TIGER DISCRETIONARY PROGRAM
Project Application

Name of Project: US 175/Interstate Highway (IH) 45 Connector

Agency Submitting Project: North Central Texas Council of Governments (NCTCOG) and the Texas Department of Transportation (TxDOT)
Other Project Parties: City of Dallas

Primary Contact:
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Type of Project: Highway

Project Location:
City: Dallas
County: Dallas County
State: Texas
Congressional Districts: Congressional District 30 (Congresswoman Eddie Bernice Johnson)
Rural or Urban Area? Urban

TIGER Funds Requested: $187,600,000

DUNS Number: 10-246-2256

General Project Information

Submitting Agency/Grant Recipient: North Central Texas Council of Governments
Implementing Agency: Texas Department of Transportation

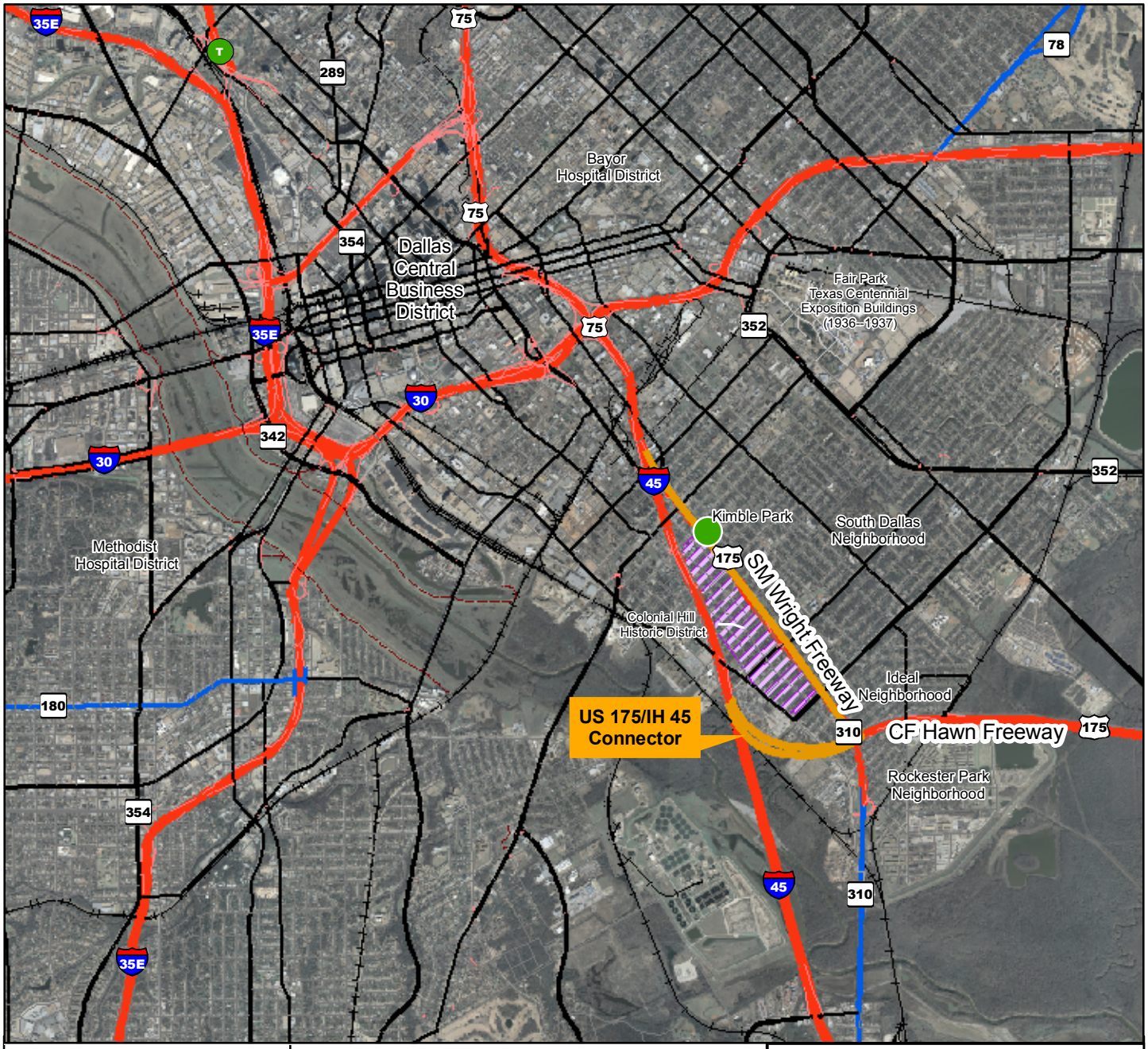
Project Name: US 175/IH 45 Connector
Project Limits: US 175/IH 45 Connector from US 175/State Highway (SH) 310 to IH 45
US 175 from IH 45 to US 175/SH 310

See Figures 1 and 2 for the project location. Please note, US 175 from SH 310 to the east is known as CF Hawn Freeway. US 175 from IH 45 to SH 310 is known as SM Wright Freeway.

Figure 1. Aerial Photo of Existing US 175/SH 310 Interchange

Project Scope or Description: This project will provide transportation improvements in two areas. The US 175/IH 45 connector is a new high speed roadway connecting US 175 (CF Hawn Freeway) to IH 45, in Dallas, Texas. This 4,000-foot long new roadway will extend existing US 175 to directly connect to IH 45. The project includes direct connection ramps to IH 45. This will eliminate the almost 90-degree turn at SH 310. Connecting US 175 (CF Hawn Freeway) to IH 45 will improve safety and create a more convenient, more efficient route for motorists traveling to and from communities in South Dallas, southern Dallas County, and beyond better access to major employment centers such as Downtown Dallas and the Medical/Market Center northwest of Downtown.

With this connection in place, the traffic on US 175 (SM Wright Freeway) from SH 310 to IH 45 will be substantially reduced. This will allow for the reconstruction of US 175 (SM Wright Freeway) from a high-speed freeway to a low-speed arterial. From an economic and quality of life perspective, this will help city and community rejuvenation efforts within the disproportionately poor, minority, and economically distressed South Dallas communities. These communities were severed by US 175 over 50+ years ago and have since been inundated by US 175 (SM Wright Freeway) traffic. Table 1 provides a brief summary of the project based on the TIGER outcomes and criteria. Following the table, the text provides more specific information of each of the criteria.



