ENVIRONMENTAL ASSESSMENT

FOR

SM WRIGHT PROJECT

WITH IMPROVEMENTS TO
UNITED STATES HIGHWAY (US) 175 (SM WRIGHT FREEWAY):
FROM INTERSTATE HIGHWAY (IH) 45 (JULIUS SCHEPPS) TO STATE HIGHWAY (SH) 310 NORTH OF BUDD STREET;
A NEW LOCATION ROADWAY
FROM SH 310 (EAST OF BEXAR STREET) TO IH 45 (JULIUS SCHEPPS);
and (IH) 45 (JULIUS SCHEPPS):
FROM SOUTH OF LAMAR STREET TO US 175 (SM WRIGHT FREEWAY)

CITY OF DALLAS, DALLAS COUNTY, TEXAS

CSJs: 0092-01-052, 0197-02-108, & 0092-14-081

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
and
TEXAS DEPARTMENT OF TRANSPORTATION

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EXECUTIVE SUMMARY

This Environmental Assessment (EA) examines the social, economic, and environmental impacts associated with the proposed roadway improvements to the existing SM Wright Freeway/United States Highway (US) 175 in Dallas County, Texas. The proposed project is generally triangular in nature and would include improvements to the existing SM Wright Freeway/US 175, from IH 45 to north of Budd Street (2.2 miles) and to the CF Hawn Freeway (US 175) from east of Bexar Street to IH 45 (1.5 miles). The proposed improvements to the CF Hawn Freeway (US 175) and the proposed direct connecting ramps to IH 45 would necessitate the construction of a new interchange with IH 45 and the widening/restriping of IH 45 from south of Lamar Street to the SM Wright Freeway/US 175 (2.3 miles) (see **Appendices A-1, A-2, and A-3**). Unless otherwise defined, the project study area (or 'project area') generally includes the proposed project footprint and adjacent land within the City of Dallas.

The existing design of US 175 does not meet current urban freeway design standards, nor does it adequately accommodate current traffic demand. The proposed project would satisfy these identified deficiencies while considering the local area socioeconomics and topography, the future travel demand, and other infrastructure improvements in the area.

The discussion of the proposed project in the 2003 Trinity Corridor Balanced Plan as well as information gained from the Trinity Corridor MIS study aided in the development of the proposed Build Alternative evaluated in this EA. The proposed project improvements include the westerly extension of CF Hawn Freeway (US 175), and the construction of direct connecting ramps for an interchange at CF Hawn Freeway (US 175) and IH 45. After construction of the proposed CF Hawn Freeway (US 175)/IH 45 interchange is completed, the existing facility north of the realigned US 175 would be downgraded from a six-lane freeway with frontage roads (SM Wright Freeway) to a low speed, signalized six-lane urban arterial (the proposed SM Wright Parkway) (see **Appendix A-4** for proposed typical sections). The Build Alternative also includes the reconstruction of cross streets in accordance with roadway designs set forth within city thoroughfare plans, as well as the reconstruction of ramps to meet current TxDOT design criteria and to improve traffic operational performance. Approximately 31.1 acres of additional right-of-way (ROW) are necessary for project implementation, varying in width from approximately 165 to 658 feet.

The proposed project is included in and is consistent with the regional *Mobility 2035: The Metropolitan Transportation Plan (MTP) for the Dallas-Fort Worth Area* and the Fiscal Year (FY) 2013-2016 Transportation Improvement Program (TIP),

This EA evaluated the proposed project's direct, indirect, and cumulative impacts to natural and cultural resources and community issues. A summary of findings is presented below.

Natural Resources:

- ***Lakes, Rivers, and Streams*** – The proposed project is located within the Trinity River floodplain or on adjacent terrace alluvial deposits. The proposed project would not cross any naturally-occurring stream channels. Storm runoff in this urbanized area enters an underground storm system with outfalls in or near local floodplains. The only new stream crossing by the proposed project would be associated with the proposed CF Hawn Freeway (US 175) direct connecting (DC) ramps, which would bridge over an ephemeral man-made drainage ditch. The existing and proposed CF Hawn Freeway (US 175) and IH 45 facilities would be on structure, and the proposed SM Wright Parkway would not affect the existing storm drainage system.

- ***Waters of the U.S., including Wetlands*** – The project would not require a USACE Section 404 Permit; therefore, a Section 401 Certification would not be required. Additionally, Executive Order 11990 on wetlands would not apply because no wetlands would be impacted. The project does not involve work in or over a navigable water of the U.S.; therefore, Section 10 of the Rivers and Harbors Act does not apply.

- ***Floodplains*** – The overlap between the proposed project and the 100-year floodplain (Zone AE) is approximately 46.90 acres (see **Appendix B-1**). However, only 3.17 acres of this overlap occurs at-grade, and the remaining project/floodplain overlap (43.73 acres) is associated with bridge or ramp structures that would be elevated above the expected water surface level for the 100-year flood. The hydraulic design for the proposed improvements would be in accordance 23 Code of Federal Regulations (CFR) Part 650 (Bridges, Structures, and Hydraulics) and with current TxDOT and Federal Highway Administration (FHWA) design policies and procedures. Further, the proposed project would permit the conveyance of the design year flood, without causing substantial damage to the roadway, stream, or other property. The project would also not increase the base flood elevation to a level that would violate applicable floodplain regulations or ordinances.

- ***Water Quality*** – The proposed project crosses within five miles upstream of the upper Trinity River (Segment 0805), which is classified as a threatened or impaired water for bacteria and Polychlorinated Biphenyls (PCBs) and dioxins in edible tissues on the 2010 Texas 303(d) list (November 18, 2011). Because this project would disturb more than one acre, TxDOT would be required to comply with the Texas Commission on Environmental Quality (TCEQ) Texas

Pollutant Discharge Elimination System (TPDES) General Permit for Construction Activity. The project would also disturb more than five acres; therefore, a Notice of Intent would be filed to comply with TCEQ stating that TxDOT would have a Storm Water Pollution Prevention Plan (SW3P) in place during the construction period. Construction would also comply with TCEQ's best management practices (BMPs) and other erosion, sedimentation, and pollution control practices.

- ***Vegetation and Wildlife Habitat*** – The proposed project would result in permanent impacts to approximately 7.5 acres of riparian/bottomland forest and 1.08 acres of upland forest (see **Appendix B-2** for impact locations and details, **Appendix B-3** for representative site photographs, and **Appendix B-4** for woodland data forms). In accordance with TPWD, mitigation was considered for impacts to these areas. In response to the TPWD recommendation, TxDOT will coordinate with appropriate City of Dallas staff to determine if mitigation for impacts to 1.25 acres of riparian/bottomland habitat may be mitigated for within the planned Great Trinity Forest area (see **Section 5.1.5** and **Section 5.2.3**). Implementing the proposed project is not anticipated to affect the migration patterns of birds. Areas affected by the proposed improvements would be field verified for the presence of migratory birds prior to project construction.

- ***Threatened/Endangered Species*** – The proposed project would have no effect on the federally listed threatened or endangered species in Dallas County. The proposed project would impact the preferred habitat for one state-listed threatened species (timber/canebrake rattlesnake) and three state-listed species of concern (cave myotis bat, plains spotted skunk, and the Texas garter snake). Due to the proposed project area containing habitat for the state threatened timber/canebrake coordination with TPWD was required (see **Appendix B-5** for the TPWD Coordination letter). Potential impacts to habitat would be minor, and the potential for encountering the species during construction is low (see **Section 5.1.6**). Potential habitat for three species of concern, the cave myotis bat, the plains spotted skunk and the Texas garter snake is present within the proposed project area. Impacts to potential habitat would be minor, and the potential for encountering the species during construction is low (**Table 5-1**). Overall, the proposed project would not impact state-listed threatened species or species of concern.

- ***Topography and Soils*** – The project area can be characterized as flat to gently dipping unconsolidated terrace and floodplain deposits adjacent to the Trinity River. The project area is located entirely within the city limits of Dallas and is exempt from the provisions of the Farmland Protection Policy Act (FPPA).

- ***Air Quality*** – An analysis of expected carbon monoxide (CO) emissions indicates the proposed project would not cause or contribute to any new localized CO violations or increase the frequency and severity of any existing CO violations. The proposed project is included in and is consistent with the area's financially constrained long-range MTP (*Mobility 2035*) and the FY 2013-2016 TIP. The U.S. Department of Transportation (USDOT) (FHWA/Federal Transit Administration [FTA]) found the MTP to conform to the SIP on July 14, 2011 and found the TIP to conform on November 1, 2012.

  A quantitative mobile source air toxics (MSATs) analysis was performed which indicates that 2035 MSAT emissions related to the proposed project would substantially decrease when compared to 2012 (i.e., a 33 percent decrease in total MSAT emissions from 2012 to 2035). A decrease in total MSAT emissions is expected even with the projected increase in vehicle miles traveled (VMT). This is a result of the Environmental Protection Agency's (EPA) national air emissions control programs that are projected to reduce MSAT emissions by 72 percent between 1999 and 2050.

Community Impacts:

- ***Regional and Community Growth*** – The estimated percent change in population growth from 2005 to 2040 for the City of Dallas is 31 percent. The estimated percent change in population growth from 2005 to 2040 for the Dallas County is 44 percent. The Build Alternative is necessary to support the regional and community growth in Dallas County and the City of Dallas near the proposed project area.
- ***Land Use*** – Approximately 31.1 acres of land would be converted to transportation ROW, which is comprised of the following types of land use: 4.99 acres undeveloped, 0.7 acres developed residential, 24.38 acres developed commercial, and 1.04 acres of a joint use easement within the Union Pacific Railroad (UPRR) ROW.

- ***Section 4(f) and 6(f) Properties*** – The proposed project would not require the use of, nor substantially impair, the purposes of any publicly owned land from a public park, recreation area, wildlife/waterfowl refuge, or any historic sites of national, state, or local significance; therefore, a Section 4(f) evaluation would not be required. See **Section 5.2.3** for additional detailed information regarding Section 4(f) properties adjacent to the proposed project area. In addition, there would be no loss of park or recreation land because the proposed project does not require ROW acquisition from either land use type; therefore, consideration under Section 6(f) is not required.

- ***Economic Impacts*** – The projected employment growth rate from 2005 to 2040 for the City of Dallas is 55 percent. The projected employment growth rate from 2005 to 2040 for Dallas County is 58 percent. NCTCOG employment forecasts, which account for the cyclical nature of employment changes (including economic recessions), predict future employment growth for the City of Dallas as this municipality responds to increased demand spurred by forecasted population growth. The Build Alternative would provide a portion of the additional mobility necessary to support the increasing traffic associated with this projected growth.

  It is anticipated that a range of 18 to 33 employees could experience job relocation or loss in association with the impacted businesses. However, there appear to be sufficient future employment opportunities of varying skill requirement intensities within the City of Dallas based on information provided by the NCTCOG's Development Monitoring database and interviews with Planning Officials from the City of Dallas. Minimization and mitigation efforts enacted by the Texas Workforce Commission (TWC) and Workforce Solutions for Greater Dallas (Workforce Solutions) are available to affected employers and employees. For these reasons, substantial business and employee impacts are not anticipated.

- ***Relocations and Displacements*** – The proposed project would involve the displacement of structures on 15 properties, including six residential and nine commercial. The six residential displacements would include six single-family residences. Four of the six displaced single-family have been early acquired by the City of Dallas. The nine commercial properties have an associated eight structures and four billboards. Five of the nine commercial properties have businesses that would be potentially displaced by the proposed project. However, two of the potential business displacements and three of the four billboards have been early acquired by the City of Dallas. See **Table 5-9** and **Appendix A-6** for displacement details and locations as well as **Appendix C-11** for Early Acquisition Documentation. Based on the results of the replacement residential (see **Table 5-10 and Section 5.2.5**) and commercial property searches (see **Section 5.2.5**), there appear to be a sufficient number of vacant and developed properties to accommodate those residences and businesses impacted by the proposed project. Relocation assistance and compensation would follow in accordance with applicable state and federal requirements. It is anticipated that a range of 18 to 33 employees could experience job relocation or loss in association with the affected businesses. However, North Central Texas Council of Government (NCTCOG) employment forecasts, which account for the cyclical nature of employment changes (including economic recession), predict overall future employment growth for the project area in response to increased demand stimulated by forecasted population growth. Future employment opportunities are also expected based on the number of future developments planned within

the City of Dallas (see **Sections 5.2.5 and 7.4.5**); and assistance to affected employees would be available through the Texas Workforce Commission (TWC) and Workforce Solutions for Greater Dallas.

- ***Access*** – Although the proposed project would result in additional control of access (consistent with TxDOT design criteria), alternative access routes to adjacent properties would be maintained. In areas where existing access would be prohibited by the proposed control of access, alternative access routes would be provided.

- ***Community Cohesion*** – Since neighborhoods represent a geographic unit that can be readily identified by community members, a correlation of affected block groups to project area neighborhoods was used to determine communities adjacent to the proposed project. All of the potential residential displacements are located in one neighborhood or two Census block groups (40/ 1 and 40/ 2), which have a combined population of 1,082 people. The loss of six residential properties (four of which have already been early acquired by the City of Dallas as explained in **Appendix C-11**) from the neighborhood is unlikely to negatively affect the overall cohesiveness and nature of this community. Elementary school attendance zones were also used as a means to determine potential communities adjacent to the proposed project. All of the potential residential displacements would occur within the Charles Rice Elementary School attendance zone. According to 2010 enrollment records, of the approximate 510 students enrolled at Charles Rice Elementary School, approximately 97.8 percent were black or African-American, two percent were Hispanic and 0.2 percent were white. The Charles Rice Elementary School attendance zone covers approximately 971 acres and is the largest attendance zone adjacent to the proposed project. A loss of six single-family residential homes (four of which have already been early acquired by the City of Dallas as explained in **Appendix C-11**) within an attendance zone of this size is unlikely to negatively impact the overall cohesiveness and nature of its encompassed communities. A positive impact of the proposed project includes enhanced community cohesion of the communities in the project area resulting from the downgrade of SM Wright Freeway to the proposed SM Wright Parkway. This change to the community would effectively 'turn back the clock' to more closely approximate the situation that existed at the time the SM Wright Freeway was originally constructed in the 1950s. That is, the preexisting condition to the freeway was the Houston and Texas Central Railroad corridor, which predates urban development in the South Dallas area (see **Section 5.2.7**).

- ***Limited English Proficiency (LEP)*** – Of the 11,323 persons within the Census block groups located within 0.25 mile of the proposed project ROW, approximately 8.5 percent (966 people) speak English less than "very well." Steps have been and would continue to be taken to ensure all LEP populations have access to programs, services, and information provided by TxDOT.

- ***Environmental Justice (EJ)*** – For the 223 Census blocks and 18 Census block groups containing the analyzed population within 0.25 mile of the proposed project ROW:
  - All 18 Census blocks contain minority populations of 50 percent or greater;
  - 217 Census blocks contain minority populations of 50 percent or greater;
  - According to the 2006-2010 American Community Survey Data, median household incomes for the Census block groups ranged from $11,406 to $38,542; and
  - Thirteen block groups reported median household incomes below the Department of Human Health and Services (HHS) 2012 poverty guideline ($23,050) for a family of four.

There would be adverse disproportionate impacts to EJ populations associated with the proposed project. However, the same EJ populations that would be adversely affected would benefit from the mitigation commitments for these impacts, as well as, the proposed roadway improvements to improve safety, operations, connectivity, and mobility. Any potential adverse impacts on EJ populations would be offset in part by project related benefits and mitigation efforts as described in **Section 5.2.9**. The downgrading of SM Wright Freeway to an at-grade, landscaped urban arterial would benefit the community cohesion in an area that is currently divided by an elevated freeway.

- ***Public Facilities and Services*** – The proposed project would generally improve mobility to public facilities and services within the proposed project area and would not displace any of the facilities listed in **Table 5-17**.

- ***Aesthetic Considerations*** – Due to the proximity of the NRHP-listed neighborhoods adjacent to the proposed SM Wright Parkway, efforts would be made to preserve the historic character of the adjacent neighborhood. The proposed improvements are anticipated to enhance the aesthetic character of the surrounding communities. The SM Wright Parkway – Landscape and Aesthetic Concept Plan would include enhanced landscape plantings along the streetscape and at key intersections that would provide an inviting environment for pedestrian and motorists. Other design aspects would include landscaping and gateway monuments that represent the historic character of the adjacent neighborhoods. The Plan would be consistent with local trail and bike plans as well as compliant with the Texas

Accessibility Standards. Aesthetic structural and landscape design considerations would be incorporated during final project design Plans, Specifications, and Estimates.

- ***Noise –*** The proposed project would result in traffic noise impacts. Seventeen noise barriers are considered feasible and reasonable, benefiting 113 receivers (see **Appendix C-10**).

- ***Traffic Operations –*** The realignment of the existing US 175 freeway as well as the removal of the 25 mph, accident-prone curve at the US 175/SH 310 interchange, would enhance operations of the US 175 facility by improving the design speeds through the area. This realignment of US 175 would manage congestion in the freeway-to-freeway traffic traveling west from US 175 to IH 45 and east from IH 45 to US 175. In addition, the associated improvements to IH 45 would improve the existing weaving on the facility, from less than half a mile to approximately two miles. The downsizing and downgrading of the existing SM Wright Freeway to a six-lane arterial, known as the proposed SM Wright Parkway, would provide an alternate route throughout the area for local traffic, which would also assist in managing traffic congestion.

Cultural Resources:

- ***Archeological Resources and Non-Archeological Historic Resources –*** Regarding non-archeological historic resources, a 2010 reconnaissance survey identified 585 resources that appear to be at least 50 years of age within the project area of potential effects (APE). A review of the National Register of Historic Places (NRHP) indicated that there are two NRHP-listed historic districts within the APE and one property eligible for inclusion in the NRHP; however it was determined that the proposed project would have no adverse effects to the two NRHP-listed districts, the NRHP-eligible property, and/or the NRHP-eligible district within the proposed project APE. The record search revealed no previously recorded State Archeological Landmarks (SAL), Recorded Texas Historic Landmarks (RTHL), or Official Texas Historical Markers (OTHM) within the APE. Regarding archeological resources, TxDOT archeologists completed their review of this project on November 29, 2011 determining that the project would have no effect or no adverse effect on archeological sites or cemeteries that would be afforded further consideration under cultural resource laws. No consultation with the THC/TSHPO was required. In addition, no public controversy exists regarding the project's potential impacts on archeological sites or cemeteries. TxDOT Historians determined and THC concurred that within the APE there is one property, the Former Forest Theater, and one historic district, the Central Park Historic District, which are eligible for inclusion in the NRHP. Upon further review, TxDOT Historians determined and THC concurred that the proposed project would have no adverse effects to the two NRHP-

listed districts, the NRHP-eligible property, and/or the NRHP-eligible district within the proposed project APE (**Appendix C-6**). See **Appendix C-6** for the '*Section 106: Identification of Historic Properties and Determination of Effects (30% submittal)*' letter, dated February 7, 2012.

Other Resources/Issues:

- ***Hazardous Materials*** – A review of the TxDOT-specified federal and state environmental databases (and subsequent site visit) identified six sites which were determined to pose a high risk to ROW acquisition and/or construction of the proposed project (**Table 5-25** and **Appendix A-6, Pages 4 and 7**). Based on the review of the Phase I ESA Reports completed for the City of Dallas from the Fall of 2009 through the Spring of 2010 for the Trinity Parkway Project study area, which overlaps into the proposed project area, there were 25 additional sites that were deemed to have REC and/or pose a high risk to ROW acquisition and construction of the proposed project (**Table 5-25** and **Appendix A-6, Pages 4 and 7**). Refer to **Section 5.4.1** for detailed site descriptions and **Appendix A-6** for site locations. Field reconnaissance showed no surface evidence of contamination. It is recommended that subsurface investigations (soil boring samples, ground water samples, etc.) be conducted within the vicinity of these sites prior to ROW acquisition and construction to determine if remediation, in accordance with federal, state, and local laws, is necessary. It is further recommended that any pre-1978 displaced buildings be inspected for lead based paint (LBP) and asbestos containing materials (ACM) prior to demolition; that certain bridges be analyzed for ACM prior to demolition; and that certain steel beam(s) associated with the bridges be analyzed for LBP prior to demolition. Measures would be taken during construction to prevent, minimize, and control the spill of hazardous materials and ensure workers' safety.
- ***Airway-Highway Clearance -*** Due to the distance between the project area and the nearest runway facility, no impacts to airway-highway clearance are anticipated***.***

- ***Coastal Zone Management Plan -*** The proposed project is not located within the Texas Coastal Zone Management Program boundary; therefore, the proposed project is not subject to the guidelines of the associated plan.

- **Wild and Scenic Rivers -** There are no wild and scenic rivers in the proposed project area; therefore, there would be no impacts to a river designated as a component or proposed for inclusion in the national system of Wild and Scenic Rivers.

Indirect Impacts:

The three broad categories for which indirect impacts are assessed are (1) encroachment-alteration impacts, (2) project-induced land use change, and (3) impacts resulting from project-induced land use change. These three types of impacts were evaluated within an established indirect impacts area of influence (AOI) (see **Appendix D-1**) and in accordance with the TxDOT guidance on conducting indirect and cumulative impact analyses (i.e., TxDOT ICI Guidance),[1] the National Cooperative Highway Research Program (NCHRP) Report 466,[2] and NCHRP Report 25-25, Task 22.[3] The indirect impacts analysis involved exploring the cause-effect relationships between impact causing actions and the goals and notable features of the AOI to determine if indirect impacts are likely, and, if so, if those impacts are substantial. The results are summarized below:

- ***Encroachment-Alteration Impacts:*** Using the qualitative inference technique and various cartographic techniques (as outlined in NCHRP Report 466), it was determined that substantial ecological and socioeconomic encroachment-alteration impacts are not anticipated.

- ***Project-Induced Land Use Change:*** Methodology from NCHRP 25-25, Task 22, as well as information gained via interviews with City of Dallas planners, as well as data/maps received from city planners, were utilized in the identification of 14 potential locations of project-induced land use change (see **Appendix D-4**). These 14 locations account for approximately 10.8 acres of project-induced development/redevelopment for properties ranging in size from 0.2 acre to 3.6 acres. AOI conditions relative to properties adjacent to the proposed SM Wright Parkway suggest a predominance of "strong" change indicators/categories; however, it is important to note that feedback from city planners suggested that future development generally throughout the AOI is less likely to be influenced by the proposed improvements than by market forces and regulations established within city planning documents.

- ***Impacts Resulting from Project-Induced Land Use Change:*** A prescreening process determined which notable features, goals, and other resources associated with the 14 sites of potential development warranted additional analysis. Based on the results of this prescreening process (in accordance with the TxDOT ICI Guidance), the only notable impact is the potential loss of 3.7 acres of upland forest resources. However, this potential impact is not considered substantial because upland forest resources represent low-quality wildlife habitat within this highly urbanized/fragmented environment. Also, assuming the continued

[1] (September 2010), TxDOT's *Revised Guidance on Preparing Indirect and Cumulative Impact Analyses.*
[2] TRB (2002), NCHRP Report 466 *Desk Reference for Estimating the Indirect Effects of Proposed Transportation Projects.*
[3] TRB (2007), NCHRP Report 25-25, *Task 22, Forecasting Indirect Land Use Effects on Transportation Projects.*

implementation of existing city ordinances to ensure environmental compliance (e.g., city tree preservation ordinance), substantial impacts are not anticipated to upland forest resources or any other recourses within the AOI as a result of project-induced changes in land use.

- ***Summary:*** No substantial encroachment-alteration impacts, project-induced land use change, or impacts resulting from project-induced land use change are anticipated.

Cumulative Impacts:

Cumulative impacts were assessed for the following resources/issues: biological resources (vegetation/wildlife habitat), air quality, and land use. Each resource/issue was assessed within a specified resource study area (RSA), as listed in **Table 7-1** and shown in **Appendix E-1**. A brief summary of cumulative impacts (direct impacts + indirect impacts + impacts from reasonably foreseeable development, transportation, and flood control projects) is provided below.

- ***Biological Resources:*** **Vegetation/Wildlife Habitat –** Within the RSA for biological resources (approximately 16,858.1 acres), anticipated cumulative impacts would affect approximately 146.8 acres of riparian/bottomland forest, and 6.3 acres of upland forest. The project-related contribution to these totals would be 7.5 acres for riparian/bottomland forests (5.1 percent) and 5.1 acres for upland forests (80.9 percent). In light of the abundance of riparian/bottomland habitat within the RSA and government plans/programs to preserve remaining habitat within the Trinity River and White Rock Creek floodplains, the foregoing cumulative impacts are not considered substantial. Cumulative impacts to upland forests are also insubstantial because these forest resources occur as part of highly fragmented habitat within urban landscapes; impacts to this resource would be minimized by compliance with city site development and tree preservation ordinances. Although no project-related impacts are expected to any rare wildlife species, riparian and bottomland forest habitat is preferred by the state-listed timber/canebrake rattlesnake and two species of concern (Texas garter snake and plains spotted skunk).

- ***Air Quality*** – The proposed project is included in and is consistent with the area's financially constrained long-range MTP (*Mobility 2035)* and the FY 2013-2016 TIP. With regard to project-related impacts relating regional compliance with EPA's eight-hour standard for ozone, the USDOT (FHWA/FTA) has determined the MTP and the TIP to conform to the State Implementation Plan (SIP). Other reasonably foreseeable planned transportation improvements are included in the TIP and are consistent with the MTP, all of which were included in the finding of SIP conformity. Although increased development and urbanization would likely have a negative effect on air quality, the cumulative impact of reasonably

foreseeable future growth and urbanization on air quality would be minimized by enforcement of federal and state regulations by the EPA and TCEQ. In particular, EPA's vehicle engine and fuel regulations, coupled with fleet turnover, will over time cause substantial reductions of on-road exhaust emissions including CO, MSATs, and ozone precursors (volatile organic compounds [VOC] and nitrogen oxides [NOx]).

- ***Land Use*** – Land use is not a 'resource' such as forest habitat and clean air, but is the 'result of decisions' about the use of land made initially by civic authorities (in terms of comprehensive plans and zoning), followed by the property owner (operating within the constraints of city plans and ordinances). The determination of whether a proposed change in land use is adverse or beneficial may only be objectively judged within the planning/zoning framework established by elected City of Dallas leaders, as reflected in planning/zoning policies. Direct impacts of the proposed project would involve the conversion of approximately 31.1 acres to transportation ROW/easement, of which 4.99 acres are undeveloped, 0.7 acres are developed residential, 24.38 acres are developed commercial, and 1.04 acres would require a joint use easement with Union Pacific Railroad (UPRR) property. Approximately 10.8 acres could potentially be affected by project-induced land use change. Reasonably foreseeable projects are reflected in the array of comprehensive land use and economic plans relevant to the project corridor area, as well as regional transportation plans such as the MTP and TIP. A review of relevant planning documents indicates that the proposed project is mentioned specifically as a facilitating component of community, citywide, and regional objectives. The proposed project was found to contribute toward achieving City of Dallas objectives in comprehensive land use plans and regional transportation goals reflected in the MTP and TIP, and therefore has beneficial cumulative impacts relating to City of Dallas land use policies and related plans.

- ***Community*** – The demographic data presented in the discussion of community impacts (**Section 5.2**) demonstrate the need for heightened sensitivity toward this predominantly racial minority community, which is characterized by generally low household income. Communities with such characteristics may be expected to be more deeply affected by the impacts of the construction related to roadway improvements, and federal and state policies require a closer look at transportation projects which impact such communities to ensure fair treatment of EJ populations. The primary focus of evaluating impacts to an EJ community is whether a proposed build alternative would result in a disproportionate impact to EJ populations. South Dallas is predominantly an EJ population generally characterized by low-income households. There is a strong historic/cultural element to this community (i.e., several historic neighborhood districts and historic structures). City of Dallas plans

emphasize projects/initiatives to improve the quality of neighborhoods by discouraging alcohol-related businesses and encouraging retail and service businesses that service the residential community. The area near Lamar Boulevard is viewed as an area that could be revitalized economically with the advent of levee protection from the 100-year flood. City plans also target specified areas and transportation intersections for business development. Direct and indirect impacts of the proposed project would affect a total of 41.9 acres of land use change for new ROW and project-induced development or redevelopment. Foreseeable projects unrelated to the proposed project would affect a total of 551.4 acres in the community RSA. The cumulative changes in land use, and associated impacts to the South Dallas community, would be 593.3 acres. The proposed project would contribute 7 percent to the cumulative impacts related to land use changes in the community. While total acreage of land use change is only one indicator to be used in assessing the range of socioeconomic and other community impacts that would accompany those land use changes, All anticipated projects in the RSA are expected to effect long term objectives of the City of Dallas and would contribute toward greater employment opportunities, increased community cohesion, and improved aesthetic views within this EJ community.

- ***Mitigation*** – In terms of mitigation for potential cumulative impacts, the implementation of regulatory control strategies and policies are assumed in relation to the proposed project and other reasonably foreseeable projects. Any potential adverse cumulative impacts to vegetation and air quality described above would be avoided or minimized by compliance with applicable local, state, and federal mitigation requirements.

Determination of Assessment

The Build Alternative is recommended since, unlike the No-Build Alternative, it is responsive to the needs for the transportation improvement project based on historic and projected population increases, urbanization, and the existing inadequacy of the road network in the area.

The engineering, social, economic, and environmental investigations conducted thus far on the proposed project, and presented in this EA as well as summarized above, indicate that the proposed project would result in no significant impacts to the quality of the human or natural environment.

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1.0 INTRODUCTION

1.1 The SM Wright Project

As part of the proposed project, roadway improvements are proposed to the existing SM Wright Freeway/United States Highway (US) 175, the CF Hawn Freeway (US 175), and Interstate Highway (IH) 45. For clarification purposes, the existing US 175 is known as the SM Wright Freeway from the existing IH 45 interchange to SH 310. In addition, the existing US 175 is also known as the CF Hawn Freeway south and east of SH 310. The portion of the existing IH 45 within the proposed project area is also known as the Julius Schepps Freeway.

The proposed project is generally triangular in nature, and would include improvements to three roadways. The proposed project improvements along the existing SM Wright Freeway/US 175 would extend from IH 45 to north of Budd Street (2.2 miles). The proposed improvements to the CF Hawn Freeway (US 175) would extend from east of Bexar Street to IH 45 (1.5 miles). The proposed improvements include the construction of a new interchange on IH 45 and the widening/restriping of IH 45 from south of Lamar Street to the SM Wright Freeway/US 175 (2.3 miles). All proposed improvements are located within the City of Dallas in Dallas County, Texas and are herein referred to as the 'proposed SM Wright Parkway' or 'proposed project'.

Table 1-1 lists the logical termini and approximate distances by project section and **Appendix A-1** provides a visual representation of these three roadway sections within the proposed project. **Appendix A-2** shows the Project Location Map on Aerial Photograph, and **Appendix A-3** shows the proposed project on the U.S. Geological Survey (USGS) Topographic Map. The proposed implementation timeline for this project would involve constructing the CF Hawn Freeway portion of US 175 as well as the DC ramps between US 175 and IH 45 and associated improvements along IH 45 first. This portion of the proposed project is also known as 'SM Wright Phase I' (which was formerly known as 'Trinity Parkway Phase I'). 'SM Wright Phase I' of the proposed project would be followed by the downsizing of the SM Wright Freeway portion of the project (also known as 'SM Wright Phase II').

TABLE 1-1. PROPOSED SM WRIGHT PARKWAY PROJECT SECTIONS

Section	From	To	Approximate Project Length
CF Hawn Freeway/US 175*	SH 310 (east of Bexar Street)	IH 45	1.5 miles
IH 45*	South of Lamar St	SM Wright Freeway/US 175	2.3 miles
SM Wright Freeway/US 175**	IH 45	US 175/SH 310 (north of Budd Street)	2.2 miles

Notes:
*These sections of the proposed project are also known as 'SM Wright Phase I,' which was formerly known as 'Trinity Parkway Phase I.'
**This section of the proposed project is also known as 'SM Wright Phase II.'

Within the proposed project area, construction was completed on SM Wright Freeway in the late 1950s, CF Hawn Freeway in the early 1960s, and IH 45 in the mid-1970s.

US 175 is an approximate 111-mile United States highway located entirely within the State of Texas. It begins at IH 45 within the City of Dallas and terminates at US 69 in the Town of Jacksonville, Texas. Approximately 2.5 miles of US 175 (the existing SM Wright Freeway and a portion of the CF Hawn Freeway east of the US 175/SH 310 interchange) is included within the project area (**Appendix A-1**).

SH 310 is an approximate 7-mile state highway located entirely within Dallas County. It begins at the interchange with US 175 in the City of Dallas and extends to its southern terminus with IH 45 in the Town of Hutchins. Approximately 0.3 miles of SH 310 is included within the project area (**Appendix A-1**).

Historically, IH 45 was one of the first rural highways connecting south Texas to north Texas. The approximate 285-mile interstate highway is located entirely within the State of Texas. Its northern terminus is located at the interchange with IH 30 and IH 345 in the City of Dallas, and the southern terminus is located in City of Galveston. The 1.5-mile section of IH 45 included in the project area extends from the existing US 175 interchange south to the Trinity River (**Appendix A-1**).

This Environmental Assessment (EA) focuses on improvements to the previously discussed sections of US 175, SH 310, and IH 45 collectively known as 'the proposed project' or 'proposed SM Wright Parkway.' The project is located within the City of Dallas, south of the Central Business District.

1.2 Project Definition Process: Funding Strategies

An official decision regarding the exact funding mechanisms used to finance the reconstruction and maintenance of the proposed project would occur at a later date. The North Central Texas Council of Governments (NCTCOG) will be evaluating ways to assist in the funding of the proposed project including the use of potential funding from Regional Toll Revenue (RTR) funds, which are derived from local funding strategy legislation, and which fund projects using excess toll revenues generated from other large Comprehensive Development Agreement (CDA) toll projects. Use of RTR funds would require approval from the Regional Transportation Council (RTC), a sub-committee of NCTCOG. In addition, the potential usage of Proposition 12 funding for the proposed project would also be evaluated by the RTC. Finally, the Texas Department of Transportation (TxDOT) may allocate funds for preliminary engineering and landscape design through TxDOT state rehabilitation funds as well as landscape and aesthetic funds.

2.0 DESCRIPTION OF PROPOSED ACTION

2.1 Description of Proposal

The proposed project would include improvements to the existing SM Wright Freeway/US 175, the CF Hawn Freeway (US 175), and IH 45. For clarification purposes, the existing US 175 is known as the SM Wright Freeway from the existing IH 45 interchange to SH 310; however, upon completion of the proposed project, this area would be known as the SM Wright Parkway. In addition, the existing US 175 is also known as the CF Hawn Freeway south and east of SH 310. The portion of the existing IH 45 within the proposed project area is also known as the Julius Schepps Freeway.

The proposed project is generally triangular in nature and would include improvements to three roadways. The proposed project improvements along the existing SM Wright Freeway/US 175 would extend from IH 45 to north of Budd Street (2.2 miles). The proposed improvements to the CF Hawn Freeway (US 175) would extend from east of Bexar Street to IH 45 (1.5 miles). The proposed improvements also include a new interchange at IH 45, and the widening of IH 45 from south of Lamar Street to the SM Wright Freeway/US 175 (2.3 miles). The proposed project is located entirely within the City of Dallas, Dallas County, Texas. Maps showing the general project location and vicinity, project location on aerial photograph, and the project on topographic map are provided in **Appendices A-1, A-2, and A-3**.

The proposed project improvements SM Wright Freeway/US 175 north of the SH 310 interchange would convert the existing six-lane freeway with frontage roads (SM Wright Freeway) to a low speed, signalized six-lane urban arterial (SM Wright Parkway). After construction of the proposed IH 45/US 175 interchange is completed, the existing freeway north of the realigned US 175 would be downgraded. The City of Dallas has agreed to take the downgraded roadway (referred to as 'SM Wright Parkway' in the design schematic) off of TxDOT's system. The existing SM Wright Freeway ramp access at IH 45 would be maintained, and the northbound entrance ramp to IH 45 would be restriped from two lanes to one lane. These improvements to the existing SM Wright Freeway/US 175 would also require improvements to the existing CF Hawn Freeway (US 175) and IH 45.

The proposed CF Hawn Freeway (US 175) would be six lanes between SM Wright Parkway and the eastern project limit. The CF Hawn Freeway (US 175) would be extended westerly to IH 45 and would overpass the proposed SM Wright Parkway and Lamar Street. The US 175 frontage roads would be extended to Lamar Street to facilitate local access. The extension of US 175 westerly would require constructing a new interchange with IH 45. Associated improvements would include constructing two-lane DC ramps from northbound CF Hawn Freeway (US 175) to northbound IH 45 and from southbound IH 45 to southbound CF Hawn Freeway (US 175).

IH 45 would be restriped between the proposed CF Hawn Freeway (US 175) interchange and the existing SM Wright Freeway interchange to facilitate six mainlanes plus transitional lanes. Improvements would include the widening of the existing IH 45 mainlanes to the inside upstream of the proposed US 175 DC ramp junctions to allow for an additional transition lane (each direction) which would serve traffic between the proposed US 175 interchange and the existing IH 45 ten-lane section north of the existing US 175 (SM Wright Freeway) interchange. Also, removal of the existing IH 45 half diamond ramps south of Pennsylvania Avenue would be required due to ramp spacing constraints. CF Hawn frontage roads would be reconstructed and would extend to Lamar Street to facilitate local access. Providing a direct link between IH 45 and CF Hawn Freeway (US 175) would remove freeway/commuter traffic from the communities adjacent to the project area and would improve the neighborhood environment. The proposed improvements would also eliminate the accident prone, sharp 90-degree curve, along US 175 that currently connects CF Hawn Freeway and SM Wright Freeway.

The proposed improvements would also include the reconstruction of cross-street intersections and the reconstruction of ramps to meet current TxDOT design criteria and to improve traffic operational performance. The proposed project design configurations from IH 45, US 175, and SH 310 are provided below in **Table 2-1**.

TABLE 2-1. PROJECT DESIGN FEATURES

CSJ[1]	ROADWAY	LOCATION[2]		NUMBER OF LANES[3]		TYPICAL SECTIONS[1]
		FROM	TO	MAIN	FRONTAGE ROAD	
0092-01-052	SM Wright Parkway (SM Wright Phase II)	IH 45	US 175/SH 310 (north of Budd Street)	6	0	Typical Section (Sheets 1 & 2)
0197-02-108	CF Hawn Freeway/US 175 (SM Wright Phase I)	SH 310	IH 45	6* & 2 Lane DC's @ IH45	4	Typical Section (Sheets 3 & 4)
0092-14-081	IH 45** (SM Wright Phase I)	CF Hawn Freeway/US 175 (south of Lamar St)	SM Wright Parkway	6	4	Typical Section (Sheets 5 & 6)

Notes:
1. Refer to **Appendix A-4** for CSJ and typical section limits as well as cross street typical sections.
2. Locations are approximate.
3. Variation does not include intersection approaches; Lane configurations represent the total number of lanes.

* Between IH 45 and SH 310, the proposed improvements overlap with the proposed Trinity Parkway Project. Both projects are summarized on *Mobility 2035 Corridor Fact Sheet 11. Mobility 2035* notes that MTP segment 26.20.1 allows for staged improvements. The DC ramps at IH 45 and US 175 frontage road extension to Lamar Street are proposed by both projects and would be constructed and open by the year 2020 as part of the SM Wright Parkway (known as the 'SM Wright Phase I'). The construction of these facilities was formerly referred to as 'Trinity Parkway Phase I.' The DC ramps noted in MTP segment 26.20.1 are a part of the proposed SM Wright project and would not be tolled. The toll components listed under this segment is proposed by the Trinity Parkway Project, and would be constructed and operational between 2020 and 2030. The design year analysis is for the year 2035. Therefore, allowances for the proposed Trinity Parkway improvements have been included during the preliminary engineering and operational analysis of IH 45 and US 175.

