility are expected to extend to both protected and non-protected populations in the study areas.

Exhibit 8: Median Income Near Project Area

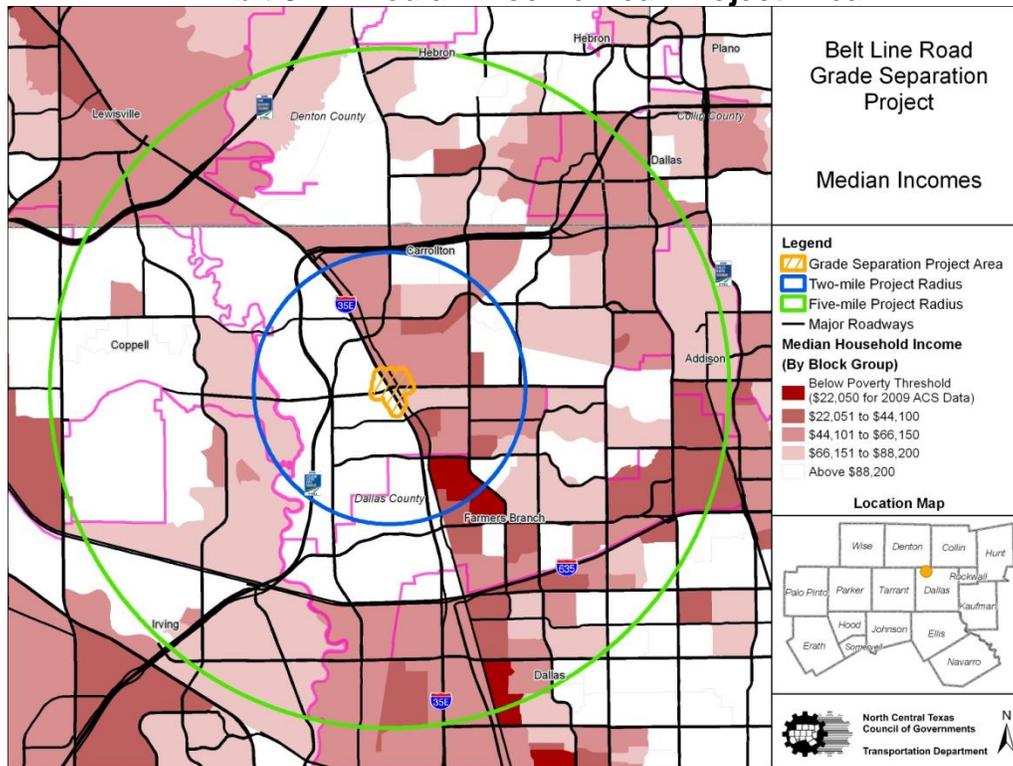
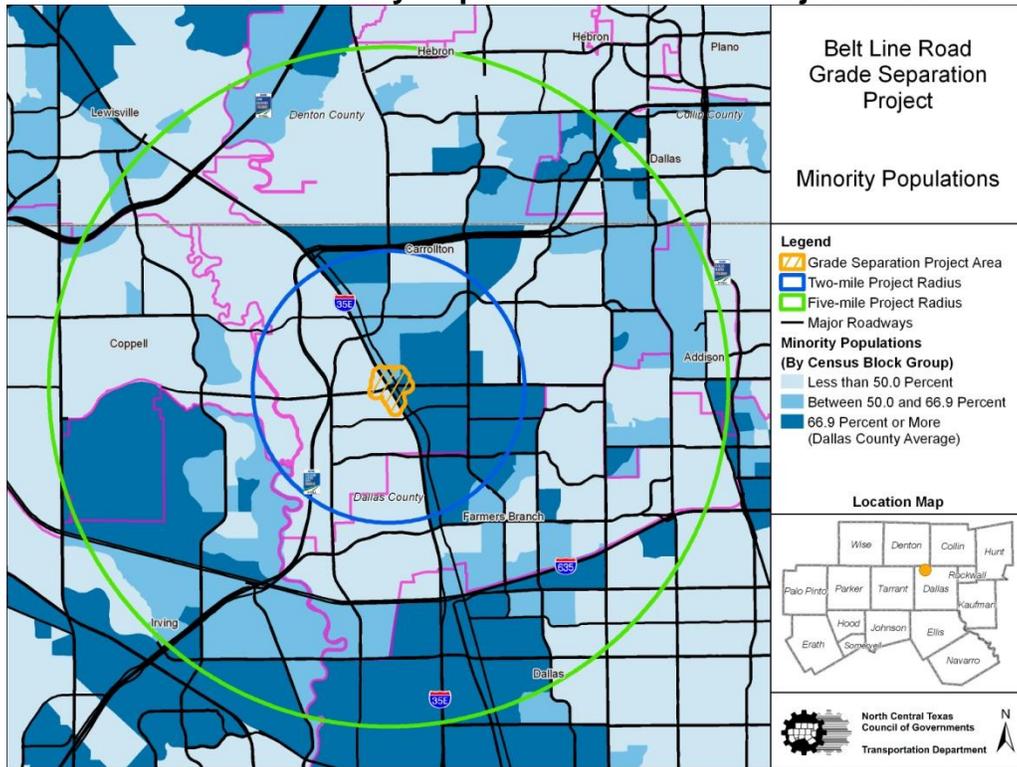
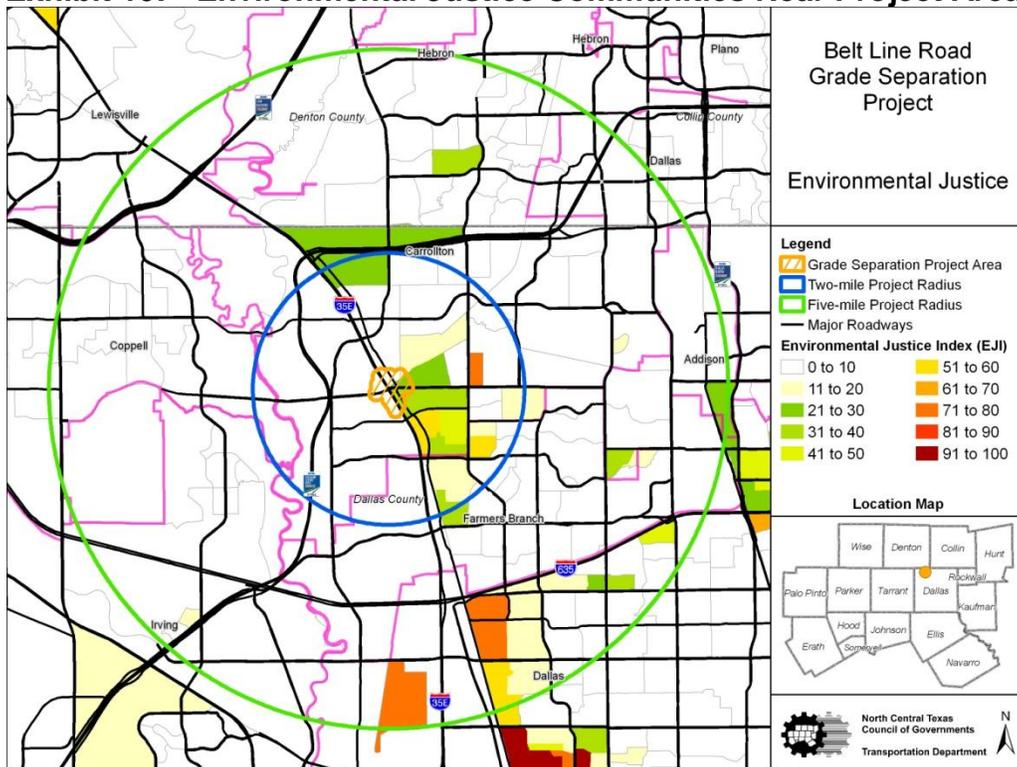