US 175/IH 45 Connector Dallas County State of Texas ARRA TIGER Application

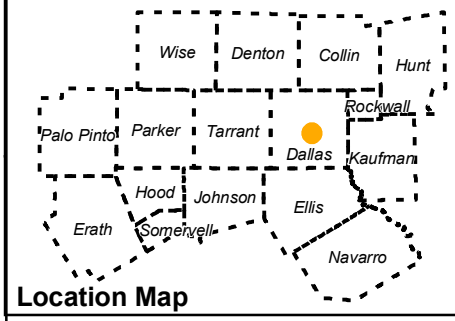
Project Location
Figure 1

Legend

- Park
- TIGER Recommended Project
- Rail
- Primary Highway
- Secondary Highway
- Major Arterial

N

0 1 2 Miles



Location Map

North Central Texas
Council of Governments

Transportation Department

Table 1. Project Summary

TIGER Outcome & Criteria	US 175/IH 45 Connector Summary
Transportation Challenges	• Improved safety • Revitalization of environmental justice and economically distressed communities
Total Costs	$205,850,000
Amount of TIGER Requested	$187,600,000
Schedule	• Environmental approval Fall 2010 • Begin construction Summer 2011 • Complete construction Summer 2013
State and Local Planning Status	Included in: • City of Dallas *Trinity River Corridor Comprehensive Land Use Plan* • *2008-2011 Transportation Improvement Program, Amended April 2009* • *Mobility 2030: The Metropolitan Transportation Plan for the Dallas-Fort Worth Area, 2009 Amendment* • *2006 Texas Metropolitan Mobility Plan*
State of Good Repair	Project will replace an existing 50+ year old roadway and bridges which will reduce maintenance costs, bring the corridor to current safety standards, and increase economic development opportunities
Economic Competitiveness	• Short-term benefit of $138.7 million with the creation of 754 jobs • Long-term benefit of $145.1 million/year with the creation of 1,577 permanent jobs • Long-term return on investment 973.14 • Benefit to cost ratio of 10.73 • Travel time saving of 21,456 hours/day based on a more efficient route and 281 hours/day based on non-recurring congestion
Livability	• Improved community cohesion and quality of life in environmental justice and economically distressed communities as well as disabled, and transit-dependent populations • Places priority on enhancing community character, neighborhood cohesion, social interaction • Improved safety • More efficient transportation route • Re-establishment of environ/context of the Colonial Hill Historic District • Expansion of Kimble Park • Revitalization of economic opportunities
Sustainability	• Reduces 141.5 tons of CO_2 per day • Saves 14,698 gallons of fuel/day • Global CO_2 cost-benefit of $44 million of the life of the project • Net benefit of hours saved $129,486,960
Safety	• Saves 3.6 lives per year and 108 lives over 30 years • Net benefit of lives saved $21,617,143
Innovation	This transportation project will allow SM Wright Freeway to be converted from a high speed freeway to an arterial. This will eliminate a major barrier in the community and improve the quality of life and opportunities for redevelopment in a low-income, minority, and economically distressed community while eliminating a safety issue.
Partnership	This project has and will continue to have strong support from elected officials, the City of Dallas, and the community.

Urban vs. Rural: This project is located in the City of Dallas, Dallas County, Texas. The project is in an urbanized area and located immediately south of the City of Dallas Central Business District. The project area is predominantly residential in character with commercial/light industrial facilities along Lamar Street, IH 45, and near the US 175/SH 310 interchange. The majority of single-family homes are between Lamar Street and SH 310 and to the north and south of US 175. The South Dallas Home Owners Association neighborhood encompasses the majority of the district. The Rochester Park neighborhood is located southeast of the US 175/SH 310 interchange and consists primarily of single-family homes. The Ideal neighborhood is located northeast of the US 175/SH 310 interchange and is considered more cohesive because of its higher percentage of owner-occupied housing when compared to the other district neighborhood areas.

Targeted Transportation Challenges: This unique project addresses a major safety concern at US 175 and SH 310 and provides the opportunity to revitalize an economically distressed community in the City of Dallas.

Safety: This project will completely eliminate a sharp roadway curve (almost 90 degrees) at US 175 and SH 310 by extending US 175 to IH 45 and thereby increase the operational safety of the interchange. US 175 is a six-lane divided, controlled access freeway. The US 175 horizontal alignment does not meet current safety and design standards set by the Federal Highway Administration (FHWA). Currently, traffic traveling on westbound CF Hawn Freeway turns north to connect to SM Wright Freeway but must slow from 55 miles per hour to 20 miles per hour to make this turn. The same is required for traffic traveling southbound on SM Wright Freeway to eastbound US 175 (CF Hawn Freeway).

US 175 serves local, urban, and suburban travelers and is an integral component of the regional transportation network. US 175 is also a major bus route for Dallas Area Rapid Transit (DART). Current (2009) traffic volumes on US 175 east (CF Hawn Freeway and SM Wright Freeway) average approximately 110,000 vehicles per day with a failing Level-of-Service (LOS) (LOS E-F). This poor LOS is due in part to traffic having to slow to 20 miles per hour at SH 310. Projected traffic volumes in 2030 show an almost 40 percent increase in traffic to 149,500 vehicles per day.

Safety is the primary concern on this heavily travelled roadway. In 2008, a southbound fuel tanker on US 175 overturned at the sharp curve at SH 310, burned the overhead SH 310 bridge, and rendered the roadway system unusable until the bridge could be replaced. SM Wright Freeway accident data from year 2000 through 2008 lists 550 total crashes, 14 that involved fatalities. Of those 14 fatal crashes, seven were pedestrian related. Data also shows that 245 of the 550 crashes (45 percent) occurred within one-mile of the sharp roadway curve this project will eliminate. Between 2000 and 2008, seven vehicles overturned, one of which resulted in a fatality at the sharp roadway curve. The frequent types of accidents that occur are rear-end collisions or crashes into the concrete traffic barrier at the sharp US 175/SH 310 curve.

The project will eliminate severe horizontal curvature at SH 310 and US 175 by linking IH 45 and US 175. This will significantly reduce vehicles from overturning at US 175/SH 310. It will also allow the conversion of SM Wright Freeway to a low-speed, signalized arterial with intersecting crosswalks that give pedestrians safer, more frequent places to cross the roadway. This will produce a safer environment for both travelers and the surrounding community.

Revitalization Opportunity: The construction of this connection will also substantially reduce traffic volumes on SM Wright Freeway north of SH 310. With the US 175 to IH 45 connection in place, the major bottleneck that occurs for motorists traveling between CF Hawn Freeway and SM Wright Freeway will be eliminated. This project will reduce traffic on SM Wright Freeway by over 330 percent (from 110,000 vehicles per day in 2009 to 25,200 vehicles per day in 2030). This will allow a unique opportunity to convert the existing high speed SM Wright Freeway facility to an arterial roadway. This will eliminate a major physical barrier in the community and improve the quality of life for South Dallas communities.

From an economic and quality of life perspective, this project will help rejuvenate city and community efforts within the disproportionately poor and minority South Dallas communities, which have been in decline. Several neighborhoods remain severed and impacted by the SM Wright Freeway traffic.