**Improvements to IH 45 are included in the 'SM Wright Phase I' portion of the project. The IH 45 freeway segment includes 6 mainlanes plus 2 transitional lanes (8 lanes total). These transitional lanes are added/dropped at the proposed US 175 interchange and would assist in facilitating traffic along the existing 6-lane section up to the existing 6 mainlanes/4 auxiliary lane section north of the SM Wright Freeway interchange.

Appendix A-4, Sheets 1-6 show the design configurations listed in **Table 2-1**. **Sheet 7** of **Appendix A-4** shows the typical cross sections for the proposed reconstruction of the cross-street intersections and ramps improvements. A plan view of the proposed project's design features is shown in **Appendix A-5, Sheets 1-4**. A plan view of the proposed project showing the paving outline and right-of-way (ROW) limits overlaid on an aerial photograph is shown in **Appendix A-6**.

Approximately 31.1 acres of additional ROW would be needed for the construction of the proposed project. ROW would vary from approximately 165 to 658 feet (see **Section 2.3** for additional information regarding ROW requirements).

Schematic plans for the proposed project include provisions for sidewalks along the US 175 (CF Hawn Freeway) frontage roads (**Appendix A-4, Sheet 4)**, which would be typically 6 feet, and the proposed SM Wright Parkway (**Appendix A-4, Sheet 2**), which would be typically 12 feet. The typical sections for the proposed SM Wright Parkway (**see Appendix A-4, Sheet 2**) would include 12-foot shared-use path of 1.5 percent slope on each side of the roadway to accommodate for pedestrian and bicycle travel. The shared-use path would be striped and signed in accordance with the Manual on Uniform Traffic Control Devices (MUTCD), the American Association of State Highway and Transportation Officials (AASHTO) guidance, and the Americans with Disabilities Acct Accessibility Guidelines (ADAAG). In addition, there is a 14-foot wide outer lane (excluding gutter) in each direction to accommodate shared use by bicycles and vehicles. The existing IH 45 frontage roads extend from Lamar Street to north of Pennsylvania Avenue (approximately 0.75 miles). The proposed project would maintain the existing pedestrian bridge across IH 45 (located south of Pennsylvania Avenue). No roadway or pedestrian improvements are proposed to the IH 45 frontage roads. During the final design phase of the project, TxDOT will make every effort to separate the sidewalks from the cross streets and frontage roads as much as possible and all proposed sidewalks would meet Americans with Disabilities Act (ADA) design criteria. **Appendix A-4, Sheet 7** shows the typical cross section diagrams for the proposed frontage roads and cross streets.

The estimated construction cost of the proposed project is $119,700,000, with a total estimated cost of $151,600,000 (Per the fiscal year (FY) 2013-2016 TIP, the Phase I cost estimate is $101,140,000 and the Phase II cost estimate is $45,695,330. The remainder of the cost difference is due to City of Dallas early acquired properties, as detailed in **Appendix C-11**). The estimated date that construction would begin is currently 2014. The proposed project improvements would be constructed in two major phases, SM Wright Phases I and II. SM Wright Phase I (formerly known as 'Trinity Parkway Phase I') involves constructing the improvements to CF Hawn Freeway (US 175 from Lamar Street to east of Bexar Street) and IH 45. In addition, the proposed DC ramps between CF Hawn Freeway and IH 45 would also be constructed during the first phase. SM Wright Phase I would begin in 2014 and is anticipated to be open to traffic in 2017. After SM Wright Phase I is completed, traffic travelling between CF Hawn Freeway and

IH 45 would be allowed to utilize the newly constructed DC ramps. This diversion of traffic to the DCs would allow SM Wright Phase II construction to begin, which involves reconstructing the existing SM Wright Freeway, north of the SH 310 interchange, to a low speed, signalized six-lane urban arterial, known as the proposed SM Wright Parkway. It is currently anticipated that SM Wright Phase II would begin construction in 2017 and would be open to traffic by 2019. Multiple sub phases and steps would be required during both phases of construction. The phasing and completion of construction for the design configurations listed in **Table 2-1** are subject to the availability and mechanism of funding, to be selected at a later date following the project definition process (see **Section 1.2**).

2.2 Need and Purpose

2.2.1 Project Need

Transportation improvements are needed along the existing US 175 (SM Wright Freeway and CF Hawn Freeway) and IH 45 due to design and operational deficiencies, safety concerns, projected population and employment growth in Dallas-Fort Worth (DFW), projected traffic volumes and level of service (LOS), and transportation demand.

Design and Operational Deficiencies

The existing interchange design at SH 310/US 175 does not meet current urban freeway design standards as described in guidelines published by TxDOT[4] and the American Association of State Highway and Transportation Officials (AASHTO).[5] The studied portion of US 175 was constructed in phases in the early 1950s to early 1960s. Transportation improvements are needed to address the design and operational deficiencies of the current roadway, which are discussed in more detail below.

<u>Inadequate Geometry at the US 175/SH 310 Interchange</u>

The US 175 interchange with SH 310 is facilitated by a sharp, 90 degree curvature in the US 175 alignment that only meets a 25 miles per hour (mph) design speed for current design criteria and is signed as 25 mph. This sharp bend in the mainlane alignment has a long history of accidents, and is commonly referred to by commuters as “dead man’s curve.” In 2008, a southbound fuel tanker overturned at this interchange, burned the overhead SH 310 bridge, and required reconstruction of the bridge. In addition to this sharp radius, there are locations through the interchange where shoulders are not provided on either side of US 175. In the case of a freeway incident blocking the mainlanes, the involved vehicle or vehicles do not have an adequate area to maneuver off of the roadway. This creates excessive queuing of traffic and unsafe conditions along the freeway. Furthermore, emergency vehicles do not have easy access to incidents that occur along the freeway. The northwest bound US 175

[4] TxDOT (October 2006), *Roadway Design Manual*.
[5] AASHTO (2004), *A Policy on Geometric Design of Highways and Streets 5th Edition*.

frontage road is discontinuous at the SH 310 interchange as well, impacting local operations and limiting bypass routes during accidents. In addition to the safety concerns listed above, the 25 mph speed through this interchange limits the capacity along US 175 and creates a bottleneck. Bottleneck conditions can also create unsafe conditions resulting in rear-end accidents.

Acceleration, Deceleration, and Ramp Lengths

Drivers must be provided with sufficient distance in order to accelerate or decelerate safely. Some ramps along the existing US 175 corridor do not provide adequate ramp length or adequate acceleration/deceleration lengths at the freeway junctions. Short ramp lengths can cause substantial speed variations for vehicles entering or exiting the freeway. Short acceleration lengths do not allow entering vehicles the needed distance to reach the speeds of freeway vehicles, thus slowing down the mainlane speeds. The friction between freeway vehicles and entering vehicles can cause unsafe and undesirable operational conditions. In addition, short deceleration lengths cause exiting vehicles to slow on the freeway mainlanes, which result in lower freeway speeds and increased congestion.

Interchange Spacing

Currently there are seven interchanges within the US 175 project area. The existing interchange configurations consist primarily of full diamonds and half diamonds. However, some individual ramp access for specific movements has been provided along the US 175 corridor. The interchange configurations in addition to their close spacing creates short weaving distances along the mainlanes which negatively impacts US 175 traffic operations and capacity.

Two-way Frontage Roads

Currently, the segment of US 175 frontage located east of SH 310 and west of Bexar Street (north of the mainlanes) provides two-way access. While advantageous to driver access and convenience, two-way frontage roads are disadvantageous from an operational and safety standpoint. Two-way frontage roads increase conflict points and complicate operations at intersections along the frontage road. Also, this segment of frontage road is discontinuous through the SH 310 interchange.

Safety Concerns

On March 1, 2011, TxDOT provided crash data to be analyzed and included in the Interstate Access Justification Report for this proposed project. Crash data on IH 45 from 2007 to 2010 was analyzed to determine the existing crash severity, crash types, and crash rates present on the interstate. For the IH 45 safety analysis, crashes were analyzed between mile points 17.91 and 19.73 along the interstate.

A total of 223 crashes were recorded in the crash data between 2007 and 2010. Of the total 223 recorded crashes, there were three (1.3 percent) fatality crashes (all of which were single vehicle

collisions with pedestrians), 85 (38.1 percent) injury crashes, 129 (57.8 percent) non-injury crashes, and six (2.7 percent) crashes where crash severity was not provided. The crash severity summary is shown in **Table 2-2**.

TABLE 2-2. IH 45 CRASH SEVERITY SUMMARY

Year	Total Crashes	Crash Severity			
		Fatality	Injury *	Non-Injury	No Information
2007	42	0	17	23	2
2008	58	0	33	25	0
2009	59	2	17	37	*3*
2010	64	1	18	44	1
Total	**223**	**3**	**85**	**129**	**6**
Percent (%) of Total Crashes		**1.3%**	**38.1%**	**57.8%**	**2.7%**
NOTES: * Injury includes incapacitating crashes, non-incapacitating crashes, and possible injury crashes					

The crash data was also tabulated based on crash type to show the types of accidents present on IH 45. Of the 223 recorded crashes on IH 45, there were 66 (25.8 percent) multi-vehicle rear end collisions, 84 (39.4 percent) multi-vehicle angle or sideswipe collisions, 69 (31.8 percent) single vehicle collisions with fixed objects, and four (3.0 percent) single vehicle collisions with pedestrians. The crash type summary is shown in **Table 2-3**.

TABLE 2-3. IH 45 CRASH TYPE SUMMARY

Year	Total Crashes	2+ Vehicles (Rear End)	2+ Vehicles (Angle/Sideswipe)	1 Vehicle (Fixed Object)	1 Vehicle (Pedestrian)
Full Limits of IH 45 Crash Analysis (1.83 miles)					
2007	42	13	15	14	0
2008	58	16	23	18	1
2009	59	16	19	22	2
2010	64	21	27	15	1
Total	**223**	**66**	**84**	**69**	**4**
Percent (%) of Segment Crashes	**-**	**25.8%**	**39.4%**	**31.8%**	**3.0%**
Section 1: IH 45 - 6 Lane Segment, South of Existing US 175 SMW DC's (1.35 miles)					
2007	29	10	11	8	0
2008	48	14	18	16	0
2009	37	8	15	13	1
2010	43	17	14	11	1
Total	**157**	**49**	**58**	**48**	**2**
Percent (%) of Segment Crashes	**-**	**31.2%**	**36.9%**	**30.6%**	**1.3%**
Percent (%) of Total Crashes	**70.4%**				
Section 2: IH 45 - 10 Lane Segment, Between Existing US 175 SMW DC's and IH 30 DC's (0.48 miles)					
2007	13	3	4	6	0
2008	10	2	5	2	1
2009	22	8	4	9	1
2010	21	4	13	4	0
Total	**66**	**17**	**26**	**21**	**2**
Percent (%) of Segment Crashes	**-**	**25.8%**	**39.4%**	**31.8%**	**3.0%**
Percent (%) of Total Crashes	**29.6%**				

A large proportion of the recorded collisions occurred in traffic merging and diverging zones near entrance and exit ramps. This is reflective in the analysis results as 39.8 percent of the accidents were angle or sideswipe type collisions. Additionally, a large portion of IH 45 is on structure with adjacent structural railing. This may represent a large portion of the 31.8 percent of fixed object collisions that were recorded.

The crash data was further divided into two subsections to distinguish the number of lanes present on IH 45: (1) the existing 6-lane segment of IH 45 south of the existing SM Wright Freeway/US 175 direct connect (DC) ramps, and (2) the existing 10-lane segment of IH 45 between the existing SM Wright Freeway/US 175 DC ramps and the existing IH 30 DC ramps.

<u>Section 1: IH 45 – 6 Lane Segment</u>

The existing 6-lane segment of IH 45 south of the existing SM Wright Freeway/US 175 DC ramps to IH 45 recorded 157 crashes between 2007 and 2010. The 157 crashes represent 70.4 percent of the total crashes being analyzed which is proportional to the length of the 6-lane segment of IH 45 over the total IH 45 length being analyzed in this crash analysis (1.35 miles/1.83 miles or 73.8 percent by segment length). Of the 157 recorded crashes, there were 49 (31.2 percent) multi-vehicle rear end collisions, 58 (36.9

percent) multi-vehicle angle or sideswipe collisions, 48 (30.6 percent) single vehicle collisions with fixed objects, and two (1.3 percent) single vehicle collisions with pedestrians.

Section 2: IH 45 – 10 Lane Segment

The existing 10-lane segment of IH 45 between the existing SM Wright Freeway/US 175 DC ramps and the existing IH 30 DC ramps recorded a total of 66 crashes between 2007 and 2010. The 66 crashes represent 29.6 percent of the total crashes being analyzed which is proportional to the length of the 10-lane segment of IH 45 over the total IH 45 length being analyzed in this crash analysis (0.48 miles/1.83 miles or 26.2 percent by segment length). Of these 66 recorded crashes, there were 17 (25.8 percent) multi-vehicle rear end collisions, 26 (39.4 percent) multi-vehicle angle or sideswipe collisions, 21 (31.8 percent) single vehicle collisions with fixed objects, and two (3.0 percent) single vehicle collisions with pedestrians. The crash data was also analyzed to determine the crash rate present on existing IH 45. Crash rates are calculated per hundred million vehicle mile traveled using the following equation:

Crash Rate (per 100 million vehicle miles) = # Crashes x 100,000,000 / Vehicle Miles Traveled

where Vehicles Miles Traveled = ADT x 365 x Segment Length

TxDOT's statewide planning maps provided ADT volumes between 2007 and 2010 along IH 45. Using these ADT volumes and the length of each segment, a total vehicle miles traveled was then tabulated for each year. The summary of IH 45 vehicle miles traveled is shown in **Table 2-4**.

TABLE 2-4. IH 45 VEHICLE MILES TRAVELED SUMMARY

Year	Section 1: IH 45 - 6 Lane Segment			Section 2: IH 45 - 10 Lane Segment			Total
	ADT (Veh/Day)	Length (miles)	Vehicle Miles Traveled (100 million vehicle miles)	ADT (Veh/Day)	Length (miles)	Vehicle Miles Traveled (100 million vehicle miles)	Vehicle Miles Traveled (100 million vehicle miles)
2007	73,000	1.35	0.36	141,000	0.48	0.25	0.61
2008	71,000	1.35	0.35	139,000	0.48	0.25	0.60
2009	69,000	1.35	0.34	136,000	0.48	0.24	0.58
2010	69,000	1.35	0.34	139,000	0.48	0.25	0.59

Crash rates were then measured on IH 45 between 2007 and 2010. The average statewide crash rate for similar urban interstates over the four-year period is 102.21 crashes per 100 million vehicle miles traveled. Over the four-year period, the average crash rate on IH 45 was measured at 94.26 crashes per 100 million vehicle miles traveled. The existing IH 45 corridor recorded, on average, approximately 8 percent fewer crashes than similar urban interstates in Texas. The summary of IH 45 crash rates is shown in **Table 2-5**.

TABLE 2-5. IH 45 CRASH RATE SUMMARY

Year	Total Crashes	Vehicle Miles Traveled (100 million vehicle miles)	Actual Crash Rate (per 100 million vehicle miles)	Statewide Average Crash Rate (per 100 million vehicle miles)
2007	42	0.61	68.93	111.08
2008	58	0.60	97.33	101.15
2009	59	0.58	101.59	99.27
2010	64	0.59	109.20	97.34
Average			**94.26**	**102.21**

Crash data on US 175 from 2007 to 2010 was analyzed to determine the location of the existing crashes present on the freeway. Crash data was analyzed US 175 between mile points 0.00 and 0.51 along the freeway. There were 68 recorded accidents on US 175 between 2007 and 2010. Of the total 68 accidents recorded, 23 occurred between mile point 0.00 and 0.06 which is the location of the accident prone 90 degree bend in the US 175 alignment. The remaining portion of US 175 between mile point 0.06 and 0.51 recorded 45 crashes between 2007 and 2010. The limits of the existing accident prone curve along US 175 accounts for approximately 12 percent of the crash data analysis by length; however, the location accounts for 34 percent of the total crashes. While none of the 23 total recorded crashes at this connection recorded fatalities, probably due to the 25 mph speed required to traverse the curve, 6 crashes involved overturning vehicles and another eight crashes involved hitting a fixed object (presumably the traffic barrier adjacent to the roadway). Also, in 2008, a southbound fuel tanker overturned at this interchange, burned the overhead SH 310 bridge, and required reconstruction of the bridge.

While the crash data shows that existing IH 45 yielded a crash rate, on average, 8 percent less than the existing statewide average crash rate for similar urban interstates, the crash rate trends in opposing directions over the four year analysis period. The statewide average crash rate is decreasing each year by approximately 4.58 crashes per 100 million vehicle miles traveled. This descending trend could likely represent the improvements being introduced to other urban interstates in Texas. The actual crash rate on IH 45 is on the rise by approximately 13.42 crashes per 100 million vehicle miles traveled each year.

The NCTCOG 2035 traffic data show approximately 142,000 ADT on the six-lane section of IH 45 and 183,000 ADT on the ten-lane section of IH 45. These volumes will substantially increase the vehicle miles traveled on the corridor to 102 million vehicle miles expected in 2035. Based on the average crash rate of 94.26, the future traffic projections almost double the average number of crashes on IH 45 from 56 crashes per year (measured between 2007 and 2010) to 92 crashes per year (2035). Without transportation improvements in the project area, there would be an increasing trend in crash rates.

Projected Population and Employment Growth

Continued growth in population and employment has created a need for improvements to the transportation system in the Dallas-Fort Worth (DFW) area. According to the demographic forecast prepared by the NCTCOG, the population for the twelve counties surrounding the DFW urban core (includes Wise, Denton, Collin, Hunt, Parker, Dallas, Rockwall, Tarrant, Kaufman, Hood, Johnson, and Ellis Counties) is anticipated to grow to an estimated 10.5 million persons by 2040, supporting approximately 6.6 million jobs. **Table 2-6** summarizes household population and employment projections for these ten counties surrounding the DFW urban core.

TABLE 2-6. NORTH CENTRAL TEXAS REGIONAL PROJECTIONS

Year	2005	2035	2040	Percent Change 2005-2035	Percent Change 2005-2040
Household* Population	5,777,272	9,833,378	10,543,336	70.2	82.5
Employment	3,624,051	6,177,016	6,606,515	70.4	82.3
Source: NCTCOG, 2040 Demographic Forecast. (http://www.nctcog.org/ris/demographics/population.asp). **Note:** * excludes in group quarters such as dormitories, correctional facilities and nursing homes.					

Table 2-7 illustrates the percent increase in population from 2005 and the forecasted percent increase in population in both 2035 and 2040 for the City of Dallas and Dallas County.

TABLE 2-7. POPULATION TRENDS WITHIN AND NEAR THE PROPOSED PROJECT AREA

Location	2005	2035 Projected	2040 Projected	Percent Increase in Population 2005-2035	Percent Increase in Population 2005-2040
Dallas	1,307,899	1,652,479	1,713,662	26.3	31.0
Dallas County	2,273,250	3,125,282	3,265,190	37.5	43.6
Source: NCTCOG 2040 Demographic Forecast: http://www.nctcog.org/ris/demographics/forecast/County2040.pdf, accessed March 2012.					

Projected Traffic Volumes and Level of Service

A collaborative effort between the NCTCOG and TxDOT's TPP Division was utilized to develop key inputs and factors for the 2035 traffic projections. In accordance with TPP guidelines, the Division does not develop traffic projections for toll facilities. Therefore, TxDOT requested that NCTCOG develop design year 2035 traffic projections for the proposed project and the interaction with Trinity Parkway. TPP provided input on traffic data for the free roadway facilities. These inputs were taken into account by the NCTCOG along with the *Mobility 2035* traffic model, which includes the proposed Trinity Parkway project.

A portion of the project area overlaps with the proposed Trinity Parkway project. The Trinity Parkway proposes additional DC ramp connections with IH 45 in the vicinity of the proposed IH 45/US 175 interchange. In addition, it also would connect with US 175 east of IH 45. *Mobility 2035* lists the Trinity

Parkway as being operational by the year 2030; therefore, the Trinity Parkway improvements would need to be considered as part of the 2035 operational analyses.

NCTCOG utilized TPP's input and the *Mobility 2035* model to develop design year 2035 average daily traffic (ADT) volumes for the project's mainlanes. The NCTCOG approved 2035 ADT volumes were provided to TxDOT Dallas District on December 21, 2011. **Table 2-8** lists the TxDOT 2010 traffic counts and NCTCOG anticipated 2035 ADT volumes for the project area. As shown in **Table 2-8**, ADT volumes within the project area are anticipated to grow 127 percent along US 175 and 149 percent along IH 45, further illustrating the need for mobility and capacity improvements.

TABLE 2-8. 2010 AND 2035 ADT VOLUMES IN THE PROPOSED PROJECT AREA

Roadway Section	ADT in Vehicles Per Day (vpd)[1]		Percent (%) Increase 2010-2035
	2010[2]	2035[3]	
US 175	82,000	186,200	127%
IH 45	69,000	171,800	149%

Notes:
1. ADT includes both northbound and southbound mainlanes
2. Source of 2010 counts is TxDOT Statewide Planning Maps
3. Source of 2035 counts is NCTCOG (December 2011)

Segments of highway or roadway may be evaluated for present and/or future traffic handling capacity through use of standardized LOS grading systems. The LOS is a qualitative measure of describing operational conditions within a traffic stream or at an intersection, generally described in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. LOS measures vary, depending on facility type. For interstates and divided highways, LOS is determined as a function of density; that is, the number of vehicles per lane per mile of roadway. For arterial streets, LOS determination is based on the average travel speed of the vehicles traveling the defined section. At intersections, both signalized and unsignalized, LOS is a function of delay. For two-lane highways, LOS is determined according to two measures: percent time spent following (which represents the freedom to maneuver and the comfort and convenience of travel) and average travel speed.[6] The LOS ratings are designated A through F (A being the best and F the worst) and cover the entire range of traffic operations that may occur. The definitions of LOS A through F are presented in **Table 2-9**.

[6] TRB (2000), *Highway Capacity Manual*.

TABLE 2-9. LEVELS OF SERVICE

LOS	DEFINITION
A	Highest quality of service. Free traffic flow, low volume, and densities. Little or no restriction on maneuverability or speed. 55+ mph. No delay.
B	Stable traffic flow, speed becoming slightly restricted. Low restriction on maneuverability. 50 mph. No delay.
C	Stable traffic flow, but less freedom to select speed, change lanes or pass. Density increasing. 45 mph. Minimal delay.
D	Speeds tolerable, but subject to sudden and considerable variation. 40 mph. Minimal delay.
E	Unstable traffic flows with rapidly fluctuating speeds and flow rates. Short headways, low maneuverability, and low driver comfort. 35 mph. Considerable delay.
F	Forced traffic flow. Speed and flow may drop to zero with high densities. Less than 25 mph. Considerable delay.
Source: *Transportation Research* Board (TRB), *Highway Capacity Manual*, 2000.	

Generally, when a roadway is operating below capacity during peak hours, no improvements or travel demand reductions are warranted because the roadway is considered to be operating at an acceptable LOS. When traffic volumes approach a roadway's capacity, substantial delays are experienced with stop-and-go movements taking place along the roadway. When this occurs, any incident (e.g. a disabled car pulled onto the shoulder or inclement weather) is likely to reduce the roadway's capacity enough to produce excessive congestion and delay. When a roadway is over capacity, a breakdown in flow occurs.

Traffic operations were evaluated for the year 2035 (design year) if the roadway improvements are implemented and if the improvements are not implemented. The analysis was conducted according to procedures outlined in the Transportation Research Board's (TRB) *Highway Capacity Manual*[7] and using traffic volume data obtained by a collaborative effort between the NCTCOG and TxDOT's TPP Division. In 2035, SM Wright Freeway/US 175 would operate at LOS E and F if no transportation improvements are implemented. Roadway improvements are needed to manage the projected traffic volumes and decrease of LOS.

Transportation Demand

In many instances, rapid growth in the DFW Metropolitan Area is surpassing the existing transportation system's ability to accommodate it, resulting in increased traffic congestion. Transportation demand for the region was approximately 176 million vehicle miles traveled (VMT) in 2012, meaning that on a typical weekday, area residents travel approximately 176 million miles on area freeways, arterials, and local streets. The regional traffic demand is expected to increase to approximately 279 million VMT in 2035. This is an approximate 63 percent increase in VMT from 2012 to 2035 in the DFW Metropolitan Area.

The IH 45 and US 175 corridors serve as major southeastern gateways to the City of Dallas. The US 175 corridor is the primary connection between the Dallas Central Business District, southeastern Dallas County, and Kaufman County. The IH 45 corridor also provides a major connection between the Dallas

[7] Transportation Research Board (2000). *Highway Capacity Manual*, (SR 209).

Central Business District, southeastern Dallas County, Ellis County, and locations as far south as the Houston metropolitan area. The existing US 175 and the IH 45 corridors are currently utilized by commuters for local, regional, and/or state-wide transportation needs.

The performance of the existing and planned future transportation system in Dallas County was measured and modeled for the regional Metropolitan Transportation Plan (MTP), also known as *Mobility 2035: The Metropolitan Transportation Plan for the Dallas-Fort Worth Area*, prepared by NCTCOG.[8] The Dallas Fort-Worth Regional Travel Model (DFWRTM) was used to identify and measure the extent and duration of traffic congestion. **Table 2-10** summarizes Dallas County's model results for performance characteristics for the 2012 baseline transportation system and the 2035 planned transportation system as described in *Mobility 2035 Transportation Plan.*

TABLE 2-10. DFWRTM PERFORMANCE SUMMARY FOR DALLAS COUNTY

Performance Measure	2012 Transportation System (Baseline)	2035 Transportation System
Population	2,443,148	3,125,282
Employment	2,146,783	2,854,287
VMT (Millions)	67,988,931	94,857,417
Hourly Capacity (Millions of Miles)	12,749,885	14,828,437
Vehicle Hours Spent in Delay (Daily)	543,392	983,449
Percent Increase in Travel Time Due to Congestion[1]	38.5%	47.9%
Annual Cost of Congestion (Billions)	$4.5	$10.1

Source: NCTCOG, *Mobility 2035 Transportation Plan* , Appendix F, Regional Performance
Note: 1. Congestion Levels: 0-19%, no congestion; 20-34%, light; 35-49%, moderate; 50% and greater, severe.

US 175 and IH 45 are important for the transportation of people and goods as they serve as major multi-directional transportation corridors through the south and southeastern portions of the City of Dallas and Dallas County. The existing SM Wright Freeway serves as an important local and regional access facility due to its proximity to the downtown Dallas Central Business District, Fair Park, the Trinity Corridor, and other large commercial developments throughout the City of Dallas. In addition, both US 175 and IH 45 provide vital links between the Dallas Central Business District and Dallas, Kaufman, and Ellis Counties. They also connect to other major radial freeways such as Loop 12 and portions of IH 20 in Dallas County. Improvements in the project area are needed to accommodate the future demand to the existing transportation network.

[8] http://www.nctcog.org/trans/mtp/2035/index.asp

2.2.2 Project Purpose

The purposes of the proposed project are to improve safety, operability, connections, and mobility; be compatible with local, county, and regional needs and plans; and to minimize social, economic, and environmental effects on the human environment.

The proposed project purpose were determined by 1) previous Trinity Parkway transportation studies, which directly impacted the IH 45 and US 175 corridors, 2) recent requests submitted to TxDOT, by local elected officials and transportation agency leaders, to transform/downsize the SM Wright Freeway, and 3) evidence of reoccurring collisions involving the sharp curve on US 175 at the SH 310 interchange. In addition, the concept of downsizing the existing SM Wright Freeway occurred during the southern sector elected officials meetings conducted during 2003-2004 as part of the City of Dallas' "Balanced Vision Plan" studies. All of the above listed purposes are described in the sections below.

Improve Safety

Transportation safety is of the utmost importance for the traveling public and the proposed project would facilitate safe travel. The proposed project would provide a safer and more secure driving experience for motorists. The existing alignment of US 175 contains a small radius curve connection through an approximate 90-degree curve at the US 175 interchange with SH 310. The proposed improvements would eliminate this accident-prone connection by reconstructing CF Hawn Freeway/US 175 to overpass proposed SM Wright Parkway and SH 310 and extending US 175 to connect to IH 45 through the proposed DC ramps. The proposed project would vastly improve the safety along the US 175 corridor by removing the accident-prone curve at the US 175 interchange with SH 310.

Improve Operability, Connections, and Mobility

Overall, the NCTCOG performance reports do not provide a clear indication of substantial or widespread improvement to LOS for the Build Alternative (see **Section 2.2.1**). However, the slight improvements of LOS show the project would improve operability, connections, and mobility.

ADT volumes within the project area are anticipated to grow 127 percent along US 175 and 149 percent along IH 45, further illustrating the need for mobility improvements. The realignment of the existing US 175 freeway as well as the removal of the 25 mph, accident-prone curve at the US 175/SH 310 interchange, would enhance operations of the US 175 facility by improving the design speeds through the area. This realignment of US 175 would manage congestion in the freeway-to-freeway traffic traveling west from US 175 to IH 45 and east from IH 45 to US 175. In addition, the associated improvements to IH 45 would improve the existing weaving on the facility, from less than half a mile to approximately two miles. The downsizing and downgrading of the existing SM Wright Freeway to a six-lane arterial, known as the proposed SM Wright Parkway, would provide an alternate route throughout the area for local

traffic, which would also assist in managing traffic congestion. Additionally, the proposed project would improve pedestrian and bicycle mobility and connections within the project limits.

Compatibility with Local, County, and Regional Needs and Plans

The proposed project would be compatible with local, county, and regional planning. Local government officials and citizens have been active in considering the potential impacts (both beneficial and adverse) associated with the proposed project. A more detailed accounting of the public involvement process thus far is described in **Section 2.6**. From a regional perspective, the proposed project improvements are consistent with the *Mobility 2035* MTP and the FY 2013-2016 Transportation Improvement Plan (TIP).

Minimize Social, Economic, and Environmental Effects on the Human Environment

The proposed project would avoid or minimize impacts to local communities and natural resources in the project area. As previously stated, active participation has occurred among public officials and citizens in the consideration of potential impacts (beneficial and/or adverse) associated with the proposed project. Additional planning for the proposed project would continue to emphasize avoidance, minimization, and mitigation of potential adverse impacts to both human communities and the natural environment.

2.3 ROW Requirements and Utility

Existing ROW along SM Wright Freeway/US 175 varies from approximately 165 to 467 feet. The proposed ROW for the proposed SM Wright Parkway varies from 165 to 450 feet.

The existing ROW for the CF Hawn Freeway/US 175 within the project limits varies from approximately 293 to 473 feet. The proposed ROW width along CF Hawn Freeway/US 175 varies from approximately 302 to 500 feet.

The existing ROW along IH 45 within the project limits varies from approximately 181 to 630 feet. The proposed ROW width for the IH 45 improvements varies from approximately 181 to 658 feet.

Approximately 31.1 acres of ROW would be required to construct the proposed project, of which approximately 4.99 acres are undeveloped, 0.7 acres are developed residential, and 24.38 acres are developed commercial. Required easements include approximately 1.04 acres on existing Union Pacific Railroad (UPRR) property, which would require a joint use easement.

Other than potential temporary interruptions in service, no adverse impacts (i.e. termination of service or long-term interruptions) to utilities, such as electrical, gas, phone, water, or sewer are expected to occur from the construction of the proposed project. The proposed project may require minor adjustments to existing aerial utilities. Other utilities (e.g., subterranean utilities) may also require adjustments. Utility

adjustments would be provided for by the affected utility. Schedules for any utility adjustments would be closely coordinated to minimize disruptions and inconvenience to customers.

2.4 Related Studies and Relevant Documents to the Proposed Improvements

Trinity Parkway Environmental Impact Statement

The Trinity Parkway is a proposed new toll road located in the City of Dallas. The Trinity Parkway would provide a reliever route generally to the west of downtown Dallas, connecting from the IH-35E/SH-183 interchange in the north to the US-175/SH-310 interchange in the south, a distance of approximately nine miles. The FHWA, the North Texas Tollway Authority (NTTA), TxDOT, and the City of Dallas are sponsors of the proposed Trinity Parkway project. The U.S. Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (USACE) are cooperating agencies for the project. A Draft Environmental Impact Statement (DEIS) for the proposed Trinity Parkway project was circulated in February 2005 by the FHWA. A Public Hearing for the DEIS was conducted on March 29, 2005 and public comments were received in the period February 10 through April 8, 2005. A supplement to the 2005 DEIS, called a Supplemental Draft Environmental Impact Statement (SDEIS) containing contents of the DEIS in their entirety along with new and revised material was completed and approved in February 2009. A Public Hearing for the SDEIS was held in May 2009. Comments received from agencies and the public on the SDEIS were addressed and will be published in the Final Environmental Impact Statement (FEIS). Following the Trinity Parkway Public Hearing for the SDEIS, the FHWA requested another environmental document, referred to as a Limited Scope Supplemental (LSS) to the SDEIS. The purpose of the LSS is to evaluate levee deficiencies identified in the USACE's 2009 *Periodic Inspection Report, Dallas Floodway, Trinity River, Dallas, Dallas County, Texas* (Report No. 9) and future levee remediation plans being developed by the City and USACE as they may relate to Trinity Parkway. In addition, prior to recommending a preferred alternative, the FHWA sought further evaluation in the LSS and another opportunity for public comment on the practicability of the Trinity Parkway alternatives in accordance with Executive Order (EO) 11988 (*Floodplain Management*) and EO 11990 (*Protection of Wetlands*). The LSS was approved by FHWA on March 7, 2012. The LSS Public Hearing was held on Tuesday, May 8, 2012 at the Dallas Convention Center Arena.

After evaluating the project's impacts and considering the comments from all sources, the FHWA recommended preferred alternative for the proposed Trinity Parkway will be evaluated in the FEIS. In the event a build alternative is selected when the FHWA issues a record of decision (ROD), the receipt of the required permits, the execution of any necessary funding agreements, and authorization by the NTTA Board of Directors or Texas Transportation Commission, would permit the proposed action to proceed to the final design and construction phases. The anticipated ROD issued by the FHWA would be made in accordance with 23 USC Section 109(h), which directs that final project decisions be made in the best

overall public interest, taking into account the need for fast, safe, and efficient transportation, and public services.

The proposed project and the proposed Trinity Parkway both include connections to IH 45 and improvements at the CF Hawn Freeway (US 175)/SH 310 interchange that require coordination. For example, the southern end of Trinity Parkway would have the mainlanes cross under IH 45 and then locate them between the new DC ramps between CF Hawn Freeway (US 175) and IH 45 that are part of the proposed project (Note: As previously discussed, this component of the proposed project is termed 'SM Wright Phase I' and is formerly known as 'Trinity Parkway Phase I'). Nevertheless, the proposed projects both have independent utility and would not preclude other foreseeable transportation improvements within the proposed project area.

Dallas Floodway Extension (DFE)

The USACE Dallas Floodway Extension (DFE) project provides for an extension of flood protection improvements downstream of the existing south end of the Dallas Floodway levee system. Major components of the project include construction of a chain of wetlands to supplement overbank flow capacity and extension of the levee system to provide flood protection for developed areas. The levee extension would involve construction of levees along the Union Pacific Railroad (UPRR) parallel to Lamar Street in the proposed project area from the DART Bridge downstream to William Blair, Jr. Park (formerly Rochester Park), and on the western edge of the floodplain around the Cadillac Heights neighborhood. Other elements of the project include recreation features, such as trails and access areas, as well as ecosystem restoration and environmental mitigation features. The DFE project has been separately processed through an EIS, and a ROD for the project was signed on December 1, 1999. The USACE produced a *Final Supplement No. 1* to the EIS for the DFE project in 2003 and concluded that nothing in the analysis indicated the recommended plan should be changed from the plan identified in the 1999 ROD. The DFE project has independent purpose and utility, focused primarily on flood control and environmental restoration. It is intended to be separately funded by the City of Dallas and the USACE.

In January 2012, the USACE informed TxDOT that a supplementary document for the DFE may be necessary. Coordination between the two agencies regarding the DFE and the proposed project is currently ongoing.

Trinity River Corridor Comprehensive Land Use Plan

The *Trinity River Corridor Comprehensive Land Use Plan Final Report* was adopted in March 2005. The *Preferred Land Use Plan* serves as the long-range land use and development plan for the corridor. The Final Report divides the corridor into seven Planning Districts and 23 study areas in order to communicate appropriate land use planning and design policies for each part of the corridor. For each

study area, a Land Use Opportunity Plan shows specific development opportunities in the study area, based on expected market response to the city's Trinity River Corridor Project's major public improvements. Prototype Sites located within a district are also discussed and reflect examples of the types of site development that can occur consistent with the plan's policy direction.

The project area is within the North Trinity Forest Planning District as described in this plan. The North Trinity Forest Planning District is cited as a primary gateway into the Great Trinity Forest and other parts of the Trinity River Corridor. The greenbelt through this district not only serves as a northern gateway into the river woodlands, but also brings together communities on both sides of the river with a shared amenity.

Trinity River Corridor Balanced Vision Plan (BVP)

The *Balanced Vision Plan for the Trinity River Corridor* is a conceptual master plan developed by the City of Dallas in 2003 for extensive development of recreational facilities, environmental restoration, and lakes for the Dallas Floodway. The plan represents a ten-year vision for the Dallas Floodway to be achieved with city and federal/state partnerships. The BVP study was initiated by City of Dallas Mayor Laura Miller, former Dallas County Judge Lee Jackson, and interested citizens to take a new look at the possibilities for the future of the Trinity River Corridor. The objectives of this study were to review and critique previous study efforts and to propose an urban design vision plan for the corridor.

Section 5141 of the Water Resources Development Act (WRDA) of 2007 authorized the implementation of the City of Dallas BVP and Interior Drainage Plan components if the USACE determines they are technically sound and environmentally acceptable. On October 9, 2009, the USACE issued a Notice of Intent to prepare a DEIS in response to a U.S. Senate Committee on Environment and Public Works Resolution, dated April 22, 1988, and Section 5141 of the WRDA of 2007 seeking analysis of the potential comprehensive environmental consequences of the proposed improvements for the Dallas Floodway system.[9]

Forward Dallas! Long Range Plan

Comprehensive Plan: Forward Dallas! Let's Build our Future - The City of Dallas, as adopted on June 14, 2006, is a citywide comprehensive plan to guide growth and development. Related to the proposed project, the comprehensive plan incorporates many elements of the previously cited studies *Trinity River Corridor Comprehensive Land Use Plan* and *A Balanced Vision Plan for the Trinity River Corridor*. The purpose is to guide development, creating a city with many neighborhoods of unique character, safe parks, bustling transit centers, a thriving urban downtown and excellent employment opportunities. The

[9] Federal Register Vol. 74, No. 195, October, 2009.

plan outlines a long-range vision for the city that focuses on guiding and integrating land use, transportation, and economic development.

Land use designations within the proposed project area as presented on the Land Use 2002 map in *Forward Dallas!* include predominantly single-family residential land use within the northern portion of the proposed project and some industrial/retail within the southern portion of the proposed project and well as to the west of IH 45. The Vision Illustration in *Forward Dallas!* depicts the proposed project as passing adjacent to residential and urban neighborhoods for most of its length, with areas of mixed-use development, floodplains, and open spaces to the south.

Regional Rail Corridor Study and the Regional Transit Initiative

According to NCTCOG, the proven ability of rail service to improve mobility will play a crucial role in meeting the future transportation needs of the region. The NCTCOG's *Regional Rail Corridor Study*[10] recommends expanding regional rail service in the DFW Metropolitan Area, including service within the proposed project area. The *Regional Rail Corridor Study and Regional Transit Initiative*[11] recommended the formation of a Regional Rail Authority. The proposed structure would include the continued growth of the Dallas Area Rapid Transit (DART), the Fort Worth Transportation Authority (The T), along with a new Regional Rail Authority.