Exhibit 9: Minority Populations Near the Project Area



Map Date: March 2012 Source: 2010 U.S. Census

Exhibit 10: Environmental Justice Communities Near Project Area



Map Date: March 2012 Source: NCTCOG 2011

a. Long-Term Outcomes

A key component of the project benefit-cost analysis was an early identification of a wide range of potential direct and indirect benefits associated with this project, whether those benefits are subjective or objective in their nature. The following table, [Exhibit 11](#), provides a snapshot of these project benefits and how they each relate to the five long-term outcomes as requested by the US Department of Transportation.

Exhibit 11: Identification of Project Benefits

| Long-Term Outcome Category | Projected Benefit |
|------------------------------|---|
| State of Good Repair | Lowers maintenance costs |
| | Reduces frequency of construction and repair |
| | Extends pavement life |
| Economic Competitiveness | Reduces roadway and freight operating costs |
| | Promotes travel time savings |
| | Reduces freight shipping costs |
| | Creates economic development opportunities |
| | Enhances access to IH 35E |
| | Fuel savings for roadway users, including freight |
| | Creates construction jobs due to project (short term) |
| Livability | Supports long-term job creation |
| | Promotes alternate modes of travel |
| | Impacts land use changes |
| | Increases local accessibility and creates alternate routes |
| Environmental Sustainability | Reduces congestion on the roadway system |
| | Increases reliability of system |
| | Reduces both recurring and nonrecurring congestion |
| | Reduces greenhouse gas emissions |
| Safety | Air quality benefits through reduced emissions (PM/NO _x /Ozone/CO ₂) |
| | Reduces injury costs, including fatalities |
| Safety | Reduces property damage only crash costs and number of crashes |

The full benefit-cost analysis for the proposed project is included with the application as an appendix ([FY2012_TIGER_BeltLine_BenefitCostAnalysis.pdf](#)).

i. State of Good Repair

IH 35E through the Carrollton area was originally constructed in the 1950's. Although the freeway has had several refurbishings over its 50-plus year life span, it is now long past its projected design life. In the Carrollton area, IH 35E carries approximately 180,000 vehicles per day and by 2030 that number is expected to nearly double to 300,000.

The new depressed roadways and grade separations will be constructed to the proposed cross section of IH 35E as identified in the ultimate reconstruction schematic. This will help to eliminate throw-away elements as the entire freeway is rebuilt over the next decade. The proposed cross section has already gone through the public hearing process and been approved by the FHWA.

With the overall IH 35E reconstruction project currently underfunded by close to \$1 billion, this project would assist by constructing nearly \$10 million of the freeway frontage roads for approximately 3,000 linear feet centered on Belt Line Road. In this fashion, there would be no throw-away sections.

The proposed project would improve the maintenance condition and reduce lifecycle costs for the facility by separating the freight rail and roadway movements. One state of good repair measure, annual maintenance costs, was quantified and is included in the Benefit-Cost Analysis appendix. The maintenance cost reduction would be approximately **\$750 per year**.

ii. Economic Competitiveness

Currently, BNSF and Cotton Belt railroads disrupt traffic flow 10 to 12 times per day for approximately five to eight minutes per delay. The section just east of IH 35E is one of North Texas' most vibrant industrial areas, which generates a large percentage (approximately 10 percent) of trucks through the project site. The elimination of three railroad crossings on Belt Line Road, and another four on the IH 35E frontage roads, would allow for commerce to flow smoothly through the vicinity and increase the economic competitiveness of the region. In addition, the City of Carrollton's historic downtown would benefit from improved access. Historic Downtown Carrollton is a designated transit center and has had light rail transit service in operation since December 2010. The City has entered into a public/private partnership with a developer to construct a catalyst mixed-use redevelopment project consisting of 295 units of housing and 15,000 square feet of retail one block south of the project site.

There are several ways the proposed project contributes to the economic competitiveness of the United States over the medium- to long-term. Two economic competitiveness measure, fuel savings and economic development benefits, were quantified and are included in the Benefit-Cost Analysis appendix. The fuel savings benefit would vary between about **\$88,000 and \$140,000** during

the analysis years. The economic development benefit would be approximately **\$4.3 million annually**. In addition, long-term and near-term job creation benefits were quantified and are discussed in Section IV – B: Job Creation and Near-Term Economic Activity.

iii. Livability

Lowering Belt Line Road would allow pedestrians to easily move between the existing light rail station just north of Belt Line Road and the Historic Downtown Carrollton Square. The City of Carrollton will be investing heavily to revitalize the downtown area into a transit-oriented development zone. The DART Green Line began serving the Downtown Carrollton Station area in December 2010. The line carries passengers to destinations in downtown Dallas and, with shared platform transfers, connects riders with DART's three other light rail lines, the Trinity Railway Express (TRE) service to Fort Worth, and the Denton County Transportation Authority (DCTA) A-Train service to Denton. The project would create a pedestrian-friendly environment and enable greater connections from areas north of Belt Line Road to the historic heart of the City.