The neighborhoods within the project area are both low-income and minority (environmental justice populations) and economically distressed. Table 2 shows the demographic characteristics of the project area. According to the 2000 Census, the City of Dallas and Dallas County are 49.2 percent and 54.8 percent minority, respectively. The median income in the City of Dallas is almost $41,000 with 14.4 percent of households below the poverty level. In contrast, the 11 census tract block groups adjacent to the project area range from 77.1 to 99.0 minority population; on average, this is almost twice the City of Dallas average. Incomes are also significantly lower (an average of 54 percent lower) than the city average. The number of households below the poverty level are 2.5 times higher in the project area compared to the city.

Table 2. Demographic Information

Geography	1990 Population	2000 Population	% Minority	Median Income	% of Households Below Poverty Level
Census Tract 34	1,665	1,460	82.1		
Block Group 1		767	77.1	$36,429	24.9
Census Tract 35	1,883	1,983	95.6		
Block Group 2		384	97.7	$13,359	30.1
Block Group 3		413	93.2	$23,036	31.7
Block Group 4		900	95.1	$8,514	54.8
Census Tract 37	4,194	3,565	98.8		
Block Group 2		858	98.8	$19,280	27.7
Block Group 5		606	98.5	$26,328	27.5
Census Tract 38	3,018	2,754	99.0		
Block Group 4		826	98.9	$16,118	39.0
Census Tract 39.02	2,423	2,099	91.7		
Block Group 2		921	97.5	$12,232	49.8
Block Group 3		693	79.4	$18,824	25.2
Census Tract 40	1,709	1,496	95.7		
Block Group 1		547	94.5	$15,938	36.2
Block Group 2		949	96.4	$15,781	42.3
City of Dallas	1,006,877	1,188,580	49.2	$40,921	14.4
Dallas County		2,218,899	54.8	$43,324	13.4

Source: 2000 Census

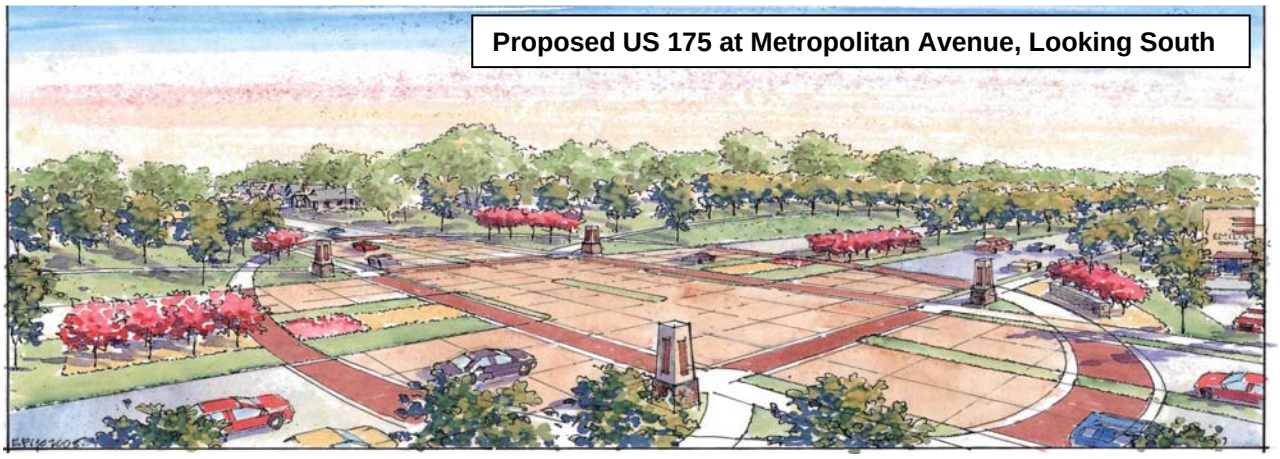
From 1990 to 2000, the population for the City of Dallas increased by 181,703 persons or 18 percent. However, during this same period, the population in five of the six census tracts in the project area (census tracts 34, 37, 38, 39.02, and 40) decreased by 1,635 people or 13 percent. Census tract 35 showed a slight increase of five percent, which is 3.6 times less than the city average. This is an indication the project area is economically and socially challenged.

The connection of US 175 to IH 45 and the reconstruction of SM Wright Freeway as an arterial is supported by the City of Dallas *Trinity River Corridor Comprehensive Land Use Plan*, March 2005. The US 175/IH 45 connection can help the city and community redevelopment goals to revitalize this community by opening up areas (such as the South Lamar Industrial District) to a new generation of development opportunities.

This project will create a signalized arterial with a context sensitive design that is more conducive to local retail and commercial establishments compared to the existing elevated freeway, which predominantly serves as a commuter freeway for bypassing non-residents. Attachment 1 shows the overall concept or master plan. The conversion to an arterial will result in excess right-of-way. This will allow for the inclusion of numerous context sensitive design elements such as enhanced pavement to denote neighborhood gateways, landscaping, pedestrian walks and trails, and opportunities for public art. It also provides for the expansion of a city park (Kimble Park), parking expansion at an adjacent retirement home, and opportunities for commercial development. Figure 3 shows an example of the existing and proposed concepts at a specific location.

Figure 3. Existing and Proposed Metropolitan Avenue

Existing US 175 at Metropolitan Avenue, Looking South



Total Project Costs and Available Funding from Other Sources: Table 3 shows the project costs and funding. Monies have been identified for engineering and planning efforts. This TIGER application is requesting $187.6 million of right-of-way, utility relocation, and construction.

Table 3. Project Costs and Funding

Phase	Cost	Available Funding Amount	Funding Source	% Shares by Source	Costs Already Incurred?
Engineering	$18,000,000	$18,000,000	TxDOT, NCTCOG	100%	Yes
Environmental Review	$250,000	$250,000	City of Dallas, TxDOT – State Funds	50% 50%	Yes
Right-of-Way	$43,000,000		TIGER Request	100%	No
Utility Relocation	$7,000,000		TIGER Request	100%	No
Construction	$137,600,000		TIGER Request	100%	No

Project Schedule: Table 4 shows the proposed project schedule. The construction time for the project would be minimized because the project is on new location, which will reduce traffic impacts and phasing issues during construction. The funds received will be obligated by September 2011.

Table 4. Project Schedule

Phase	Estimated Start Date	Estimated Completion Date
Engineering	2009	Spring 2010
Environmental Review	2007	Fall 2010
Right-of-Way	Fall 2010	Summer 2011
Utility Relocation	Fall 2010	Summer 2011
Construction	Summer 2011	Summer 2013

Legislative Approvals Needed: No other legislative approvals are needed for this project. Attachment 2 includes letters of support of the project from:

- Senator Royce West, Texas Senate District 23
- Mayor Tom Leppert, City of Dallas
- Amadeo Saenz, Executive Director, Texas Department of Transportation

It also includes an August 14, 2009, editorial from the *Dallas Morning News*.