South Dallas/Fair Park Economic Development Corridor Plan

The *South Dallas/Fair Park Economic Development Corridor Plan*[12] study area is generally bounded by the UPRR along the north, the Southern Pacific Railroad along the eastern edge to the existing CF Hawn Freeway, then along CF Hawn to the DP&L easement, and along the DP&L easement to the existing SM Wright Freeway. The southwestern boundary is the Southern Pacific Railroad, parallel to and west of Lamar Street. The northwestern boundary is the Santa Fe Railroad and R.L. Thornton Freeway.

In February of 2000, the Dallas City Council passed a resolution establishing a moratorium on the issuance of building permits and certificates of occupancy for a number of listed uses located in the South Dallas/Fair Park Community. The concentration of these uses within the community was deemed to have had a negative impact by disrupting residential neighborhoods, discouraging business development, promoting crime, and causing urban blight. During the moratorium, the city initiated Phase One during which time the city performed appropriate analyses, conducted hearings, evaluated alternatives, and prepared recommendations on the proper zoning in South Dallas/Fair Park that would address the

[10] NCTCOG (July 2005), *Regional Rail Corridor Study*, Study Report, http://www.nctcog.org/trans/transit/planning/rrcs/index.asp.
[11] NCTCOG (2004), Regional *Transit Initiative*, http://www.nctcog.org/trans/transit/planning/rti/index.asp.
[12] South Dallas/Fair Park Economic Development Corridor Plan. http://southerndallas.org/documents/planning/9%20South%20Dallas%20Fair%20Park/South%20Dallas%20Fair%20Park%20Economic%20Development%20Corridor%20Plan%202001.pdf

concerns related to these uses. The Phase One Report documented existing conditions within South Dallas/Fair Park in the areas of land use, Texas Alcoholic Beverage Commission (TABC) permit data, regulatory impacts, crime, and code compliance. The Phase One Report documented the results of these analyses and recommended the creation of a Planned Development District (PDD) and an economic development strategy focusing on the major corridors in South Dallas.

The City of Dallas then moved to implement the recommendations of Phase One with a Phase Two Plan. In January 2001, the city initiated Phase Two, a two-pronged strategy to assist in the revitalization of the South Dallas/Fair Park Community. The two goals of Phase Two were to:

1. Address impacts of high intensity land uses along commercial corridors in adjacent residential neighborhoods through a Planned Development District.
2. Create economic development strategies to encourage desirable development along the business corridors.

The *South Dallas/Fair Park Economic Development Corridor Plan* study report contains strategies to encourage revitalization of the major commercial corridors in accordance with the land use plan embodied in the Planned Development District (PDD). The report is structured into seven main areas:

1. Analysis of Current Conditions
2. Analysis of the Impacts of the Planned Development District
3. Review of Current Revitalization Initiatives
4. Fundamental Objectives Guiding Corridor
5. Strategies for Revitalization
6. Development Opportunity Sites
7. Development Opportunity Site Illustrations

The *South Dallas/Fair Park Economic Development Corridor Plan* study report presents the basic economic development revitalization strategy recommendations needed to address commercial corridor issues identified for South Dallas/Fair Park. The report also offers conceptual frameworks for developing and implementing the strategies more fully and ensuring that the basic principles are follows.

NCTCOG's Metropolitan Transportation Plan

As generated and maintained by the NCTCOG, there have been eleven MTPs in the DFW region starting in 1974. The current plan, adopted on March 10, 2011 by the RTC of the NCTCOG, is titled *Mobility 2035: The Metropolitan Transportation Plan for the Dallas-Fort Worth Area.*[13] On July 14, 2011, this plan was found to conform to the SIP. The *Mobility 2035 Transportation Plan* presents a system of

[13] *Mobility 2035* was determined on July 14, 2011 to meet all the requirements for conformity under the Clean Air Act Amendments (CAAA) of 1990.

transportation improvements needed to maintain mobility in the DFW Metropolitan Area through the year 2035, and serves as a guide for the expenditure of state and federal funds for the region. Its development was coordinated among local governments, transit authorities, NTTA, and TxDOT. The plan was formulated through a process of forecasting future travel demand, evaluating system alternatives, and selecting options, which best meet the mobility needs of the region. The proposed project is listed in *Mobility 2035 Transportation Plan* as a part of the proposed SM Wright Parkway and proposed Trinity Parkway improvements (see **Appendix F-1**).

Transportation Improvement Program

The NCTCOG FY 2013-2016 Transportation Improvement Program (TIP) [14] for the DFW Metropolitan Area is a staged, multi-year program of projects proposed for funding by federal, state, and local sources within the DFW Metropolitan Area. The TIP is developed by the NCTCOG's RTC in cooperation with local governments, TxDOT, NTTA, and local transportation authorities. The projects included within the FY 2013-2016 TIP were selected to implement improvements consistent with the *Mobility 2035 Transportation Plan*. Roadway improvement plans for the study area identified within the TIP may provide additional traffic-carrying capability to respond to the projected population and employment growth. The proposed project improvements are consistent with the FY 2013-2016 TIP, which received RTC approval on April 12, 2012. The U.S. Department of Transportation (USDOT) (FHWA/Federal Transit Administration [FTA]) found the MTP to conform to the SIP on July 14, 2011 and found the TIP to conform on November 1, 2012.

The appropriate FY 2013-2016 TIP pages are provided in **Appendix F-2**. See **Appendix F-3** for a figure depicting MTP reference numbers and limits (per the *Mobility 2035 Network Listings, 2011 Transportation Conformity, Appendix 10.8: Roadway System [Capacity Staging]*) as well as the CSJs within the proposed project limits.

2.5 Logical Termini

As previously discussed, the proposed project includes improvements to the SM Wright Freeway/US 175 from IH 45 to SH 310 (approximately 2.2 miles), and the realignment of the CF Hawn Freeway segment of US 175 with the construction of new DC ramps between CF Hawn Freeway/US 175 and IH 45 (approximately 1.5 miles). In addition, the realignment of the CF Hawn Freeway and the construction of the DC ramps to IH 45 would necessitate the construction of a new interchange with IH 45 and the widening/restriping of IH 45 from south of Lamar Street to SM Wright Freeway/US 175 (approximately 2.3 miles). The proposed project has independent utility and would not preclude other foreseeable transportation improvements within the project area.

[14] The FY 2013-2016 TIP was determined on November 1, 2012 to meet all the requirements for a conformity under the Clean Air Act Amendments (CAAA) of 1990.

2.6 Public Involvement

The proposed project was initially investigated as part of the *Trinity Corridor Major Investment Study* (MIS) in 1997. The proposed project was also discussed within the *Trinity Corridor Balanced Vision Plan*, dated 2003 (**Section 2.5**). In addition, the project was discussed and further developed as a TxDOT project during the planning of the proposed Trinity Parkway project that has been included as part of the NCTCOG's Metropolitan Transportation Plan for over a decade. Interest in the proposed project was accelerated by the development of the Trinity Parkway DEIS and the SDEIS.

Since 2006, TxDOT's focus for the proposed project has been primarily on the downsizing of the existing SM Wright Freeway from a six-lane freeway with frontage roads to a low speed, urban arterial. In order to gather valuable input from the surrounding community and to actively involve the various project stakeholders in the project development process, a Stakeholder Work Group comprised of representatives from TxDOT, stakeholder agencies, local government, and local community group leaders was formed in 2008. This stakeholder group met a total of four times on March 31, 2008, September 9, 2008, December 9, 2008, and January 13, 2009 at the Missionary Baptist Church. During these Stakeholder Work Group meetings, items such as aesthetics, community priorities, potential alignment alternatives, schematic design, and environmental issues were discussed and evaluated. The development of potential alignment alternatives during these meetings was an iterative process involving active collaboration between stakeholders, project design engineers, and TxDOT.

The following entities were invited as participants in the Stakeholder Work Group meetings:

- South Boulevard/Park Row Historic District
- Wendelkin/Discoll Neighborhood Association
- Queen City Neighborhood Association
- Forest Heights Neighborhood Association
- SouthFair Community Development Corp.
- Forest Heights Neighborhood Development Corp.
- Innercity Community Development Corp.
- St. Phillip's School and Community Center
- H.S. Thompson Elementary School (DISD)
- MLK, Jr. Elementary School (DISD)
- Ideal Neighborhood Association
- Dallas Black Chamber of Commerce
- Grace & Mercy Missionary Baptist Church
- Major commercial property owners
- DHA-Turner Courts
- DHA-Rhoades Terrace
- Dallas Black Chamber of Commerce
- Grace & Mercy Missionary Baptist Church
- Major commercial property owners
- Peoples Missionary Baptist Church
- Greater New Zion Baptist Church
- New Hope Baptist Church
- South Dallas Baptist Church
- South Dallas Nursing Home
- Clean South Dallas
- T.R. Hoover CDC
- Peoples Missionary Baptist Church
- DHA-Park Manor

In addition to the above-mentioned entities, various staff members from the NTTA, DART, TxDOT, NCTCOG, and the City of Dallas were also invited to the Stakeholder Work Group meetings.

A detailed description of the various public, stakeholder, and general project meetings relating to the proposed project, including locations and various meeting topics, is provided in **Table 2-11**.

TABLE 2-11. 2008-2012 PUBLIC, STAKEHOLDER, AND PROJECT MEETINGS RELATING TO THE PROPOSED PROJECT

Meeting Date	Meeting Type	Location	Attendees	Topics Discussed
March 31, 2008	Stakeholder Work Group #1	Missionary Baptist Church	Community Workgroup, City of Dallas Representatives and TxDOT Project Team	Project Purpose and Need, Alternatives, survey on community priorities
September 9, 2008	Stakeholder Work Group #2	Missionary Baptist Church	Community Workgroup, City of Dallas Representatives and TxDOT Project Team	Adjacent land uses, aesthetic potential, additional project area
October 14, 2008	Community Meeting for Councilwoman Carolyn Davis	Missionary Baptist Church	Community Workgroup, TxDOT, City of Dallas Representatives, and invited Guests of Councilwoman Davis	Briefing on the Trinity River Corridor Update
December 9, 2008	Stakeholder Work Group #3	Missionary Baptist Church	Community Workgroup, City of Dallas Representatives and TxDOT Project Team	Design Alternatives, side street/cross street access
February 5, 2008	Dallas City Council Briefing	Dallas City Hall Council Chambers	City Council Members, TxDOT Project Team	Project Purpose and Need, progress to date, aesthetic design components
November 18, 2008	Briefing for Churches United Luncheon	Missionary Baptist Church	Local Pastors, Representatives and TxDOT Project Team	Overview of project, project process, discussion of traffic, roadway concepts, next steps in the planning process
January 13, 2009	Stakeholder Work Group #4	Missionary Baptist Church	Community Workgroup, City of Dallas Representatives and TxDOT Project Team	Alternatives and choose preferred alignment
February 19, 2009	Briefing	Representative Eddie Bernice Johnson's office	Unify South Dallas Community Leader, City of Dallas Staff, TxDOT Project Team, Representative Eddie Bernice Johnson Staff	Project Overview, Community Planning Process, Relation to DiMambro's South Dallas Action Plan, Next Steps in Planning Process
April 28, 2009	Public Meeting #1	MLK Senior Center	General Public	Present preferred alignment
March 8, 2010	Interagency Coordination Meeting	TxDOT Dallas District	Representatives from City of Dallas, FHWA, NTTA, NCTCOG, TxDOT ENV, TxDOT Project Team	Project overview, design analysis, schedule, and other topics
March 8, 2010	Dallas City Council Briefing	Dallas City Hall Council Chambers	City Council Members, TxDOT Project Team, representative from NCTCOG	Review Project Need, Update on Planning Process, Update on Community Involvement, Update on Transportation Alternatives, Discussion of Potential Funding Sources, Next Steps in Planning Process

TABLE 2-11. 2008-2012 PUBLIC, STAKEHOLDER, AND PROJECT MEETINGS RELATING TO THE PROPOSED PROJECT

Meeting Date	Meeting Type	Location	Attendees	Topics Discussed
March 30, 2010	Public Meeting #2	MLK Senior Center	General Public	Present alternatives for IH 45 direct connect ramps from U.S. 175/SH 310 to IH 45, review preferred alignment on SM Wright, view potential range of aesthetic improvements
April 20, 2010	Briefing to Property Owners	TxDOT Dallas District	J.B. Brown, Glenn Bragg, A.E. Arrington, Elwin Johnson, TxDOT Project Team	Review the proposed project improvements and potential ROW impacts to properties along IH 45
May 6, 2010	Interagency Coordination Meeting	TxDOT Dallas District	Representatives from City of Dallas, FHWA, NTTA, NCTCOG, TxDOT ENV, TxDOT Project Team	Project overview, design analysis, schedule, and other topics
May 11, 2010	Saint Phillips School Board Briefing	Saint Phillips School	School	Present project improvements in the vicinity of the school and gather feedback
May 18 – 20, 2010	Value Engineering Study	TxDOT Dallas District	Representatives from City of Dallas, FHWA, NTTA, NCTCOG, TxDOT DES, TxDOT Project Team	Project overview, design analysis, potential design changes, project costs
June 2, 2010	Interagency Coordination Meeting	NCTCOG	Representatives from NCTCOG and TxDOT Project Team	Proposed improvements, phasing, lane balance, and cost
June 3, 2010	Interagency Coordination Meeting	NCTCOG	Representatives from City of Dallas, FHWA, NTTA, NCTCOG, USACE, TxDOT ENV, TxDOT Project Team	Proposed improvements and impacts to USACE flood protection assumptions and study
July 27, 2010	Briefing at City of Dallas Transportation Stakeholder Meeting	City of Dallas	Representatives from City of Dallas and TxDOT Project Team	Proposed SM Wright Improvements, ROW remainders, and potential development opportunities
August 16, 2010	Interagency Coordination Meeting	NCTCOG	Representatives from City of Dallas, FHWA, NTTA, NCTCOG, USACE, TxDOT, and TxDOT Project Team	Proposed improvements, impacts to USACE flood protection assumptions and study
September 7, 2010	Interagency Coordination Meeting	NCTCOG	Representatives from NCTCOG and TxDOT Project Team	Proposed improvements, phasing, lane balance, and cost
September 22, 2010	Interagency Coordination Meeting	NCTCOG	Representatives from City of Dallas, FHWA, NTTA, NCTCOG, USACE, TxDOT, and TxDOT Project Team	Proposed improvements and impacts to USACE flood protection assumptions and study, ROW
January 6, 2011	Interagency Coordination Meeting	NCTCOG	Representatives from NCTCOG and TxDOT Project Team	Proposed improvements, phasing, lane balance, operational analysis, and cost
January 10, 2011	Interagency Coordination Meeting	TxDOT Dallas District	Representatives from NCTCOG and TxDOT Project Team	Proposed improvements, phasing, lane balance, operational analysis, and cost
January 13, 2011	Interagency Coordination Meeting	Webex Teleconference	Representatives from FHWA, TxDOT DES, and TxDOT Project Team	Proposed improvements, phasing, lane balance, operational analysis, IAJ Report
March 21, 2011	Project Briefing	Missionary Baptist Church	Rev. S.M. Wright Jr.	Project update and proposed planning process to project completion

TABLE 2-11. 2008-2012 PUBLIC, STAKEHOLDER, AND PROJECT MEETINGS RELATING TO THE PROPOSED PROJECT

Meeting Date	Meeting Type	Location	Attendees	Topics Discussed
April 27, 2011	Interagency Coordination Meeting	Webex Teleconference	Representatives from FHWA, TxDOT DES, and TxDOT Project Team	Proposed improvements, phasing, lane balance, operational analysis, IAJ Report
May 23, 2011	Council Briefing	City of Dallas	Councilwomen Carolyn Davis and Linda Coop	Update on major issues and changes, project scope, SM Wright concept plans, agency coordination, funding, and next steps
June 13, 2011	Council Briefing	Dallas City Hall	Councilwomen Davis & Koop, TxDOT, NCTCOG, City of Dallas Staff	Briefing on schedule, funding and aesthetics
June 14, 2011	Trinity Interagency Executive Team (IET)	Dallas City Hall	Representatives from various agencies with projects along the Trinity River (City of Dallas, NTTA, USACE, TxDOT, TCEQ, NCTCOG, DWU, Dallas Co., etc.)	Project updates
June 23, 2011	Briefing	Teleconference	Representatives from TxDOT Dallas, TxDOT ENV, Project Team	Historic resource survey coordination
July 12, 2011	Trinity IET	Dallas City Hall	Representatives from various agencies with projects along the Trinity River (City of Dallas, NTTA, USACE, TxDOT, TCEQ, NCTCOG, DWU, Dallas Co., etc.)	Project updates
July 25, 2011	Briefing	Dallas City Hall	Representatives from City of Dallas Staff	Brief Dallas staff on aesthetics plan
August 9, 2011	Trinity IET	Dallas City Hall	Representatives from various agencies with projects along the Trinity River (City of Dallas, NTTA, USACE, TxDOT, TCEQ, NCTCOG, DWU, Dallas Co., etc.)	Project updates
September 29, 2011	Council Briefing	Dallas City Hall	Councilwomen Davis, Koop, TxDOT, NCTCOG, Dallas Staff	Briefing on schedule, funding and aesthetics
October 4, 2011,	Coordination Meeting	Teleconference	Representatives from TPP, TxDOT Dallas, NCTCOG	Coordination meeting on traffic
October 7, 2011	Coordination Meeting	Teleconference	Representatives from TPP, TxDOT Dallas, NCTCOG	Coordination meeting on traffic
October 11, 2011	Trinity IET	Dallas City Hall	Representatives from various agencies with projects along the Trinity River (City of Dallas, NTTA, USACE, TxDOT, TCEQ, NCTCOG, DWU, Dallas Co., etc.)	Project updates
October 12, 2011	Coordination Meeting	TxDOT Dallas	Representatives from TxDOT Dallas, Baker (Design Engineer), NCTCOG	Coordination meeting on design changes on Trinity Pkwy Phase 1
October 12, 2011	Coordination Meeting	TxDOT Dallas	Representatives from TxDOT Dallas, NCTCOG	Coordination on schedule
October 24, 2011	Coordination Meeting	Teleconference	Representatives from TxDOT Dallas, ENV, DES and FHWA	Coordination on status and schedule

TABLE 2-11. 2008-2012 PUBLIC, STAKEHOLDER, AND PROJECT MEETINGS RELATING TO THE PROPOSED PROJECT

Meeting Date	Meeting Type	Location	Attendees	Topics Discussed
October 25, 2011	Dallas Trinity Partner Agency Executive Team (PAET) Meeting	Dallas City Hall	Representatives from various agencies with projects along the Trinity River (City of Dallas, NTTA, USACE, TxDOT, NCTCOG, Dallas Co., etc.)	Project updates
November 2, 2011	Coordination Meeting	TxDOT Waco Office	Representatives from TPP, TxDOT Dallas, NCTCOG	Coordination meeting on traffic
November 18, 2011	Trinity IET	Dallas City Hall	Representatives from various agencies with projects along the Trinity River (City of Dallas, NTTA, USACE, TxDOT, TCEQ, NCTCOG, DWU, Dallas Co., etc.)	Project updates
December 12, 2011	Council Briefing	Dallas City Hall	Councilwomen Davis & Koop, TxDOT, NCTCOG, Dallas Staff	Briefing on schedule, funding and aesthetics
December 13, 2011	Trinity IET	Dallas City Hall	Representatives from various agencies with projects along the Trinity River (City of Dallas, NTTA, USACE, TxDOT, TCEQ, NCTCOG, DWU, Dallas Co., etc.)	Project updates
December 14, 2011	Coordination Meeting	TxDOT Dallas	Representatives from TxDOT Dallas, NCTCOG	Coordination meeting on traffic
January 6, 2012	Interagency Coordination Meeting	NCTCOG	Representatives from NCTCOG, FHWA, and TxDOT Project Team	Coordination regarding necessary STIP/TIP revisions (for inclusion in the May or November 2012 revisions) and possible MTP consistency issues; updates providing on the IAJ report, floodway issues, and value engineering
August 7, 2012	Public Meeting #3	MLK Senior Center	General Public	Present alternatives development updates and general design features on SM Wright, and view potential range of aesthetic improvements

Public Meetings

Three public meetings regarding the proposed project were held at the Martin Luther King Jr., Senior Center on April 28, 2009, March 30, 2010, and August 7, 2012. These meetings were open house format with the same agenda: to present the public with project specific information and to gather public comments regarding the proposed project. Meeting attendees were able to view project schematics, typical sections, constraints maps, and other exhibits. Project engineers and other project specialists (environmental, ROW, etc.) were available to answer questions from the meeting attendees. Public notices were sent to adjacent property owners and local, city, and state elected officials, and letters were sent to non-elected public officials. Public Meeting summaries have been provided below for each of the three Public Meetings.

Public Meeting Summary for Meeting held April 28, 2009

On April 28, 2009, TxDOT in cooperation with the City of Dallas held a Public Meeting and Open House to present the preliminary design concepts for the proposed SM Wright Parkway in the City of Dallas. The Public Meeting presented the results from several months of productive meetings with stakeholders in the South Dallas Community, which included church leaders, representatives from community development corporations, public officials, community activists, and neighborhood residents.

Notices of the Public Meeting were published in the following major newspapers:

- *The Dallas Morning News Metro Edition,* March 29 and April 4, 2009
- *Al Dia* (in Spanish), March 28 and April 18, 2009
- *Dallas Weekly* (African American Newspaper), March 26 and April 23, 2009

The meeting format consisted of an Open House from 4:30 p.m. to 6:30 p.m. followed by a presentation at 6:30 p.m. that provided an overview of the proposed project. TxDOT and City of Dallas staff were available after the presentation to answer questions regarding the proposed project, and received public comments about the proposed project improvements and the relationship of the proposed SM Wright Parkway to the proposed Trinity Parkway. The public was given the opportunity to provide written comments on the forms provided that evening, or mail the forms with comment to the designated contact on or before May 8, 2009. Preliminary concept exhibits were on display for various alternatives, and a copy of the PowerPoint presentation was provided as a handout. Project personnel were available to assist in orientation and interpretation of the exhibits and other materials on display and discuss neighborhood mobility and potential land use benefits associated with the project. The meeting consisted of a total of 109 registered attendees, which included three public officials, 18 TxDOT Dallas personnel and consultants, one person from the media (*Dallas Morning News*) and 87 attendees from the general public.

Twenty-two written comment forms were received during the ten-day comment period, and no comments were received by e-mail during the comment period. No formal verbal comments were received at the public meeting. Notes were taken by staff regarding informal verbal public comments.

The context of the comments received during the ten-day comment period included support of the project, support for an alternative concept developed by the South Dallas Hope Initiative organization (4-lane SM Wright Parkway vs 6-lane), support for different design elements of the proposed SM Wright Parkway (i.e. at-grade, landscaping, pedestrian facilities, lighting, and signage), comments regarding the public involvement process as well as requests for additional information, and comments regarding the mission

of the proposed project (why do it?). All comments were noted and considered for the next phase of the project planning.

Public Meeting Summary for Meeting held March 30, 2010

On March 30, 2010, TxDOT in cooperation with the City of Dallas held a Public Meeting and Open House to present the preliminary design concepts for the proposed SM Wright Parkway.

Notices of the Public Meeting were published in the following major newspapers:

- *The Dallas Morning News Metro Edition*, February 27 and March 20, 2010
- *Al Dia* (in Spanish), February 27 and March 20, 2010
- *The Dallas Examiner* (African American Publication), February 25 and March 18, 2010
- *The Dallas Weekly* (African American Publication), February 25 and Thursday, March 18, 2010

Also, approximately 500 flyers announcing the March 30, 2010 Open House Public Meeting were distributed to the following locations in the project area:

- Martin Luther King, Jr. Recreation Center
- Exline Recreation Center
- Park South YMCA
- Peoples Baptist Church
- St. Paul Missionary Baptist Church
- Cornerstone Baptist Church
- South Dallas Nursing Center
- St. Philip's School and Community Center
- South Dallas/Fair Park Innercity Community Development Corporation (ICDC)

Businesses located on MLK near SM Wright Freeway/US 175 also received flyers, including:

- Eva's House of Bar-B-Q
- Roberts Ready-to-Wear
- NCS Cellular & Tax Services
- Davis Apparel
- Cliff's Check Cashing

The meeting format consisted of an Open House from 4:00 p.m. to 7:00 p.m. with no formal presentation. The public was given the opportunity to provide written comments on the forms provided that evening, or mail the forms with comment to the designated contact on or before April 9, 2010. Preliminary project exhibits were on display, and a project synopsis showing the project location and detailing the need and

purpose was provided as a handout. Project personnel were available to assist in orientation and interpretation of the exhibits and other materials on display and discuss possible mobility and environmental effects of the proposed project. The meeting consisted of 124 registered attendees, five public officials and accompanying staff members, and 21 TxDOT Dallas District personnel and consultants. Two print media representatives, (one from the Dallas Morning News, and the other from the Dallas Observer), were also present at the Open House Public Meeting.

There were 44 written comments received at the March 30, 2010 meeting, four written comment forms were received during the ten-day comment period, and TxDOT received one email request for meeting handouts during the comment period. Notes were taken by staff regarding informal verbal public comments.

The context of the comments received during the ten-day comment period included support for the proposed project and requests for more information. Some comments expressed concern regarding the project design, aesthetics, the freeway name, potential noise impacts, potential right-of-way impacts, and environmental justice. All comments were noted and considered for the next phase of the project planning.

Public Meeting Summary for Meeting held August 7, 2012

On August 7, 2012, TxDOT in cooperation with the City of Dallas held a Public Meeting and Open House to focus on alternatives development updates and general design features of the proposed SM Wright Parkway.

Notices of the Public Meeting were published in the following major newspapers:

- The Dallas Morning News Metro Edition, July 5 and July 28, 2012
- Al Dia (in Spanish), July 7 and July 28, 2012
- The Dallas Examiner (African American Publication), July 5 and July 26, 2012
- The Dallas Weekly (African American Publication), July 5 and July 26, 2012

Also, approximately 1,500 flyers announcing the August 7, 2012 Open House Public Meeting were distributed to the following locations in the project area:

- Martin Luther King, Jr. Center (3 sites)
  - Recreation Center
  - Seniors Center
  - Core Building
- Exline Recreation Center
- Park South YMCA

- New Hope Baptist Church
- Peoples Baptist Church
- St. Paul Missionary Baptist Church
- Cornerstone Baptist Church
- South Dallas Nursing Center
- St. Philip's School and Community Center
- SouthFair Community Development Corporation
- South Dallas/Fair Park ICDC

Businesses located on MLK near SM Wright Freeway/US 175 also received flyers, including:

- Eva's House of Bar-B-Q
- Roberts Ready-to-Wear
- Black Jack's Pizza

The meeting format consisted of an Open House from 4:00 p.m. to 7:00 p.m. with no formal presentation. The public was given the opportunity to provide written comments on the forms provided that evening, or mail the forms with comments to the designated contact on or before August 17, 2012. Preliminary project exhibits were on display, and a SM Wright Project Concept Document showing the project location and detailing the project timeline was provided as a handout. Project personnel were available to assist in orientation and interpretation of the exhibits and other materials on display and discuss possible mobility and environmental effects of the proposed project. The meeting consisted of 129 registered attendees, four public officials and their staff members, 22 TxDOT Dallas District personnel and consultants, as well as one print media representative from the Dallas Morning News.

There were 25 written comments received at the August 7, 2012 meeting, and TxDOT received 369 written comment forms and four emails during the 10-day comment period. Notes were taken by staff regarding informal verbal public comments.

The context of the comments received during the ten-day comment period included support for the proposed project, support for the No-Build Alternative (why do it?), ROW concerns, noise concerns, traffic concerns, pollution concerns, safety concerns, aesthetic concerns, design concerns, community impact concerns, and requests for general project information. All of these comments as well as any future comments have been given or will receive full consideration during the project development process before the final decision is made.

Stakeholder Work Group meetings will continue throughout the project development process. Upon FHWA approval of the EA for the proposed project as satisfactory for further processing, a public hearing

would be held for this project. The public hearing is tentatively projected to occur in January 2013. At this time, the communities within and around the project area will have additional opportunity to state their comments and concerns.

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3.0 DESCRIPTION OF EXISTING FACILITY

3.1 Existing Facility

The existing facility has been in full operation since the early 1970s, with portions of the facility in operation since the early 1950s. The existing ROW is a heavily urbanized area within the City of Dallas (**Appendices A-1 and A-7**). See **Appendix A-4, Sheet 1** for existing typical sections along the SM Wright Freeway/US 175, **Sheet 3** for existing typical sections along the CF Hawn Freeway (US 175), and **Sheet 4** for existing typical sections along IH 45.

The studied portion of US 175 was constructed in phases in the early 1950s to early 1960s. Since its introduction, the congested freeway and commuter traffic have divided the local neighborhood along SM Wright Freeway. The existing US 175 is a six-lane urban freeway, with discontinuous frontage roads utilizing both one-way and two-way operations, from the southern project limits east of Bexar Street to Martin Luther King Jr. Boulevard. North of Martin Luther King Jr. Boulevard, the roadway terminates at DC ramps with IH 45, Cesar Chavez Boulevard, and Good Latimer Expressway.

US 175 within the project limits is named both SM Wright Freeway and CF Hawn Freeway. The existing SM Wright Freeway facility connects directly to the CF Hawn Freeway through a sharp, accident-prone curve, which has a posted speed of 25 mph. The SM Wright Freeway then continues south along SH 310. The frontage roads along SH 310 terminate at the southern limits of the proposed project where SM Wright Freeway transitions from an urban freeway facility to an urban highway facility. The existing ROW width along SM Wright Freeway generally varies from 165 to 467 feet. Depending on location, either concrete traffic barrier or double-sided metal beam guard fence separates the existing mainlanes. The posted speed along the existing SM Wright Freeway is 60 mph, except for the US 175/SH 310 interchange area. Roadway design standards have improved greatly since the initial design and construction of US 175, and the current roadway exhibits several design deficiencies (**Section 2.2.1**).

As previously discussed, US 175 is referred to as the CF Hawn Freeway southeast of the interchange with SH 310. The existing CF Hawn Freeway is a six-lane urban freeway with partial two-way frontage roads along the corridor. The existing ROW width along CF Hawn generally varies from approximately 293 to 473 feet. Concrete traffic barrier separate the existing mainlanes. The posted speed along the existing freeway is 60 mph.

The studied portion of IH 45 was constructed in the late 1960s to early 1970s. Existing IH 45 is a six-lane urban freeway from the southern project limits south of Lamar Street to the interchange with existing SM Wright Freeway/US 175. The existing interchange between IH 45 and US 175 consists of a northbound two-lane DC entrance ramp from US 175 and a southbound two-lane DC exit ramp to US 175. North of

the existing US 175 interchange, IH 45 is a ten-lane section (six mainlanes, four auxiliary lanes) up to the southern half of the IH 30 interchange. North of the northbound exit to IH 30 and southbound entrance from IH 30, IH 45 returns to a six-lane section. The IH 45 mainlanes are on structure from the southern project limits to Lamar Street and from Martin Luther King Jr. Boulevard to the northern project limits. The mainlanes consist of 12-foot wide travel lanes with ten-foot wide inside and outside shoulders. Existing frontage roads are present between Lamar Street and Pennsylvania Avenue. The existing ROW width along IH 45 generally varies from approximately 181 to 630 feet. Identified deficiencies in the current roadway configuration include insufficient weaving distance between the US 175 and IH 30 DC ramps. The existing configuration provides approximately 2400 feet (northbound) and 1500 feet (southbound) of weaving distance between these DC ramps. These distances are insufficient to facilitate weaving volumes between the mainlanes and DC ramps.

Within the project limits, the existing facility has multiple bridge crossings, all associated with either arterials, railroad lines, or roadway connectors. A description of the crossings (overpass or underpass), their locations, and posted clearances are listed in **Table 3-1**.

TABLE 3-1. EXISTING BRIDGE CROSSINGS WITHIN THE PROJECT STUDY LIMITS

Existing Facility Bridge Locations	Overpass / Underpass	Vertical Clearance
IH 45 at RR Sta 480+00	Overpass	*23' 0"
IH 45 at SEB Lamar Street	Overpass	18' 6"
IH 45 at WB Lamar Street	Overpass	17' 9"
IH 45 at U-Turn North of Lamar Street	Overpass	16' 9"
IH 45 at Pedestrian Bridge	Underpass	17' 0"
NB IH 45 Frontage Roads at Pedestrian Bridge	Underpass	18' 9"
SB IH 45 Frontage Roads at Pedestrian Bridge	Underpass	17' 5"
IH 45 at U-Turn South of Pennsylvania Avenue	Overpass	15' 6"
IH 45 at EB Pennsylvania Avenue	Overpass	16' 9"
IH 45 at WB Pennsylvania Avenue	Overpass	16' 9"
IH 45 at U-Turn North of Pennsylvania Avenue	Overpass	17' 11"
IH 45 at U-Turn South of MLK Boulevard	Overpass	16' 4"
IH 45 at EB MLK Boulevard/ Forest Avenue	Overpass	15' 5"
IH 45 at WB MLK Boulevard/ Forest Avenue	Overpass	15' 6"
IH 45 at S Harwood Street	Overpass	14' 10"
IH 45 at EB South Boulevard	Overpass	16' 0"
IH 45 at WB South Boulevard	Overpass	16' 1"
IH 45 at SB Exit 283B (to MLK Jr. Blvd)	Overpass	*20' 7"
IH 45 at SB Exit 283B (to US 175/SM Wright)	Overpass	18' 9"
IH 45 at SB frontage road	Overpass	*24' 7"
IH 45 SB Exit 283B at Grand Avenue	Overpass	15' 5"
IH 45 SB Exit 283B at S Cesar Chavez Boulevard	Overpass	15' 2"
IH 45 NB Entrance from SM Wright at NB Good Latimer Expressway	Overpass	15' 5"
IH 45 NB Entrance from SM Wright at SB Good Latimer Expressway	Overpass	16' 4"
IH 45 NB Entrance from SM Wright at Grand Avenue	Overpass	*22' 7"
IH 45 at Grand Avenue	Overpass	*28' 8"
IH 45 at S Cesar Chavez Boulevard	Overpass	*30' 8"
IH 45 at S Good Latimer Expressway	Overpass	*21' 6"
US 175/CF Hawn Fwy at Bexar Street	Overpass	15' 8"

TABLE 3-1. EXISTING BRIDGE CROSSINGS WITHIN THE PROJECT STUDY LIMITS

Existing Facility Bridge Locations	Overpass / Underpass	Vertical Clearance
SH 310/SM Wright Fwy at Connecting Road U-Turn	Overpass	16' 9"
SH 310/SM Wright Fwy at SB US 175/CF Hawn Fwy	Overpass	16' 5"
SH 310/SM Wright Fwy at U-Turn North of US 175/CF Hawn Fwy	Overpass	16' 11"
US 175/SM Wright Fwy at U-Turn South of Hatcher Street	Overpass	14' 3"
US 175/SM Wright Fwy at Hatcher Street	Overpass	14' 3"
US 175/SM Wright Fwy at U-Turn North of Hatcher Street	Overpass	14' 10"
US 175/SM Wright Fwy at U-Turn South of Pine Street	Overpass	13' 9"
US 175/SM Wright Fwy at Pine Street	Overpass	13' 6"
US 175/SM Wright Fwy at U-Turn North of Pine Street	Overpass	13' 1"
US 175/SM Wright Fwy at U-Turn South of Metropolitan Avenue	Overpass	13' 9"
US 175/SM Wright Fwy at Metropolitan Avenue	Overpass	14' 1"
US 175/SM Wright Fwy at U-Turn North of Metropolitan Avenue	Overpass	13' 9"
US 175/SM Wright Fwy at U-Turn South of Pennsylvania Avenue	Overpass	14' 8"
US 175/SM Wright Fwy at Pennsylvania Avenue	Overpass	14' 9"
NB US 175/SM Wright Fwy at MLK Boulevard/Forest Avenue	Underpass	14' 4"
SB US 175/SM Wright Fwy at MLK Boulevard/Forest Avenue	Underpass	14' 5"

Notes:
Vertical clearances were determined by viewing the existing vertical clearance signs posted on the bridges.
Vertical clearance signs typically denote a clearance three inches less than the actual bridge clearance.
* Vertical clearances with an asterisk were not signed with a vertical clearance sign and were determined from as-built record plans.

3.2 Surrounding Terrain and Land Use

According to the Dallas East and Dallas West USGS topographic maps, the elevations within the project area range from a minimum of approximately 350 feet above mean sea level (msl) at the southern project limit to a maximum of approximately 500 feet above msl at the northern project limit (see **Appendix A-3**). The project area can be characterized as gently sloping with a local topographic trend to the south and east toward the Trinity River.

The surrounding land use within the proposed project corridor is urban, and is primarily zoned for residential, commercial, and industrial use (see aerial photographs in **Appendix A-6**). Several scattered government/institutional uses for religious establishments (**Appendix A-6**) are also included within the proposed project corridor. Vacant or undeveloped areas within the proposed project vicinity are zoned either as residential, industrial, commercial, or planned development.

Zoning along the northern portion of the SM Wright Freeway is mostly industrial and commercial, while zoning along the remainder of the facility is primarily residential. In addition, there are several vacant residential and commercially zoned parcels immediately adjacent to the freeway. Land use is typically zoned for residential and commercial uses adjacent to the CF Hawn Freeway (US 175). Zoning in the vicinity of the US 175/SH 310 interchange is dominated by residential development and small commercial establishments, which assist in supporting the local community. Land use in the immediate vicinity of IH 45 is commercial, residential, and institutional, and is zoned primarily for industrial and commercial use.

According to the City of Dallas' online Interactive Zoning Map[15], the zoned categories of land use directly adjacent to the proposed project include the following: single-family and duplex residential category (R-5(A), R-7.5(A) and D(A)), community mixed-use general (RS-MU), multifamily residential (MF-1(A), MF-2(A), and MF-3(A)), industrial manufacturing (IM), neighborhood commercial (NC), community commercial (CC), and parking (P(A)).[16] See **Section 5.2.2** for additional information on land use within the project area as it relates to community impacts.

3.3 Traffic Projections

As described in **Section 2.2.1**, traffic volumes[17] were analyzed within the project area. TxDOT ADT volumes for 2010 traffic counts show the existing US 175 at 82,000 vpd and IH 45 at 69,000 vpd. By 2035, these vpd numbers are anticipated to increase to 186,200 vpd (127% increase) for US 175 and 171,800 vpd (149% increase) for IH 45. The proposed realignment of US 175 allows for the existing SM Wright Freeway/US 175 to be downsized to a low speed arterial. The proposed SM Wright Parkway is projected to carry 57,500 vpd, which is an approximate 30% decrease when compared to the 2010 vpd traffic counts for US 175.

[15] http://gis.dallascityhall.com/zoningweb/
[16] http://www.dallascityhall.org/pdf/planning/ZoningDistrictStandards.pdf
[17] ADT volumes provided by NCTCOG (December 2011)

4.0 ALTERNATIVES

4.1 No-Build Alternative

The No-Build Alternative represents the case in which the proposed project would not be constructed. Other transportation improvements, including those identified in the NCTCOG's *Mobility 2035 Transportation Plan*, may be constructed, depending on project development and funding availability issues for each such improvement. Various planned roadway and transit system improvements, bicycle/pedestrian, Intelligent Transportation Systems (ITS) measures, and other capital improvements are assumed to be included in the baseline condition of the project area. Some of these planned major transportation improvements are identified in **Appendix F-1**. Various planned capital improvements in the vicinity of the proposed project are discussed in **Section 6.2.2**. All of these improvements comprise the No-Build Alternative. There are, however, costs involved with the No-Build Alternative. These include:

- Maintenance of the existing SM Wright Freeway project corridor which includes bridges, frontage roads and mainlanes, along with the maintenance of the interchange at US 175 and SH 310 - the longer improvements and/or reconstruction are postponed, the higher this figure becomes;
- Increased vehicle operating costs on under-designed, inadequate facilities;
- Increased costs due to higher rates of accidents and incidents on existing facilities;
- The monetary value of time lost by motorists due to lower operating speeds, congested roadway conditions, and restricted maneuverability on area roadways; and
- The intangible costs associated with the inconvenience for emergency services and annoyance for average motorists caused by the above deficiencies.