Planned expansions in the regional passenger rail system would increase the importance and attractiveness of the Downtown Carrollton Station. The Cotton Belt Corridor, projected to open before 2020, would have a stop in downtown Carrollton and provide direct passenger rail access westward to Dallas-Fort Worth International Airport (D/FW Airport) and downtown Fort Worth, and eastward to cities such as Addison, Richardson, and Plano. Additional passenger rail service along the BNSF line (Frisco Corridor) with a stop in downtown Carrollton is planned to open by 2030. This line would connect passengers from Carrollton to various destinations between Irving to the south and Frisco to the north. The cumulative effect of these planned passenger rail expansions would transform the project area and downtown Carrollton into a vital hub within the regional transit system.

The proposed project fosters livable communities through investments that increase transportation choices and access to transportation services for people in communities across the United States. One livability measure, congestion reduction, was quantified and is included in the Benefit-Cost Analysis appendix. The congestion reduction benefit would vary between **\$910,000 and \$1.44 million** during the analysis years.

iv. Environmental Sustainability

This project will contribute to sustainability by eliminating eight railroad/roadway grade crossings. Currently, there are over 10 to 12 trains per day on the BNSF RR and an additional one to two trains per day on the UP and Cotton Belt RR's. The train tracks are very old and are only rated as 10 mph tracks, resulting in long crossing delays especially during the rush hours. In addition, the sorting

and switching of trains at nearby Mercer Yard (one-quarter mile north of Belt Line Road) frequently blocks the Belt Line Road and surrounding crossings for several minutes and in some cases up to 30 minutes. The elimination of eight at-grade railroad crossings would substantially improve energy efficiency and reduce congestion as a result of decreased vehicular delays. Currently, our models estimate that vehicles stopped at the freight rail crossings generate over **6,000** hours of roadway delay per year.

The improved energy efficiency due to the proposed project would also help to reduce dependence on oil, reduce greenhouse gas emissions and benefit the natural environment. Two environmental sustainability measures were quantified and are included in the Benefit-Cost Analysis appendix. The non-CO₂ air quality benefits would yield between **\$5,600 and \$8,850** during the analysis years. The greenhouse gas reduction benefit from the project varies between **\$53,000 and \$146,000** during the analysis years.

v. Safety

Seventy-four crashes occurred within the project area over a three and a half-year period. The elimination of eight at grade railroad/roadway crossings as a result of this project would significantly improve traffic flow and minimize dangerous circumstances due to vehicle conflicts. In addition, grade separating Broadway Street from Belt Line Road and separating Main Street and 4th Street from the IH 35E frontage roads would eliminate other roadway points of conflict within the project area. Therefore, actual vehicular crashes and fatalities will be drastically reduced.

The proposed project would have a beneficial impact on safety within the Belt Line Road Grade Separation Project Area. Two safety measures were quantified and are included in the Benefit-Cost Analysis appendix. The annual injury crash reduction benefit and property-damage-only crash reduction benefits would yield an annual benefit of almost **\$216,000 and \$26,000**, respectively.

b. Job Creation and Near-Term Economic Activity

The overall cost of the Belt Line Road Grade Separation Project is approximately \$75 million. The construction cost is estimated to be over \$60 million. This is expected to generate over **790** job years. It would also generate additional revenue by creating a vibrant, livable community through a lifestyle renaissance of high-density housing, retail, restaurants, and offices that would not be possible without the completion of this project. Additionally, lowering of Belt Line Road will accelerate transit-oriented development in and around the downtown light rail transit station. This is already happening just south of Belt Line Road and will likely accelerate once this major infrastructure project is completed. The downtown Carrollton catalyst project has a total public/private construction budget of \$40,000,000, which will

generate an additional 435 job years. This is expected to spur additional private investment in the area at a projected rate of at least twice the initial catalyst project.

Substantial job creation and near-term economic activity would be promoted by the proposed project. The benefits from this project would create economic opportunities and activity within a traditionally economic disadvantaged area. There are no outstanding issues that would slow the implementation of the project should funds be awarded. Long-term and short-term job creation benefits were quantified and are included in the Benefit-Cost Analysis appendix. The long-term job creation would yield an annual benefit of over **\$1.3 million**. The short-term job creation would create a temporary boost in local economic activity that varies between **\$3.1 million and \$8.6 million** during the three years the project will be under construction.

c. Innovation

Currently, Belt Line Road serves as a barrier that significantly deters walkability between the northern and southern sections of Downtown Carrollton. A significant byproduct of improving safety and enhancing traffic flow is that the 35,000 vehicles per day that use Belt Line Road will no longer be an impediment to pedestrian traffic and safety. This will enhance the overall walkability, livability, and desirability of the area. The project will cause sound levels to drop considerably, making it easier to establish transit-oriented development surrounding DART's new Green Line Light Rail Station.