State and Local Planning:

> **Local Planning:** This project is the result of a collaborative planning effort of the City of Dallas, Dallas County, North Texas Tollway Authority, TxDOT, and NCTCOG. The connection of US 175 to IH 45 and the reconstruction of SM Wright Freeway as an arterial are included in the City of Dallas *Trinity River Corridor Comprehensive Land Use Plan*, March 2005.

TIP/STIP Status: The US 175 to IH 45 connection is included in Appendix D (page D-17) of *2008-2011 Transportation Improvement Program, Amended April 2009* as part of the Trinity Parkway project (MPO Project ID Code 11538). The US 175 (SM Wright Freeway) project is also included in Chapter VII (page VII-49) of *2008-2011 Transportation Improvement Program, Amended April 2009* (MPO Project ID Code 20062).

Metropolitan Transportation Plan: The project is consistent with the recommendations found in *Mobility 2030: The Metropolitan Transportation Plan for the Dallas-Fort Worth Area, 2009 Amendment*. The Metropolitan Transportation Plan includes this project as a six-lane connection, which will reconfigure the interchange between IH 45 and US 175. The plan also includes conversion of SM Wright to an arterial. Because Dallas County is classified as nonattainment of ozone, transportation conformity applies. The project is included in a conforming Metropolitan Transportation Plan and the State Transportation Improvement Program.

Statewide Transportation Plan: This corridor was identified in the *2006 Texas Metropolitan Mobility Plan* (TMMP) as a high priority project for the Dallas-Fort Worth Region. This project supports the major goals of the TMMP, including congestion relief, improved safety, air quality, and quality of life, enhanced economic opportunities, and streamlined project delivery.

Technical Feasibility: The project requires the construction of a six-lane high speed roadway with a two-level interchange at US 175/SH 310 and reconstruction of SM Wright Freeway as an arterial. The designs adhere to FHWA and TxDOT design standards and are technically feasible; a preliminary design has been prepared. The project does not include any unusual design elements. Typical construction methods will be used to build this project.

Financial Feasibility: The project is currently only partially funded. The City of Dallas, TxDOT, and NCTCOG have spent almost $13 million in funds to develop the design and conduct environmental studies. Funding for right-of-way acquisition and construction has not been identified due to a transportation funding shortfall in Texas. Despite innovative funding strategies, the transportation needs in Texas and the Dallas-Fort Worth region exceed the available funding. No Category 2 funding is available for the TxDOT Dallas District until fiscal year 2015 (beginning September 1, 2014). No other Mobility Categories are available for TxDOT Dallas District funding.

The receipt of TIGER funds will complete funding requirements to build the project. NCTCOG and TxDOT work together to implement projects through regional prioritization. One of the key components to combine implementation efforts is to look at the total cost of project delivery. This includes asset management techniques for the materials specified in design that will require less routine maintenance and will be easier to replace as life-cycle needs are addressed. The asset management program for TxDOT is a work in progress and is associated with the provided budgets on an annual basis.

In addition to the federal gas tax, the State of Texas collects a motor fuels tax of 20 cents per gallon, which raises approximately $3 billion a year for the entire state. Three-quarters of the state gas tax helps fund new construction and maintenance of existing state and federal roadways such as US 175 and one-quarter is used to finance education.

NCTCOG currently manages federal as well as state-administered grants that are in various stages of development, implementation, and closeout. In fiscal year 2008, NCTCOG facilitated expenditures of $4.8 million from various multi-year grants including awards from the Department of Energy, Environmental Protection Agency, Federal Transit Administration, Federal Aviation Administration, US Department of Housing and Urban Development, Department of Labor, and the Department of Defense. Also in fiscal year 2008, NCTCOG facilitated expenditures of $113.7 million from various state-administered grants including awards from the Texas Commission on Environmental Quality, Texas Department of Health, Texas State Energy Conservation Office, and TxDOT. The NCTCOG Transportation Department employs 18 fiscal and grant professionals who provide financial, legal and compliance support for projects funded from various grants.

No adverse audit findings from standards used by states, local governments, and non-profit organizations expending federal awards (Circular A-133) have been found at this time. The NCTCOG has not been required to comply with special "high risk" terms and conditions under agency regulations in the implementation of consistency and uniformity in the management of grants and cooperative agreements with state, local, and federally-recognized Indian tribal governments (OMB Circular A-102).

Certification of compliance with Subchapter IV of Chapter 31 of Title 40 (federal wage rate requirements) is provided in Attachment 3.

Environmental Outcomes

Community cohesion, quality of life, and safety will be improved for the environmental justice (low-income and minority) populations adjacent to CF Hawn and SM Wright freeways. The project will also benefit commuters and the region by improving the efficiency and safety of the US 175/SH 310 interchange. This project will provide a more direct link to Downtown Dallas.

This project will not significantly have negative impacts to the natural, social, or economic environments. The project will require the displacement of four businesses and six single-family residences. It will also impact waters of the US, woodlands, several regulated material sites, and cross the Federal Emergency Management Administration established floodway and 100-year floodplain. The project includes mitigation measures for these impacts.

The project will not adversely impact any historic or archeological resources. By converting SM Wright Freeway to an arterial, this project will help re-establish the environs/context of a National Register of Historic Places historic district located near IH 45 and US 175. The Colonial Hill Historic District is a district composed of American Foursquare bungalows and cottages of the late 1910s, 1920s, and 1930s; this community pre-dates the freeway. The Colonial Hill Historic District, with its early 20th-century buildings and readily apparent traffic patterns, is a vivid architectural and cultural reminder of Dallas' early suburban streetcar development.

The project will not adversely impact any parkland. The conversion of SM Wright Freeway to an arterial will create surplus public right-of-way. One of the uses for this surplus right-of-way will be the expansion of Kimble Park, almost doubling the size (acreage) of the park. Kimble Park is located south of Martin Luther King, Jr. Boulevard and directly adjacent to SM Wright Freeway. This project supports the City of Dallas *Trinity River Corridor Comprehensive Land Use Plan*, March 2005. The US 175/IH 45 connection can help the city and community redevelopment goals to revitalize this area by opening up areas (such as the South Lamar Industrial District) to a new generation of development opportunities.

The consequences of not building this project would likely include continued vehicular accidents and fatalities as commuter corridor traffic increases. Not building this facility will also hamper rejuvenation efforts within the disproportionately poor communities adjacent to SM Wright Freeway. In contrast to the current high-speed freeway corridor that routes past the community, a low-speed signalized arterial would be more conducive to commercial and retail development and thus be a catalyst for investors.

Status of NEPA Process: A NEPA document is underway, but has not been completed.
Anticipated Completion Date: Fall 2010

Description of Needed Federal Actions: The project requires environmental and design approval from the FHWA, including an interstate access justification. We request an expedited review of the environmental documentation and preliminary design to meet the schedule of obligation of the construction funds by September 2011. It is also anticipated that a Section 404 permit will be required.