The No-Build Alternative has the advantage of avoiding adverse impacts associated with new construction, such as relocation, land use changes, and environmental disruption. This alternative could allow construction funds to be shifted to other projects. Although the No-Build Alternative would avoid construction impacts, the existing roadway deficiencies of the SM Wright Freeway, the interchange of US 175 and SH 310 as well as IH 45 (as described in **Sections 2.2.1 and 2.2.2**), would remain. The adverse impacts associated with the No-Build Alternative related to decreased pedestrian and vehicular safety, traffic congestion, and decreased mobility could create an undesirable urban environment that would have more long-term adverse impacts than the short-term construction impacts of the Build Alternative.

For the above reasons, the No-Build Alternative would not satisfy the anticipated 2035 transportation demand; however, the No-Build Alternative has been carried forward to serve as a baseline comparison in the assessment of potential social, economic, and environmental effects of the Build Alternative, described below.

4.2 Build Alternative

The Build Alternative would involve the reconstruction of the existing SM Wright Freeway (US 175/SH 310) from IH 45 to north of Budd Street (2.2 miles); realigning the CF Hawn Freeway segment of US 175 and constructing a new DC interchange with IH 45 (1.5 miles); and constructing improvements to IH 45 from existing US 175 (SM Wright Freeway) to south of Lamar Street (2.3 miles). The existing SM Wright Freeway segment of US 175 would be downgraded to a low speed urban arterial with at-grade intersections. This downgraded facility would be referred to as the SM Wright Parkway. The CF Hawn Freeway segment of US 175 would be reconstructed and realigned to remove the sharp, accident prone curve at the SH 310 interchange. This realignment would necessitate inside and outside widening along IH 45 to facilitate proposed DC ramps and lane balance north of the proposed US 175 interchange.

The proposed ROW acquisition for the project is limited to the CF Hawn Freeway segment of US 175, the proposed DC ramps between US 175 and IH 45, and IH 45 south of Lamar Street. All of the proposed construction would occur within the existing and proposed US 175 (CF Hawn Freeway) ROW width of 293 to 500 feet and IH 45 ROW width of 181 to 658 feet. No proposed ROW is anticipated along the proposed SM Wright Parkway/SH 310 and all construction would occur within the existing ROW width of 165 to 467 feet. Approximately 31.1 acres of new ROW would be required for the project. Details regarding the proposed project improvements are provided below.

US 175 (CF Hawn Freeway)

The Build Alternative's typical mainlane width for US 175 would be 12 feet throughout the project limits along with ten-foot inside and outside shoulders. Beginning at the southeastern project limits, the proposed number of mainlanes along US 175 varies from three lanes in each direction (east of the proposed SM Wright Parkway/SH 310) to two lanes in each direction (west of the proposed SM Wright Parkway/SH 310). Two-lane DC ramps in each direction would be provided west of Lamar Street to facilitate the US 175 connection to IH 45. Typical sections of the existing and proposed US 175 are shown in **Appendix A-4**. The design speed for US 175 would be 60 mph on the mainlanes. The DC ramps design speed would be 50 mph. The existing entrance and exit ramps along the CF Hawn Freeway segment of US 175 would also be reconstructed at a design speed of 40 mph.

Mobility 2035 includes improvements for the proposed Trinity Parkway Project and a separate project for US 175 from SH 310 to IH 20. Both projects are projected to be operational by the year 2035. The proposed project has been coordinated with these two separate projects to maintain lane balance. After the construction of these two projects, US 175 within the project limits would be restriped to four lanes each direction (east of the proposed SM Wright Parkway/SH 310) and to three lanes in each direction (west of the proposed SM Wright Parkway/SH 310). These three lanes in each direction west of the

proposed SM Wright Parkway/SH 310 could tie directly to the proposed Trinity Parkway. Mainlane widths of 12 feet would be maintained along US 175.

As part of the Build Alternative, US 175 frontage roads would be reconstructed from Bexar Street to the proposed SM Wright Parkway/SH 310 and converted to one-way operation. The proposed one-way frontage roads would be extended on new location to Lamar Street along the proposed US 175 realignment. The extension of the frontage roads is necessary to facilitate local access to city streets located between Lamar Street and the proposed SM Wright Parkway/SH 310. The typical configuration would consist of one to two inside 11-foot wide lanes and an outside 14-foot wide lane (excluding gutter) for shared use by bicycles and vehicles. Additionally, the typical sections for the frontage roads (**see Appendix A-4**) would include six-foot sidewalks of 1.5 percent slope adjacent to the roadway as to accommodate for pedestrian travel. During the final design phase of the project, TxDOT will make every effort to separate the sidewalks from the frontage road as much as possible and all proposed sidewalks would meet ADA design criteria. The design speed for the frontage roads would be 40 mph.

The Build Alternative would improve Lamar Street at the proposed intersection with the US 175 frontage roads. The Lamar Street configuration at the frontage road intersections would consist of three through lanes in each direction, with a dedicated left turn lane to access the southeast bound frontage road. The improvements to Lamar Street have been coordinated with the City of Dallas and would include six-foot sidewalks of 1.5 percent slope adjacent to the roadway as to accommodate for pedestrian travel.

IH 45

From the southern IH 45 project limit to the proposed US 175 interchange, the IH 45 mainlane widths would vary from 11 to 12 feet, inside shoulder widths would vary from two to ten feet, and outside shoulder widths would be ten feet. Three mainlanes would be provided in each direction.

From the proposed US 175 interchange to the existing SM Wright Freeway interchange, the mainlane widths would be 11 feet with two-foot inside shoulders and ten-foot outside shoulders. Three mainlanes and one transition lane in each direction would be provided in this segment. The transitional lanes would assist in facilitating the movement of traffic along the existing IH 45 six-lane section up to the existing IH 45 six mainlanes/four auxiliary lane section north of the existing SM Wright Freeway interchange. These lanes would be created through inside widening of the existing mainlanes and/or restriping. The mainlane widths would transition back to 12 feet and the inside shoulder widths would transition back to ten feet at the existing SM Wright Freeway interchange. Typical sections of IH 45 are shown in **Appendix A-4**. The design speed for IH 45 would be 60 mph on the mainlanes. The half diamond set of ramps south of Lamar Street would be reconstructed at a design speed of 40 mph. The half diamond set of ramps providing access to Pennsylvania Avenue would be removed to facilitate the proposed US 175

interchange. Access to Pennsylvania Avenue would be maintained through the ramps south of Lamar Street. The remaining existing ramps within the project limits would be maintained.

As part of the Build Alternative, existing IH 45 frontage roads would be maintained. An approximate 400 feet of southbound frontage road south of Lamar Street would be reconstructed. An approximate 600 feet of northbound frontage road at Lamar Street would be reconstructed. South of Lamar Street, the frontage roads do not provide access to adjacent properties and the roadways terminate into ramps accessing IH 45. The existing 12-foot lane widths would be maintained, and the design speed for the frontage roads would be 40 mph. No cross street improvements are proposed at the IH 45 overpasses, and all existing cross streets would be maintained.

SM Wright Parkway

The realignment of US 175 and the proposed US 175/IH 45 interchange would allow for the existing SM Wright Freeway to be downsized to a low speed arterial with at-grade intersections. Two lanes would be provided in each direction between the southern project limit and the US 175 overpass. Between US 175 and Martin Luther King Jr. Boulevard, three mainlanes would be provided in each direction. The typical configuration would consist of one to two inside 11-foot wide lanes and an outside 14-foot wide lane (excluding gutter) for shared use by bicycles and vehicles. Additionally, the typical sections for the proposed SM Wright Parkway (**see Appendix A-4**) would include 12-foot shared-use path of 1.5 percent slope on each side of the roadway to accommodate for pedestrian and bicycle travel. The shared-use path would be striped and signed in accordance with the Manual on Uniform Traffic Control Devices (MUTCD), the American Association of State Highway and Transportation Officials (AASHTO) guidance, and the Americans with Disabilities Act Accessibility Guidelines (ADAAG). The design speed for the proposed SM Wright Parkway/SH 310 would be 35 mph.

As part of the Build Alternative, the existing overpasses at Hatcher Street, Pine Street, Metropolitan Avenue, and Pennsylvania Avenue would be removed and reconfigured to at-grade, signalized intersections with the proposed SM Wright Parkway (**see Appendix A-4, Sheet 7**). In addition, the public requested that the downsized roadway would reconnect neighborhoods currently divided by the existing freeway by providing median openings at cross streets. Median openings have been provided at the intersections with Haven Street/Lowery Street, Marburg Street, Driskell Street/Hickman Street, and Warren Avenue. These intersections are stop controlled along the minor cross streets and serve as mid-block access points between the four signalized intersections. The cross street approaches for signalized intersections would have a 30 mph design speed. The cross street approaches for stop controlled intersections would have a 25 mph design speed. In multiple locations along the proposed SM Wright Parkway, proposed local access roads would be constructed parallel to the roadway to maintain access

to adjacent properties. The design speed for these local access roads would be 30 mph. Typical sections for the major cross streets and local access roads are shown on **Appendix A-4, Sheet 7**.

In addition to the roadway improvements, extensive aesthetic improvements would be constructed along the proposed SM Wright Parkway. The aesthetic improvement alternatives have been presented during public involvement activities to develop a concept accepted by the adjacent neighborhoods. Also, a proposed rain garden would be located in the vicinity of Pine Street to facilitate local roadway drainage.

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5.0 POTENTIAL SOCIAL, ECONOMIC, AND ENVIRONMENTAL EFFECTS OF THE PROPOSED ACTIONS

5.1 Natural Resources

5.1.1 Lakes, Rivers, and Streams

No-Build Alternative

No lakes, rivers, or streams would be affected by the No-Build Alternative.

Build Alternative

Much of the proposed project is located to the east of the UPRR embankment and is on land elevated above the Trinity River floodplain, which is characterized by generally level to gently rolling topography underlain by soils derived from unconsolidated Trinity River terrace deposits. The southern portion of proposed improvements to IH 45 and the western portion of improvements to CF Hawn/US 175 are within the Trinity River floodplain and are underlain by soils formed within an active depositional environment. All runoff in the vicinity of the project corridor flows southwest into the Trinity River, or south toward White Rock Creek (which flows into the Trinity River). All storm water runoff near Lamar Street and east of it enters an existing buried urban storm sewer system which outfalls at locations within or near local floodplains. For example, drainage from the urban storm sewer system southwest of the Lamar Street flows through an ephemeral man-made ditch that parallels the north side of the UPRR embankment, flowing southeast until water crosses under the UPRR via corrugated pipe culverts. The water then makes its way across to floodplain and eventually drains into the Trinity River.

The only new stream crossing by the proposed project would be associated with the proposed CF Hawn Freeway/US 175 direct connectors, which would bridge over an ephemeral man-made drainage ditch. The existing and proposed CF Hawn Freeway (US 175) and IH 45 facilities would be on structure, and the proposed improvements to the existing SM Wright Freeway would not affect the existing storm drainage system. For additional information regarding the proposed stream crossings, see USGS topographic map in **Appendix A-3** and **Section 5.1.2**.

5.1.2 Waters of the U.S., including Wetlands

No-Build Alternative

There are no anticipated impacts to waters of the U.S., including wetlands, from the No-Build Alternative.

Build Alternative

The term "waters of the U.S." refers to those waterways, which potentially fall within the jurisdictional authority of the USACE under the Clean Water Act (CWA), and includes wetlands that are adjacent to jurisdictional waterways. Pursuant to EO 11990 (Protection of Wetlands) and Section 404 of the CWA, an investigation was conducted to identify potential jurisdictional waters of the U.S., including wetlands, within the proposed project limits. According to the USACE, the federal agency having authority over waters of the U.S., wetlands are those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

This project would not result in the placement of temporary or permanent fill material into jurisdictional waters of the U.S., including wetlands or other special aquatic sites; therefore, a Section 404 permit would not be required. The project area crosses the floodway of the Trinity River; however, no potential waters of the U.S. were identified within the existing or proposed ROW.

An analysis of USGS topographic maps, field reconnaissance and decisions made by the USACE under similar circumstances reveals no potentially jurisdictional waters of the U.S. that would be impacted by the proposed project. Specifically, conclusions made by the USACE in issuing a jurisdictional determination for the Dallas Floodway (SWF-2011-00049) were considered when making decisions involving open water features on the land side of the BNSF railway embankment. Because the railway embankment effectively prevents normal surface flows from connecting to the Trinity River, several open water features on the eastern side of the railway embankment were determined to be non-waters of the United States.

The project would not require a USACE Section 404 Permit; therefore, a Section 401 Certification would not be required. Additionally, EO 11990 on wetlands would not apply because no wetlands would be impacted. The project does not involve work in or over a navigable water of the U.S.; therefore, Section 10 of the Rivers and Harbors Act does not apply.

5.1.3 Floodplains

No-Build Alternative

No floodplains would be affected by the No-Build Alternative.

Build Alternative

The proposed project is located within the Federal Emergency Management Agency (FEMA) *Flood Insurance Rate Map* (FIRM) for Dallas County, Texas and Incorporated Areas Map Numbers 48113C0345 J and 48113C0485 J (effective August 23, 2001). Most of the project area falls within Zone

X (not shaded), indicating areas outside the 500-year floodplain. Flood prone areas within the project area include:

- Zone AE – special flood hazard areas or floodway areas inundated by the 100-year flood (base flood elevations determined).
- Zone X (shaded) – areas of 500-year (0.2 percent annual chance) flood, areas of 100-year flood with average depths less than one foot or with drainage areas less than one square mile, and areas protected by levees from 100-year floods.

The project area (i.e., existing and proposed ROW) overlaps with approximately 46.90 acres of the 100-year floodplain as illustrated in **Appendix B-1**. Approximately 43.73 acres of this project/floodplain overlap is comprised of bridges or ramps on structure, which would be elevated above the expected water surface elevations for the 100-year flood. The remaining area (3.17 acres) has either at-grade overlap with the floodplain, or consists of ramps on retaining walls or embankment which would be within the floodplain at the following four locations: IH 45 southbound entry ramp (1.18 acres); northbound DC from CF Hawn Freeway (US 175) to IH 45 (0.68 acre); south side of SM Wright Freeway near Hatcher Street (0.46 acre); and the south end of Lamar Street (0.85 acre).

Dallas County and the City of Dallas are participants in the National Flood Insurance Program. The hydraulic design for this project would be in accordance with current TxDOT and FHWA design policies and procedures. The proposed project would not increase the base flood elevation to a level that would violate applicable floodplain regulations or ordinances. Furthermore, in cooperation with FEMA, TxDOT would conform to the standard for temporary and permanent fill set by the FIRM. The proposed project would provide, at a minimum, the same flow capacity, and therefore, should not adversely increase water surface elevation above allowable limits.

The protection of floodplains and floodways is required by EO 11988 *Floodplain Management* and is implemented by FHWA through 23 Code of Federal Regulations (CFR) 650 Subpart A, *Location and Hydraulic Design of Encroachments on Floodplains.* The roadway facility would permit the conveyance of the design year flood, inundation of the roadway being acceptable, without causing substantial damage to the roadway, stream, or other property. The proposed project would not increase the base flood elevation to a level that would violate applicable floodplain regulations or ordinances. The proposed project would not interrupt or terminate a transportation route needed for emergency vehicles or community evacuation routes, nor would it pose a substantial risk, nor adversely impact existing natural and beneficial floodplain values; therefore, floodplain impacts resulting from the proposed actions would not be considered substantial.

Trinity River and Tributaries Regional Environmental Impact Statement (TREIS) and the Corridor Development Certificate (CDC) Process

In the mid 1980s, the USACE prepared the Trinity River and Tributaries Regional Environmental Impact Statement (TREIS) in order to address extensive floodplain development that was occurring along the Trinity River within the Dallas region. The Record of Decision (ROD) for the TREIS was signed in 1988 and established stringent criteria controlling flood elevations and any changes that might lead to erosive floodwater velocities or loss of flood storage. Subsequently, the Corridor Development Certificate (CDC) process was developed as a means for local governments to review/permit floodplain actions within the Upper Trinity River Basin.

The 1988 ROD criteria (for projects under the USACE regulatory authority) and the CDC process ensure that a development's effect, including cumulative impacts, on future flooding is considered in floodplain permitting decisions. The process incorporates common permit criteria developed to ensure a consistent design level of protection and minimal adverse impacts on flooding, upstream or downstream of the project, unless granted a variance. CDC criteria are very similar to, and often linked with, the 1988 ROD criteria. The CDC criteria include a requirement that no "significant" rise is allowed in SPF elevations (compared to zero rise in the ROD criteria).

The hydraulic models used for determining if a proposed project complies with the USACE 1988 Trinity River ROD criteria and the local CDC requirements reflect the federally authorized Dallas Floodway Extension (DFE) project (Cadillac Heights and Lamar Levees) in the reach of the Trinity River downstream of the Atchison, Topeka, and Santa Fe (AT&SF) Railroad Bridge. The proposed SM Wright Project is located within the levee protected area on the landside of the proposed Lamar Levee for the most part, except for where a proposed ramp would cross over the future Lamar Levee and tie into Interstate Highway 45 (IH 45). To reduce the potential hydraulic impact, the new pier/columns for this ramp have been designed to align with those of the existing IH 45 Bridge. Therefore, the proposed SM Wright Project cannot be evaluated using the effective Trinity River ROD or CDC hydraulic models, and impacts to valley storage and flood elevations are not considered relevant to this project.

<u>Project Coordination</u>

As part of the United States Army Corps of Engineers (USACE) Dallas Floodway Extension Project, USACE will construct approximately three miles of new levee adjacent to the Union Pacific Railroad (UPRR) that parallels Lamar Street. This new levee construction is referred to as the Lamar Levee and will effectively extend the existing Dallas Floodway East Levee from the DART Bridge (located between Corinth Street and Cedar Crest Boulevard) to the existing Rochester Park Levee. The addition of the Lamar Levee will provide standard project flood (SPF) protection from the Trinity River Floodway for the area along Lamar Street. The SPF for this levee is an 800-year storm event. This levee would also

provide protection for the improvements proposed within the SM Wright Study Corridor. The design process for the Lamar Levee is ongoing and construction will be scheduled at a later date.

Construction began on the Rochester Park Levee in 1991 to protect the Rochester Park neighborhood from flood events along both the Trinity River Floodway and the White Rock Creek Floodway. The Rochester Park Levee begins in the southwest quadrant of the intersection at Haven Street and SM Wright Freeway (SH 310); continues southerly for approximately 0.7 miles; turns northeasterly for approximately 1.4 miles; then turns westerly to parallel the south side of CF Hawn Freeway (US 175) for approximately 0.5 miles. The Rochester Park Levee effectively terminates at this location by tying into the existing CF Hawn Freeway embankment as the roadway overpasses Railroad Avenue and the UPRR. As part of the Rochester Park flood protection system, existing flood gates are located where CF Hawn Freeway overpasses Railroad Avenue, UPRR, and Bexar Street. The design process for improving the existing Rochester Park Levee in conjunction with the Lamar Levee is ongoing and construction will be scheduled at a later date.

The proposed improvements associated with the SM Wright project would not preclude current concepts for Lamar Levee and Rochester Park Levee improvements to be implemented and constructed by the City of Dallas and/or USACE. The proposed SM Wright project improvements would be coordinated and designed to accommodate the future Lamar Levee. In addition, the proposed improvements would be coordinated with both the USACE and the City of Dallas (i.e., the city's Floodplain Manager).

5.1.4 Water Quality

No-Build Alternative

Water quality would not be affected by the No-Build Alternative.

Build Alternative

Impaired Waters

According to the 2010 EPA CWA Section 303(d) list, the upper Trinity River (Segment ID 0805) is classified as a threatened or impaired water for bacteria and Polychlorinated Biphenyls (PCBs) and dioxins in edible tissues. Runoff from this project would discharge directly into or within 5 miles upstream of the upper Trinity River. The water quality of waters in the state is required to be maintained in accordance with all applicable provisions of the Texas Surface Water Quality Standards including the General, Narrative, and Numerical Criteria.

Texas Pollutant Discharge Elimination System

Because this project would disturb more than one acre, TxDOT would be required to comply with the Texas Commission on Environmental Quality (TCEQ) Texas Pollutant Discharge Elimination System (TPDES) General Permit for Construction Activity. The project would also disturb more than five acres; therefore, a Notice of Intent would be filed to comply with TCEQ stating that TxDOT would have a Storm Water Pollution Prevention Plan (SW3P) in place during the construction period. The SW3P would utilize temporary erosion control measures as outlined in TxDOT's manual *Standard Specifications for the Construction of Highways, Streets, and Bridges*. Impacts would be minimized by avoiding construction equipment work directly in stream channels and/or adjacent areas. No permanent water quality impacts are expected as a result of the proposed project.

TCEQ Section 401 Best Management Practices

This project would not require a USACE Section 404 Permit; therefore, Section 401 Certification would not be required.

Other Mitigation Measures

To minimize impacts to water quality during construction, the proposed project would utilize temporary erosion and sedimentation control practices (i.e., silt fence, rock berm, and/or drainage swales) from TxDOT's manual *Standard Specifications for the Construction of Highways, Streets, and Bridges.* Where appropriate, these temporary erosion and sedimentation control structures would be in place prior to the initiation of construction and would be maintained throughout the construction period. Clearing of vegetation would be limited and/or phased to maintain a natural water quality buffer and minimize the amount of erodible earth exposed at any one time. Upon completion of earthwork operations, disturbed areas would be restored and reseeded according to TxDOT's specifications for *Seeding for Erosion Control.*

The contractor would take appropriate measures to prevent, minimize, and control spillage of hazardous materials in the construction staging area. All materials would be removed/disposed of in accordance to applicable state and federal laws and as not to degrade ambient water quality. All of these measures would be enforced under appropriate specifications in the plan, specification, and estimate stage of project development.

Permanent soil erosion control features are to be a part of the completed project to assure economical, effective, and continuous erosion control throughout the construction and post-construction periods. Moreover, efforts would be made to prevent long-term water pollution by reducing fertilizer and pesticide use during the installation and maintenance of landscaping. No excessive impacts to water from point source and non-point source pollution associated with the project are anticipated.

5.1.5 Vegetation and Wildlife Habitat

No-Build Alternative

The No-Build Alternative would not affect existing vegetation or wildlife habitat.

Build Alternative

Existing Vegetation

Nearly all of the proposed project area is located within the 'Urban' land cover category, as described by the Texas Parks and Wildlife Department (TPWD).[18] This type of land cover corresponds with areas that have been developed for commercial, industrial, transportation, residential, and other urban uses. This land cover category focuses on past man-made impacts to an area, and does not provide any information about pre-urban ecological conditions, although some remnant native vegetation may exist within the landscaping of urban areas. Additionally, the forests that flank IH 45 south of the railroad tracks occur within the 'Water Oak-Elm-Hackberry Forest' ecological subregion. This type of forest is dominated by an assortment of riparian or bottomland hardwood trees, which are typical of floodplains associated with large rivers such as the Trinity River.

Two field reconnaissance visits on June 2, 2010 and April 28, 2011 indicated the vegetation in undeveloped areas is generally consistent with the above descriptions of the two land cover categories in the project area. The project corridor is predominantly influenced by commercial, industrial, and residential development throughout. These developed areas often include native tree species that have been incorporated into facility landscaping, generally with a mowed lawn grass understory. For example, many large live oak (*Quercus virginiana*) trees are found along the frontage road curbs of the SM Wright Freeway (US 175) (see **Appendix A-7, Photographs 7, 9, and 17**). Forested areas that are not part of developed sites are also generally dominated by native species, but invasive woody and herbaceous species are commonly found in these areas. Areas dominated by grasses, primarily the non-native Bermuda grass (*Cynodon dactylon*), are generally within the ROW of major roads or within residential and commercial lawns that are frequently mowed. The proximity of grass areas to human activity and frequent mowing renders these areas of little value to wildlife as sources of food or cover.

As the project area is set primarily within a landscape that is highly urbanized, vegetation and wildlife habitat within the project area is generally isolated in patches scattered throughout the vicinity. Thus, only those wildlife species adapted to living within a disturbed environment and in close proximity to human activity would be expected to be successful within the project area. The area with the greatest

[18] TPWD (1984), *The Vegetation Types of Texas* map. Map and description at: http://www.tpwd.state.tx.us/publications/pwdpubs/pwd_bn_w7000_0120/.

potential for wildlife habitat is the relatively contiguous bottomland/riparian forest within the Trinity River floodplain that is found along the west side of IH 45.

Commonly-occurring amphibian and reptile species expected within the project area include the cricket frog (*Acris crepitans*), pig frog (*Rana grylio*), bullfrog (*Rana catesbiana*), ground skink (*Leiolopisma laterale*), green anole (*Anolis carolinensis*), Texas rat snake (*Elaphe obsolete lindheimerii*), cottonmouth (*Agkistrodon piscivorus*), and water snake (*Natrix* sp.).[19] Mammal species likely to occur in the project corridor include the armadillo (*Dasypus novemcinctus*), bobcat (*Lynx rufus*), hispid cotton rat (*Sigmodon hispidus*), coyote (*Canis latrans*), raccoon (*Procyon lotor*), feral hog (*Sus scrofa*), swamp rabbit (*Sylvilagus aquaticus*), striped skunk (*Mephitis mephitis*), eastern fox squirrel (*Sciurus niger*), Virginia opossum (*Didelphis virginiana*), and white-tailed deer (*Odocoileus virginianus*).[20] Such species are commonly seen in both natural landscapes and in close proximity to human structures.

A variety of avian species that reside in or are migratory through Dallas County would be expected to be commonly encountered within the project area.[21] These include the great blue heron (*Ardea herodias*), snowy egret (*Egretta thula*), American kestrel (*Falco sparverius*), red-tailed hawk (*Buteo jamaicensis*), turkey vulture (*Cathartes aura*), mourning dove (*Zenaida macroura*), common flicker (*Colaptes auratus*), scissor-tailed flycatcher (*Tyrannus forficatus*), blue jay (*Cyanocitta cristata*), American crow (*Corvus brachyrhynchos*), northern mockingbird (*Mimus polyglottos*), American robin (*Turdus migratorus*), European starling (*Sturnus vulgaris*), common grackle (*Quiscalus mexicanus*), and northern cardinal (*Cardinalis cardinalis*).

The proposed project is expected to have an overall footprint of construction impacts affecting approximately 202.3 acres, which includes construction activity that would occur within portions of the existing ROW as well as proposed new ROW. Any existing vegetation within this footprint would be temporarily disturbed by construction equipment. Areas of temporary impacts to grass-dominated areas that are not ultimately paved would be revegetated with grass ground cover which would be maintained by occasional mowing (i.e., “maintained grass”). The remaining impacts would affect 8.65 acres of forested areas, which are discussed in detail below.

[19] Conant, R. 1975. Reptiles and Amphibians of Eastern and Central North America. 2nd Edition. The Peterson Field Guide Series. Boston: Houghton Mifflin Company.

[20] Burt, W.H. and R.P. Grossenheider. 1976. A Field Guide to the Mammals of North America North of Mexico. Third Edition. The Peterson Field Guide Series. Boston: Houghton Mifflin Co. (Section 3.4.4, pg. 3-66, table 3-15).

[21] Pulich, W. 1990. Field Checklist of Birds: Dallas County, Texas. Dallas: Dallas County Audubon Society. (Section 3.4.4, pg. 3-67, table 3-16).

The inventory of habitat types follows the guidelines established by TPWD[22] for assessing and mitigating impacts to wildlife habitat for transportation projects. The bulleted paragraphs below describe special or unusual habitat features identified in TPWD guidelines for inclusion in environmental impact studies. The general locations for areas of anticipated forest habitat removal and locations of woodland data points are shown in **Appendix B-2**. In addition, the aerial photograph in **Appendix A-6** shows vegetation cover in areas adjacent to the proposed project, and provides a larger context in which to view the areas within existing and proposed ROW that are expected to be affected by the project. Representative site photographs of these features can be found in **Appendix B-3**. Detailed information about impacts to forested areas may be found in the woodland data point forms in **Appendix B-4**.

Riparian Forest

Approximately 7.57 acres of riparian/bottomland forest would be affected by the proposed project, much of which is at several sites within the Trinity River floodplain. Otherwise, many of these riparian forest areas are located to the east of the railroad embankment and adjacent to ephemeral stream channels that carry local urban storm runoff. These areas of expected impacts vary in size from 0.2 acre to 1.6 acres. Riparian forests in the project area are typically dominated by American elm (*Ulmus americana*) trees, often in association with hackberry (*Celtis laevigata*), box elder (*Acer negundo*), and red mulberry (*Morus rubra*) trees (see **Appendix B-3**, **Photographs 1 through 3**). These forested areas have canopy cover ranging from 90 to 100 percent and maximum tree height of approximately 70 feet. The trees range in diameter at breast height (dbh) from less than one to 18 inches, but the average mature tree size generally ranges from 6 to 10 inches dbh. A review of historical aerial photography as early as 1942 indicates that nearly all of the riparian forests inventoried were located on land that had previously been cleared of forests and remained so until at least the late 1950s. Thus, most of the riparian forest vegetation within the construction footprint of the proposed project is estimated to be no older than 50 years. The riparian forest understory is generally dominated by woody vines such as saw greenbrier (*Smilax bona-nox*), grape (*Vitis* sp.), poison ivy (*Toxicodendron radicans*), and Virginia creeper (*Parthenocissus quinquefolia*); forest understory also includes shrubs such as Chinese privet (*Ligustrum sinense*), Eve's necklace (*Sophora affinis*), and crape-myrtle (*Lagerstroemia indica*), but herbaceous vegetation is generally quite sparse. An estimated 943 trees greater than six inches dbh would be removed from these riparian woodland areas. Details about the characteristics of these riparian forest sites are contained in four woodlands data forms in **Appendix B-4**.

Unmaintained Vegetation—Upland Forest

The proposed project is expected to affect 1.08 acres of forests on numerous upland sites, all of which are under 0.6 acre in size. These upland forest areas are nearly all landscaping trees for residences, and two small sites are isolated trees adjacent to large transportation facilities (see **Appendix B-3**,

[22] *TxDOT-TPWD Memorandum of Agreement (MOA) for the Finalization of the 1998 Memorandum of Understanding (MOU) Concerning Habitat Descriptions and Mitigation*.

Photograph 5). These sites offer relatively poor quality wildlife habitat because understory vegetation is frequently mowed and generally consists almost entirely of lawn grass such as Bermuda grass. These areas offer poor quality habitat for most wildlife, due to frequent mowing of the nearly monoculture understory and the highly fragmented nature of the habitat. Dominant trees in these areas include tree-of-heaven (*Ailanthus altissima*) and hackberry. Forest canopy cover in these areas is generally 50 percent, and maximum tree height is 40 feet. The landscape trees in these forests range in size from less than one inch to 14 inches dbh, and the average size of mature trees is eight inches dbh. An estimated 125 trees greater than six inches dbh would be removed from these areas. Details about the characteristics of these landscaped forest sites are contained in woodlands data form for Area 4 in **Appendix B-4**.

Summary of Impacts and Mitigation

Based on the foregoing outline of impacts to habitat and vegetation, the proposed project improvements are expected to remove approximately 1,068 trees greater than six inches dbh occurring on 8.65 acres of combined riparian and upland forest habitat. Removal of forest vegetation would be permanent, as such areas would either be replaced by paved surfaces or maintained grass cover. Impacts to forested areas are unavoidable in light of the design constraints attending the reconstruction of the SM Wright Freeway (US 175), and the addition of ramps, direct connects, and other improvements to the CF Hawn Freeway (US 175) and IH 45 necessary to meet the purpose and need of the project. That is, adding the needed new lanes, ramps, and bridges to the three existing facilities necessitate removal of forested areas adjacent to the existing facilities for the three roadways involved.

During project development, TxDOT would design, use, and promote construction practices that minimize adverse effects on both regulated and unregulated wildlife habitat. Existing vegetation, especially native trees, would be avoided and preserved wherever practicable. In addition, although the large live oak trees along SM Wright Freeway are outside the proposed project's construction footprint, final design planning for the removal of existing frontage road pavement would consider the close proximity of these adjacent large trees (frequently 20 to 30 inches dbh) to avoid tree damage (see **Appendix B-3**, **Photograph 4**). Every effort would be made to preserve trees within the ROW and other areas where they neither compromise safety nor substantially interfere with the project's construction.

In accordance with the TPWD guidelines for transportation projects cited previously, habitats given consideration for non-regulatory mitigation during project planning include the following:

- Habitat for federal candidate species if mitigation would assist in the prevention of the listing of species;
- Rare vegetation series (S1, S2, or S3) that also locally provide habitat for a state-listed species;

- All vegetation communities listed as S1 or S2, regardless of whether or not the series in question provide habitat for state-listed species;
- Bottomland hardwood, native prairies, and riparian areas; and
- Any other habitat feature considered to be locally important.

The proposed project would not substantially affect habitat required by threatened/endangered species, nor would it disturb any rare vegetation series. One factor relevant to mitigation, as it relates to all habitats potentially affected by the proposed project, is the diminished habitat quality resulting from proximity of habitat areas to existing roads and other areas of frequent human activity, and the relatively small size of the areas of impacts in relation to the generally large habitat requirements for most wildlife species other than birds. Accordingly, non-regulatory habitat mitigation was considered, but is not proposed, for impacts to the 1.08 acres of upland forest because these areas are comprised of landscape trees with mowed grass understory, are not contiguous with larger forests, or are generally dominated by sugarberry trees (an ubiquitous species that readily establishes or reestablishes itself throughout the general area) and invasive tree-of-heaven trees. The limited acreage of these scattered forest resources and the limited quality of habitat represented by them would not warrant non-regulated habitat mitigation for their loss. Similarly, non-regulatory habitat mitigation was considered, but is not proposed for impacts to the 3.9 acres of riparian forest located to the east of IH 45 and the railroad embankment (Areas 1 and 5 shown in **Appendix B-2**). Riparian forest habitat in this area is in close proximity to metal salvage operations and other industrial facilities and is already quite fragmented by the railroad (see **Appendix B-3**, **Photograph 4**). Additionally, the quality of these riparian areas is diminished by the presence of invasive China-berry trees and past dumping of trash within and near these forests.

In addition, there are 3.6 acres of non-regulatory riparian/bottomland habitat located on the west side of IH 45 (within Areas 2 and 3 shown in **Appendix B-2**). Of the 3.6 acres of riparian/bottomland forest, approximately 2.35 acres is located within existing TxDOT ROW and is subject to periodic mowing. The remaining 1.25 acres of riparian/bottomland forest is located within the planned Great Trinity Forest. The clearing of the trees within this area would be required to meet TxDOT roadway design standards for a buffer to prevent trees from interfering with the elevated structure (the IH 45 freeway). In addition, the clearing of these trees is to preserve access to the facility for future inspections and maintenance.

The 1.25 acres of riparian/bottomland forest within the planned Great Trinity Forest, is located on three parcels of land currently owned by the City of Dallas. Because portions of the planned Great Trinity Forest are located within the federally authorized Dallas Floodway Extension (DFE) project area, TxDOT must coordinate any mitigation (tree planting) with the city in order to ensure that floodway function is not disturbed. In response to the TPWD recommendation, TxDOT will coordinate with appropriate city staff to determine if mitigation for impacts to 1.25 acres of riparian/bottomland habitat may be mitigated for within

the planned Great Trinity Forest area (see **Appendix B-5**). Should a mitigation location within the planned Great Trinity Forest area be identified, mitigation for the anticipated 1.25 acres of riparian/bottomland forest impacts would be completed at that location in accordance with *TxDOT Dallas District Standards for Woodlands Mitigation* (see **Appendix B-6**). **Section 5.2.3** contains a detailed description of the planned Great Trinity Forest.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 states that it is unlawful to kill, capture, collect, possess, buy, sell, trade, or transport any migratory bird, nest, young, feather, or egg in part or in whole, without a federal permit issued in accordance within the Act's policies and regulations. Between October 1 and February 15, the contractor would remove all old migratory bird nests from any structures that would be affected by the proposed project, and complete any bridge work and/or vegetation clearing. In addition, the contractor would be prepared to prevent migratory birds from building Nests between February 15 and October 1, per the Environmental Permits, Issues, and Commitments (EPIC) plans. In the event that migratory birds are encountered on-site during project construction, adverse impacts on protected birds, active nests, eggs, and/or young would be avoided.

Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act (FWCA) (16 United States Code (U.S.C.) 661-666c; March 10, 1934, as amended), was enacted to protect fish and wildlife when federal actions result in the control or modification of a natural stream or body of water. The statute requires federal agencies to take into consideration the effect that water-related projects would have on fish and wildlife resources; take action to prevent loss or damage to these resources; and provide for the development and improvement of these resources.

This project would not result in the placement of temporary or permanent fill material into jurisdictional waters of the U.S., including wetlands or other special aquatic sites; therefore, a Section 404 permit would not be required. The project area crosses the floodway of the Trinity River; however, no potential waters of the U.S. were identified within the existing or proposed ROW (though undoubtedly such features exist within the vicinity of the project). In addition, the project area is highly urbanized with very few natural stream channels. Within the project area all water features north and east of Lamar St. are underground and/or man-made. Within the southern portion of the project area along IH 45, all channels east of the freeway are man-made. West of IH 45, the proposed ROW is adjacent to an existing slough; however, neither the slough or any stream channels would be impacted by the proposed project. For the above reasons, no coordination under the FWCA would be required.

5.1.6 Threatened/Endangered Species

No-Build Alternative

No threatened or endangered species would be affected and/or impacted by the No-Build Alternative.

Build Alternative

Endangered Species Act

The Endangered Species Act affords protection for federally listed threatened and endangered species and, where designated, critical habitat for these species. The U.S. Fish and Wildlife Service (USFWS) maintains a list of federally threatened and endangered species of potential occurrence for each Texas county as does TPWD. Both the USFWS and TPWD Annotated County List of Threatened, Endangered, and Rare Species for Dallas County were reviewed on March 28, 2011 and January 20, 2012. TPWD maintains special species lists through the Natural Diversity Database (NDD) by county. Data was obtained from the Texas Natural Diversity Database (TXNDD) on November 13, 2011. The NDD review met all the requirements of the TxDOT-TPWD Memorandum of Agreement (MOA) for sharing and maintaining NDD information. The search radius was ten miles from the project area. **Table 5.1** provides elements of occurrence of state and federally listed species within a ten-mile buffer. No federal or state listed species, rare species or managed areas were recorded within 1.5 miles of the project area. The Texas NDD is a potential presence database that cannot be interpreted as presence/absence data.

Federal and State Threatened and Endangered Species

Table 5.1 addresses, the Federal and State Threatened or Endangered Species for Dallas County, their listed status, habitat requirements, and anticipated effects from the proposed project. Field surveys were performed on June 2, 2010 and April 28, 2011. Based on these surveys, it was determined that the project area contains no habitat for federally listed threatened and endangered species. The proposed project would have no effect on federally listed species or critical habitat.

Based on these surveys, it was determined that the project area contains habitat for the state threatened Timber/Canebrake Rattlesnake. Therefore, coordination with TPWD is required (see **Appendix B-5** for the TPWD Coordination letter). Potential impacts to habitat would be minor, and the potential for encountering the species during construction is low. The proposed project is not anticipated to impact state listed species.