Over the next 10 years, the Cotton Belt railroad right-of-way is expected to carry passenger rail service from Fort Worth to Plano, connecting Carrollton to several major regional employment and activity destinations such as D/FW Airport, Addison, and Richardson's Telecom Corridor. Shortly afterward, the BNSF/Frisco Corridor passenger rail service would connect Carrollton to existing and emerging employment centers between Irving and Frisco. These future passenger rail lines would not be able to operate efficiently through Downtown Carrollton with the current at-grade crossings at Belt Line Road. This project's initial analysis looked at seven alternatives which were eventually reduced to two alternatives – depressing the rail road lines or depressing Belt Line Road. After discussions with BNSF operators in Fort Worth, it was determined that the Belt Line Road Grade Separation was the locally preferred option. The project will incorporate pedestrian elements to allow efficient movement of rail passengers from the rail station (containing all three transit lines) to existing and future retail and housing areas. The depressed roadway section will also reduce noise and air pollution.

d. Partnership

The Belt Line Road Grade Separation project demonstrates a strong commitment to collaboration with a broad range of participants, including integration between transportation planning, implementation, and other public service efforts.

i. Jurisdictional and Stakeholder Collaboration

The lowering of Belt Line Road has a broad coalition of support, as the project benefits multiple constituents. The City of Carrollton has been working with TxDOT and Dallas County to depress the road as it will eliminate grid lock due to the blockage of the at grade rail crossings by multiple train crossings daily.

The following public officials and/or entities have submitted letters of support for the Belt Line Road Grade Separation Project:

- Senator Kay Bailey Hutchison
- Senator John Cornyn
- Congressman Pete Sessions
- Congressman Kenny Marchant
- Texas State Representative Rafael Anchia
- Texas Department of Transportation
- Dallas Regional Mobility Coalition
- Dallas County Commissioners Court
- Mayor of Carrollton

NCTCOG published Mobility 2035 – The Metropolitan Transportation Plan for North Central Texas in March 2011. This financially constrained plan includes all transportation projects that could be funded through federal, state, local, and private sector investments. NCTCOG, representing municipal and county governments in north central Texas, has committed to financially support the construction of the Belt Line Road Grade Separation Project with over \$20 million in local funds.

ii. Disciplinary Integration

The City of Carrollton has also been working with DART on this project. Recently, DART completed a light rail transit station just north of Belt Line Road at Main Street. The current plan is to link Downtown Carrollton area with the rail station by including wide pedestrian sidewalks in the Belt Line Road Grade Separation Project. The City of Carrollton is also working with a private developer, High Street Residential, to build approximately 15,000 square feet of retail on the first floor with 295 apartment units on the second and third floors of the development. The development will be within one-quarter mile of the DART station and pedestrian links will be constructed to enhance walkability and encourage transit use in this area.

The following members of the local business community have also submitted letters of support for the project:

- Metrocrest Chamber of Commerce
- Downtown Carrollton Merchant's Association
- Twenty local businesses

e. Results of Benefit-Cost Analysis

The net present value of the Belt Line Road Grade Separation Project is shown in [Exhibit 12](#). All benefits and costs are reported in 2011 dollars. Each of the benefits described in previous sections was summed together for both the three percent and the seven percent discount rate of benefits. Applied to a total project construction cost of \$74,826,400, a significant benefit is achieved for both discounting scenarios. The overall effect of this transportation investment will result in a positive **lifetime net benefit** of **\$76.9 million** at three percent and **\$24.3 million** at seven percent, after discounting the cost of the project. The calculations used to determine these totals are discussed in more detail in the Benefit-Cost Appendix.