Web Links to Submitted Materials and/or Other Documents that Demonstrate Compliance with Other Federal, State, or Local Regulations: As part of the NEPA process, the project will comply with applicable federal and state regulations.

Primary Criteria:

1. Long Term Outcomes

a. **State of Good Repair:** In fiscal year 2009, TxDOT spent $680,340 maintaining the SM Wright Freeway. Approximately $510,000 of this amount was spent replacing the SH 310 bridge over US 175 that was destroyed by the previously mentioned overturned tanker at the sharp curve. These accidents will continue as long as the outdated curve geometry is not corrected, thus the lifecycle costs will continue to escalate.

TxDOT's Pavement Management Information System (PMIS) report for SM Wright Freeway indicates that over the last three years the distress, ride, and condition scores for the roadway condition scores have decreased from a condition score of 90.67 in 2007 to a condition score of 74.75 in 2009. These PMIS scores indicate that even if the pavement is in an acceptable condition, the amount of TxDOT maintenance expenditure is not keeping up with the rate of deterioration. TxDOT's goal is to maintain a PMIS condition score of 70 or better.

US 175 was built in the 1950's and is reaching the end of the design life of the pavement and structures. Replacing the outdated interchange and updating the facility to meet current design and safety standards will require minimum maintenance expense for decades after the new facility is constructed. The project design and bridges are based on a 40-year life-cycle. The pavement is based on a 30-year design. Not building this project will not only increase maintenance but eventually the existing pavement and bridge structures along US 175 will have to be reconstructed. And while this would improve the roadway, it would not improve or eliminate the sharp curve at SH 310.

The condition of US 175 is not conducive to economic growth or revitalization. Without this project, the languishing, disproportionately and adversely affected community will continue to feel the negative effects of US 175 severing the community. Economic growth will therefore not occur because developers have no incentive to develop along the

community's deteriorating infrastructure. Improved infrastructure can spur development and therefore lessening infrastructure maintenance (lifecycle) costs.

State and federal roadways in Texas are maintained through a combination of state and federal funding sources. In additional to the federal gas tax, the State of Texas collects a motor fuels tax of 20 cents per gallon, which raises approximately $3 billion a year for the entire state. Three-quarters of the state gas tax helps fund new construction and maintenance of existing state and federal roadways such as US 175 and one-quarter is used to finance education.

b. Economic Competitiveness: This project will increase economic competitiveness of the US over the medium and long-term by increasing accessibility and creating jobs in an economically distressed area.

The Dallas-Fort Worth region is a major economic, social, and political center in both Texas and the US. Dallas-Fort Worth is the largest regional economy in Texas, comprising approximately 25 percent of the state's economy, 25 percent of the population, 31 percent of population growth, 34 percent of employment growth, 29 percent of employment, and 25 percent of retail sales. 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, which is larger than 35 states. Based on 2008 population estimates, the Dallas-Fort Worth metropolitan area is the fourth most populous in the nation and one of the fastest-growing large urban areas in the nation. By the year 2030, the region is expected to attract over three million new residents and over two million new jobs.

The Dallas-Fort Worth region has sustained a long period of economic growth because of three primary factors: a favorable business climate, attractive tax policies, and an abundance of available land. The current economic downturn has slowed the rate of growth over the near term, but is expected to quickly return to previous levels of growth as the economy recovers. Historically, this has been the case with other downturns in the economy.

The US 175/IH 45 connection project is located only two miles south of Downtown Dallas. The US 175/IH 45 project will improve connections to major employment centers such as Downtown and the Medical/Market Center and residential locations. In addition, the strategic location of the project is proximate to commercial airports such as Dallas Love Field Airport and Red Bird Airport.

There are 20 major employers (defined as 100 or more employees) within two miles of the project area that employ 5,460 people. There are 230 major employers within five miles that employ 130,270 people (see Figure 1 in Attachment 4). According to NCTCOG's 2030 Forecast, the number of jobs in the five-mile radius of the project area in 2000 was 376,001. The number of jobs is projected to increase to 431,427 in 2015 and 495,679 by 2030 in the five mile-radius of the project area. These employers and businesses will be significantly benefited by the US 175/IH 45 project due to reduced traffic congestion and improved access of the customer base. The population, employment, and household estimates for the two and five-mile radius around the project area are provided in Table 5.

Table 5. Household Population and Employment Estimates

	2-Mile Radius				5-Mile Radius			
	2000	2010	2015	2030	2000	2010	2015	2030
Population	33,511	38,143	44,279	49,572	334,170	362,298	376,104	426,819
Households	12,611	14,153	16,346	17,667	118,704	132,017	138,499	163,210
Employment	32,664	35,547	36,450	41,976	376,001	415,774	431,427	495,679
Basic	12,520	13,787	14,157	16,951	89,750	100,718	105,084	123,042
Retail	5,028	5,311	5,391	5,693	55,445	63,562	67,050	78,432
Service	15,116	16,448	16,900	19,328	230,806	251,497	259,291	294,204

Source: 2030 Demographic Forecast, NCTCOG

Based on a cost benefit model developed by NCTCOG staff, the US 175/IH 45 project could have a net positive effect on the economy of $145.1 million annually and create 1,577 permanent jobs nationally when completed. There will be additional jobs on top of this figure moving into an area that is currently lacking in quality jobs. These jobs will be created by lowering transportation cost in and out of Downtown Dallas for workers and freight on its way from Dallas to the southeast US. During construction, there will be a net benefit to the economy of $138.8 million and 754 jobs over each of the two years of the project. This project will have a long-term return on investment of 973 percent and generate 243 percent in taxes as the project cost (assuming a 25 percent capture rate). The benefit to cost ratio for the project is calculated to be 10.73. Table 6 provides a summary of the economic benefits and job creation associated with this project. Attachment 5 provides the supporting calculations.

Table 6. Economic Benefit and Job Creation

Annual Net Effect	$145,079,175
Short-Term Construction Benefit	$138,750,000
Short-Term Jobs Created	754
Long-Term Jobs Created	1,577
Benefit to Cost Ratio	10.73
ROI (total economy)	973.14
Tax Revenue Replaced	243.28%

The 1,577 permanent jobs created will be very diverse. The project will increase access between economically distressed areas in southeast Dallas and large employment, retail, industrial, and hospital districts to the north of downtown. As well as the benefit to residents working elsewhere, improving the safety of the US 175/SH 310 interchange will make it more attractive for distribution centers and warehouses to locate along US 175. The 754 jobs created during construction will be primarily construction workers, vendors, and retail and service jobs supported by their spending.

The areas within a two-mile radius of the US 175/IH 45 connector project in Dallas are economically distressed areas (by definition in 42 US Code 3161). According to the 2000 Census, the median income in the two-mile radius of the project area was $17,909, compared to the national average at $41,994. The poverty rate within a five-mile radius of the project area was 31.0 percent compared to the regional average at 8.1 percent. Figures 2 through 6 in Attachment 4 show the median income, poverty rate, unemployment rate, and location of environmental justice populations.