Preferred habitat for the timber/canebrake rattlesnake exists within forested areas with dense ground cover. The distribution of the timber/canebrake rattlesnake stretches from the East Coast westward into Texas, and as far north as New England. In the southern portions of its range, this species prefers to

make its den in somewhat swampy, wetland habitats. The DFW Metroplex represents the far western edge of its range, and is characterized by drier conditions than generally preferred for this snake. Populations tend to be higher in eastern Texas where greater concentrations of wetlands and humid forests are found. Forested areas located near permanent water sources are also utilized, as fallen debris from trees can act as refugia for the rattlesnake. The timber/canebrake rattlesnake is a shy animal that prefers to live in areas with high amounts of cover and available refuge. Riparian/forested habitat is the most likely within the DFW Metroplex to be suitable for this species. The home range of this species is large, at times encompassing in excess of 100 acres. The proposed project is not anticipated to impact the rattlesnake, as the amount of potential affected habitat is a small portion of its range. Further, no visual sightings or evidence of the species was observed in the project area during field investigations. Impacts to potential habitat would be minor, and the potential for encountering the species during construction is low. To ensure a minimization of impacts, the forest, riparian, and floodplain habitat within the project area would be surveyed for signs of this species prior to construction activities.

State Species of Concern

The Texas Wildlife Action Plan strives to keep "common species common" by gathering information about native species before they become rare. Species that are uncommon or exhibit declining numbers may be designated as SOC by TPWD. Often these designations are placed on species for which little is known as a precautionary measure, and in order to focus attention on gaining insight into the species' life histories. **Table 5.1** addresses, the TPWD's Annotated County List of Rare Species for Dallas County that includes other species that the State considers rare, but have no formal regulatory status at the state or federal level. Potential habitat for three rare species, the cave myotis bat, the plains spotted skunk and the Texas garter snake is present within the project area. Impacts to potential habitat would be minor, and the potential for encountering the species during construction is low.

TABLE 5-1. FEDERAL, STATE LISTED THREATENED/ENDANGERED SPECIES, AND TPWD SPECIES OF CONCERN, DALLAS COUNTY, AND TEXAS NDD RESULTS

SPECIES	FEDERAL STATUS	STATE STATUS	DESCRIPTION OF SUITABLE HABITAT	HABITAT PRESENT	SPECIES EFFECT	SPECIES IMPACT	JUSTIFICATION
BIRDS							
American Peregrine Falcon *Falco peregrinus anatum*	DL	T	Year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	No	- -	No impact	No lake shores, coastlines, or barrier islands are present within the project area.
Arctic Peregrine Falcon *Falco peregrinus tundrius*	DL		Migrant throughout state from subspecies' far northern breeding range, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	No	- -	No impact	No lake shores, coastlines, or barrier islands are present within the project area.
Bald Eagle *Haliaeetus leucoceohalus*	DL	T	Found primarily near rivers and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter; hunts live prey, scavenges, and pirates food from other birds.	No	- -	No impact	No rivers or large lakes are present within the project area.
Black-capped Vireo *Vireo atricapilla*	E	E	Oak-juniper woodlands with distinctive patchy, two-layered aspect; shrub and tree layer with open, grassy spaces; requires foliage reaching to ground level for nesting cover; return to same territory, or one nearby, year after year; deciduous and broad-leaved shrubs and trees provide insects for feeding; species composition less important than presence of adequate broad-leaved shrubs, foliage to ground level, and required structure; nesting season March-late summer.	No	No effect	No impact	No oak-juniper woodlands are present within the project area.
Golden-cheeked Warbler *Setophaga chrysoparia*	E	E	Juniper-oak woodlands; dependent on Ashe juniper (also known as cedar) for long fine bark strips, only available from mature trees, used in nest construction; nests are placed in various trees other than Ashe juniper; only a few mature junipers or nearby cedar brakes can provide the necessary nest material; forage for insects in broad-leaved trees and shrubs; nesting late March-early summer.	No	No effect	No impact	No oak-juniper woodlands or ashe juniper are present within the project area.

TABLE 5-1. FEDERAL, STATE LISTED THREATENED/ENDANGERED SPECIES, AND TPWD SPECIES OF CONCERN, DALLAS COUNTY, AND TEXAS NDD RESULTS

SPECIES	FEDERAL STATUS	STATE STATUS	DESCRIPTION OF SUITABLE HABITAT	HABITAT PRESENT	SPECIES EFFECT	SPECIES IMPACT	JUSTIFICATION
Henslow's Sparrow *Ammodramus henslowii*	—		Wintering individuals (not flocks) found in weedy fields or cut-over areas where lots of bunch grasses occur along with vines and brambles; a key component is bare ground for running/walking.	No	- -	No impact	No weedy fields or areas with bunch grasses and bare ground are present within the project area.
Interior Least Tern *Sterna antillarum athalassos*	E	E	Subspecies is listed only when inland (more than 50 miles from a coastline); nests along sand and gravel bars within braided streams, rivers; also know to nest on man-made structures (inland beaches, wastewater treatment plants, gravel mines, etc.); eats small fish and crustaceans, when breeding forages within a few hundred feet of colony.	No	No effect	No impact	No gravel bars within braided streams, rivers, etc. within the project area.
Peregrine Falcon *Falco peregrinus*	DL*	T	Both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (*F. p. anatum*) is also a resident breeder in west Texas; the two subspecies' listing statuses differ, *F.p. tundrius* is no longer listed in Texas; but because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.	No	- -	No impact	No lake shores, coastlines, or barrier islands are present within the project area.
Piping Plover *Charadrius melodus*	E, T*	T	Wintering migrant along the Texas Gulf Coast; beaches and bayside mud or salt flats.	No	No effect	No impact	No beaches, bayside, mud or salt flats are present within the project area.
Sprague's Pipit *Anthus spragueii*	C*		Only in Texas during migration and winter, mid September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally common in coastal grasslands, uncommon to rare further west; sensitive to patch size and avoids edges.	No	- -	No impact	No native upland prairie or coastal grasslands are present within the project area
Western Burrowing Owl *Athene cunicularia hypugaea*	—		Open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows.	No	- -	No impact	No grasslands, prairie, or savanna, etc. are present within the project area.
White-faced Ibis *Plegadis chihi*	—	T	Prefers freshwater marshes, sloughs, and irrigated rice fields, but will attend brackish and saltwater habitats; nests in marshes, in low trees, on the ground in bulrushes or reeds, or on floating mats.	No	- -	No impact	No freshwater marshes are present within the project area.
Whooping Crane *Grus americana*	E, EXPN	E	Potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties.	No	No effect	No impact	No plains or coastal marshes are present within the project area.

TABLE 5-1. FEDERAL, STATE LISTED THREATENED/ENDANGERED SPECIES, AND TPWD SPECIES OF CONCERN, DALLAS COUNTY, AND TEXAS NDD RESULTS

SPECIES	FEDERAL STATUS	STATE STATUS	DESCRIPTION OF SUITABLE HABITAT	HABITAT PRESENT	SPECIES EFFECT	SPECIES IMPACT	JUSTIFICATION
Wood Stork *Mycteria americana*	—	T	Forages in prairie ponds, flooded pastures or fields, ditches, and other shallow standing water, including salt-water; usually roosts communally in tall snags, sometimes in association with other wading birds (i.e. active heronries); breeds in Mexico and birds move into Gulf States in search of mud flats and other wetlands, even those associated with forested areas; formerly nested in Texas, but no breeding records since 1960.	No	No effect	No impact	The project area is highly urbanized. No prairie ponds or flooded fields are present within the project area.
INSECTS							
Black Lordithon rove beetle *Lordithon niger*	—		Historically known from Texas.	No	- -	- -	- -
MAMMALS							
Cave myotis bat *Myotis velifer*	—		Colonial and cave-dwelling; also roosts in rock crevices, old buildings, carports, under bridges, and even in abandoned Cliff Swallow (Hirundo pyrrhonota) nests; roosts in clusters of up to thousands of individuals; hibernates in limestone caves of Edwards Plateau and gypsum cave of Panhandle during winter; opportunistic insectivore.	Yes	- -	Might impact	The project area contains habitat; however, there is not recent evidence of this species in project area. Potential impacts to habitat would be minor, and the potential for encountering species during construction is low.
Plains spotted skunk *Spilogale putorius interrupta*	—		Catholic; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie.	Yes	- -	Might impact	The project area contains habitat; however, there is not recent evidence of this species in this area. Potential impacts to habitat would be minor, and the potential for encountering species during construction is low.
MOLLUSKS							
Fawnsfoot *Truncilla donaciformis*	—		Small and large rivers especially on sand, mud, rocky mud, and sand and gravel, also silt and cobble bottoms in still to swiftly flowing waters; Red (historic), Cypress (historic), Sabine (historic), Neches, Trinity, and San Jacinto River basins.	No	- -	No impact	There are no perennial water bodies within the project area.
Little spectaclecase *Villosa lienosa*	—		Creeks, rivers, and reservoirs, sandy substrates in slight to moderate current, usually along the banks in slower currents; east Texas, Cypress through San Jacinto River basins.	No	- -	No impact	There are no perennial water bodies within the project area.

TABLE 5-1. FEDERAL, STATE LISTED THREATENED/ENDANGERED SPECIES, AND TPWD SPECIES OF CONCERN, DALLAS COUNTY, AND TEXAS NDD RESULTS

SPECIES	FEDERAL STATUS	STATE STATUS	DESCRIPTION OF SUITABLE HABITAT	HABITAT PRESENT	SPECIES EFFECT	SPECIES IMPACT	JUSTIFICATION
Louisiana pigtoe *Pleurobema riddellii*	—	T	Streams and moderate-size rivers, usually flowing water on substrates of mud, sand, and gravel; not generally known from impoundments; Sabine, Neches, and Trinity (historic) River basins.	No	- -	No impact	There are no perennial water bodies within the project area.
Texas heelsplitter *Potamilus amphichaenus*	—	T	Quiet waters in mud or sand and also in reservoirs. Sabine, Neches, and Trinity River basins.	No	- -	No impact	There are no perennial water bodies within the project area.
Wabash pigtoe *Fusconaia flava*	—		Creeks to large rivers on mud, sand, and gravel from all habitats except deep shifting sands; found in moderate to swift current velocities; east Texas River basins, Red through San Jacinto River basins; elsewhere occurs in reservoirs and lakes with no flow.	No	- -	No impact	There are no perennial water bodies within the project area.
REPTILES							
Alligator snapping turtle *Macrochelys temminckii*	—	T	Perennial water bodies; deep water of rivers, canals, lakes, and oxbows; also swamps, bayous, and ponds near deep running water; sometimes enters brackish coastal waters; usually in water with mud bottom and abundant aquatic vegetation; may migrate several miles along rivers; active March-October; breeds April-October.	No	- -	No impact	There are no perennial water bodies within the project area.
Texas garter snake *Thamnophis sirtalis annectens*	—		Wet or moist microhabitats are conducive to the species occurrence, but is not necessarily restricted to them; hibernates underground or in or under surface cover; breeds March-August.	Yes	- -	Might impact	The project area contains potential habitat; however, there is no recent evidence of the species within the area. Potential impacts to habitat would be minor, and the potential for encountering species during construction is low.
Texas horned lizard *Phrynosoma cornutum*	—	T	Open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September.	No	- -	No impact	No arid or semi-arid regions are present within the project area.
Timber/ Canebrake Rattlesnake *Crotalus horridus*	—	T	Swamps, floodplains, upland pine and deciduous woodlands, riparian zones, abandoned farmland; limestone bluffs, sandy soil, or black clay; prefers dense ground cover, i.e. grapevines or palmetto.	Yes	- -	Might impact	The project area contains habitat; however, there is not recent evidence of this species in this area. Potential impacts to habitat would be minor, and the potential for encountering species during construction is low.

TABLE 5-1. FEDERAL, STATE LISTED THREATENED/ENDANGERED SPECIES, AND TPWD SPECIES OF CONCERN, DALLAS COUNTY, AND TEXAS NDD RESULTS

SPECIES	FEDERAL STATUS	STATE STATUS	DESCRIPTION OF SUITABLE HABITAT	HABITAT PRESENT	SPECIES EFFECT	SPECIES IMPACT	JUSTIFICATION
PLANTS							
Glen Rose yucca *Yucca necopina*	—		Texas endemic; grasslands on sandy soils and limestone outcrops; flowering April-June.	No	- -	No impact	No grasslands or limestone outcroppings within the proposed project area.
Warnock's coral-root *Hexalectris warnockii*	—		In leaf litter and humus in oak-juniper woodlands on shaded slopes and intermittent, rocky creekbeds in canyons; in the Trans Pecos in oak-pinyon-juniper woodlands in higher mesic canyons (to 2000 m [6550 ft]), primarily on igneous substrates; in Terrell County under Quercus fusiformis mottes on terraces of spring-fed perennial streams, draining an otherwise rather xeric limestone landscape; on the Callahan Divide (Taylor County), the White Rock Escarpment (Dallas County), and the Edwards Plateau in oak-juniper woodlands on limestone slopes; in Gillespie County on igneous substrates of the Llano Uplift; flowering June-September; individual plants do not usually bloom in successive years.	No	- -	No impact	No oak-juniper woodlands are within the project area.
TPWD NDD Results	**2952** – Rookery, Cattle egret, Little Blue Heron, Great Egret, Black-crowned night heron, Snowy egret**,** Federal/State status—none. Listed in 10 mile buffer, but outside of 1.5 mile buffer. **561 -** Rookery, Cattle egret, Federal/State status—none. Listed in 10 mile buffer, but outside of 1.5 mile buffer. **1439 -** Rookery, Cattle egret, Little Blue Heron, Great Egret, Black-crowned night heron, Snowy egret**,** Federal/State status—none. Listed in 10 mile buffer, but outside of 1.5 mile buffer. **6868 -** Rookery, Cattle egret, Little Blue Heron, Great Egret, Snowy egret**,** Federal status—none; White-faced Ibis, State status - Threatened. Listed in 10 mile buffer, but outside of 1.5 mile buffer. **7284** - Interior least tern (*Sterna antillarum athalassos*), Federal/State status – E, Listed in 10 mile buffer, but outside of 1.5 mile buffer. **2874** - Interior least tern (*Sterna antillarum athalassos*), Federal/State status – E, Listed in 10 mile buffer, but outside of 1.5 mile buffer. **432**—Texas garter snake (*Thamnophis sirtalis annectens*), Federal/State status—none. Listed in 10 mile buffer, but outside of 1.5 mile buffer.			--	No impact.	No Element of Occurrences more than 1.5 miles from the project area.

E – State or Federal Listed Endangered
EXPN- Experimental population, Non-Essential
T – State or Federal Listed Threatened
PT-Proposed Threatened
C – Federal Candidate for Listing
DL – Federally Delisted
"–" – No designation occurring within identified county
"blank" – Rare, but with no regulatory listing status
"- -" – No determination of effect or impact required because species lacks federal and/or state listing status
"*" – TPWD T&E species list indicates species could be present in identified county; however, USFWS T&E species list does not indicate a listing status for the species in the county

Sources: U.S. Fish & Wildlife Service (November 1, 2011), Texas Parks & Wildlife Department, Wildlife Division, Diversity and Habitat Assessment Programs, County Lists of Texas Special Species (August 17, 2011), and Field Visits (June 2, 2010 and April 28, 2011)

Invasive Species and Beneficial Landscaping

All re-vegetation and landscaping activities would comply with EO 13112, which requires TxDOT and FHWA to prevent and control the introduction and spread of invasive (non-native) plant and animal species. In consideration of the *Executive Memorandum on Beneficial Landscaping*, landscaping activities would utilize techniques that complement and enhance the local environment and seek to minimize the adverse effect that the landscaping would have on it. In particular, this means using regionally native plants and employing landscaping practices and technologies that conserve water and prevent pollution. Environmentally beneficial landscaping would include seeding and replanting the ROW in accordance with TxDOT-approved seeding specifications. See **Section 5.2.11** for a description of the aesthetic considerations for the proposed project, including landscaping.

5.1.7 Topography and Soils

No-Build Alternative

As no new ROW is required under the No-Build Alternative, impacts to topography and soils are not anticipated.

Build Alternative

The proposed project is located within the Trinity River Basin. This basin is situated within two physiographic provinces, the Central Lowland and the Coastal Plain provinces. The DFW metropolitan area is located within the Central Lowland province, near the headwaters of the Trinity River. The proposed SM Wright Parkway area is located adjacent to the Trinity River and is characterized as flat to gently dipping unconsolidated terrace and floodplain deposits. The average elevation within the project area is approximately 460 feet mean sea level (msl).

According to the Natural Resources Conservation Service (NRCS) *Soil Survey of Dallas County, Texas* (1980), there are two general soil associations within the project area, the *Trinity-Frio* and the *Silawa-Silstid-Bastsil*. The *Trinity-Frio* association, which consists of deep, nearly level, clayey soils found in floodplains, makes up the southwestern portion of the project area. These are moderately alkaline, somewhat poorly drained- and well-drained soils that have slopes of 0 to 1 percent. The remainder of the project area is made up of the *Silawa-Silstid-Bastsil* association, which consists of deep, nearly level to sloping, loamy and sandy soils found on stream terraces. These are slightly acidic to medium acidic, well-drained soils that have slopes of 0 to 8 percent.

Farmland Protection Policy Act

The project area is highly developed, zoned for urban uses, and is located entirely within the municipality of Dallas. The additional ROW required is urbanized and/or zoned for residential, commercial, or

industrial urban use (**Section 5.2.2)**. For these reasons, the proposed project is exempt from the requirements of the Farmland Protection Policy Act (FPPA) and requires no coordination with the NRCS.

5.1.8 Air Quality

No-Build Alternative

Implementation of the No-Build Alternative would lead to increased traffic congestion and decreased mobility, resulting in decreased vehicular speed and increased stop-and-go traffic. The No-Build Alternative is inconsistent with the *Mobility 2035*, which contains specific projects, programs, and policies intended to improve mobility, access, and air quality in the DFW region.

Build Alternative

The proposed North Central Texas project is located in Dallas County, which is part of the EPA's designated ten-county moderate nonattainment area for the 2008 eight-hour ozone National Ambient Air Quality Standard (NAAQS);[23] therefore, the transportation conformity rules apply. The proposed action is consistent with the area's financially constrained long-range MTP (*Mobility 2035*) and the FY 2013-2016 Transportation Improvement Program (TIP). The U.S. Department of Transportation (USDOT) (FHWA/Federal Transit Administration [FTA]) found the MTP to conform to the SIP on July 14, 2011 and the TIP to conform on November 1, 2012. A copy of the Corridor Fact Sheet from the *Mobility 2035* is included as **Appendix F-1**, and the FY 2013-2016 TIP pages are included in **Appendix F-2**. All projects in the TIP that are proposed for federal or state funds were initiated in a manner consistent with federal guidelines in Section 450, of Title 23 CFR and Section 613.200, Subpart B, of Title 49 CFR. Energy, environment, air quality, cost, and mobility considerations are addressed in the programming of the TIP.

See **Appendix F-3** for a figure depicting MTP reference numbers and limits (per the *Mobility 2035 Network Listings, 2011 Transportation Conformity, Appendix 10.8: Roadway System [Capacity Staging]*) as well as the CSJs within the proposed project limits.

The proposed project's design year traffic exceeds 140,000 vpd; therefore, a Traffic Air Quality Analysis (TAQA) is required. In addition, the project adds SOV capacity; therefore, a Congestion Management Process (CMP) is required.

[23] Effective July 20, 2012, EPA designated the ten-county DFW nonattainment area "moderate" nonattainment for the 2008 eight-hour ozone NAAQS. In addition to the previous nine-county area, EPA also added Wise County to the nonattainment area.

Traffic Air Quality Analysis

The primary pollutants from motor vehicles are volatile organic compounds (VOCs), carbon monoxide (CO), and nitrogen oxides (NOx). VOCs and NOx can combine under the right conditions in a series of photochemical reactions to form ozone. Because these reactions take place over a period of several hours, maximum concentrations of ozone are often found far downwind of the precursor sources. Thus, ozone is a regional problem and not a localized condition.

The modeling procedures of ozone require long-term meteorological data and detailed area wide emission rates for all potential sources (industry, business, and transportation) and are normally too complex to be performed within the scope of an environmental analysis for a highway project. Accordingly, concentrations of ozone for the purpose of comparing the results of the National Ambient Air Quality Standards (NAAQS) are modeled by the regional air quality planning agency for the SIP. However, concentrations for CO are readily modeled for highway projects and are required by federal regulations.

Topography and meteorology of the area in which the proposed project is located would not seriously restrict dispersion of the air pollutants. The traffic data used in the analysis were obtained from the North Central Texas Council of Governments (NCTCOG) for the design year (2035) and from the TxDOT TPP Division for 2020, which were used as a conservatively high estimate of traffic for the estimated time of completion (ETC) year 2020. Traffic for the modeled estimated time of completion year (2020) for the SM Wright segment, the CF Hawn segment, and the IH 45 segment are estimated to be 38,800 vehicles per day, 84,600 vehicles per day, and 143,100 vehicles per day respectively. Traffic for the design year (2035) for the SM Wright segment, the CF Hawn segment, and the IH 45 segment are estimated to be 57,500 vehicles per day, 186,200 vehicles per day, and 171,800 vehicles per day respectively.

Carbon monoxide concentrations for the proposed action were modeled using CAL3QHC and the Texas Department of Transportation (TxDOT) ENV CO emissions spreadsheet factoring in adverse meteorological conditions and sensitive receptors at the ROW line in accordance with the TxDOT Air Quality Guidelines. Local concentrations of carbon monoxide are not expected to exceed national standards at any time. The results of the analysis are summarized in **Table 5-2**.

TABLE 5-2. PROJECT CARBON MONOXIDE CONCENTRATIONS

Year	1-hour CO (Standard 35 ppm)	1-hour % NAAQS	8-hour CO (Standard 9 ppm)	8-hour % NAAQS
2020	5.6	16.0%	3.4	37.8%
2035	6.6	18.9%	4.0	44.4%

Note: The National Ambient Air Quality Standard (NAAQS) for CO is 35 ppm for one-hour and nine ppm for eight hours. Analysis includes a one-hour background concentration of 3.7 ppm and an 8-hour background concentration of 2.3 ppm obtained from TxDOT Air Quality Guidelines.

Congestion Management Process (CMP)

The Congestion Management Process (CMP) is a systematic process for managing congestion that provides information on transportation system performance and on alternative strategies for alleviating congestion and enhancing the mobility of persons and goods to levels that meet state and local needs. The proposed project was developed from NCTCOG's operational CMP which meets all requirements of amended United States Code (U.S.C.) 134(k)(3) and 49 U.S.C. 5303(k)(3), amendments incorporating the transportation planning requirements of Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). In March of 2011, the NCTCOG's RTC approved the MTP, which contains elements of the CMP.

The CMP element of the plan would carry an inventory of all project commitments (including those resulting from major investment studies) detailing type of strategy, implementing responsibilities, schedules, and expected costs. The operational management and travel demand reduction strategies are commitments made by the region at two levels: program level and project level implementation. Program level commitments are inventoried in the regional CMP, which was adopted by the NCTCOG RTC. These would be included in the financially constrained MTP, and future resources would be earmarked for their implementation. At the project implementation level, travel demand reduction strategies and commitments would be added to the regional TIP or included in the construction plans. The regional TIP would provide for programming of these projects at the appropriate time with respect to the SOV facility implementation and project specific elements. Individual CMP projects in the area are listed in **Table 5-3**.

TABLE 5-3. CMP PROJECTS NEAR THE BUILD ALTERNATIVE

Project Code	Street / Name	City	County	Implementing Agency	Project Type	Year of Implementation	Total Project Cost
51464	VA - Various Locations - Development and Integration of Software for Daltrans System	Various	Dallas	TxDOT-Dallas	ITS	2003	$2,752,476
20062	SM Wright Blvd (US 175) from Budd St to IH 45/Julius Schepps	Dallas	Dallas	Dallas	New Roadway	2010	$45,800,000
20135.0666	IH 45 NB at Pennsylvania	Dallas	Dallas	Dallas	ITS	2011	$3,032,000
20135.067	Pennsylvania at SM Wright	Dallas	Dallas	Dallas	ITS	2011	$3,032,000
20135.0131	Hatcher at SM Wright	Dallas	Dallas	Dallas	ITS	2011	$3,032,000
20135.1331	Meadow at ML King, Jr.	Dallas	Dallas	Dallas	ITS	2011	$3,032,000
20135.0221	ML King NB at RB Cullum	Dallas	Dallas	Dallas	ITS	2011	$3,032,000
20135.1332	Malcolm X at ML King, Jr.	Dallas	Dallas	Dallas	ITS	2011	$3,032,000
20135.0152	IH 45 at Lamar	Dallas	Dallas	Dallas	ITS	2011	$3,032,000
20135.1666	Overton at SM Wright	Dallas	Dallas	Dallas	ITS	2011	$3,032,000
20209	US 175 from IH 45 to SM Wright (SH 310)	Dallas	Dallas	Dallas	Interchange	2010	$1,250,000

Source: http://www.nctcog.org/trans/tip/tipins/index.asp, January 2012

In an effort to reduce traffic congestion and the need for SOV lanes in the region, TxDOT and NCTCOG will continue to promote appropriate congestion reduction strategies through the Congestion Mitigation and Air Quality program, the CMP, and the MTP. The congestion reduction strategies considered for the proposed project would help alleviate congestion in the SOV study boundary, but would not eliminate it. Therefore, the proposed project is justified. The CMP analysis for added SOV capacity projects in the Transportation Management Area is on file and available for review at NCTCOG.

Mobile Source Air Toxics (MSATs)

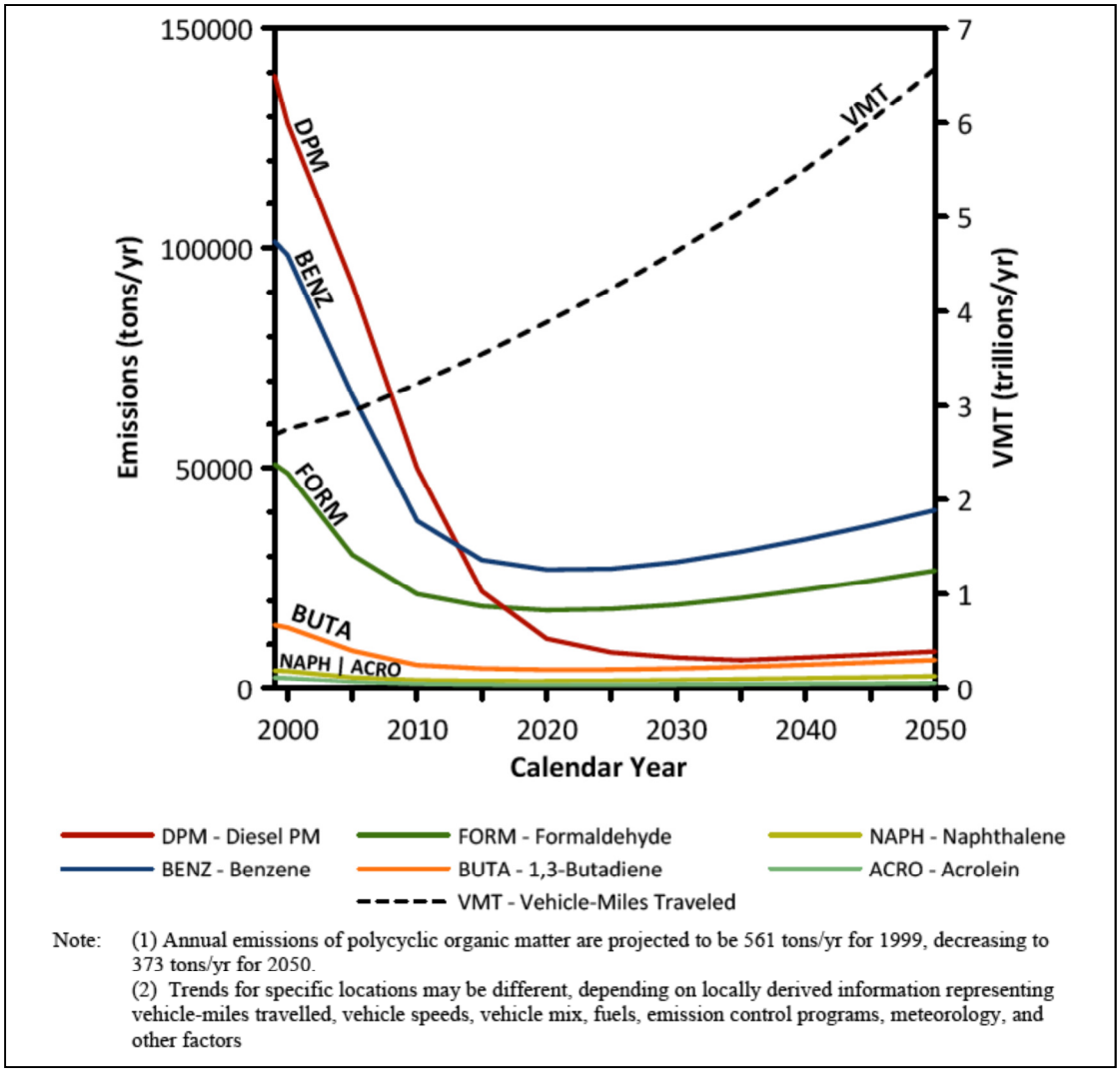
Mobile Source Air Toxics Background

Controlling air toxic emissions became a national priority with the passage of the Clean Air Act Amendments (CAAA) of 1990, whereby Congress mandated that the U.S. EPA regulate 188 air toxics, also known as hazardous air pollutants. The EPA has assessed this expansive list in their latest rule on the Control of Hazardous Air Pollutants from Mobile Sources (Federal Register, Vol. 72, No. 37, page 8430, February 26, 2007) and identified a group of 93 compounds emitted from mobile sources that are listed in their Integrated Risk Information System (IRIS).[24] In addition, EPA identified seven compounds with substantial contributions from mobile sources that are among the national and regional-scale cancer risk drivers from their 1999 National Air Toxics Assessment (NATA).[25] These are acrolein, benzene, 1,3-butadiene, diesel particulate matter (DPM) plus diesel exhaust (DE) organic gases, formaldehyde, naphthalene, and polycyclic organic matter (POM). While FHWA considers these the priority mobile source air toxics, the list is subject to change and may be adjusted in consideration of future EPA rules.

The 2007 EPA rule mentioned above requires controls that will dramatically decrease MSAT emissions through cleaner fuels and cleaner engines. According to an FHWA analysis using EPA's MOBILE6.2 model, even if vehicle activity (vehicle-miles travelled, VMT) increases by 145 percent as assumed, a combined reduction of 72 percent in the total annual emission rate for the priority MSAT is projected from 1999 to 2050, as shown in **Figure 5-1** and **Table 5-4**.

[24] http://www.epa.gov/ncea/iris/index.html
[25] http://www.epa.gov/ttn/atw/nata1999

FIGURE 5-1. NATIONAL MSAT EMISSION TRENDS 1999 – 2050 FOR VEHICLES OPERATING ON ROADWAYS USING EPA'S MOBILE6.2 MODEL



Source: FHWA Interim Guidance on Air Toxic Analysis in NEPA[26] Documents, September 30, 2009.

[26] National Environmental Policy Act of 1969.

TABLE 5-4. NATIONAL MSAT EMISSIONS AND PERCENT REDUCTION FOR 1999-2050 FOR VEHICLES OPERATING ON ROADWAYS USING EPA'S MOBILE 6.2 MODEL

Pollutant/VMT	Pollutant Emissions (tons) and Vehicle-Miles Traveled (VMT) by Calendar Year							Reduction
	1999	2000	2010	2020	2030	2040	2050	1999 to 2050
Acrolein	2570	2430	1000	775	824	970	1160	-55%
Benzene	102000	98400	38000	27000	28700	33900	40500	-60%
1,3-Butadiene	14400	14100	5410	4360	4630	5460	6520	-55%
Diesel PM	139000	128000	50000	11400	7080	7070	8440	-94%
Formaldehyde	50900	48800	21400	17800	19000	22400	26800	-47%
Naphthalene	4150	4030	1990	1780	2030	2400	2870	-31%
Polycyclic Organic Matter	561	541	259	233	265	313	373	-33%
Trillions VMT	2.69	2.75	3.24	3.88	4.63	5.51	6.58	145%
Source: U.S. Environmental Protection Agency. MOBILE6.2 Model run 20 August 2009								

Air toxics analysis is a continuing area of research. While much work has been done to assess the overall health risk of air toxics, many questions remain unanswered. In particular, the tools and techniques for assessing project-specific health outcomes as a result of lifetime MSAT exposure remain limited. These limitations impede the ability to evaluate how the potential health risks posed by MSAT exposure should be factored into project-level decision-making within the context of the National Environmental Policy Act (NEPA). The FHWA, EPA, the Health Effects Institute (HEI), and others have funded and conducted research studies to try to more clearly define potential risks from MSAT emissions associated with highway projects. The FHWA will continue to monitor the developing research in this emerging field.

Project Specific MSAT Assessment

A quantitative analysis provides a basis for identifying and comparing the potential differences among MSAT emissions, if any, from the various alternatives. The quantitative assessment presented below is derived in part from a study conducted by the FHWA entitled *A Methodology for Evaluating Mobile Source Air Toxic Emissions Among Transportation Project Alternatives*, found at: http://www.fhwa.dot/environmental/air_quality/air_toxics/research_and_analysis/mobile_source_air_toxics/msatemissions.pdf.

MSAT Modeling

This analysis was completed using the latest version of the EPA's mobile emission factor model (MOBILE6.2). The MOBILE6.2 emission factors are consistent with those used to develop the SIP and conformity determination for North Central Texas. These factors do not yet reflect the EPA Final Rules on Control of Hazardous Air Pollutants from Mobile Sources[27], that when implemented, will substantially reduce emissions of benzene and other MSATs; the rule became effective on April 27, 2007.

[27] 72 FR 8427 (February 26, 2007), affecting changes to Title 40 CFR Parts 59, 80, 85 and 86.

The MSAT study area is composed of an "affected transportation network." The SM Wright project affected transportation network includes the proposed network links and other transportation model links reflecting a plus or minus five or greater percent change in traffic volume when comparing the Build and No-Build scenarios in the year 2035. The links represent roadway segments within a transportation network utilized for traffic demand modeling. Each link contains, among other information, length, traffic volume, number of lanes, speed, and direction of flow that characterize each link. NCTCOG provided the DFW transportation networks used in this EA. The plus or minus five percent threshold was adopted as the basis to determine the affected transportation network study area.

The 2012 base year scenario represents the existing condition. The affected transportation network for 2012 is composed of those links determined to change plus or minus five or greater percent in the 2035 Build/No-Build comparison, and which currently exist in the 2012 network. The parameters used to characterize the travel activity utilized in the analysis included directional speeds and traffic volumes for the AM peak period, PM peak period, and off-peak period. See **Appendices C-1** and **C-2** for the MSAT affected transportation network maps (years 2012 and 2035, respectively).

For the purpose of this analysis, three scenarios were modeled:

- "2012 base year" or existing condition in 2012;
- "2035 design year" Build; and
- "2035 design year" No-Build.

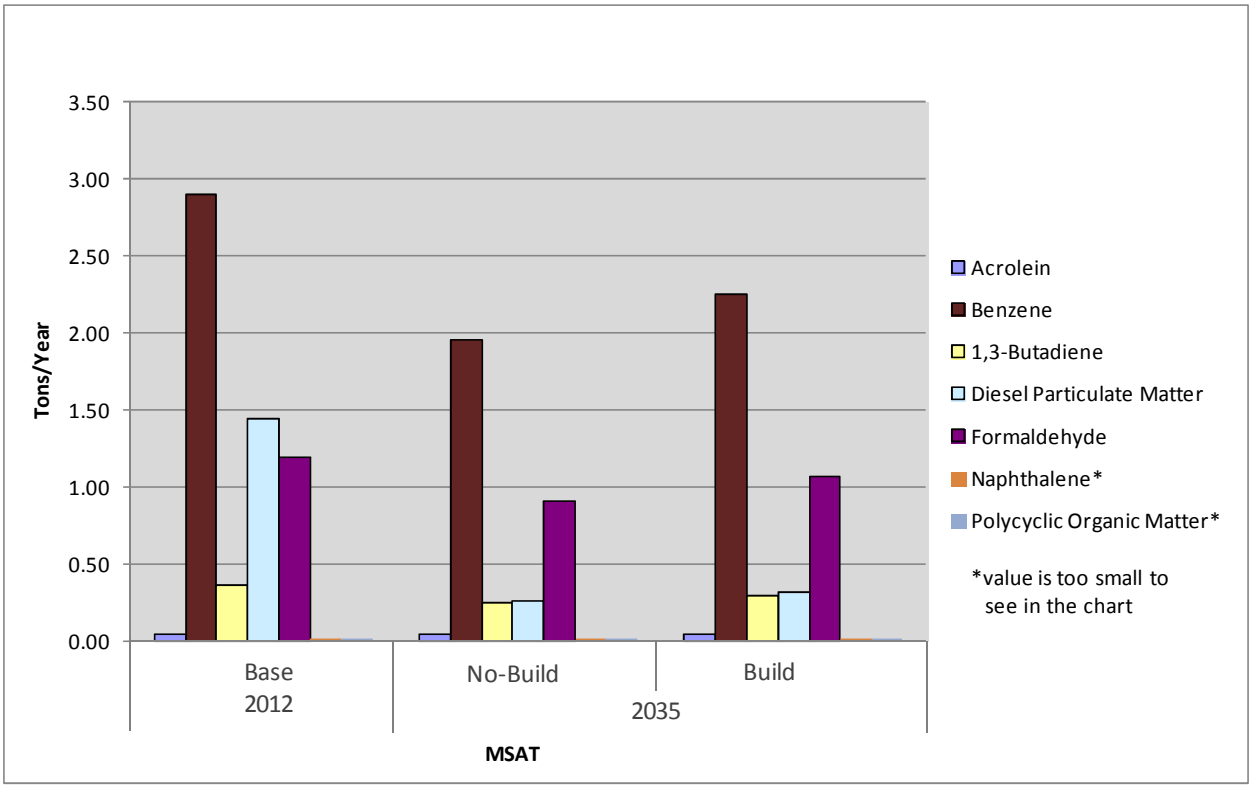
Specific data from the MSAT study area of the NCTCOG Regional Transportation Model was used to determine the mass of MSAT emissions associated with the base case or existing year 2012 and the 2035 Build and No-Build scenarios. The total mass of MSATs in the year 2012 was higher than either the Build or No-Build scenarios in the year 2035 even though the projected total VMT was higher. This is reflective of the overall national trend in MSATs as previously described.

The proposed SM Wright project quantitative MSAT analysis estimates the total amount(s) of the seven priority air toxics as shown in **Table 5-5** and **Figure 5-2**.