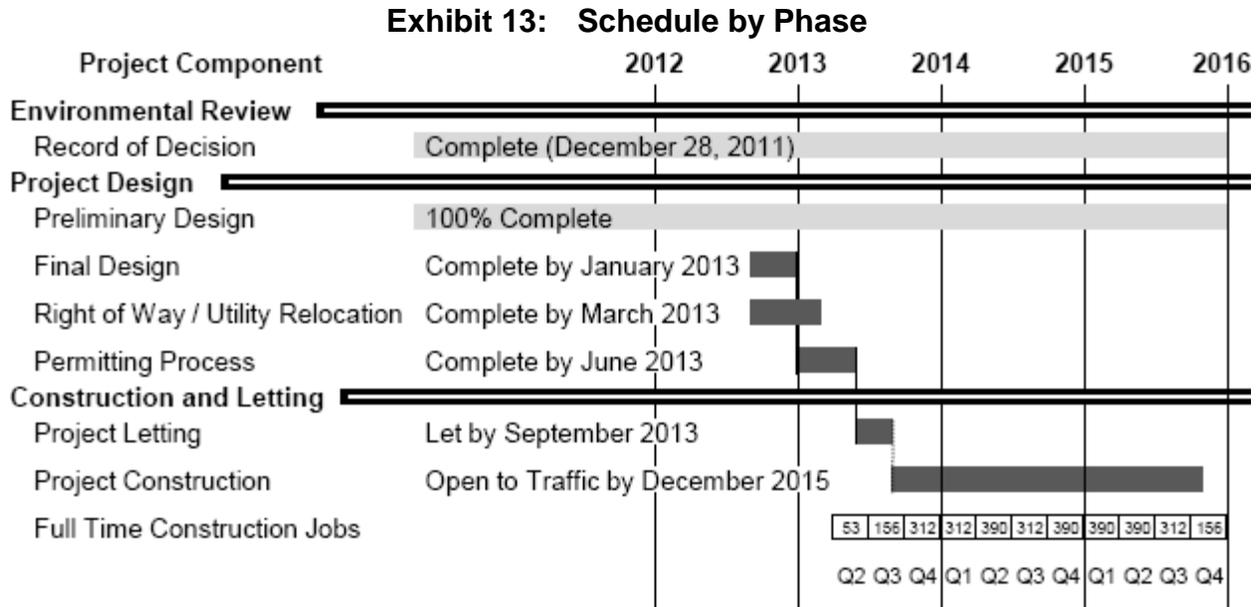
Exhibit 12: Benefit-Cost Analysis

| Discount Rate | Net Present Value of Non-CO ₂ Benefits | Net Present Value of CO ₂ Benefits | Net Present Value of Total Benefits | Rounded Net Present Value of Total Benefits | Return on Investment |
|---------------|---|---|-------------------------------------|---|----------------------|
| Seven Percent | \$22,750,960 | N/A | \$24,320,484 | \$24.3 million | 33 percent |
| Three Percent | \$75,324,374 | \$1,569,524 | \$76,893,898 | \$76.9 million | 103 percent |

The overall net effect of this transportation investment will result in a positive lifetime **return on investment** of **103 percent** (\$76.9 million/\$74.8 million) and **33 percent** (\$24.3 million/\$74.8 million), after discounting at three percent and seven percent, respectively. The results of this benefit-cost analysis clearly indicate that this project will provide a lifetime of benefits to the region and will substantially improve the quality of life for its residents.

V. Project Readiness and NEPA

a. Project Schedule



According to City of Carrollton estimates, the proposed improvement is projected to employ over 300 full-time workers during most of the construction process. Project construction is scheduled to begin in 2013 and to be completed by December 2015.

b. NEPA Status

The Belt Line Road Grade Separation Project is part of the larger [IH 35E Managed Lanes Project - South Section EA](#).

Status of NEPA Process: [FHWA Finding of No Significant Impact \[PDF\]](#)

Completion Date: December 28, 2011

Description of Needed Federal Actions

For this project, permanent losses to Waters of the U.S. will be below 0.10 acre per location. A US Army Corps of Engineers Nationwide Permit #14 (Linear Transportation Projects) will be assumed, as will a Section 401 from TCEQ. Because there are no navigable waters associated with this project, neither a US Coast Guard Section 9 Permit nor a USACE Section 10 Permit will be required. As these permits and certifications are typically required for many highway projects, and as TxDOT is well-experienced in securing them, no difficulties are foreseen in obtaining them.

c. Legislative Approvals

Legislative approvals are not required for this project.

d. State and Local Planning

Local Planning

The Belt Line Road Grade Separation Project is an integral part of the City of Carrollton's [transit-oriented development](#) plans. Dallas County's active support of the project is evidenced through their financial support of the project. This plan is consistent with the regional transportation planning process as developed by NCTCOG, the Metropolitan Planning Organization (MPO) for the Dallas-Fort Worth Metropolitan Area.