The US 175 has Intelligent Transportation System (ITS) devices deployed and is a Mobility Assistance Patrol Program route. Based on the current ITS coverage of the project corridor, an improved incident detection, response and clearance time can be expected. The estimated travel time savings for non-recurring congestion is 281 hours per day or 73,060 hours per year.

As previously stated, the condition of US 175 is not conducive to economic growth or revitalization. Without this project, the languishing, disproportionately, and adversely affected community will continue to feel the negative effects of US 175 severing the community. Economic growth will therefore not occur because developers have no incentive to develop along the community's deteriorating infrastructure.

c. **Livability:** This project promotes the livability of the adjacent communities by placing priority on enhancing community character, neighborhood cohesion, social interaction, safety, economic prosperity, and general quality of life.

As described on page 5, under Targeted Transportation Challenges, the US 175/IH 45 connection creates a more efficient way for motorist traveling to and from communities in South Dallas, southern Dallas County, and beyond better access to major employment centers such as Downtown Dallas and the Medical/Market Center. Emergency response times will likely improve with the mobility enhancements planned for both the CF Hawn and SM Wright corridors. The design will also include a bicycle/pedestrian trail and safety lighting along SM Wright; the current facility does not have lighting and only limited sidewalks. This is a major concern especially because there have been seven pedestrian fatalities in the last eight years.

The new design will also provide a safer, more reliable route for DART buses. The community immediately surrounding the project is one of the most transit dependent areas of Dallas. As shown in Table 7, over 17 percent of the population is over 64, almost 37 percent of the households have no vehicles, and almost 60 percent are disabled. The use of public transit is 3.6 times that of the City of Dallas. The current design of US 175 is outdated and does not comply with Americans with Disabilities Act requirements. This too is a major concern because almost 60 percent of the population in the project area is disabled. Figures 7 and 8 in Attachment 4 show the disabled and elderly populations in comparison to the regional average.

Table 7. Population Characteristics and Means of Travel to Work

Characteristic	City of Dallas		Project Area[1]	
	Population	Percent	Population	Percent
Under 18	315,576	26.6	1,867	23.7
Over 64	102,301	8.6	1,358	17.3
Households with No Vehicle	49,163	10.9	1,162	36.9
Median Age	30.5		38.9	
Disabled	406,145	34.2	4,714	59.9
Means of Travel to Work				
Drive Alone	380,265	70.8	1,150	53.1
Carpool	95,437	17.8	473	21.8
Public Transportation	29,361	5.5	431	19.9
Bicycle	721	0.1	0	0.0
Walk	10,466	1.9	43	2.0
Other (including motorcycle)	20,755	3.9	70	3.2

Source: 2000 US Census
Notes: 1. Project area defined as the census tract block groups listed in Table 2

It also provides the opportunity to downsize SM Wright Freeway to an arterial. For SM Wright, landscaping and other enhancements along the roadway will improve and enhance pedestrian and bicycle mobility throughout the corridor. Neighborhood cross-traffic occurring at the intersections would be improved by including additional turning movement options. Adjacent facilities such as senior centers and places of worship would benefit by having better, safer, improved access to these same facilities.

Under the no build condition, US 175 would continue to divide the community revitalization efforts. Without this project, the languishing, disproportionately, and adversely affected community will continue to feel the negative effects of US 175 severing the community. The quality of life, walkability, and safety of the community would not be improved in the economically distressed area.

d. **Sustainability:** The project will improve energy efficiency, reduce dependence on oil, and reduce greenhouse gas emissions. In the build and no-build analysis for this project, vehicle hours of travel (VHT), average loaded speed, congested delay, and traffic delay were analyzed as a performance measure. Fuel consumption and carbon dioxide (CO_2) emissions were estimated from the vehicle hours of travel reduction from the build and no build scenario based on the following assumptions.

- Fuel Consumption: 0.685 gallons/hour factor was utilized to calculate the Fuel Consumption from Vehicle Hours of Travel.
- CO_2 Emission: 8,788 grams/gallon of gasoline emission factor was used to calculate the CO_2 emissions from fuel consumption.
- Project Life: 40 years is used as project life for all highway projects.
- Global CO_2 Emission Benefits: $33/Metric Tons of CO_2 emission was used to calculate the global CO_2 emission benefits.

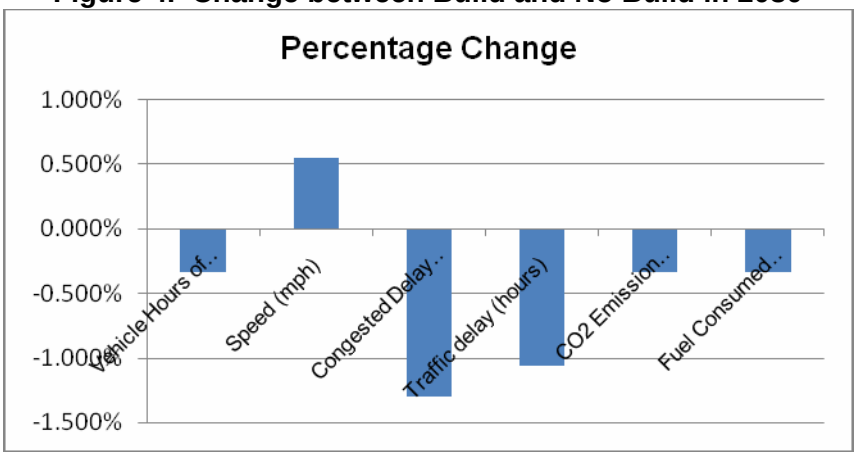
Table 8 shows the net reduction and percent change from build case to no build case. At the regional analysis, this project reduces travel time by 223 million hours, CO_2 emissions by 1.5 million tons and fuel usage by 153 million gallons, with a CO_2 Global Benefit of 44

million dollars over the project life. Figure 4 graphically represents the percent changes on all the analysis parameters. Attachment 5 provides the supporting calculations.

Table 8. Change between Build and No Build in 2030

Parameter	Change between Build and No Build (benefits/day)	Percentage Change (benefits/day)	Benefits/ Over the Project-Life
Vehicle Hours of Travel (hours)	-21,456	-0.34%	223,145,624
Speed (mph)	0.21	0.55%	
Congested Delay (hours)	-14,439	-1.31%	
Traffic delay (hours)	-6,477	-1.07%	
CO_2 Emission (in tons)	-142	-0.34%	1,480,697
Fuel Consumed (in gallons)	-14,695	-0.34%	152,854,824
Cost Benefit (dollars)	$4,261.42		$44,318,738

Figure 4. Change between Build and No Build in 2030



Fuel consumption and travel time reduction suggests that other criteria pollutants, such as carbon monoxides (CO), volatile organic compounds (VOC), nitrogen oxides (NO_x), particle matters (PM) will also be reduced.

e. **Safety:** As previously stated under Targeted Transportation Challenges (page 5), safety is the primary reason for this project. SM Wright Freeway accident data from year 2000 through 2008 lists 550 total crashes. In 14 of these crashes fatalities occurred. Of those 14 fatal accidents, seven were pedestrians-related. Data also shows that 245 of the 550 crashes (45 percent) occurred within one-mile of the sharp (90 degree) roadway curve this project will eliminate. Between 2000 and 2008, seven vehicles overturned, one of which resulted in a fatality. The frequent types of accidents that occur are rear-end collisions or crashes into the concrete traffic barrier at the sharp US 175/SH 310 curve. It is estimated that eliminating this curve would save 3.6 lives per year or 108 lives over the next 30 years.