TABLE 5-5. MSAT EMISSIONS BY SCENARIO (TONS/YEAR)

Compound (Tons/Year)	Year / Scenario			Percent Difference	
	2012 Base	2035 No-Build	2035 Build	2012 to 2035 No-Build	2012 to 2035 Build
Acrolein	0.05	0.04	0.05	-20	0
Benzene	2.90	1.95	2.25	-33	-22
1,3-Butadiene	0.36	0.25	0.29	-31	-19
Diesel Particulate Matter (DPM)	1.44	0.26	0.32	-82	-77
Formaldehyde	1.19	0.91	1.07	-24	-10
Naphthalene	0.01	0.01	0.01	0	0
Polycyclic Organic Matter (POM)	0.0015	0.0015	0.0017	0	15
Total MSAT	**5.95**	**3.42**	**3.99**	**-43**	**-33**
Total VMT (Miles/Year)	**263,895,033**	**421,510,037**	**487,621,549**	**60**	**85**
Source: NCTCOG (December 2011)					

FIGURE 5-2. PROJECTED CHANGES IN MSAT EMISSIONS BY SM WRIGHT PROJECT SCENARIO OVER TIME



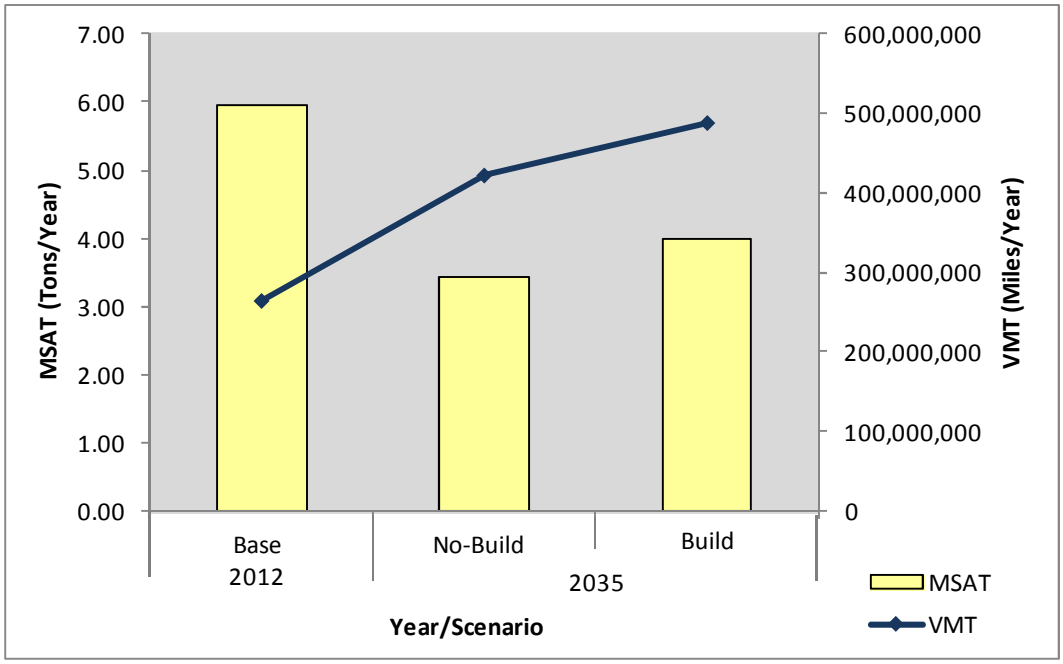
Source: NCTCOG data and Project Study Team (2011).

The analysis indicates a decrease in MSAT emissions can be expected for both the Build and No-Build Alternatives in year of 2035 as compared to the 2012 base year. The 2035 Build Alternative emissions of total MSATs are predicted to decrease by 33 percent as compared with 2012 emissions.

Of the seven priority MSAT compounds, benzene and DPM contribute the most to the emissions total in 2012. In future years, a decline in benzene is anticipated (a 22 percent reduction in benzene from 2012 compared to the 2035 Build scenario), and an even larger reduction in DPM emissions is predicted (77 percent decrease from 2012 compared to the 2035 Build scenario).

As shown in **Figure 5-3**, total MSAT emissions plotted over time are predicted to decrease even though overall VMT continues to rise.

FIGURE 5-3. COMPARISON OF MSAT EMISSIONS VERSUS VMT BY SCENARIO



Source: NCTCOG Data and Halff Study Team (2011).

The amount of MSATs emitted would be proportional to the VMT, assuming that other variables such as fleet mix are the same for each alternative. The VMT estimated for the Build scenario is higher than that for the No-Build scenario, because the additional capacity increases the efficiency of the roadway and attracts rerouted trips from elsewhere in the transportation network. This increase in VMT would lead to higher MSAT emissions for the Build scenario along the highway corridor, along with a corresponding decrease in MSAT emissions along the parallel routes. The emissions increase is offset somewhat by lower MSAT emission rates due to increased speeds; according to EPA's MOBILE6 emissions model, emissions of all of the priority MSATs except for DPM decrease as speed increases. The extent to which

these speed-related emissions decreases would offset VMT-related emissions increases cannot be reliably projected due to the inherent deficiencies of technical models.

Emissions in the design year 2035 would likely be lower than existing levels as a result of EPA's national control programs that are projected to reduce annual MSAT emissions by 72 percent from 1999 to 2050. Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. However, the magnitude of the EPA-projected reductions is so great (even after accounting for VMT growth) that MSAT emissions in the study area are likely to be lower in the future than they are now.

The additional travel lanes and the new DC ramps would have the effect of moving some traffic closer to nearby homes, schools and businesses; therefore, there may be localized areas where ambient concentrations of MSATs could be higher under the Build scenario than the No-Build scenario. The localized increases in MSAT concentrations would likely be most pronounced along the improved roadway sections that would be built along CF Hawn Freeway (US 175) from IH 45 to the eastern project limit and IH 45 from south of Lamar Street to the northern project limit. However, the magnitude and the duration of these potential increases compared to the No-Build scenario cannot be reliably quantified due to incomplete or unavailable information in forecasting project-specific MSAT health impacts. In sum, when a roadway is improved and, as a result, moves closer to receptors, the localized level of MSAT emissions for the Build scenario could be higher relative to the No-Build scenario, but this could be offset due to increases in speeds and reductions in congestion (which are associated with lower MSAT emissions). Also, MSATs will be lower in other locations when traffic shifts away from them. However, on a regional basis, EPA's vehicle and fuel regulations, coupled with fleet turnover, will over time cause substantial reductions that, in almost all cases, will cause region-wide MSAT levels to be substantially lower than today.

Incomplete or Unavailable Information

In FHWA's view, information is incomplete or unavailable to credibly predict the project specific health impacts due o changes in MSAT emissions associated with a proposed set of highway alternatives. The outcome of such an assessment, adverse or not, would be influenced more by the uncertainty introduced into the process through assumption and speculation rather than any genuine insight into the actual health impacts directly attributable to MSAT exposure associated with a proposed action.

The U.S. EPA is responsible for protecting the public health and welfare from any known or anticipated effect of an air pollutant. They are the lead authority for administering the Clean Air Act (CAA) as well as the CAAA and have specific statutory obligations with respect to hazardous air pollutants and MSAT. The EPA is in the continual process of assessing human health effects, exposures, and risks posed by air

pollutants. They maintain the IRIS, which is "a compilation of electronic reports on specific substances found in the environment and their potential to cause human health effects."[28] Each report contains assessments of noncancerous and cancerous effects for individual compounds and quantitative estimates of risk levels from lifetime oral and inhalation exposures with uncertainty spanning perhaps an order of magnitude.

Other organizations are also active in the research and analyses of the human health effects of MSAT, including the HEI. Two HEI studies are summarized in Appendix D of FHWA's *2009 Interim Guidance Update on Mobile Source Air Toxic Analysis in NEPA Documents*, which can be found online.[29] This Appendix also discusses a variety of FHWA research initiatives related to air toxics. Among the adverse health effects linked to MSAT compounds at high exposures are cancer in humans in occupational settings; cancer in animals; and irritation to the respiratory tract, including the exacerbation of asthma. Less obvious is the adverse human health effects of MSAT compounds at current environmental concentrations[30] or in the future as vehicle emissions substantially decrease.[31]

The methodologies for forecasting health impacts include emissions modeling; dispersion modeling; exposure modeling; and then final determination of health impacts - each step in the process building on the model predictions obtained in the previous step. All are encumbered by technical shortcomings or uncertain science that prevents a more complete differentiation of the MSAT health impacts among a set of project alternatives. These difficulties are magnified for lifetime (i.e., 70 year) assessments, particularly because unsupportable assumptions would have to be made regarding changes in travel patterns and vehicle technology (which affects emissions rates) over that time frame, since such information is unavailable. The results produced by the EPA's MOBILE6.2 model, the California EPA's EMFAC2007 model, and the EPA's MOVES model in forecasting MSAT emissions are highly inconsistent. Indications from the development of the MOVES model are that MOBILE6.2 underestimates diesel particulate matter (PM) emissions and overestimates benzene emissions.

Regarding air dispersion modeling, an extensive evaluation of EPA's guideline CAL3QHC model was conducted in an NCHRP study[32], which documents poor model performance at ten sites across the country - three where intensive monitoring was conducted plus an additional seven with less intensive monitoring. The study indicates a bias of the CAL3QHC model to overestimate concentrations near highly congested intersections and underestimate concentrations near uncongested intersections. The consequence of this is a tendency to overstate the air quality benefits of mitigating congestion at intersections. Such poor model performance is less difficult to manage for demonstrating compliance

[28] EPA, http://www.epa.gov/ncea/iris/index.html
[29] http://www.fhwa.dot.gov/environment/air_quality/air_toxics/policy_and_guidance/100109guidmem.cfm
[30] HEI, http://pubs.healtheffects.org/view.php?id=282
[31] HEI, http://pubs.healtheffects.org/view.php?id=306
[32] http://www.epa.gov/scram001/dispersion_alt.htm#hyroad

with National Ambient Air Quality Standards for relatively short time frames than it is for forecasting individual exposure over an entire lifetime, especially given that some information needed for estimating 70-year lifetime exposure is unavailable. It is particularly difficult to reliably forecast MSAT exposure near roadways, and to determine the portion of time that people are actually exposed at a specific location.

There are considerable uncertainties associated with the existing estimates of toxicity of the various MSAT, because of factors such as low-dose extrapolation and translation of occupational exposure data to the general population, a concern expressed by HEI.[33] As a result, there is no national consensus on air dose-response values assumed to protect the public health and welfare for MSAT compounds, and in particular for diesel PM. The EPA[34] and the HEI[35] have not established a basis for quantitative risk assessment of diesel PM in ambient settings.

There is also the lack of a national consensus on an acceptable level of risk. The current context is the process used by the EPA as provided by the CAA to determine whether more stringent controls are required in order to provide an ample margin of safety to protect public health or to prevent an adverse environmental effect for industrial sources subject to the maximum achievable control technology standards, such as benzene emissions from refineries. The decision framework is a two-step process. The first step requires EPA to determine a “safe” or “acceptable” level of risk due to emissions from a source, which is generally no greater than approximately 100 in a million. Additional factors are considered in the second step, the goal of which is to maximize the number of people with risks less than one in a million due to emissions from a source. The results of this statutory two-step process do not guarantee that cancer risks from exposure to air toxics are less than one in a million; in some cases, the residual risk determination could result in maximum individual cancer risks that are as high as approximately 100 in a million. In a June 2008 decision, the U.S. Court of Appeals for the District of Columbia Circuit upheld EPA's approach to addressing risk in its two-step decision framework. Information is incomplete or unavailable to establish that even the largest of highway projects would result in levels of risk greater than safe or acceptable. Because of the limitations in the methodologies for forecasting health impacts described, any predicted difference in health impacts between alternatives is likely to be much smaller than the uncertainties associated with predicting the impacts. Consequently, the results of such assessments would not be useful to decision makers, who would need to weigh this information against project benefits, such as reducing traffic congestion, accident rates, and fatalities plus improved access for emergency response, that are better suited for quantitative analysis.

[33] http://pubs.healtheffects.org/view.php?id=282
[34] http://www.epa.gov/risk/basicinformation.htm#g
[35] http://wwwcf.fhwa.dot.gov/exit.cfm?link=http://pubs.healtheffects.org/getfile.php?u=395

Conclusion

In this document, a quantitative MSAT assessment has been provided relative to the Build and No-Build alternatives of MSAT emissions and has acknowledged that the Build Alternative may result in increased exposure to MSAT emissions in certain locations, although the concentrations and duration of exposures are uncertain, and because of this uncertainty, the health effects from these emissions cannot be estimated.

5.2 Community Impact Assessment

The following assessment is an evaluation of the potential impacts of the proposed project on the community and its quality of life in relation to such issues as regional and community growth, land use, Section 4(f) and 6(f) properties, economic impacts, relocations and displacements, access, and community cohesion. Limited English Proficiency (LEP) populations, environmental justice, public facilities and services, aesthetics, noise, and traffic operations were also evaluated. As previously established, the proposed project is located within the City of Dallas. **Appendix A-1** shows the project location within the City of Dallas.

5.2.1 Regional and Community Growth

No-Build Alternative

The No-Build Alternative would not support the projected population growth and planned economic development in Dallas County or the neighborhoods within and near the project area, since no roadway improvements would be implemented. Mobility in the project area would be constrained.

Build Alternative

Extensive coordination occurred between the NCTCOG, Dallas County, and the City of Dallas regarding potential future developments. The proposed project has taken into consideration local comprehensive plans as well as 2035 demographic and economic projections in the project area. The following discussion includes a brief profile of the City of Dallas, as well as general business trends, current major planned development, and forecasted population trends.

City of Dallas

The proposed project is located within the City of Dallas. Established in 1841, the City of Dallas is the third largest city in the state of Texas, with a population of 1,197,816 (according to the 2010 Census) and a median household income of $41,682 per year (according to the 2006-2010 American Community Survey (ACS) estimates data).[36] The city consists of approximately 340.52 square miles of land.

[36] The latest Census data has been utilized to obtain all socioeconomic data. The 2010 Census data was used to obtain population counts and basic characteristics, while the Census Bureau's American Community Survey (ACS) 2006 – 2010 estimate data was used to obtain demographic, social, economic and housing characteristics.

Various means of public transportation are provided within the City of Dallas including the DART rail and bus services, which provide service to destinations in Dallas, Carrollton, Farmers Branch, Garland, Plano and Richardson. Other services offered include the M-Line Trolley, which provides access to commuter travel in the downtown area; the Trinity Railway Express (TRE) Commuter Rail, which provides access between Dallas and the City of Fort Worth; and the National Railroad Passenger Corporation, Amtrak, which provides access to national travel. In September of 2009, DART completed construction of the Green Line in South Dallas, which included construction Transit Stations at Fair Park and the MLK Jr. Station near J.B. Jackson Avenue. In addition, the construction of Hatcher Street Station at Hatcher Street and Scyene Road was completed in December 2010. Associated transit oriented development (TOD) is planned for the MLK Station and around the Hatcher Station. Such TOD is characteristic of the continued push towards mixed-use and commercial development throughout much of the city's urban core.

Additional transportation improvements are included in *Forward Dallas!*[37], the city's comprehensive plan approved by the Dallas City Council in 2006, is a guide for making decisions about growth and development. The plan focuses on improving education, public safety, healthy environment, job growth, convenient transportation, and the quality of life to the residents. The plan's key initiatives include enhancing the economy, making quality housing more accessible, creating strong and healthy neighborhoods, enhancing transportation systems, ensuring environmental sustainability, and encouraging new development patterns.

The city's economy is primarily based on banking, commerce, telecommunications, computer technology, energy, and transportation. Several major employers or activity centers are located within the City of Dallas and are considered major traffic generators. These include healthcare, manufacturing, transportation, finance, retail, administration, construction, hotels, professional/technical, wholesale, and educational facilities. This involves the Southern Methodist University, the University of Texas – Dallas, and the University of Dallas. Also located in the City of Dallas are two professional teams, the Dallas Mavericks basketball team and the Dallas Stars hockey team.

Regional and Community Population Trends

According to the 2010 Census, the 2010 population in the North Central Texas region is just over 6.5 million.[38] **Table 5-6** summarizes the population forecasts for Dallas County and the City of Dallas.

[37] http://www.dallascityhall.com/forwardDallas/pdf/Vision.pdf
[38] http://www.nctcog.org/ris/census/2010/Population_by_Age.pdf

TABLE 5-6. HOUSEHOLD[1] POPULATION TRENDS FOR CITY OF DALLAS AND DALLAS COUNTY

Location	2005	2035 Projected	2040 Projected	Percent Change 2005 to 2035	Percent Change 2005 to 2040
City of Dallas	1,307,899	1,652,479	1,713,662	26.3 (0.9%/year)	31.0 (0.9%/year)
Dallas County	2,273,250	3,125,282	3,265,190	37.5 (1.3%/year)	43.6 (1.2%/year)

Note:
1. Excludes in group quarters such as dormitories, correctional facilities, and nursing homes.

Source: NCTCOG 2040 Demographic Forecast: http://www.nctcog.org/ris/demographics/forecast/County2040.pdf, accessed March 2012.

As shown in **Table 5-6**, the estimated percent change in population growth from 2005 to 2035 for Dallas County is projected to be higher than growth within the City of Dallas. The overall average annual rate of population growth ranges from 0.9 percent to 1.3 percent for these demographic areas. Information from City of Dallas planners indicates the citywide growth rate for the period 2000 through 2009 averaged 1.2 percent per year.

The Build Alternative would support the regional and community growth in Dallas County and in the project area. The proposed improvements are included in regional, county, and municipal future transportation plans, and would address the transportation needs in the corridor as well as the transportation needs of Dallas County. The proposed improvements are in response to the current roadway's safety concerns at the existing US 175/SH 310 interchange, other design standard deficiencies, as well as the need for improved capacity and mobility within the project area.

The proposed reconstruction (which includes downsizing the SM Wright Freeway to a low speed urban arterial, improvements to the CF Hawn Freeway (US 175) and the addition of DC ramps to IH 45, as well as the construction of a new interchange with IH 45) would accommodate transportation needs by improving safety, updating the current freeway facility to meet urban freeway design standards, managing congestion, and improving mobility. In addition, the downgrading of the SM Wright Freeway facility could assist with restoring connectivity within the surrounding neighborhoods.

The improved mobility resulting from the proposed project could indirectly attract and/or influence the rate, type and amount of land development, thereby influencing economic growth for the area as new residents commute within the region. The potential for the proposed improvements to result in such indirect impacts is evaluated in **Section 6.0**.

5.2.2 Land Use

No-Build Alternative

Under the No-Build Alternative, land use would not be directly affected by the acquisition of land for transportation use. In addition, no FPPA or Section 4(f) coordination would be required.

Build Alternative

The proposed project is within the jurisdiction of the City of Dallas. The City of Dallas has an active Planning and Development Department and a current zoning ordinance. Zoning protects the rights of property owners while promoting the general welfare of the community. A zoning ordinance can govern private land use and segregate incompatible uses by dividing land into categories according to use, and setting regulations for these categories. The purpose of zoning is to locate particular land uses where they are most appropriate, considering public utilities, road access, and the established development pattern. In addition to categorizing land by uses such as residential, commercial, and industrial, a zoning ordinance also specifies such details as building setback lines, the height and bulk of buildings, the size and location of open spaces, and the intensity to which the land may be developed.

According to the City of Dallas' online Interactive Zoning Map[39], the zoned categories of land use directly adjacent to the proposed project include the following: single-family and duplex residential category (R-5(A), R-7.5(A) and D(A)), community mixed-use general (RS-MU), multifamily residential (MF-1(A), MF-2(A), and MF-3(A)), industrial manufacturing (IM), neighborhood commercial (NC), community commercial (CC), and parking (P(A).[40]

Land use in the project area is considered mostly urban land with some undeveloped land. Existing land use would be affected by the conversion of 31.1 acres to transportation use; however, this conversion is not anticipated to substantially change the local and regional land use planning efforts. **Table 5-7** shows a breakdown of proposed ROW acquisition by development type.

TABLE 5-7. PROPOSED ROW ACQUISITION BY DEVELOPMENT TYPE

Development Type	Acres	Percentage of Proposed ROW
Undeveloped Land	4.99	16%
Developed Residential Land	0.7	2%
Developed Commercial Land	24.38	79%
UPRR	1.04	3%
Undeveloped Easement	0	0%
Developed Commercial Easement	0	0%
Total ROW Required	**31.1**	**100%**

[39] http://gis.dallascityhall.com/zoningweb/

[40] http://www.dallascityhall.org/pdf/planning/ZoningDistrictStandards.pdf

The project also consists of 171.20 acres of existing ROW that is currently used for transportation. Approximately 1.46 acres of this existing ROW would be converted to a different transportation use in order to accommodate the US 175/CF Hawn Freeway extension between Lamar Street and the SM Wright Parkway. The total construction footprint for the proposed project (including existing and proposed ROW) is approximately 202.3 acres.

5.2.3 Section 4(f) and 6(f) Properties

No-Build Alternative

Implementation of the No-Build Alternative would not impact any Section 4(f) or Section 6(f) resources.

Build Alternative

Section 4(f) refers to the original section within the USDOT Act of 1966 (49 USC 303 and 23 USC 138) which created the requirement for consideration of park and recreational lands, wildlife and waterfowl refuges, and public and private historic sites in transportation project development. Section 4(f) applies to all projects that receive funding from or require approval by an agency of the USDOT, including the FHWA. Section 4(f) states that the FHWA shall not approve the use of publicly owned land from a public park, recreation area, or wildlife and waterfowl refuge of national State, or local significance, or public or private land of an historic site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction) unless (1) there is no feasible and prudent alternative and (2) all possible planning to minimize harm from such use has occurred. Section 4(f) is now implemented by the FHWA through 23 CFR 774 effective March 12, 2008. Under FHWA's regulations, the "use" of a Section 4(f) resource occurs when:

1. Land from a Section 4(f) property is permanently acquired for a transportation project;
2. When there is a temporary occupancy of land that is adverse in terms of the statute's preservation purpose; or
3. When there is a constructive use of the Section 4(f) property. A constructive use occurs when the transportation project does not physically incorporate land from a Section 4(f) property, but the project's proximity impacts are so severe that the protected activities, features, or attributes that qualify the property for protection under Section 4(f) are substantially impaired.

There are no wildlife or waterfowl refuges in the project area. In regards to historic sites, there are no previously recorded archeological historic properties (36 CFR 800.16(l)) within the project area of potential effect (APE) and TxDOT determined, pursuant to the First Amended Programmatic Agreement among the FHWA, TxDOT, the Texas State Historic Preservation Officer (TSHPO), and the Advisory Council on Historic Preservation (ACHP) Regarding the Implementation of Transportation Undertakings

(PA-TU), that the proposed project is not likely to affect archeological historic properties and that no survey is warranted (see **Section 5.3.2**). Two National Register of Historic Places (NRHP)-listed historic districts (Colonial Hill Historic District and South Boulevard-Park Row Historic District), one NRHP-eligible historic district (Central Park Historic District), and one structure (Forest Theater) were determined by TxDOT to be individually eligible for listing in the NRHP and were identified within the APE for the proposed project (see **Section 5.3.1**). The proposed project would not require ROW from these historic properties. In addition, TxDOT evaluated potential proximity impacts and determined the proposed project would have no adverse effect on the historic properties. As such, there would be no "use" of historic properties as defined under Section 4(f). TxDOT initiated Section 106 consultation with the TSHPO on January 18, 2012 requesting concurrence with the determinations of eligibility and effects, and a no adverse effect determination was issued on February 7, 2012 (see **Appendix C-6**). No further consideration under Section 4(f) for historic sites is anticipated.

Two existing public parks, Kimble Park and William Blair, Jr. Park (formerly Rochester Park), are located adjacent to the project area. In addition, an area referred to as the "Great Trinity Forest" that is planned for multiple uses, including flood control, ecosystem restoration and mitigation, recreation, and parkland, extends into the project area. These resources and the potential impacts from the proposed project are described below.

Kimble Park is a public park that is located adjacent to the east side of the existing SM Wright Freeway between Pennsylvania Avenue and Warren Street. This City of Dallas urban park has an area of approximately 1.23 acres, and the majority of the park area is open space (see aerial photograph in **Appendix A-6, Page 3**). Amenities at Kimble Park include small playground equipment, a picnic area, and a basketball court. The park is surrounded on three sides by residential streets and neighborhoods.

The proposed project would not require ROW acquisition at Kimble Park, and would not change accessibility to the park or impair aesthetic features of the park. The existing northbound SM Wright Freeway frontage road, mainlane embankment, and bridge crossing over Pennsylvania Avenue are currently visible from the park. As previously discussed, the proposed project would downgrade the facility from a freeway to a low speed arterial. The proposed reconstruction would involve shifting the mainlanes slightly to the west away from the park and lowering the facility at Pennsylvania Avenue to an at-grade, signalized intersection. The existing northbound frontage road located immediately adjacent to the park would be removed, creating a buffer approximately 80 to 100 feet wide between the roadway edge of pavement and the park. Extensive aesthetic improvement alternatives have been presented at public involvement activities to develop a concept accepted by the adjacent neighborhoods would be constructed along the proposed SM Wright Parkway. Based on the noise analysis (see **Section 5.2.13**), Kimble Park has existing noise levels ranging from 71 to 74 dBA average/equivalent sound level (Leq),

which exceeds FHWA Noise Abatement Criteria (NAC). The existing noise levels at the park are primarily due to existing traffic on the SM Wright Freeway. The predicted future noise levels at the park with the proposed project in place range from 60 to 61 dBA Leq, a decrease of 11 to 13 dBA Leq. The reduction in noise levels can be attributed to lower speeds on the downgraded facility, the minor alignment shift described above, and a reduction in traffic volumes from traffic being redirected from SM Wright to IH 45 by the DC ramps that would be constructed between US 175/CF Hawn Freeway and IH 45 (see **Section 3.3**). As a result, the park would not be noise impacted in the predicted future condition. In sum, the proposed project would not involve acquisition of land from the park or substantially impair the park's activities, features, or attributes; therefore, further consideration under Section 4(f) for this property is not anticipated.

William Blair, Jr. Park (formerly Rochester Park) is a large park approximately 983 acres in size generally located east of IH 45 and south of US 175/CF Hawn Freeway (**Appendix A-6, Pages 4-6**). This City of Dallas park is located directly south and east of the project area. Amenities at William Blair, Jr. Park are primarily located in the area of the park along Municipal Street south of US 175/CF Hawn Freeway and include a lake, trails, playground equipment, picnic areas, a baseball diamond, and a basketball court. The majority of the park, including the area located adjacent to the east of IH 45 and the proposed project, is forested open space. Accessibility to the area of the park closest to the proposed project is limited as there are no park roads or maintained trails providing access to this area.

The proposed project would not require ROW acquisition at William Blair, Jr. Park and would not change accessibility to the park. The proposed project would involve reconstruction of the southbound IH 45 entrance ramp from Lamar Street, and the proposed design places the entrance ramp merge with IH 45 on the opposite side of the interstate from park lands. The new visual element in this area would be consistent with the existing IH 45 bridge structure and would be somewhat screened from the park by the existing facility. The proposed project elements are unlikely to be observed from the park due to the access limitations described above and screening provided by vegetation in the area. The proposed project elements would not be visible to users of the park amenities. The traffic analysis performed for the project indicates traffic volumes in the southern segment of IH 45 adjacent to the park would be the same in the design year for the proposed project compared to the No-Build scenario, and as such, noise levels in the area would not be affected by the proposed project. Because the proposed project would not require land acquisition from the park and would not substantially impair the park’s activities, features, or attributes, further consideration under Section 4(f) for this property is not anticipated.

The “Great Trinity Forest” refers to an area of approximately 7,000 acres of land, of which approximately 4,600 acres are forested, generally located south and east of the proposed project that is planned for multiple uses including parkland, recreation, ecosystem restoration, and flood control (see **Appendix C-7,**

C8, and aerial photographs in **Appendix A-6, Pages 6** and **7**). The Great Trinity Forest includes a large area of floodplain associated with the main stem of the Trinity River from the south end of the Dallas Floodway at the Atchison, Topeka, and Santa Fe (AT&SF) Railroad bridge downstream to IH 20 and the White Rock Creek floodplain upstream from the Trinity River to IH 30. The floodplain area along IH 45 between the Union Pacific Railroad and the Trinity River in the project area is considered part of the Great Trinity Forest (**Appendix C-8**).

In March 1997, Dallas City Council approved *The Great Trinity Forest Master Plan*, which outlined the acquisition and preservation of forest and provided the framework to carefully guide development in the area. The city plan set a goal for acquisition of over 2,500 acres of privately owned land that would knit together existing public parks and open space into a vast, contiguous corridor of public lands. According to Dallas Central Appraisal District (DCAD) records, a total of over 6,000 acres of land within the boundaries suggested by the city for the Great Trinity Forest are now publicly owned (i.e., city, county, and state ownership). These publicly owned lands encompass eight separate City of Dallas parks (including William Blair, Jr. Park) with a combined area of approximately 1,980 acres. The city's concept plan shows a proposed pedestrian trail and a proposed equestrian trail that would cross under IH 45 in the project area. Currently, there is no dedicated ROW for the trail concept and no definitive date to begin construction on any future Great Trinity Forest amenities in the project area.

The proposed project would require approximately 1.25 acres of ROW adjacent to IH 45 from three parcels of land owned by the City of Dallas that are within the Great Trinity Forest, but are not currently designated or used as a park or recreation area (**Appendix C-8**). The ROW acquisition is needed to accommodate the proposed reconstruction of the IH 45 entrance ramp from Lamar Street. The reconstructed ramp would be an elevated bridge structure and would not preclude future trail development by the city through the area. Until such development of future access to this area, the proposed project elements are unlikely to be observed from within the Great Trinity Forest. As previously mentioned, noise levels in the area would not be affected by the proposed project. The proposed project would result in the removal of riparian/bottomland hardwood forest from the 1.25 acres to be acquired as ROW along the west side of IH 45. The ROW acquisition represents only about 0.02 percent of the total acres of publicly owned lands in the Great Trinity Forest and even less of the total planned area. The removal of forest from the 1.25 acres to be acquired for ROW represents only about 0.03 percent of the forested area within the Great Trinity Forest.

On July 16, 2010, the FHWA issued a letter to the TxDOT Environmental Affairs Division regarding Section 4(f) applicability to the Great Trinity Forest. This letter states that lands within the Great Trinity Forest are subject to Section 4(f) regulations and analysis on a case-by-case basis as the Forest is a multi-use property. Based on previous coordination with FHWA (see **Appendix C-9**), the 1.25 acres of

land to be converted to transportation use are not currently designated as parkland or other uses subject to Section 4(f) regulations; therefore, Section 4(f) would not apply to these areas.

Section 6(f) of the Land and Water Conservation Fund (LWCF) Act (16 U.S.C. 460l) requires that outdoor recreational lands acquired or developed with Department of Interior financial assistance under the LWCF may not be converted to non-recreational use unless approval is granted by the National Park Service. LWCF grant funds are administered by the TPWD through the Texas Recreation Park Account. The parcels to be acquired as ROW for the proposed project are not encumbered by Land and Water Conservation funds; therefore, consideration under Section 6(f) is not required.

5.2.4 Economic Impacts

No-Build Alternative

Implementation of the No-Build Alternative would not improve safety, operability, connections, or mobility to support traffic associated with the projected employment growth in the project area and Dallas County.

Build Alternative

This section presents information regarding employment trends in Dallas County. Employment forecasts reported in this section were prepared and approved by NCTCOG, and represent the North Central Texas region's adopted employment forecasts for transportation planning purposes As summarized in **Table 5-8**, NCTCOG employment forecast data indicate that employment in both the City of Dallas and Dallas County is anticipated to grow through 2040.

TABLE 5-8. EMPLOYMENT TRENDS FOR DALLAS COUNTY AND MUNICIPALITIES WITHIN AND NEAR THE PROJECT AREA

Location	2005 Total Employment	2035 Projected Total Employment	2040 Projected Total Employment	Percent Change 2005 to 2035	Percent Change 2005 to 2040
City of Dallas	1,044,234	1,547,800	1,614,986	48 (1.6%/year)	55 (1.4%/year)
Dallas County	1,895,059	2,854,287	2,988,916	51 (1.7%/year)	58 (1.5%/year)
Source: NCTCOG 2040 Demographic Forecast http://nctcog.org/ris/demographics/forecast/County2040.pdf, accessed March 2012.					

As shown in **Table 5-8**, the projected 2005 to 2035 employment growth rate for the City of Dallas is projected to be approximately 48 percent, and the employment growth rate Dallas County is projected to be approximately 51 percent; the average annual employment growth rate for this period is 1.6 percent for the city and 1.7 percent for the county. Based on the employment growth data shown above, employment growth within the vicinity of the project within Dallas County is expected to continue.

The model used by the NCTCOG for the employment forecasts (shown in **Table 5-8)** is formulated to permit the integration of relevant global, national, state, and local factors into the projection process. The model accounts for the cyclical nature of employment changes including economic downturns such as the current one. While the model cannot predict exactly when economic downturns will occur, the projections shown in **Table 5-8** are long term. Over time, the job losses incurred in the current recession would be regained. None of these major employers would be impacted by ROW acquisition (see **Section 5.2.5**, below).

Major employers are defined by NCTCOG as those companies that employ over 250 people. According to NCTCOG data, there are 335 major employers in the City of Dallas. The major employers combined employ a range of approximately 182,249 to 348,671 employees.

The Build Alternative would provide a portion of the additional mobility necessary to support the increasing traffic associated with the projected employment growth in the project area.

5.2.5 Relocations and Displacements

This section describes the potential relocation and displacement impacts for the No-Build Alternative and Build Alternative. Displacements were determined from project mapping and aerial photography with alignment overlays. Impacts were confirmed through field inspections in the project area.

No-Build Alternative

Implementation of the No-Build Alternative would not require ROW acquisition, relocations, or displacements.

Build Alternative

Of the 31.1 acres of proposed ROW acquisition required for the Build Alternative, approximately 80 percent (24.38 acres) is developed land. **Table 5-9** provides descriptions of the potentially displaced properties, property addresses, as well as the number of potentially impacted structures and estimated number of employees, if applicable. The location of each potentially displaced building is shown in **Appendix A-5,** where each displacement is labeled by its corresponding ID number, listed in **Table 5-9**.

TABLE 5-9. POTENTIAL DISPLACEMENTS WITHIN THE PROJECT AREA

Schematic ID*	Property Description	Property Address	Type of Structures Displaced	Number of Potentially Affected Employees[1] NA = not applicable
NI1131	Cash For Cans	4101 Lamar St.	1 Commercial Building	1-4
NI1132	Best Scrap Metal	4115 Lamar St.	1 Commercial Building	10-19
502	Gold Metal	4305 S Lamar St.	3 Storage Sheds[1]	NA
516*	Residential	5106 Colonial Ave.	1 House	NA
520*	Residential	5108 Colonial Ave.	1 House	NA
522A,B	Ghetto Club	1645 Starks Ave.	1 Commercial Building	1-4
523*	Residential	5114 Colonial Ave.	1 House + 2 Garages	NA
528*	Residential	5105 Colonial Ave.	1 House + 1 Garage	NA
529	Residential	5122 Colonial Ave.	1 House	NA
532 & 536*	El Resbalon Bar	5102 Lamar St.	1 Commercial Building	4
538	Residential	5117 Colonial Ave.	1 House	NA
546A,B,C*	3 J's Auto Body (former Morris Garage)	5114 S Lamar St.	1 Commercial Building	2
521*	Commercial	5131 Hohen	2 Billboards	NA
504	Commercial	1510 Mooney	1 Billboard	NA
2031*	Commercial	4702 S Lamar St.	1 Billboard	NA
TOTAL			**21**	**18 - 33**

Source: Manta, www.manta.com, accessed December 2011.

Notes:
1. The three potentially displaced storage sheds are adjacent to each other and cover approximately 0.16 acre (7,000 square feet) on the approximately 14-acre parcel. The proposed project ROW would require approximately four acres out of the 14-acre property and would not affect the main buildings along Lamar Street. The potential displacement of the three storage sheds will not result in a displacement of the business and it may be possible to relocate the sheds to another onsite location; therefore, employment impacts are not applicable.

* Schematic IDs noted with an asterisk are early acquisition properties that have been purchased by the City of Dallas in accordance with the Uniform Relocation Assistance and Real Property Acquisition Act of 1970. See the below ***Early Acquisitions*** subheading and **Appendix C-11** for additional details on early acquisition parcels.

As shown in **Table 5-9,** 15 developed properties would involve the displacement of structures as a result of the proposed ROW acquisition. Of these 15 properties, six are residential and nine are commercial. These properties contain 21 structures, consisting of six single-family residences (including car garages), eight commercial structures (including buildings and canopies at gasoline service stations) and four billboards that would be displaced by the proposed project. Four of the six displaced single-family

residences (Parcel IDs 516, 520, 523 and 528) have been early acquired by the City of Dallas as noted above and explained in **Appendix C-11.** No multifamily units would be displaced by the proposed project. Four of the nine commercial properties (Parcel IDs 532 and 536, 546A,B,C, 521 and 2031) have been early acquired by the City of Dallas as noted above and explained in **Appendix C-11**.

Residential Displacements

All of the potential residential displacements are located in the City of Dallas. The 2012 assessed values of the potentially displaced single-family residential properties range from $6,300 to $35,910.[41] The single-family homes are broken out by assessed value as follows:

- Less than $10,000 – three properties (Parcel ID 516, 520, and 523)
- $10,000 to $20,000 – zero properties
- $20,000 to $40,000 – three properties (Parcel ID 528, 529, and 538)
- More than $40,000– zero properties

Four of the six potentially displaced single-family residences (Parcels 516, 520, 523 and 528) have already been early acquired by the City of Dallas as noted above and explained in **Appendix C-11**. Two of these early acquired properties (Parcel ID 516 and 520) were unoccupied; therefore, no persons were displaced.

For the remaining two potentially displaced single-family residences that have not been acquired by the City of Dallas (Parcel IDs 529 and 538), a search of homes for sale that range in price from $10,000 to $40,000 in the City of Dallas was conducted using four local residential real estate websites. The search results are shown in **Table 5-10**.

[41] Dallas Central Appraisal District (DCAD) 2012 certified data.

TABLE 5-10. NUMBER OF SINGLE-FAMILY RESIDENTIAL HOMES AVAILABLE FROM $10,000 TO $40,000*

Residential Real Estate Websites	Property Value Range	Dallas	Zip code 75215
texasmls.com	$10,000-$20,000	21	2
	$20,000-$40,000	112	7
	Total	**133**	**9**
Realestate.yahoo.com	$10,000-$20,000	55	6
	$20,000-$40,000	217	13
	Total	**272**	**19**
Realestate.com	$10,000-$20,000	25	2
	$20,000-$40,000	137	8
	Total	**162**	**10**
Trulia.com	$10,000-$20,000	36	1
	$20,000-$40,000	232	7
	Total	**268**	**8**
Note: * As of June 2011.			

As shown in **Table 5-10**, there appears to be a number of single-family homes available for sale in Dallas and within the 75215 zip code to replace the two homes potentially impacted by the proposed project, which have not been early acquired.

There is the potential that renting tenants reside in some of the displaced homes. In 2009, the City of Dallas reported a rental vacancy rate of 13.0 percent[42] and a median gross monthly rent of $784.[43] As of January 2012, 10 homes in the 75215 zip code are available for rent within the price range of $575 to $1,575 per month, varying in size from one bedroom/one bath to seven bedrooms/two bath.[44]

The City of Dallas administers a multitude of programs and funds directed toward the creation and maintenance of affordable housing. The term "affordable housing" is used with reference to the standards established by the Department of Housing and Urban Development (HUD) based on family size and median income, which are primary factors for determining eligibility for government housing assistance programs. Affordable single-family housing alternatives are also available through the City of Dallas Urban Land Bank Demonstration Program, which acquires unproductive, vacant and developable lots for affordable single-family housing development. The priority for the City of Dallas is not only to create single-family homes but also to make them affordable. The objective of the City of Dallas' Urban Land Bank Demonstration Program is to acquire unproductive, vacant, and developable lots as well as lots improved with abandoned, vacant and uninhabitable houses to be "banked" by the Dallas Housing Acquisition and Development Corporation (the "Land Bank") for affordable housing development. The

[42] http://www.huduser.org/portal/publications/PDF/CMAR_DallasTX_09.pdf
[43] http://www.city-data.com/housing/houses-Dallas-Texas.html
[44] www.realtor.com

acquisition of these lots enables new single-family homeowner development and rental housing on the lots to house low and moderate income households and stabilize distressed communities.

The two potential residential displacements that have not been acquired by the City of Dallas are valued at $26,260 and $35,910[45]. Based on **Table 5-10**, the real estate websites show that a range of eight to 19 comparable houses are available within the 75215 zip code; therefore, the two potentially displaced households do have the opportunity to relocate within the community.

Acquisition and relocation assistance would be in accordance with the TxDOT Right-of-Way Acquisition and Relocation Assistance Program. Consistent with the USDOT policy, as mandated by the Uniform Relocation Assistance and Real Properties Acquisition Act (as amended in 1987), the Civil Rights Act of 1964, and the Urban Development Act of 1974, TxDOT would provide relocation resources (including any applicable special provisions or programs) to all displaced persons without discrimination. The available structures must be open to persons regardless of race, color, religion, or nationality and be within the financial means of those individuals affected.