TIP/STIP Status

This project is not in the current Transportation Improvement Program (TIP). If TIGER funds are awarded to this project, NCTCOG certifies it will be amended into the TIP by July 12, 2012.

Because Dallas County is classified as a non-attainment county for the pollutant ozone, transportation conformity applies. This project is included in a conforming MTP and would be amended into the State Transportation Improvement Plan once it has been added to the TIP.

Metropolitan Transportation Plan

The proposed Belt Line Road Grade Separation Project is part of the overall reconstruction plan for the larger IH 35E Managed Lanes Project. A description of the larger project is included in the recommendations found in [Mobility 2035: The Metropolitan Transportation Plan for North Central Texas](#) [Appendix E, page E.54, MTP ID FT1-7.30.1].

Statewide Transportation Plan

The Belt Line Road Grade Separation Project was not explicitly identified in the [Texas Statewide Long-Range Transportation Plan 2035](#) (SLRTP) or the [2012 Unified Transportation Program](#) (UTP). Both of these documents indicate that projects identified by MPOs and funded through TIPs would be incorporated into statewide plans. The improvements proposed by this project support the major goals of TxDOT; namely to address future multimodal transportation needs, enhance safety, maintain the existing transportation system, promote congestion relief, enhance system connectivity, and facilitate the development of comprehensive multimodal transportation funding strategies.

e. Technical Feasibility

The project went through preliminary engineering from 2000 to 2002. In addition, the City of Carrollton has conducted additional engineering assessments to ensure that the project is technically feasible from a construction basis. Currently, the project is designed to the 30 percent level so completing the final design and right-of-way acquisition in time for the June 2013 start of construction is very realistic.

f. Financial Feasibility

The City of Carrollton has already sold \$5,500,000 in general obligation bonds and has the funds in place to pay its local funding share. Dallas County has set aside its \$4,000,000 from past years' general budgets and it is in a separate account ready for use on this project. The NCTCOG has already committed funds to this project and they are set aside in separate accounts ready for use.

VI. Federal Wage Rate Certification

NCTCOG supports entities that comply with federal labor laws. Any procurement activities sponsored by these entities require compliance with all federal, state, and local laws. In addition, in order to qualify for incentives, businesses must abide by all federal, state, and local laws.

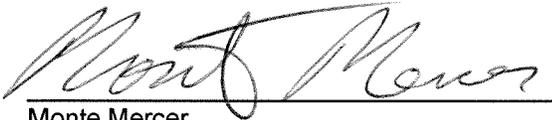
As indicated above, NCTCOG complies with Title VII of the Civil Rights Act of 1964 and the Americans with Disabilities Act (ADA). Both of these laws require all private employers, state and local governments, and education institutions that employ 15 or more individuals, private and public employment agencies, labor organizations, and joint labor management committees controlling apprenticeship and training to comply. As a matter of policy and law, these agencies will follow these laws and principles for this (and all) projects.

As the submitting agency, NCTCOG certifies compliance with federal wage rate requirements as indicated on the next page.

Federal Wage Rate Requirement

The North Central Texas Council of Governments (NCTCOG), as an applicant for Transportation Investment Generating Economic Recovery (TIGER) Discretionary funds under the American Recovery and Reinvestment Act (ARRA), certifies that for TIGER funds awarded to NCTCOG it will comply with the requirements of Subchapter IV of Chapter 31 or Title 40 (40 U.S.C. 3141, *et. seq.*) (federal wage rate requirements) as required by the 2009 American Recovery and Reinvestment Act.

Furthermore, NCTCOG annually certifies compliance with the Davis-Bacon Act as amended, 40 U.S.C. 3141 *et. seq.*, the Copeland "Anti-Kickback" Act, as amended, 18 U.S.C. 874, and the Contract Work Hours and Safety Standards Act, as amended, 40 U.S.C. 3701 *et. seq.*, regarding labor standards for federally assisted projects. NCTCOG certifies to this provision within its annual Certifications and Assurances to the Federal Transit Administration.



Monte Mercer
Deputy Executive Director
North Central Texas Council of Governments

3/9/12
Date

VII. Material Changes to the Pre-Application Form

None