The project will eliminate the severe horizontal curvature at US 175 and SH 310. Linking IH 45 and US 175 will significantly reduce vehicles from overturning at US 175/SH 310. It will also allow the conversion of SM Wright Freeway to a low-speed, signalized arterial with intersecting crosswalks, lighting, and bicycle/pedestrian trail and thus giving pedestrians

safer, more frequent places to cross the roadway. This is a major concern especially because there have been seven pedestrian fatalities in the last eight years. This will produce a safer environment for both travelers and the surrounding community.

Under the no build condition, it would not improve or eliminate the sharp curve at SH 310 nor would it improve conditions for pedestrians.

2. **Job Creation and Economic Stimulus:** As previously mentioned on page 12 under Economic Competitiveness, the project is expected to create 1,577 new jobs primarily by improving transportation efficiencies and eliminating a major safety issue. It is difficult to predict how many additional jobs will move to the area. The congestion and safety issues with the interchange have discouraged development of warehouse space along the corridor in the past. After completion, the corridor is likely to receive a larger share of the millions of square feet of warehouse space likely to be built in the region in the future.

   Within two miles of the project area, there are 2,140 acres of vacant land. Within a five-mile radius of the project area, there are over 9,800 acres of vacant land. Though not all of this land is developable, the availability of large amounts of vacant land and the projections for households and populations shown in the 2030 Demographic Forecast provide an ample opportunity and demand for new development for residential and employment centers in the area. The improvements to the intersection can significantly improve traffic flow, access, and in turn the development potential and attractiveness of the area and draw new businesses to the area. However, the direction and density of growth, particularly within the area of influence for this project, is dictated by city zoning, local and neighborhood comprehensive planning, and city affordable housing policies and programs that facilitate protection of housing for low-income residents.

   Approximately $145 million in construction supplies and worker salaries would be expended for the project. An additional $43 million would be expended to purchase of right-of-way for the project; dollars transferred to the private sector that could be reinvested by the recipient in the form of new location development to replace the buildings being displaced.

   Construction will preserve jobs and increase hours worked within construction and related services that have seen a softening in demand since the collapse of the real estate bubble. The project is predicted to create 754 jobs during construction. After construction is complete, lower levels of congestion will increase demand for housing and improve access to jobs in southeast Dallas. In addition, US 175 (CF Hawn Freeway) will become an alternate route for US 80 freight traffic headed towards the southeast US from northern parts of the Dallas-Fort Worth metroplex. This change will allow the local area to compete with job sites along US 80 for well-paying warehouse jobs and services provided to the warehouses and employees. The cost-benefit model predicts that this project will create 1,577 permanent jobs nationally, though it will be much higher in the region and the immediate area.

   As previously stated, this project would create retail and commercial jobs within the SM Wright corridor. The construction duration is estimated to span three years and employ approximately 100 people in the form of on-site workers. Indirect jobs can be expected at the non-site locations such as, but not limited to, quarries, concrete plants, lumber yards, service and supply shops and eateries patronized by the workers.

Low-income residents within the study area who rely on public transportation or who may be eligible for ride subsidies or "welfare-to-work" programs may also benefit from the project and its mobility improvements. Access to jobs located within and outside the study area would be improved by the same mobility improvements.

TxDOT will be the implementing agency. All TxDOT projects that use federal money must include the following federal special provisions in all construction contracts.

- Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity, Special Provision 000-004. The goals for minority and female participation expressed in percentage terms for the contractor's aggregate work force in each trade on all construction work in the covered area are as follows: there is a reference to a table for the minority goal and there is a percentage indicated for the female participation in each trade. These goals are applicable to all the contractor's construction work to be in compliance with Equal Employment Opportunity guidelines.
- Disadvantaged Business Enterprise (DBE) in Federal-Aid Construction, Special Provision 000-461. All federal-aid projects are subject to a DBE goal. To become a certified DBE, a construction-bidding company must meet specific eligibility requirements.
- FHWA 1273, which contains several federal requirements for predetermined minimum wages, apprentice, and training programs, etc.

Additionally, TxDOT has a DBE program for all construction projects because the DBE provides a level playing field for small, minority, and women-owned companies wanting to do business with TxDOT and other agencies receiving federal funds from the US Department of Transportation (USDOT). Similarly, TxDOT also enacts the Historically Underutilized Business (HUB) Program on all construction projects because it equally promotes full and equal procurement opportunities for small, minority, and women-owned businesses. Companies interested in doing business with the state are encouraged to become HUB certified. Also, TxDOT utilizes the Texas Unified Certification Program; a certification process for the federal DBE Programs in Texas. A business' DBE certification is valid at any Texas entity that receives USDOT funds and has a DBE Program.

TxDOT participates in numerous activities to provide opportunities for small, disadvantaged, veteran owned, and disabled businesses.

- The TxDOT Business Outreach and Program Services branch conducts briefing conferences around the state for small, minority- and women-owned businesses providing contract opportunities and information on how to do business with TxDOT and the state. The briefings include general industry sessions and specific information on how to do business in the construction, goods and services, information technology and professional engineering service industries.
- Learning, Information, Networking, Collaboration Mentor-Protégé Program: In this program, TxDOT mentors small and minority-owned businesses interested in doing business with TxDOT. The program focuses on construction, goods and services, information technology and professional services. The program goal is increasing business opportunities and the number of small and minority businesses bidding and performing on TxDOT contracts.
- Small Business LINC Mentor-Protégé Application: Technical Assistance Program provides free business development and technical industry training to DBEs in the

highway construction industry to enhance the skills necessary to bid and perform on TxDOT contracts.

- One-on-one Business Appointment Program: TxDOT coordinates and arranges appointments between businesses interested in working with TxDOT and the appropriate agency purchasers and/or contract management employees.
- Appointments with TxDOT Purchasers: DBE/HUB/SBE Industry Liaison Meetings provide a vital two-way communication link between the DBE/HUB/SBE community and TxDOT. These quarterly meetings provide an opportunity for the small and minority businesses development community to provide input and recommendations to TxDOT DBE/HUB/SBE Programs.
- Economic Opportunity Forums are held in different cities throughout the state and seek to attract businesses interested in finding contracting and procurement opportunities. Business Outreach and Program Services sponsors and attends many of these functions to provide information on TxDOT contracting and procurement opportunities.
- Texas Business Opportunity Development Program works to increase minority business participation in the highway construction industry.
- TxDOT Specialized Workshops provide an opportunity for small and minority-owned businesses to receive training on various business development and technical industry topics including bonding, construction management, developing a web site and/or a business plan, construction safety training and certification, and business financial management.