TxDOT is committed to coordinate with property owners and tenants to relocate to comparable housing within the community. TxDOT must provide a comparable replacement dwelling that places the displacee in the same ownership or tenancy status possessed before displacement. TxDOT's obligation is fulfilled when a comparable replacement dwelling is made available to the displacee in compliance with provisions for last resort housing. At the request of the displacee, TxDOT may provide a dwelling which changes the ownership or tenancy status of the displacee if the dwelling is available and can be provided at a cost which would not exceed the amount required to relocate the displacee to a comparable dwelling in the same ownership or tenancy status possessed before displacement. Replacement housing on a reasonable cost basis would be provided by TxDOT when it is determined that comparable replacement housing cannot be made available under normal conditions and cost limitations. Any decision to provide last resort housing assistance would be adequately justified by one of the following criteria.

- on an individual basis, for good cause, which means that appropriate consideration would be given to:
  - the availability of comparable replacement housing in the project area;
  - the resources available to provide comparable housing; and
  - the individual circumstances of the displacee.
- by a determination that:
  - there is little, if any, comparable replacement housing available to the displacee within an entire project area and last resort housing is necessary for the entire area;

[45] Dallas Central Appraisal District (DCAD) 2012 certified data.

- a project cannot proceed to completion in a timely manner without last resort housing assistance; and
- the method selected for providing last resort housing assistance is cost effective, considering all elements contributing to total project costs.

Business Displacements

The proposed project is anticipated to displace commercial properties located adjacent to the project area. As shown in **Table 5-9**, nine of the 15 properties with structures affected by the proposed ROW acquisition are commercial properties and include 12 impacted structures. The nine properties contain two restaurants/bars, one automotive repair garage, three metal recycling facilities, and four billboards. Five of the nine commercial properties have businesses that would be potentially displaced by the proposed project. However, two of the potential business displacements are located on early acquisition parcels acquired by the City of Dallas: one restaurant/bar and the automotive repair garage (Parcel IDs 532 and 536, and 546A,B,C). Three of the four billboards have been early acquired by the City of Dallas. Two of the billboards are located on Parcel 521 and one of the billboards is located on Parcel 2031. See the below ***Early Acquisitions*** subheading and **Appendix C-11** for additional details on early acquisition parcels.

Potential Relocation Sites for Commercial Displacements

Searches were conducted to find suitable replacements for businesses potentially impacted by the proposed project. A June 2011 search of an internet real estate website[46] indicated that there are approximately 43 commercial properties for sale within five miles of the project area with approximately 21 commercial (industrial and retail) properties for sale within the 75215 Zip Code.

Based on the available commercial real estate options, as mentioned above, the majority of the businesses would have opportunities to successfully relocate within their service area. There may be temporary impacts to a small community of businesses that are unlikely to remain open or likely to re-establish outside of their service area. However, the demand for services, driven by growth, could aid in the ability for potentially displaced businesses to relocate within the project area; or the demand could shift to non-displaced businesses that meet the additional demand by creating new employment opportunities. In addition, as is indicated within **Section 6.0**, the proposed improvements are anticipated to influence some development along the project alignment, which in turn would likely create future opportunities for employment. Ultimately, NCTCOG employment forecasts predict continued employment growth within the study area; and these forecasts account for the cyclical nature of employment change, including economic recession (see **Section 5.2.4**).

[46] www.loopnet.com

Both the United States and Texas Constitutions provide that no private land may be taken for public purposes without just compensation being paid. The TxDOT Right-of-Way Acquisition and Relocation Assistance Program would be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policy Act of 1970 as amended, the Civil Rights Act of 1964, and the Urban Development Act of 1974. Relocation assistance is available to all individuals, families, businesses, farmers, and non-profit organizations displaced as a result of a state highway project or other transportation project. Thus, assistance applies to tenants as well as owners occupying the real property needed for the project. TxDOT would relocate all displaced businesses up to 50 miles. The TxDOT relocation office would also provide assistance to displaced businesses and non-profit organizations to aid in their satisfactory relocation with a minimum of delay and loss in earnings. The available structures must also be open to persons regardless of race, color, religion, or nationality and be within the financial means of those individuals affected.

Labor Force

Potentially Affected Employees

As shown in **Table 5-9**, a total range of 18 to 33 employees could be affected by the proposed project, either by job relocation or job loss associated with the anticipated business displacements.

Estimating the number of potentially affected employees is a difficult task because no local agencies or organizations such as municipalities, chambers of commerce, or workforce commissions consistently track employment numbers per employer. Employment statistics likely fluctuate in varying degrees per business due to various economic elements such as turnover rates, regional growth, unemployment trends, etc. Because of the unavailability of locally produced employment information, Manta, a website providing profiles covering both large and small businesses worldwide, was utilized to assist with the estimation of potentially affected employees at displaced businesses. Data were acquired on each specific business in question, or if unavailable, information on a comparable business (i.e., another location/branch or business similar in size, function, etc.) was used. **Table 5-9** lists the potential number of affected employees for all potentially displaced businesses. Wage information cannot be provided, as data at this level of detail is not available for public use.

Composition of Labor Force Potentially Affected

The range in labor force anticipated to be impacted by the proposed project mainly consists of low skill level, minimally educated, minimum wage hourly workers (e.g., restaurant, and services occupations). Because no federal, state, or local agencies (e.g., U.S. Department of Labor, Bureau of Labor Statistics, Texas Workforce Commission, municipalities, chambers of commerce, or other employment-focused organizations) track specific skill level, educational attainment, experience requirements, or wage

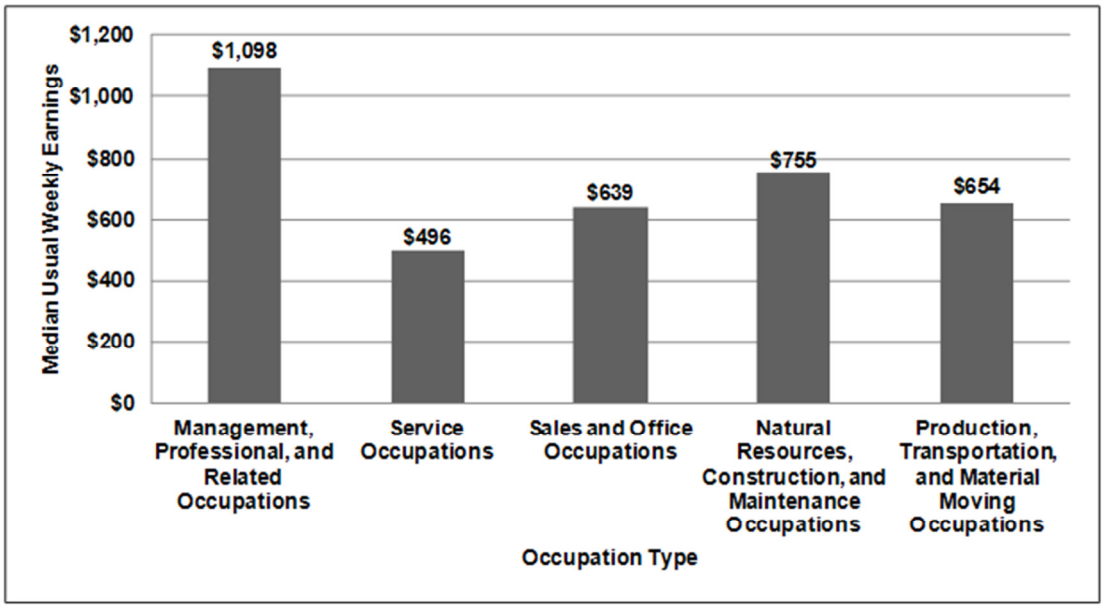
information for specific business entities, assumptions must be established to provide the context of the range of labor force found adjacent to the project area.

According to the Bureau of Labor Statistics (BLS), approximately 59 percent of wage and salary workers were paid hourly rates in 2011. Minimum wage workers tend to be young. Although workers under the age of 25 represented one out of five of hourly-paid workers, they made up about half of those paid the Federal minimum wage ($7.25) or less. Among employed teenagers paid by the hour, about 23 percent earned the minimum wage or less, compared with about three percent of workers age 25 and older. By major occupational group, the highest proportion of hourly-paid workers earning at or below the Federal minimum wage was in service occupations, at 13 percent. About 6 in 10 workers earning the minimum wage or less in 2011 were employed in service occupations, mostly in food preparation and serving related jobs; however for many working in this industry, tips and commissions might supplement the hourly wages received. Texas is one of three states with the highest proportions of hourly-paid workers earning at or below the Federal minimum wage (between eight and ten percent).[47]

The BLS reported in January 2012 that the median weekly earnings of the nation's 101.2 million full-time wage and salary workers was $762 in the fourth quarter of 2011. This was 1.5 percent higher than a year earlier, compared with a gain of three percent in the Consumer Price Index for all urban consumers over the same period. As shown in **Figure 5-4**, among the major occupational groups, persons employed full time in management, professional, and related occupations had the highest median weekly earnings (i.e., $1,098) and persons employed in service occupations had the least (i.e., $496).

[47] Bureau of Labor Statistics. "Characteristics of Minimum Wage Workers: 2011." March 2012, http://www.bls.gov/cps/minwage2011.htm

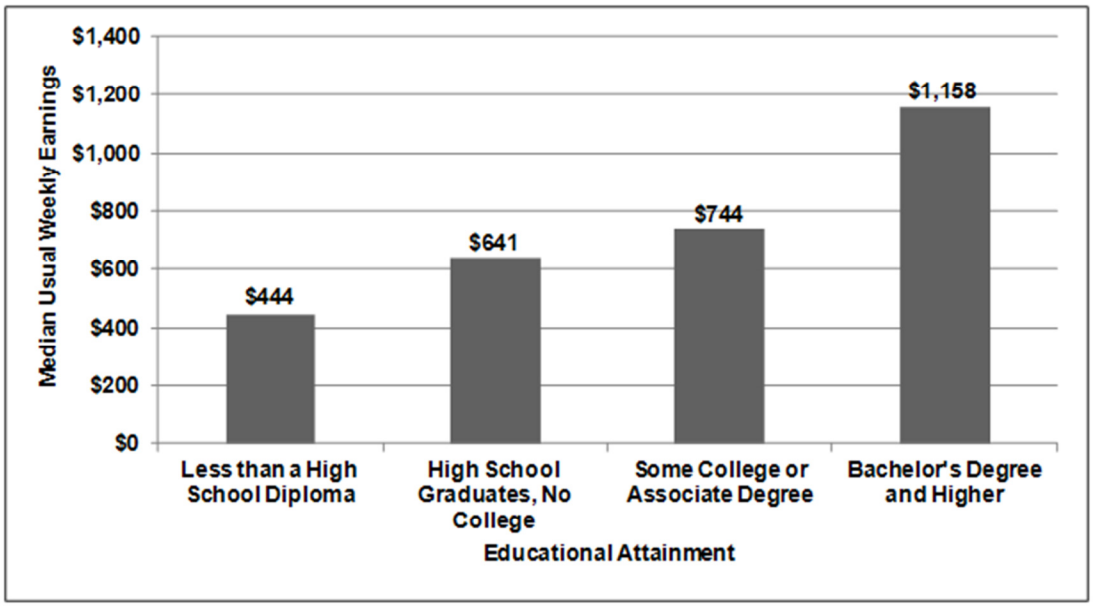
FIGURE 5-4. MEDIAN USUAL WEEKLY EARNINGS OF FULL-TIME WAGE AND SALARY WORKERS BY OCCUPATION, FOURTH QUARTER 2011



Source: Bureau of Labor Statistics, News Release USDL-12-0092, January 24, 2012.

As shown in **Figure 5-5**, by educational attainment, full-time workers age 25 and over without a high school diploma had median weekly earnings of $444, compared to $641 for high school graduates (no college), and $1,158 for those holding at bachelor's degree or higher.

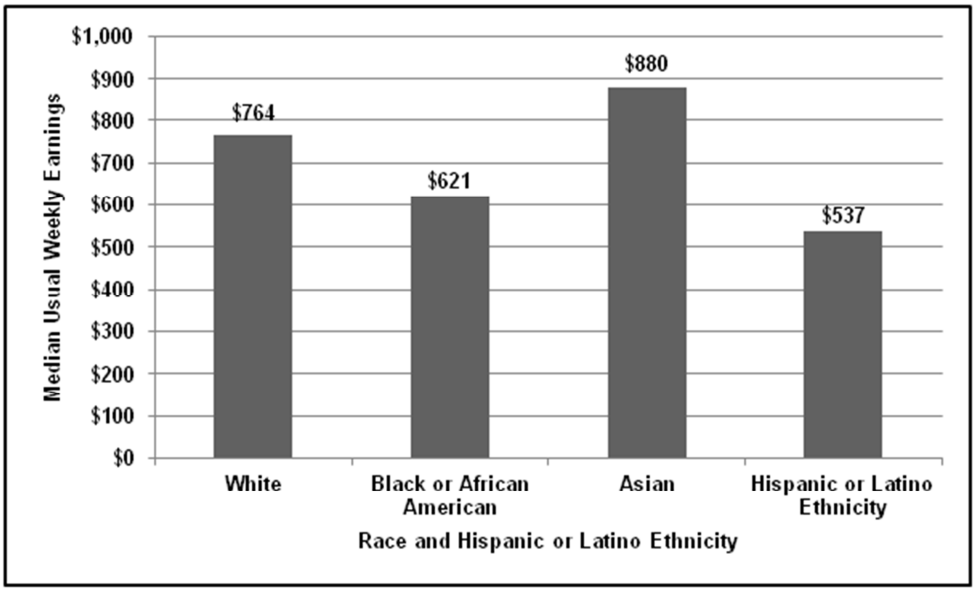
FIGURE 5-5. MEDIAN USUAL WEEKLY EARNINGS OF FULL-TIME WAGE AND SALARY WORKERS BY EDUCATIONAL ATTAINMENT, FOURTH QUARTER 2011



Source: Bureau of Labor Statistics, News Release USDL-12-0092, January 24, 2012.

Figure 5-6 outlines the median weekly earnings among the major race and ethnicity groups. Overall, median earnings of Hispanics or persons of Latino ethnicity who worked full time ($537) were lower than the median earnings of Blacks or African Americans ($621), Whites ($764), and Asians ($880).

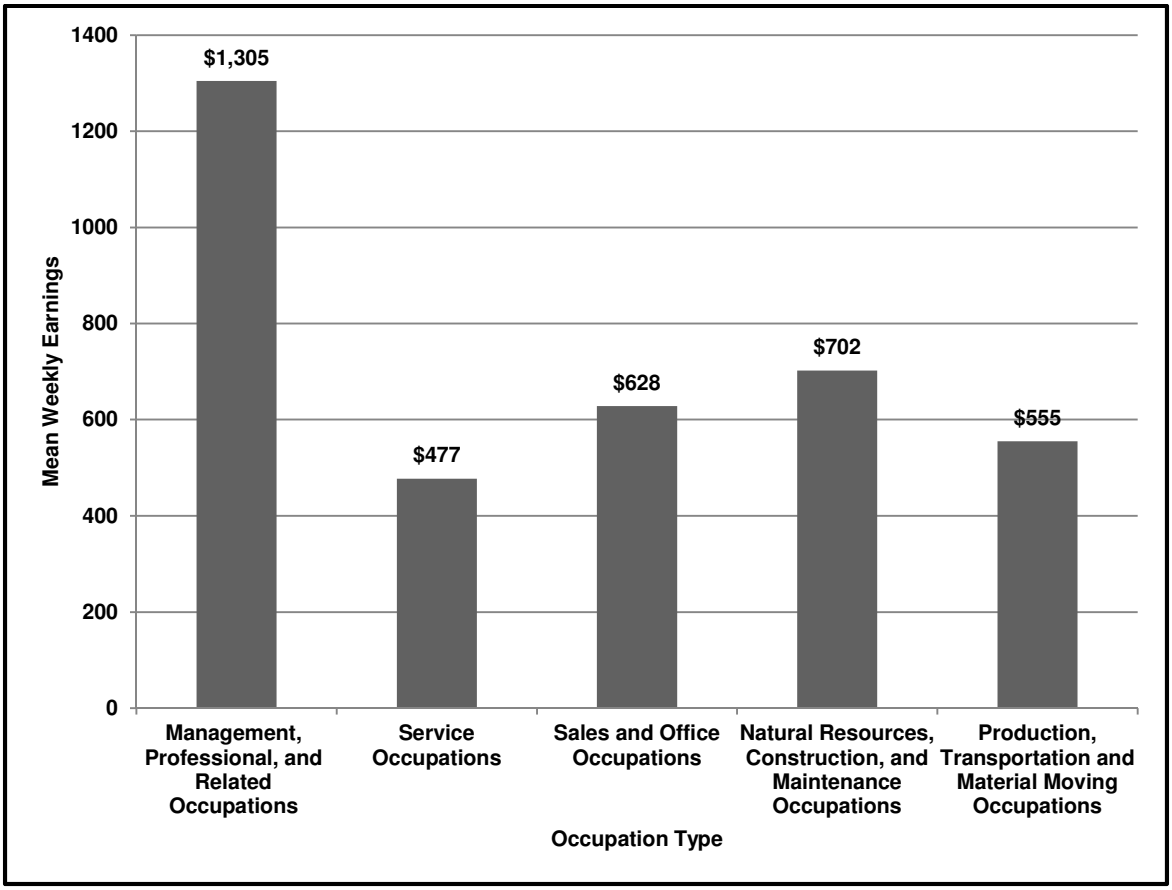
FIGURE 5-6. MEDIAN USUAL WEEKLY EARNINGS OF FULL-TIME WAGE AND SALARY WORKERS BY RACE AND HISPANIC OR LATINO ETHNICITY, FOURTH QUARTER 2011



Source: Bureau of Labor Statistics, News Release USDL-12-0092, January 24, 2012.

The BLS reported in March 2010 the mean earnings for selected worker characteristics data for the DFW, Combined Statistical Area (CSA). As shown in **Figure 5-7**, among the major occupational groups, workers employed within the DFW CSA in management, professional, and related occupations had the highest mean weekly earnings (i.e., $1,305) and persons employed in service occupations had the least (i.e., $477).

FIGURE 5-7. MEAN WEEKLY EARNINGS OF WORKERS BY OCCUPATION, DALLAS-FORT WORTH, TEXAS CSA, MARCH 2010



Source: Bureau of Labor Statistics' National Compensation Survey, Dallas-Fort Worth, TX CSA, March 2010; http://www.bls.gov/ncs/ocs/sp/ncbl1595.pdf, accessed June 2012.

The BLS only reported information for the DFW CSA regarding the earnings of workers in a variety of occupations and at different work levels; therefore, information regarding earnings according to education level and demographics are only presented at the national level to establish the context of the range of labor force found adjacent to the project area.

A Wall Street Journal article from 2005 ranked the top ten industries for high job turnover rates. The top ten "turnover" industries included low-level retail jobs, nurses, fast-food workers, hotel and restaurant workers, and sales people. Lower-skilled, lower wage jobs historically have had higher turnover rates than white-collar jobs; however, turnover rates in traditionally highly-skilled, white-collar jobs, especially sales, were on the rise prior to the recession, which the U.S. labor market entered in 2008.[48]

[48] Gerencher, Kristen. February 23, 2005. "Where the revolving door is swiftest: Job turnover high for fast-food, retail, nursing, child care." The Wall Street Journal. http://www.marketwatch.com

All the potentially displaced businesses are made up of bar/restaurant establishments and other service industries (recycling centers). According to People Report, a Dallas-based firm that tracks human resource data for restaurant companies, the annual hourly turnover of 101 percent and average annual management turnover of 27 percent was recorded for its members in 2005. In 2006, about 45 percent of restaurant employees were between the ages of 16 and 24, and this age group is not expected to increase in size by 2016. Also according to People Report, the restaurant industry is predicted to create 1.9 million more jobs by 2016. After losing jobs in 2009, the restaurant industry has started to reverse course adding 43,000 jobs within the first three months of 2010.[49] Turnover is a lagging economic indicator and is expected to remain low as the national unemployment rate remains high.[50]

Based on the labor assumptions described above, a majority of the employment opportunities which could be affected by either job loss or relocation due to the proposed project originate from restaurant/bar establishments and service industries which typically employ low skill, low wage employees, and reflect high turnover rates.

Future Employment Opportunities

NCTCOG Development Monitoring

The NCTCOG's Development Monitoring database tracks over 8,000 major developments that are either existing, under construction, or announced. Major developments are defined as being over 80,000 square feet and/or 80 employees; data is updated by NCTCOG on a continuous basis. Future development monitoring information of "announced" projects provided by the NCTCOG was available for the City of Dallas. As of January 2012, announced developments within the City of Dallas include various business parks, hotels, shopping centers, single-family residential developments, and new mixed-use developments (residences, office park, retail, etc.).

City of Dallas

Interviews with Planning Officials from the City of Dallas identified numerous development projects located nearby the proposed project as well as throughout the city that are either planned, platted, announced, or currently under construction. These new developments are described in detail in **Section 7.4.5** of this EA. Even in the current economic climate, the City of Dallas is still maintaining a level of commercial growth.

[49] Berta, Dina. November 20, 2006. "People Report: Worker turnover rate continues to climb." Nation's Restaurant News, http://www.nrn.com

[50] Berta, Dina. April 28, 2010. "Restaurants ready to hire more workers." Nation's Restaurant News, http://www.nrn.com

Minimization and Mitigation

Texas Workforce Commission

The Texas Workforce Commission (TWC) is the state government agency charged with overseeing and providing workforce development services to employers and job seekers for the state of Texas. For employers, the TWC offers recruiting, retention, training and retraining, and outplacement services as well as valuable information on labor law and labor market statistics. For job seekers, the TWC offers career development information, job search resources, training programs, and unemployment benefits as appropriate. While targeted populations receive intensive assistance to overcome barriers to employment, all Texans can benefit from the services offered by the TWC and its network of workforce partners.

The TWC is part of a local/state network dedicated to developing the workforce of Texas. The network is comprised of the statewide efforts of the Commission coupled with planning and service provision on a regional level by 28 local workforce boards. This network gives customers access to local workforce solutions and statewide services in a single location; that is, Texas Workforce Centers.[51]

Workforce Solutions for Greater Dallas

The Texas Workforce Center, which serves Dallas County, the area potentially impacted by the proposed SM Wright project is the Workforce Solutions for Greater Dallas ("Workforce Solutions"). Workforce Solutions is the local organization mandated to implement services to enhance economic development within Dallas County. The organization's mission is to ensure competitive solutions for employers through quality people and for people through quality jobs.

TxDOT is committed to coordinate available programs provided by Workforce Solutions to those employees affected by the businesses potentially displaced as a result of the proposed project at the Public Hearing. The Workforce Development Manager and appropriate staff will attend the Public Hearing for the proposed project to answer questions or present services information on behalf of Workforce Solutions.

The Workforce Solutions has employer services representatives in each workforce center to match the most qualified candidates with the right employers. Services provided to employers include:

- Personal attention from one of the account managers;
- Recruiting assistance/placement;
- "Work in Texas" internet-based job posting and matching system;
- Job fairs on location or in one of the workforce centers;

[51] Texas Workforce Commission, http://www.twc.state.tx.us/twcinfor/whatis.html

- Fee-based customized training to meet employers needs;
- Current labor market information; and
- Outplacement services for companies who are restructuring, downsizing, or closing operations.

Services provided by the Workforce Solutions to all job seekers include:

- Determination of eligibility to receive potential services;
- Initial registration and orientation to available information and services;
- Initial assessment of skill level, aptitude, abilities, and supportive service needs;
- Job search, placement assistance, and career counseling (as appropriate);
- Job search workshops and seminars;
- Resource room services (e.g., access to telephone, fax, copier, resource library, computer, internet, and resume assistance);
- Employment and labor market information;
- Job listings via "Work In Texas" and other on-line employment resources;
- Job referrals;
- Target occupations – required skills and earnings in those occupations;
- Eligible Training Provider System and training program information;
- Performance statistics of our local area;
- Supportive service information (e.g., child care and transportation);
- "How to" information and filing unemployment claims;
- Assistance in establishing eligibility for non-Workforce Investment Act funded training and education programs; and
- Follow-up services (as appropriate).

Expanded services provide a more customized solution to job seekers who are enrolled in specific workforce programs. The services listed below are available at this time to job seeking customers who are unemployed and unable to obtain employment through core services, are determined by staff to need these services in order to obtain employment, or are under-employed and determined by staff to need the service in order to obtain or retain employment that allows for self-sufficiency. These services are provided at local Workforce Centers and through contracts with public and private providers and include the following:

- In-depth individual assessment;
- Development of an individual employment plan;
- Counseling; and
- Short-term prevocational services.

A Workforce Development Manager was interviewed in August 2012 to discuss the services offered for potentially dislocated workers associated with the proposed improvements. The Workforce Development Manager explained about "Rapid Response" seminars, a service that could be conducted on behalf of the employers.

Rapid Response Orientation

Workforce Solutions of Greater Dallas recommends that dislocated workers attend a Rapid Response Orientation. This one and one-half hour orientation is typically held on-site and provides dislocated workers with information on:

- Texas Workforce Center locations and services.
- How to apply for and receive unemployment benefits.
- Government-funded retraining opportunities (with qualifications).
- Support groups and health insurance for adults and children.

Out-Placement Seminars

These seminars and services are provided at no cost to employers or employees:

- Adapting to Change / Stress Management – a three-hour workshop that provides strategies for emotionally coping with a layoff or job loss. This seminar stresses maintaining a positive attitude and helps to overcome psychological barriers to a successful job search and re-employment.
- Resume Writing – a three-hour workshop that teaches how to prepare and use different types of resumes. Chronological, functional, combination and electronic resume formats are included. Time is also allotted to cover letters and job applications.
- Resume for Skilled Laborers – a three-hour workshop that will enable workers to create a work history of skills acquired to the present date. The sheet list names of companies, with contact information, skills used and/or acquired, as well as any awards or certificates earned. This sheet is a great help when filling out job application forms.
- Interviewing Skills – a three-hour workshop that includes preparing for the interview and interview techniques. Routine and behavioral questions and how to respond are discussed. If possible, practice opportunities are provided. Other topics covered included networking, salary negotiations and overcoming real or perceived age discrimination.
- Networking/Social Networking - a three hour workshop that stress the importance of using all you resources(family, friends, church members) including the social networking systems to discover new job openings.
- Social Media – a three hour customized seminar that has been developed to answer questions about using social media for job search. A Wi-Fi hotspot is used so participants

can view SlideShare PowerPoint and video presentation, ask questions about social media, and then watch as the presenter instantly researches answers.

- Labor Market Strategies - a three-hour workshop focusing on demand, growing and emerging careers and occupations in the 21st century. Information on career paths, salaries, skills, training, education and experience needed to enter these occupations is provided.
- Debt Reduction/Financial Management - a three-hour workshop that focuses on keeping finances in order while unemployed. Topics include debt reduction, budgeting, managing finances after layoff and negotiating with creditors for reduced monthly payments and/or interest rates.
- Entrepreneur Seminar - a three-hour seminar focusing on how to start and manage a business. This seminar includes; getting started, business plans, marketing strategies/advertising/research, business ownership, cash flow, pricing, funding, sales, record-keeping, profit and loss forecasting, federal taxes and risk management/insurance/scams.
- All-day Job Search Workshop – If desired, several seminars may be combined into an all-day six hour workshop.

Employment Impact Conclusions

Relocation of commercial entities can result in unemployment and associated financial impacts. If the businesses are able to relocate within the immediate municipality or community and remain viable, any potential unemployment effects would be temporary. It is unknown whether businesses would reestablish within close proximity to their original locations, or which business owners would choose or be able to continue operation; however, sites with suitable zoning and in close proximity are currently available within the City of Dallas, as previously discussed (see *Potential Relocation Sites for Commercial Displacements* subheading).

Based on the results of replacement property searches, the majority of the businesses would have options to successfully relocate within their service area. There may be temporary impacts to a small community of businesses that are unlikely to remain open or likely to re-establish outside of their service area. However, the demand for services, driven by growth, could aid in the ability for potentially displaced businesses to relocate within the project area; or the demand could shift to non-displaced businesses that meet the additional demand by creating new employment opportunities. Additionally, there appear to be future employment opportunities of varying skill requirement intensities within the City of Dallas based on information provided by the NCTCOG's Development Monitoring database and interviews with Planning Officials from the municipalities of Dallas.

The proposed SM Wright project, along with other reasonably foreseeable transportation projects, would also contribute beneficial construction and related activities for persons in many industries throughout the economy. Jobs would be created by firms designing the proposed project, jobs to employers supplying the materials for construction, construction labor jobs, food industry jobs servicing construction workers (e.g., food trucks and restaurants), etc. TxDOT is committed to coordinate available programs provided by Workforce Solutions to those employees affected by the businesses potentially displaced as a result of the proposed project at the Public Hearing. The Workforce Development Manager and appropriate staff will attend the Public Hearing for the proposed project to answer questions or present services information on behalf of Workforce Solutions.

Further, as is indicated in **Section 6.0**, the proposed improvements are anticipated to influence some development along the project alignment, which in turn would likely create future opportunities for employment.

Relocation assistance payments and services would be provided to the displaced businesses in accordance with the Uniform Relocation Assistance and Real Properties Acquisition Policies Act, as Amended. Based on the above analysis of business and employment impacts, and considering the context in which these impacts would occur, substantial impacts to businesses and employees are not anticipated.

Early Acquisitions

The City of Dallas has early acquired 19 parcels within the proposed project's required ROW. The early acquisition process, along with details relating to the early-acquired parcels, is presented in **Appendix C-11.** The 19 early acquired parcels are also shown in relation to the proposed SM Wright project ROW in Attachment 1 of **Appendix C-11**. In summary, all 19 of the early acquisition parcels were acquired in their entirety by the City of Dallas. The ROW required for construction of the proposed project would completely encompass fourteen of the 19 early acquisition parcels; and only portions of the remaining five early acquisition parcels would be required as part of the SM Wright project ROW. Of these 19 early acquisition properties, five contain residential structures, two contain commercial structures (a restaurant/club and automotive repair garage), one is a vacant commercial property housing two billboards, and the remaining 11 are vacant parcels of either commercial or residential land use. Each landowner/displacee was compensated by the City of Dallas for the purchase of their property in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act, as Amended. All required records and complete documentation regarding the acquired parcels and relocations are located at the City of Dallas and available for inspection by FHWA.

5.2.6 Access

No-Build Alternative

Implementation of the No-Build Alternative would not require additional control of access areas.

Build Alternative

An Interstate Access Justification (IAJ) report was prepared for the proposed project and approved by FHWA in April 2012. Additional control of access areas are recommended as part of the proposed project and are consistent with TxDOT design criteria and guidance. Access to adjacent properties would be maintained. In areas where existing access would be prohibited by the proposed control of access, alternative access routes would be provided.

5.2.7 Community Cohesion

No-Build Alternative

Implementation of the No-Build Alternative would not separate or isolate any distinct neighborhoods, ethnic groups, or other specific groups; however, it would also not improve the current separation of the neighborhoods along the existing SM Wright Freeway.

Build Alternative

Community cohesion is a term that refers to an aggregate quality of a residential area. Cohesion is a social attribute that indicates a sense of community, common responsibility, and social interaction within a limited geographic area. It is the degree to which residents have a sense of belonging to their neighborhood or community, or a strong attachment to neighbors, groups, and institutions as continual association over time.

Historical Context Summary of South Dallas

The following is a summary taken from the No-Archeological Historic-Age Resource Reconnaissance Survey prepared for this project[52]. It describes the historical context of the community of South Dallas near the project area.

South Dallas underwent a transformation during the twentieth century. What started out as a mostly white residential area with a range of income levels in the early part of the century quickly became a haven for Dallas minorities in the second half, particularly African-Americans.

[52] Non-Archeological Historic-Age Resource Reconnaissance Survey Report; SM Wright, Dallas County, TxDOT, dated December 2011.

Streetcars and Suburbs (1872-1930)

The arrival of the Houston and Texas Central Railroad in 1872 and the Texas and Pacific Railroad in 1873 paved the way for the city's tremendous commercial boom. Soon after, a network of streetcar lines were built, and suburbanization of Dallas ensued. The street railway network in Dallas grew remarkably over the next fifty years and many of the burgeoning suburbs built well into the 1920s were fueled by real-estate speculation tied to streetcar line expansions.

The development of the streetcar lines created the first real separable neighborhoods as early as Edward Browder's addition built in 1874 between today's City Hall and Farmer's Market. The Colonial Hill development two miles southeast of the downtown area was established along the original Commerce and Ervay Street car line where it jogged over south onto Colonial Avenue and continued out to Hatcher Street. Being near the industrial plants that developed along the Trinity River and railroad tracks, Colonial Hill was comprised mainly of homes built for factory workers. However, certain additions in upper Colonial Hill consisted of larger, finer homes built for the more affluent factory owners and managers, thus creating a mixed development. The project corridor forms the northeast boundary for the Colonial Hill Historic District.

On the other side of S.M. Wright Freeway lies the South Boulevard-Park Row Historic District. Platted in the 1920s, the neighborhood became comprised predominantly of an affluent Jewish community, boasting a synagogue designed by prominent architect Howard Myers. The neighborhood remained the focal point of Dallas' wealthy Jewish population until the early 1950s, when the synagogue relocated to north Dallas and residents quickly moved to follow. In their place, prominent African-Americans moved in and turned the neighborhood into a well-to-do African-American district.

African-American Settlement and Segregation (1916-1968)

In the late nineteenth century, southeast Dallas was a farming community and home to several African American farm-owners and families who settled there after the Civil War. A number of African-American churches, schools, and cemeteries were built in the area in the wake of Reconstruction further prompting the formation of an African American "section" of Dallas. However, much of the area was unofficially reserved for affluent whites. Institutionalized segregation came to Dallas neighborhoods in 1916, when the city passed a segregation ordinance requiring all neighborhoods to be labeled black or white only; mixed neighborhoods were forbidden.

In the aftermath of the ordinance, several neighborhoods in South Dallas were developed exclusively for African-Americans. Queen City Heights (approximately 1,300 feet east of the project area) developed between 1915 and 1945 around an existing concentration of African American churches, schools, and businesses. In addition, Wheatley Place, also near the project area, was platted in 1916 as the first

neighborhood built for and advertised directly to the African-American community. Wheatley Place attracted aspiring, middle-class African-Americans. Lincoln Manor and the Roosevelt Addition, both near Wheatley Place, were two additional "black only" neighborhoods.

After World War I, the growing African-American communities prompted white residents to take action against a perceived intrusion and property devaluation and segregation increased. An attempt was made to establish a "color line" south of Cooper Street in the Colonial Hill District, to "protect" the white communities living in the exclusive neighborhoods of The Cedars and Colonial Hill.

Partially in an effort to enforce this "color line", the area that would become Romine Avenue Historic District was platted. Located east of SM Wright Freeway, this district is also in the project area. It was the first to be built exclusively for African-Americans in which the houses were built substantially of brick or stone. Like Wheatley Place, Romine Avenue attracted a more affluent African-American community.

By 1940, the city's 50,400 African-Americans (out of a total population of 295,000) lived in segregated neighborhoods covering only 3.5 square miles out of the city's total area of 41 square miles. Eighty percent of the housing at the time was considered "substandard" by city authorities.

After World War II, increasing industrialization brought more African-Americans to South Dallas. Many African-American families finally gained financial prosperity through home ownership. The segregated city, however, remained intolerant of mixed neighborhoods. Coupled with the lack of zoning, this led to the abandonment by the white community to newer, more exclusive neighborhoods in north Dallas, and the eventual adoption of South Dallas by the African-American community.

By the 1960s, the African-American population started making strides into political action. Dallas schools were finally ordered desegregated in 1961, although the change took years to implement. Local activists such as the Reverend Dr. S.M. Wright fought for African-American interests and helped prevent race riots during the tumultuous 1960s. Although the neighborhood segregation law was repealed, African-Americans remained largely confined to South Dallas due to economics and the lack of affordable housing elsewhere in the city.

Post-War Suburbanization and Freeway Development (1945-1970)

The surge in the oil industry and the booming defense industry engendered by the Second World War helped to usher in one of Dallas' periods of greatest growth in the 1950s and 1960s. Personal automobiles became the preferred method of travel for the post-war resident. As freeways continued to encircle the city, much of the remaining farmland slowly gave way to suburban growth. Manufacturing greatly increased, creating additional demand for improved infrastructure to support the transportation of

goods and materials. The interstate highway system replaced the railroads as the main way to move machinery and farm materials into the area and agricultural production to market as well as providing for the general upturn in commerce and communication for a fast-growing population.

IH 45 began construction around 1950 south of present IH 20 and was one of the first rural interstates constructed in Texas. Central Expressway was constructed in 1952 along the old Houston and Texas Central railroad track and served as the tie-in for IH 45 between IH 20 and downtown Dallas. IH 45 was not completed between downtown and IH 20 until 1975. The section of IH 45 between downtown and the Trinity River was originally designed as a strictly elevated roadway. However, the freeway's design was later modified in 1970 to include an at-grade section through the Spence neighborhood (south end of Colonial Hill Historic District) through the efforts of Reverend Wright and the Dallas Interdenominational Ministerial Alliance. The four-mile stretch of Central Expressway known as S.M. Wright Freeway was named after Reverend Wright; he was the first African-American to have a Dallas freeway named in his honor.

Present-Day Community Characteristics

Since neighborhoods represent a geographic unit that can be readily identified by community members, a correlation of the affected block groups to the project area neighborhoods is shown in **Table 5-11**. An exhibit depicting area neighborhoods can be found in **Appendix C-3**. The table provides the block group level statistics on minority composition, income level, and poverty status for the neighborhoods in the SM Wright project corridor.

TABLE 5-11. DEMOGRAPHIC CHARACTERISTICS OF AFFECTED NEIGHBORHOODS/CENSUS BLOCK GROUPS OF CONCERN

Neighborhood District/ Neighborhood	Census Tract/ Block Group	Type of Impact	Total Population[1]	Percent Minority[1]	Total Households[2]	Percent Households Below Poverty Level[2]	Median House-hold Income[3]
South Dallas Neighborhood District							
Forest Heights	34/1	None	562	97%	265	36%	$20,184
	40/1		636	99%	215	30%	$19,542
Colonial Hills	40/1	2 single-family residential displacements	636	99%	215	30%	$19,542
	40/2		446	100%	143	10%	$38,542
South Boulevard / Park Row	203/1	None	466	76%	148	31%	$19,554
	203/2		1,314	98%	610	49%	$13,511
	204/2		2,040	60%	599	22%	$33,866
Queen City	37/2	None	736	98%	391	38%	$17,745
	37/4		466	99%	161	49%	$17,782
	38/1		531	99%	333	36%	$16,821
	203/3		788	98%	329	53%	$13,169
Park Row	34/2	None	584	79%	362	30%	$30,682
Exline	38/1	None	531	99%	333	36%	$16,821
	38/3		593	99%	160	44%	$11,406
Ideal	39.02/1	None	452	98%	203	29%	$17,464
	39.02/2	None	1,408	99%	551	31%	$21,942
	115/4	None	827	99%	256	56%	$25,054
Rochester	39.02/1	None	452	98%	203	29%	$17,464
	115/3	None	262	99%	152	47%	$19,118
	115/4	None	827	99%	256	56%	$25,054

Sources:

1. *U.S. Census Bureau 2010, Summary File 1, Table P9*
2. *U.S. Census Bureau ACS 2006-2010 5-year estimates, Table B17017*
3. *U.S. Census Bureau ACS 2006-2010 5-year estimates, Table B19013*

Notes:

The latest Census data has been utilized to obtain socioeconomic data. The 2010 Census data is used to obtain population counts and basic characteristics, while the Census Bureau's ACS 2006 – 2010 estimate data is used to obtain demographic, social, economic and housing characteristics.

Neighborhoods and district boundaries do not correspond exactly with the census tracts or block groups. A rough correlation has been established so that Census data can be used to provide a general description of population, income, and poverty characteristics.