TxDOT will construct, operate, and maintain the project. TxDOT has a strong record of labor practice, federal labor compliance, and implementation of best practices with regards to national civil rights and equal opportunity laws. All TxDOT projects that involve federal money must include the previously discussed federal special provisions.

The construction of TxDOT roadway projects utilizes a bidding system through which a contractor is selected. Part of the contractor's responsibility is securing and utilizing specific manufactured goods and supplies per TxDOT specifications. The resulting suppliers selected by the contractor are typically dominated by basic roadway manufacturers and suppliers (i.e., concrete, steel, asphalt). Follow up indirect jobs can be expected at non-project site locations such as, but not limited to, quarries, concrete plants, lumber yards, service and supply shops and eateries patronized by the workers.

The urban design elements of the SM Wright portion of this project will have broad appeal among multiple manufacturing and supply sectors. The uniqueness of the proposed SM Wright design would not only stimulate the economy via the basic manufacturers and suppliers for roadway construction but will engage lesser utilized manufacturers and suppliers to satisfy the wide array of supplies such as specialty lighting, custom signage, water features, gateway monument fabricating, drinking fountains, trash receptacles, and benches. Moreso, these underutilized sectors are typically non-conglomerated, non-monopolized small businesses and disadvantaged businesses that remain the backbone of the American economy and whose dedicated goods, services and products lie at the heart of producing an optimum project; a community project grounded on community values.

To complete the project design and right-of-way acquisition, creation of private sector jobs for engineers, engineering technicians, surveyors, clerical, and management will occur when the TIGER grant is received for the project. Subsequently, the majority of jobs will be created when the project goes to construction in Summer 2011.

As previously mentioned on page 12 under Economic Competitiveness, the project is located in an economically distressed area. The populations most likely to benefit from this project during and following construction are economically distressed. During construction, existing local stores in the area would benefit from the patronage of the project's construction workers who have minimal time, if any, to drive to other similar stores, for the same products and services that might exist beyond the project site. In the long-term, this project is envisioned to help create much needed retail and commercial establishments within the SM Wright corridor such as grocery, retail, and supply outlets, and food service industry stores. The no build condition would not eliminate the barrier US 175 has created in the community and would not foster revitalization in the community.

Secondary Criteria:

1. **Innovation:** As mentioned previously in this application, this transportation project presents an innovative and unique opportunity to enhance a low-income and minority community while eliminating a safety issue. Extending US 175 to directly connect to IH 45 will allow SM Wright Freeway to be converted from a high speed freeway to an arterial. This would eliminate a major barrier in the community and improve the quality of life and opportunities for redevelopment.

2. **Partnership**

a. Jurisdictional and stakeholder collaboration: The public consensus to extend US 175 to IH 45 and downsize SM Wright Freeway was achieved through a two-year joint study by the City of Dallas, community stakeholders, and TxDOT. The residents and neighborhood leaders in this area have been very active in community development and revitalization. Attachment 1 includes a master plan for SM Wright Freeway, which is a product of this study. This master plan outlines how the conversion of SM Wright to an arterial and subsequent surplus right-of-way can provide community benefits by:

- Eliminating the segregating roadway and overhead bridges
- Buffers the road from adjacent neighborhoods through landscaping
- Installing of a pedestrian/bike trail
- Doubling the size of an adjacent city park (Kimble Park)
- Expanding parking at an adjacent retirement home

This project has and will continue to have strong support from elected officials, the City of Dallas, and the community. The connection of US 175 to IH 45 and the reconstruction of SM Wright Freeway as an arterial are supported by the City of Dallas *Trinity River Corridor Comprehensive Land Use Plan*, March 2005. The US 175/IH 45 connection can help the city and community redevelopment goals to revitalize this area by opening up areas (such as the South Lamar Industrial District) to a new generation of development opportunities.

b. Disciplinary Integration

The city and community are looking forward to the neighborhood rejuvenation, improved quality of life, and safety-related opportunities provided by both the proposed US 175/IH 45 connection and the resulting SM Wright Freeway conversion to an arterial. They feel this new, highly anticipated project will benefit existing residents, in the form of job creation, business opportunities, retail availability, and enhanced neighborhood character.

Performance Monitoring:
Based on the primary and secondary criteria presented in this application, Table 9 lists performance measures for evaluating the success of this project.

Table 9. Performance Monitoring

	Short-Term (2 to 5 years) Performance Measure	Long-Term (5 to 40 years) Performance Measure
Primary		
Long-Term Outcome		
State of Good Repair	• PMIS rating above 70 • Lower maintenance costs	• PMIS rating above 70 • Lower maintenance costs
Economic Competitiveness	• Decrease in unemployment in the region and project area during construction	Within the project area: • Increased median income compared to 2010 census data • Decrease in the poverty rate • Lower unemployment rate compared to 2009
Livability	• Stabilization of the community conditions and character • Increased accessibility of disabled persons and pedestrians • Traffic calming	• Increased community retail and commercial development • Increased community cohesion • Increased community pride and character • Traffic calming
Sustainability	• Decreased VHT, traffic delay, fuel consumption, CO_2 emissions • Increased travel speeds	• Decreased VHT, traffic delay, fuel consumption, CO_2 emissions • Increased travel speeds
Safety	• Decrease in the number and severity of accidents • Decrease in the number of fatalities	• Decrease in the number and severity of accidents • Decrease in the number of fatalities
Job Creation and Economic Stimulus	• Decrease in unemployment in the region and project area during construction	• Decrease in unemployment • Creation of retail and commercial employment opportunities within the project area
Secondary		
Innovation		• Implementation of the master plan for SM Wright Freeway
Partnership	• Elimination of a major barrier that divides a community • Continued partnership in the redevelopment of the area	• Continued partnership in the redevelopment of the area

Supporting Documentation

Attachment 1 – Conceptual Master Plan for Conversion of SM Wright to an Arterial http://www.nctcog.org/trans/tip/private/175concept.pdf
Attachment 2 – Letters of Support http://www.nctcog.org/trans/tip/private/175letters.pdf
Attachment 3 – Certification of compliance with Subchapter IV of Chapter 31 of Title 40 (federal wage rate requirements) http://www.nctcog.org/trans/tip/private/175wagerate.pdf
Attachment 4 – Figures http://www.nctcog.org/trans/tip/private/175figures.pdf
Attachment 5 – Supporting Calculations http://www.nctcog.org/trans/tip/private/175calcs.pdf