There are potentially two single-family residential displacements associated with the Build Alternative. As shown in **Table 5-11**, these residential displacements would occur within the Colonial Hills Neighborhood District. The combined population in the associated Census block groups (Census block groups 1 and 2, Census tract 40) in Colonial Hills is 1,082 people. A review of the Census 2010 demographic data of the associated block groups encompassing Colonial Hills indicated that of the residents there, approximately 87.0 percent (or 940 people) are black or African-American, 11.0 percent (or 122 people) are Hispanic, 0.8 percent (or 9 people) are two or more races, 0.6 percent (or 7 people) are White, 0.3 percent (or 3 people) are American Indian or Alaska Native, and 0.1 percent (or one person) is Some Other Race. The loss of six residential properties from the neighborhood is unlikely to negatively affect the overall cohesiveness and nature of this community.

TABLE 5-12. ELEMENTARY SCHOOL ATTENDANCE ZONES ADJACENT TO THE PROPOSED PROJECT

Elementary School	School District	Attendance Zone Size (acres)	Number of Residential Displacements
Albert Sidney Johnston	Dallas	1,616	0
Martin Luther King Jr.	Dallas	1,153	0
Charles Rice	Dallas	971	2*
City Park	Dallas	2,281	0
J.P. Starks	Dallas	1,121	0
H.S. Thompson	Dallas	1,504	0
Source: http://www.dallasisd.org/demo/schoolinfo/eszones2009.htm **Note:** *2 single-family homes			

Elementary school attendance zones were also used as a means to determine potential communities adjacent to the proposed project. Elementary schools are one aspect of a community and provide a known boundary of populations in similar living arrangements. The extent that an individual identifies the community as based on a specific elementary school's geographic boundaries is unknown. However, social bonds are formed through playground use, school activities, after school programs, and parent teacher association meetings, all of which are centered around elementary schools. Elementary school attendance zone data are presented in **Table 5-12** and in **Appendix C-4.**

Enrollment and demographic data for the six elementary schools adjacent to the proposed project are displayed in **Table 5-13**. The attendance zone of these six schools can be seen in **Appendix C-4**. Average enrollment for the 6 elementary schools is 353 students, with a high of 521 and a low of 220. Approximately 99 percent of students are minority with 67.5 percent black or African-American, 31.5 percent Hispanic, and 0.23 percent Asian. In addition, approximately 22.5 percent of students are LEP and 96.2 percent are considered economically disadvantaged.

TABLE 5-13. ELEMENTARY SCHOOL ENROLLMENT/DEMOGRAPHIC DATA

Elementary School	Enrollment	White	Black African-American	Native American	Asian	Hispanic	LEP Student Count	Economically Disadvantaged[1]
		Percent					Number/Percent	
Albert Sidney Johnston	521	0.2	65.8	0	0	34	137 / 26.3	513 / 98.5
Martin Luther King Jr.	285	0.7	94.4	0	0	4.9	6 / 2.1	274 / 96.1
Charles Rice	510	0.2	97.8	0	0	2	3 / 0.6	481 / 94.3
City Park	220	2.7	14.5	0	1.4	81.4	154 / 70	212 / 96.4
J.P. Starks	357	0	81.2	0	0	18.8	35 / 9.8	348 / 97.5
H.S. Thompson	223	0.4	51.6	0	0	48	65 / 29.1	222 / 99.6

Source: http://ritter.tea.state.tx.us/perfreport/aeis/2010/campus.srch.html, accessed June 2011
Note: 1. Economically disadvantaged includes the following: Students eligible for free or reduced price meals under the National School Lunch and Child Nutrition Program, students from a family with an annual income at or below the official poverty line, students eligible for Temporary Assistance to Needy Families (TANF) or other public assistance, or students that received a Pell Grant or comparable state program of need-based financial assistance.

There are potentially two single-family residential displacements associated with the Build Alternative. As shown in **Table 5-12**, these residential displacements would occur within the Charles Rice Elementary School attendance zone. Enrollment at Charles Rice Elementary School is approximately 510 students. A review of the demographic data and 2010 school enrollment records of Charles Rice Elementary indicated that of the students enrolled there, 97.8 percent are black or African-American, two percent are Hispanic, and 0.2 percent are White. The loss of six residential properties from a large elementary school attendance zone is unlikely to negatively affect the overall cohesiveness and nature of this community.

The Build Alternative would allow for the conversion of SM Wright Freeway to an at-grade, landscaped urban arterial, known as the SM Wright Parkway. City planning documents include community cohesion among the beneficial effects of reconstructing SM Wright Freeway as a city parkway. For example, in the Balanced Vision Plan, the City of Dallas recognizes that through the conversion of the existing freeway to an at-grade urban arterial, "This [project] would link the residential neighborhoods on both sides of the roadway, and strengthen the viability of the neighborhood currently between SM Wright and Lamar."[53] Throughout the public involvement process, local government and community members have been involved in developing the project alternatives for the downgrade of the existing SM Wright Freeway. The proposed project would positively impact the community/neighborhood areas that are currently divided by the existing SM Wright Freeway by improving community cohesion.

5.2.8 Limited English Proficiency

Under both the No-Build and Build Alternatives of the proposed project, LEP individuals would be afforded the opportunity to participate in the decision-making process as discussed below.

EO 13166, *Improving Access to Services for Persons with Limited English Proficiency*, requires federal agencies to examine the services they provide and identify any need for services to LEP populations.

[53] A Balanced Vision Plan for the Trinity River Corridor, December 2003

This EO requires federal agencies to work to ensure that recipients of federal financial assistance provide meaningful access to their LEP applicants and beneficiaries. Failure to ensure that LEP persons can effectively participate in or benefit from federally assisted programs and activities may violate the prohibition under Title VI of the Civil Rights Restoration Act of 1987 and Title VI regulations.

An analysis was conducted to identify residents in the project area with LEP, since these residents may not understand the outreach materials. LEP populations were determined using Census block group level data from the U.S. Census Bureau, 2006-2010 ACS data.[54] Census block groups were assessed within 0.25 mile of the project ROW (i.e., project area). Within the population that is five years of age and older, persons who speak English less than "very well" are considered to have a limited English proficiency. There are 18 block groups within 0.25 mile of the proposed project ROW (see **Appendix C-5**). The populations that speak English less than "very well" according to ACS 2006 to 2010 5-year estimates data are presented in **Table 5-14**.

TABLE 5-14. PERCENT OF PROJECT AREA[1] POPULATION THAT SPEAKS ENGLISH LESS THAN "VERY WELL"

Census Tract/Block Group	Total Population	LEP Population	Percent LEP	Languages Spoken by LEP Populations % (No. of persons)			
				Spanish	Indo-European	Asian/Pacific Island	Other
34/ 1	533	86	16%	16% (86)	0	0	0
34/ 2	630	13	2%	2% (13)	0	0	0
37/ 2	898	0	0%	0	0	0	0
37/ 3	467	0	0%	0	0	0	0
37/ 4	391	0	0%	0	0	0	0
38/ 1	738	0	0%	0	0	0	0
38/ 3	215	0	0%	0	0	0	0
39.02/ 1	450	42	9%	9% (42)	0	0	0
39.02/ 2	1,294	203	16%	16% (203)	0	0	0
40/ 1	413	0	0%	0	0	0	0
40/ 2	323	0	0%	0	0	0	0
86.03/ 1	673	103	15%	15% (103)	0	0	0
115/ 3	458	49	11%	11% (49)	0	0	0
115/ 4	707	53	7%	7% (53)	0	0	0
203/ 1	288	12	4%	0	0	0	4% (12)
203/ 2	1,182	0	0%	0	0	0	0
203/ 3	544	7	1%	1% (7)	0	0	0
204/ 2	1,119	398	36%	35% (388)	1% (10)	0	0

Source: *U.S. Census Bureau ACS 2006-2010 5-year estimates, Table B16004*
Note:
1. Project area for the purposes of the LEP analysis includes the Census block groups within 0.25 mile of the proposed project ROW (i.e., 18 block groups).

[54] The latest Census data has been utilized to obtain all socioeconomic data. The 2010 Census data is used for population counts and basic characteristics, while the Census Bureau's American Community Survey (ACS) 2006 – 2010 estimate data is used to for the demographic, social, economic and housing characteristics.

As shown in **Table 5-14**, the percentages of LEP populations in the individual block groups within the project area range from zero to 36 percent. Of the 11,323 persons within all of the block groups, approximately 8.5 percent of the population (966 persons) speak English less than "very well." Of this LEP population, the predominant language spoken is Spanish (approximately 97.7 percent). Other representative languages include 1.0 percent Indo European languages and 1.2 percent other languages. A windshield survey of the project area indicated that English was the primary language used for building signage and other forms of posted information and advertisements along the project corridor. Included were scattered areas of Spanish language signage, postings, and advertisements.

Efforts have been made to include all affected communities and populations, including potential minority and low income populations, in the public involvement and decision making process. Steps have been taken to ensure that LEP persons have access to the programs, services, and information TxDOT provides. The SM Wright Public Meetings were held on April 28, 2009, March 30, 2010 and August 7, 2012 at the Martin Luther King Jr. Senior Center. See **Section 2.6** for the description of Public Involvement that has occurred thus far and Public Meeting summaries. Public notices were sent to adjacent property owners and local, city, and state officials, and letters were sent to non-elected public officials. In addition, public notices were advertised in the Dallas Examiner, Dallas Weekly, and Al Dia newspapers. Notices were published in Spanish, and included contact information for anyone with special needs, including interpretation. Also, at each of the Public Meetings there was at least one bilingual representative available for any Spanish speaking citizen in need of a translator. A proactive public involvement program will continue for the proposed project and all populations affected will have a continuing opportunity to participate in the development of the project. Future information released to the public concerning the proposed project would also be made available in English and Spanish. For any LEP population, similar services would be provided where needed.

5.2.9 Environmental Justice (EJ)

No-Build Alternative

Implementation of the No-Build Alternative would not have disproportionately high and adverse human health or environmental effects on minority and/or low-income populations.

Build Alternative

Regulatory Guidance

Potential impacts were evaluated for compliance with applicable laws and regulations. The evaluation measures included identifying whether minority or low-income populations exist in the project area, identifying impacts that would potentially affect minority and low-income communities of concern,

determining whether the proposed project would have disproportionate effects on minority and/or low-income groups, and identifying mitigation strategies for any EJ groups that were identified.

EO 12898 entitled *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* mandates that federal agencies identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of the programs on minority and low-income populations. The EPA defines EJ as the fair treatment for people of all races, cultures, and incomes, regarding the development of environmental laws, regulations, and policies.

FHWA Order 6640.23A[55] establishes the policies and procedures for the FHWA to use in complying with EO 12898 and is a key element in the EJ strategy adopted by the FHWA to implement EO 12898. The following definitions are contained in FHWA Order 6640.23A and are intended to be consistent with the draft definitions for EO 12898 that have been issued by the CEQ and the EPA:

- Minority: A person who is (1) Black (a person having origins in any of the black racial groups of Africa); (2) Hispanic or Latino (a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race); (3) Asian American (a person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent); (4) American Indian and Alaskan Native (a person having origins in any of the original people of North America, South America (including Central America), and who maintains cultural identification through tribal affiliation or community recognition); (5) Native Hawaiian and Other Pacific Islander (a person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands).

- Minority Population: Any readily identifiable groups of minority persons who live in geographic proximity, and, if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed FHWA program, policy, or activity.

- Low-Income Population: Any readily identifiable group of low-income persons who live in geographic proximity, and, if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who would be similarly affected by a proposed FHWA program, policy, or activity.

- The 2012 poverty guideline is $23,050 for a four-person family as defined by the U.S. Department of Health and Human Services (HHS).

[55] FHWA Order 6640.23A, *FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (June 14, 2012). http://www.fhwa.dot.gov/legsregs/directives/orders/664023a.htm.

- Adverse Effects: The totality of significant individual or cumulative human health or environmental effects, including interrelated social and economic effects, which may include, but are not limited to: bodily impairment, infirmity, illness or death; air, noise, and water pollution and soil contamination; destruction or disruption of man-made or natural resources; destruction or diminution of aesthetic values; destruction or disruption of community cohesion or a community's economic vitality; destruction or disruption of the availability of public and private facilities and services; vibration; adverse employment effects; displacement of persons, businesses, farms, or nonprofit organizations; increased traffic congestion, isolation, exclusion or separation of minority or low-income individuals within a given community or from the broader community; and the denial of, reduction in, or substantial delay in the receipt of, benefits of FHWA programs, policies, or activities.

- Disproportionately High and Adverse Effect on Minority and Low-Income Populations: An adverse effect that (1) is predominately borne by a minority population and/or a low-income population; or (2) will be suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that would be suffered by the nonminority population and/or non-low-income population.

EO 12898 is an administrative directive to federal agencies and does not create any judicially enforceable rights; therefore, EJ proponents also look to the judicial system for guidance. Federal court decisions under Title VI have provided several criteria by which compliance with EO 12898 can be assessed. The following section deals with the application of these Title VI criteria, as well as EO 12898, to the case of the proposed project. Among the most important EJ criteria that have evolved out of Title VI litigation are the requirements that:

- Defendants justify their actions by showing a legitimate non-discriminatory purpose; and
- Plaintiffs demonstrate that there is a reasonable alternative to the proposed action that is also non-discriminatory.

Project Area Demographics

The 2010 U.S. Census data were analyzed to identify areas with high concentrations of minority and low-income populations. For the purpose of the demographic data analysis, the project area is defined as the Census tracts, block groups, and blocks located in proposed project ROW and within 0.25 mile of it. There are nine Census tracts, 18 Census block groups, and 427 Census blocks that contain the analyzed population; all 427 Census blocks locations are shown in **Appendix C-4**. Data obtained from the Census Tracts, Census blocks and block groups were analyzed to determine race and income characteristics of the population affected by the proposed project. The race, ethnicity, and low-income characteristics within these analyzed statistical geographies are presented in **Appendix C-5**.

Of the 427 Census blocks, a total of 5,913 persons were recorded within 223 Census blocks in 2010. The remaining 204 Census blocks did not contain a residential population. Of the 5,913 persons approximately 82 percent are Black or African American, 13 percent are Hispanic or Latino, three percent are White, and one percent are Two or More Races. The combined populations of American Indian and Alaskan Native, Asian, as well as Hawaiian and other Pacific Islander make up less than one percent of the analyzed population. Based on the analysis, it can be deduced that the project area is largely comprised of predominantly "Black or African American" and "Hispanic or Latino of Any Race" populations.

The nine Census tracts and 18 Census block groups located in the project area all have minority populations greater than 50 percent. In addition, of the 223 Census blocks with residential populations, 217 Census blocks contain minority populations that are 50 percent or greater, as shown in **Appendix Table 5-15.** Using this method of comparison, it is concluded that an EJ population exists in the project area.

TABLE 5-15. 2010 CENSUS BLOCKS WITH MINORITY POPULATIONS OF 50 PERCENT OR GREATER

Census Geography		Race and Ethnicity										
Census Tract/ Block Group	Census Block	Total	White Alone	Black or African American Alone	American Indian and Alaska Native Alone	Asian Alone	Native Hawaiian and Other Pacific Islander Alone	Some Other Race Alone	Population of Two or More Races	Hispanic or Latino of Any Race	Total Minority Population	Total Percent Minority
34/ 1	--	562	3%	78%	0%	0%	0%	0%	1%	18%	546	97%
--	1005	12	0%	100%	0%	0%	0%	0%	0%	0%	12	100%
--	1006	29	0%	59%	0%	0%	0%	0%	0%	41%	29	100%
--	1007	6	17%	83%	0%	0%	0%	0%	0%	0%	5	83%
--	1029	9	0%	44%	0%	0%	0%	0%	0%	56%	9	100%
--	1036	9	0%	100%	0%	0%	0%	0%	0%	0%	9	100%
--	1037	85	0%	78%	1%	0%	0%	0%	2%	19%	85	100%
--	1038	33	0%	45%	0%	0%	0%	0%	0%	55%	33	100%
--	1039	3	0%	100%	0%	0%	0%	0%	0%	0%	3	100%
--	1041	8	0%	100%	0%	0%	0%	0%	0%	0%	8	100%
--	1042	32	0%	94%	0%	0%	0%	0%	3%	3%	32	100%
--	1043	41	10%	56%	0%	0%	0%	0%	0%	34%	37	90%
--	1044	34	0%	100%	0%	0%	0%	0%	0%	0%	34	100%
--	1045	6	0%	50%	0%	0%	0%	0%	0%	50%	6	100%
--	1047	1	0%	100%	0%	0%	0%	0%	0%	0%	1	100%
--	1048	15	0%	93%	0%	0%	0%	7%	0%	0%	15	100%
--	1049	14	0%	100%	0%	0%	0%	0%	0%	0%	14	100%
--	1050	18	0%	89%	0%	0%	0%	0%	0%	11%	18	100%
--	1051	21	14%	48%	0%	0%	0%	0%	0%	38%	18	86%
--	1052	51	2%	67%	0%	0%	0%	0%	2%	29%	50	98%
--	1053	21	0%	81%	0%	0%	0%	0%	0%	19%	21	100%
--	1055	3	0%	0%	0%	0%	0%	0%	0%	100%	3	100%
34/ 2	--	584	21%	66%	1%	0%	0%	0%	1%	11%	460	79%
--	2004	12	33%	8%	0%	0%	0%	0%	0%	58%	8	67%
--	2006	1	0%	100%	0%	0%	0%	0%	0%	0%	1	100%
--	2014	55	2%	98%	0%	0%	0%	0%	0%	0%	54	98%
--	2024	14	21%	79%	0%	0%	0%	0%	0%	0%	11	79%
--	2027	52	13%	81%	6%	0%	0%	0%	0%	0%	45	87%

TABLE 5-15. 2010 CENSUS BLOCKS WITH MINORITY POPULATIONS OF 50 PERCENT OR GREATER

Census Geography		Race and Ethnicity										
Census Tract/ Block Group	Census Block	Total	White Alone	Black or African American Alone	American Indian and Alaska Native Alone	Asian Alone	Native Hawaiian and Other Pacific Islander Alone	Some Other Race Alone	Population of Two or More Races	Hispanic or Latino of Any Race	Total Minority Population	Total Percent Minority
--	2028	6	0%	50%	0%	0%	0%	0%	0%	50%	6	100%
--	2030	88	6%	80%	0%	0%	0%	0%	0%	15%	83	94%
--	2031	4	25%	75%	0%	0%	0%	0%	0%	0%	3	75%
--	2038	28	0%	93%	0%	0%	0%	0%	0%	7%	28	100%
--	2039	40	0%	75%	5%	0%	0%	0%	0%	20%	40	100%
--	2040	5	0%	100%	0%	0%	0%	0%	0%	0%	5	100%
--	2041	22	0%	100%	0%	0%	0%	0%	0%	0%	22	100%
--	2044	9	11%	89%	0%	0%	0%	0%	0%	0%	8	89%
--	2053	1	0%	100%	0%	0%	0%	0%	0%	0%	1	100%
--	2060	23	0%	70%	0%	0%	0%	0%	0%	30%	23	100%
--	2061	5	0%	80%	0%	20%	0%	0%	0%	0%	5	100%
--	2062	44	0%	100%	0%	0%	0%	0%	0%	0%	44	100%
--	2063	10	40%	50%	0%	0%	0%	0%	0%	10%	6	60%
--	2064	12	8%	67%	0%	0%	0%	0%	0%	25%	11	92%
--	2065	4	0%	25%	0%	0%	0%	0%	0%	75%	4	100%
37/ 2	--	736	2%	93%	0%	0%	0%	0%	1%	5%	720	98%
--	2015	27	0%	100%	0%	0%	0%	0%	0%	0%	27	100%
--	2019	33	6%	85%	0%	0%	0%	0%	6%	3%	31	94%
--	2020	32	6%	81%	0%	0%	0%	0%	0%	13%	30	94%
--	2021	79	3%	96%	0%	0%	0%	0%	1%	0%	77	97%
--	2022	9	0%	100%	0%	0%	0%	0%	0%	0%	9	100%
--	2023	19	5%	95%	0%	0%	0%	0%	0%	0%	18	95%
--	2024	20	0%	80%	0%	0%	0%	0%	0%	20%	20	100%
--	2025	14	0%	100%	0%	0%	0%	0%	0%	0%	14	100%
--	2026	52	6%	92%	0%	0%	0%	0%	0%	2%	49	94%
--	2027	1	0%	100%	0%	0%	0%	0%	0%	0%	1	100%
37/ 3	--	840	2%	86%	1%	0%	0%	0%	1%	11%	827	98%
--	3014	24	0%	67%	0%	0%	0%	0%	4%	29%	24	100%

TABLE 5-15. 2010 CENSUS BLOCKS WITH MINORITY POPULATIONS OF 50 PERCENT OR GREATER

Census Geography		Race and Ethnicity										
Census Tract/ Block Group	Census Block	Total	White Alone	Black or African American Alone	American Indian and Alaska Native Alone	Asian Alone	Native Hawaiian and Other Pacific Islander Alone	Some Other Race Alone	Population of Two or More Races	Hispanic or Latino of Any Race	Total Minority Population	Total Percent Minority
--	3015	26	0%	96%	0%	0%	0%	0%	4%	0%	26	100%
37/ 4	--	466	1%	92%	0%	0%	0%	0%	2%	6%	463	99%
--	4000	30	3%	93%	0%	0%	0%	0%	3%	0%	29	97%
--	4001	64	0%	100%	0%	0%	0%	0%	0%	0%	64	100%
--	4002	40	3%	98%	0%	0%	0%	0%	0%	0%	39	98%
--	4003	36	0%	94%	0%	0%	0%	0%	0%	6%	36	100%
--	4004	13	0%	100%	0%	0%	0%	0%	0%	0%	13	100%
--	4005	97	1%	86%	0%	0%	0%	0%	0%	13%	96	99%
--	4006	24	0%	100%	0%	0%	0%	0%	0%	0%	24	100%
--	4008	14	0%	93%	0%	0%	0%	0%	0%	7%	14	100%
--	4012	30	0%	93%	0%	0%	0%	0%	0%	7%	30	100%
--	4013	21	0%	100%	0%	0%	0%	0%	0%	0%	21	100%
--	4014	21	0%	100%	0%	0%	0%	0%	0%	0%	21	100%
--	4015	17	0%	100%	0%	0%	0%	0%	0%	0%	17	100%
--	4016	22	0%	100%	0%	0%	0%	0%	0%	0%	22	100%
--	4017	37	0%	57%	0%	0%	0%	0%	16%	27%	37	100%
38/ 1	--	531	1%	96%	0%	0%	0%	0%	0%	2%	524	99%
--	1001	19	0%	100%	0%	0%	0%	0%	0%	0%	19	100%
--	1002	39	0%	100%	0%	0%	0%	0%	0%	0%	39	100%
--	1003	30	0%	100%	0%	0%	0%	0%	0%	0%	30	100%
--	1004	18	0%	100%	0%	0%	0%	0%	0%	0%	18	100%
--	1005	40	0%	100%	0%	0%	0%	0%	0%	0%	40	100%
--	1006	38	0%	79%	0%	0%	0%	0%	0%	21%	38	100%
--	1007	16	0%	100%	0%	0%	0%	0%	0%	0%	16	100%
--	1008	28	4%	93%	0%	0%	0%	0%	0%	4%	27	96%
--	1009	28	0%	96%	4%	0%	0%	0%	0%	0%	28	100%
--	1010	38	0%	97%	3%	0%	0%	0%	0%	0%	38	100%
--	1011	38	0%	100%	0%	0%	0%	0%	0%	0%	38	100%

TABLE 5-15. 2010 CENSUS BLOCKS WITH MINORITY POPULATIONS OF 50 PERCENT OR GREATER

Census Geography		Race and Ethnicity										
Census Tract/ Block Group	Census Block	Total	White Alone	Black or African American Alone	American Indian and Alaska Native Alone	Asian Alone	Native Hawaiian and Other Pacific Islander Alone	Some Other Race Alone	Population of Two or More Races	Hispanic or Latino of Any Race	Total Minority Population	Total Percent Minority
--	1012	32	0%	100%	0%	0%	0%	0%	0%	0%	32	100%
--	1015	107	3%	93%	0%	0%	1%	0%	1%	3%	104	97%
--	1022	42	7%	93%	0%	0%	0%	0%	0%	0%	39	93%
--	1023	18	0%	100%	0%	0%	0%	0%	0%	0%	18	100%
38/ 3	--	593	1%	94%	0%	0%	0%	0%	2%	4%	590	99%
--	3002	91	0%	91%	0%	1%	0%	0%	2%	5%	91	100%
--	3009	4	0%	75%	0%	0%	0%	0%	25%	0%	4	100%
--	3010	46	0%	89%	0%	0%	0%	0%	4%	7%	46	100%
--	3011	56	0%	91%	0%	0%	0%	0%	0%	9%	56	100%
--	3012	94	0%	100%	0%	0%	0%	0%	0%	0%	94	100%
--	3013	83	0%	92%	0%	0%	0%	0%	2%	6%	83	100%
--	3014	63	0%	97%	0%	0%	0%	0%	0%	3%	63	100%
39.02/ 1	--	452	2%	62%	0%	0%	0%	0%	2%	35%	445	98%
--	1000	22	0%	68%	0%	0%	0%	0%	0%	32%	22	100%
--	1003	2	0%	100%	0%	0%	0%	0%	0%	0%	2	100%
--	1005	2	0%	100%	0%	0%	0%	0%	0%	0%	2	100%
--	1006	45	0%	4%	0%	0%	0%	0%	0%	96%	45	100%
--	1007	41	0%	85%	0%	0%	0%	0%	0%	15%	41	100%
--	1008	17	0%	100%	0%	0%	0%	0%	0%	0%	17	100%
--	1009	20	0%	100%	0%	0%	0%	0%	0%	0%	20	100%
--	1010	11	0%	73%	0%	0%	0%	0%	0%	27%	11	100%
--	1011	9	11%	67%	0%	0%	0%	0%	0%	22%	8	89%
--	1012	36	0%	78%	0%	0%	0%	0%	0%	22%	36	100%
--	1013	28	0%	75%	0%	0%	0%	0%	0%	25%	28	100%
--	1014	31	0%	77%	0%	0%	0%	0%	0%	23%	31	100%
--	1015	7	0%	0%	0%	0%	0%	0%	0%	100%	7	100%
--	1017	6	0%	50%	0%	0%	0%	0%	0%	50%	6	100%
--	1018	25	0%	52%	0%	0%	0%	0%	24%	24%	25	100%

TABLE 5-15. 2010 CENSUS BLOCKS WITH MINORITY POPULATIONS OF 50 PERCENT OR GREATER

Census Geography		Race and Ethnicity										
Census Tract/ Block Group	Census Block	Total	White Alone	Black or African American Alone	American Indian and Alaska Native Alone	Asian Alone	Native Hawaiian and Other Pacific Islander Alone	Some Other Race Alone	Population of Two or More Races	Hispanic or Latino of Any Race	Total Minority Population	Total Percent Minority
--	1019	26	0%	31%	0%	0%	0%	0%	0%	69%	26	100%
--	1020	26	0%	92%	0%	0%	0%	0%	0%	8%	26	100%
--	1021	12	8%	42%	0%	0%	0%	0%	0%	50%	11	92%
--	1023	9	0%	22%	0%	0%	0%	0%	0%	78%	9	100%
--	1025	1	0%	100%	0%	0%	0%	0%	0%	0%	1	100%
--	1026	21	0%	29%	0%	0%	0%	0%	5%	67%	21	100%
--	1027	12	0%	100%	0%	0%	0%	0%	0%	0%	12	100%
--	1030	4	0%	100%	0%	0%	0%	0%	0%	0%	4	100%
--	1031	22	18%	36%	0%	0%	0%	0%	0%	45%	18	82%
--	1032	9	0%	67%	0%	0%	0%	0%	0%	33%	9	100%
--	1033	7	0%	100%	0%	0%	0%	0%	0%	0%	7	100%
39.02/ 2	--	1408	1%	77%	0%	0%	0%	0%	1%	21%	1393	99%
--	2001	92	0%	99%	0%	0%	0%	0%	0%	1%	92	100%
--	2002	7	0%	100%	0%	0%	0%	0%	0%	0%	7	100%
--	2012	13	0%	100%	0%	0%	0%	0%	0%	0%	13	100%
--	2016	29	0%	79%	0%	0%	0%	0%	0%	21%	29	100%
--	2017	22	0%	100%	0%	0%	0%	0%	0%	0%	22	100%
--	2018	46	0%	100%	0%	0%	0%	0%	0%	0%	46	100%
--	2019	67	0%	73%	0%	0%	0%	0%	0%	27%	67	100%
--	2020	29	0%	79%	0%	0%	0%	0%	0%	21%	29	100%
--	2027	113	2%	85%	1%	0%	0%	2%	1%	10%	111	98%
--	2028	43	0%	91%	0%	0%	0%	0%	0%	9%	43	100%
--	2029	20	0%	60%	0%	0%	0%	0%	0%	40%	20	100%
--	2030	65	0%	77%	0%	0%	0%	0%	0%	23%	65	100%
--	2031	40	0%	63%	0%	0%	0%	0%	3%	35%	40	100%
--	2032	8	0%	38%	0%	0%	0%	0%	0%	63%	8	100%
--	2033	19	5%	95%	0%	0%	0%	0%	0%	0%	18	95%
--	2034	39	0%	51%	0%	0%	0%	0%	0%	49%	39	100%

TABLE 5-15. 2010 CENSUS BLOCKS WITH MINORITY POPULATIONS OF 50 PERCENT OR GREATER

Census Geography		Race and Ethnicity										
Census Tract/ Block Group	Census Block	Total	White Alone	Black or African American Alone	American Indian and Alaska Native Alone	Asian Alone	Native Hawaiian and Other Pacific Islander Alone	Some Other Race Alone	Population of Two or More Races	Hispanic or Latino of Any Race	Total Minority Population	Total Percent Minority
--	2035	15	0%	100%	0%	0%	0%	0%	0%	0%	15	100%
--	2036	2	0%	100%	0%	0%	0%	0%	0%	0%	2	100%
--	2037	43	0%	53%	0%	0%	0%	0%	0%	47%	43	100%
--	2038	5	0%	80%	0%	0%	0%	0%	20%	0%	5	100%
--	2039	16	19%	75%	0%	0%	0%	0%	0%	6%	13	81%
--	2040	83	2%	64%	0%	0%	0%	0%	0%	34%	81	98%
--	2041	45	2%	89%	0%	0%	0%	0%	0%	9%	44	98%
--	2042	51	4%	73%	0%	0%	0%	0%	2%	22%	49	96%
--	2043	29	0%	93%	0%	0%	0%	0%	0%	7%	29	100%
--	2051	27	0%	100%	0%	0%	0%	0%	0%	0%	27	100%
40/ 1	--	636	1%	92%	0%	0%	0%	0%	0%	8%	631	99%
--	1001	4	0%	100%	0%	0%	0%	0%	0%	0%	4	100%
--	1002	16	0%	69%	0%	0%	0%	0%	0%	31%	16	100%
--	1003	45	0%	96%	0%	0%	0%	0%	0%	4%	45	100%
--	1004	38	0%	97%	0%	0%	0%	0%	0%	3%	38	100%
--	1006	17	0%	100%	0%	0%	0%	0%	0%	0%	17	100%
--	1007	27	4%	74%	0%	0%	0%	0%	0%	22%	26	96%
--	1008	29	0%	100%	0%	0%	0%	0%	0%	0%	29	100%
--	1009	27	0%	100%	0%	0%	0%	0%	0%	0%	27	100%
--	1010	19	0%	89%	0%	0%	0%	0%	0%	11%	19	100%
--	1011	68	3%	96%	0%	0%	0%	0%	0%	1%	66	97%
--	1012	35	0%	89%	0%	0%	0%	0%	0%	11%	35	100%
--	1013	59	0%	97%	0%	0%	0%	0%	0%	3%	59	100%
--	1014	25	4%	96%	0%	0%	0%	0%	0%	0%	24	96%
--	1015	15	0%	87%	0%	0%	0%	0%	0%	13%	15	100%
--	1018	33	0%	100%	0%	0%	0%	0%	0%	0%	33	100%
--	1019	22	0%	100%	0%	0%	0%	0%	0%	0%	22	100%
--	1020	12	0%	100%	0%	0%	0%	0%	0%	0%	12	100%

TABLE 5-15. 2010 CENSUS BLOCKS WITH MINORITY POPULATIONS OF 50 PERCENT OR GREATER

Census Geography		Race and Ethnicity										
Census Tract/ Block Group	Census Block	Total	White Alone	Black or African American Alone	American Indian and Alaska Native Alone	Asian Alone	Native Hawaiian and Other Pacific Islander Alone	Some Other Race Alone	Population of Two or More Races	Hispanic or Latino of Any Race	Total Minority Population	Total Percent Minority
--	1021	39	3%	82%	0%	0%	0%	0%	0%	15%	38	97%
--	1028	9	0%	100%	0%	0%	0%	0%	0%	0%	9	100%
--	1030	4	0%	100%	0%	0%	0%	0%	0%	0%	4	100%
--	1033	13	0%	85%	0%	0%	0%	0%	0%	15%	13	100%
--	1034	62	0%	77%	0%	0%	0%	0%	0%	23%	62	100%
--	1042	4	0%	100%	0%	0%	0%	0%	0%	0%	4	100%
--	1043	14	0%	86%	0%	0%	0%	0%	0%	14%	14	100%
40/ 2	--	446	0%	80%	1%	0%	0%	0%	2%	16%	444	100%
--	2000	27	4%	59%	4%	0%	0%	0%	15%	19%	26	96%
--	2002	21	0%	95%	0%	0%	0%	0%	0%	5%	21	100%
--	2004	36	0%	86%	0%	0%	0%	0%	0%	14%	36	100%
--	2005	32	0%	78%	0%	0%	0%	0%	0%	22%	32	100%
--	2006	24	0%	100%	0%	0%	0%	0%	0%	0%	24	100%
--	2007	38	0%	68%	3%	0%	0%	0%	3%	26%	38	100%
--	2008	28	0%	93%	0%	0%	0%	0%	0%	7%	28	100%
--	2009	34	0%	91%	0%	0%	0%	0%	0%	9%	34	100%
--	2010	5	0%	0%	0%	0%	0%	0%	0%	100%	5	100%
--	2014	20	0%	95%	0%	0%	0%	0%	0%	5%	20	100%
--	2015	17	0%	100%	0%	0%	0%	0%	0%	0%	17	100%
--	**2016**	**6**	**0%**	**50%**	**0%**	**0%**	**0%**	**0%**	**50%**	**0%**	**6**	**100%**
--	2017	15	7%	87%	7%	0%	0%	0%	0%	0%	14	93%
--	2018	25	0%	64%	0%	0%	0%	0%	0%	36%	25	100%
--	2019	39	0%	77%	0%	0%	0%	3%	0%	21%	39	100%
--	2020	21	0%	71%	0%	0%	0%	0%	0%	29%	21	100%
--	2021	3	0%	100%	0%	0%	0%	0%	0%	0%	3	100%
--	2025	1	0%	100%	0%	0%	0%	0%	0%	0%	1	100%
--	2026	1	0%	0%	0%	0%	0%	0%	0%	100%	1	100%
--	2027	14	0%	100%	0%	0%	0%	0%	0%	0%	14	100%

TABLE 5-15. 2010 CENSUS BLOCKS WITH MINORITY POPULATIONS OF 50 PERCENT OR GREATER

Census Geography		Race and Ethnicity										
Census Tract/ Block Group	Census Block	Total	White Alone	Black or African American Alone	American Indian and Alaska Native Alone	Asian Alone	Native Hawaiian and Other Pacific Islander Alone	Some Other Race Alone	Population of Two or More Races	Hispanic or Latino of Any Race	Total Minority Population	Total Percent Minority
--	2030	14	0%	64%	0%	0%	0%	0%	0%	36%	14	100%
--	**2031**	**3**	**0%**	**100%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**3**	**100%**
--	**2033**	**9**	**0%**	**33%**	**0%**	**0%**	**0%**	**0%**	**11%**	**56%**	**9**	**100%**
--	2041	2	0%	100%	0%	0%	0%	0%	0%	0%	2	100%
--	2045	11	0%	100%	0%	0%	0%	0%	0%	0%	11	100%
86.03/ 1	--	764	2%	85%	0%	0%	0%	0%	2%	11%	752	98%
--	1007	2	0%	100%	0%	0%	0%	0%	0%	0%	2	100%
115/ 3	--	262	1%	31%	0%	0%	0%	0%	0%	68%	260	99%
--	3004	2	0%	100%	0%	0%	0%	0%	0%	0%	2	100%
--	3006	6	0%	0%	0%	0%	0%	0%	0%	100%	6	100%
115/ 4	--	827	1%	48%	0%	0%	0%	0%	1%	49%	820	99%
--	4053	23	0%	87%	0%	0%	0%	0%	0%	13%	23	100%
--	4060	31	0%	45%	0%	0%	0%	0%	0%	55%	31	100%
--	4071	9	0%	100%	0%	0%	0%	0%	0%	0%	9	100%
203/1	--	466	24%	60%	0%	0%	0%	0%	0%	15%	353	76%
--	1090	1	0%	100%	0%	0%	0%	0%	0%	0%	1	100%
--	1104	5	0%	80%	0%	0%	0%	0%	0%	20%	5	100%
--	1109	11	0%	100%	0%	0%	0%	0%	0%	0%	11	100%
--	1121	2	0%	50%	0%	0%	0%	0%	0%	50%	2	100%
203/ 2	--	1314	2%	95%	0%	0%	0%	0%	1%	3%	1291	98%
--	2016	64	0%	100%	0%	0%	0%	0%	0%	0%	64	100%
--	2017	67	0%	90%	0%	0%	0%	0%	1%	9%	67	100%
--	2018	21	0%	100%	0%	0%	0%	0%	0%	0%	21	100%
--	2020	8	0%	88%	13%	0%	0%	0%	0%	0%	8	100%
--	2021	6	0%	83%	17%	0%	0%	0%	0%	0%	6	100%
--	2022	1	0%	100%	0%	0%	0%	0%	0%	0%	1	100%
203/ 3	--	788	2%	90%	0%	0%	0%	0%	2%	5%	772	98%
--	3022	16	0%	100%	0%	0%	0%	0%	0%	0%	16	100%

TABLE 5-15. 2010 CENSUS BLOCKS WITH MINORITY POPULATIONS OF 50 PERCENT OR GREATER

Census Geography		Race and Ethnicity										
Census Tract/ Block Group	Census Block	Total	White Alone	Black or African American Alone	American Indian and Alaska Native Alone	Asian Alone	Native Hawaiian and Other Pacific Islander Alone	Some Other Race Alone	Population of Two or More Races	Hispanic or Latino of Any Race	Total Minority Population	Total Percent Minority
--	2023	21	0%	86%	0%	0%	0%	0%	0%	14%	21	100%
--	3024	19	0%	100%	0%	0%	0%	0%	0%	0%	19	100%
--	3025	21	5%	57%	0%	0%	0%	0%	0%	38%	20	95%
--	3026	6	0%	67%	0%	0%	0%	0%	33%	0%	6	100%
--	3027	221	6%	86%	0%	0%	0%	0%	1%	7%	208	94%
--	3028	14	0%	100%	0%	0%	0%	0%	0%	0%	14	100%
--	3030	4	0%	0%	0%	0%	0%	0%	0%	100%	4	100%
204/ 2	--	2040	40%	22%	0%	4%	0%	0%	2%	32%	1224	60%
--	2107	12	0%	0%	0%	0%	0%	0%	0%	100%	12	100%
--	2182	4	50%	50%	0%	0%	0%	0%	0%	0%	2	50%
--	2183	2	50%	0%	0%	0%	0%	0%	0%	50%	1	50%

Source: *U.S. Census Bureau 2010, Summary File 1, Table P9*

Note:
Census blocks associated with the locations of the residential displacements in the Colonial Hills neighborhood are **bolded.**

The latest Census data has been utilized to obtain socioeconomic data. The 2010 Census data is used to obtain population counts and basic characteristics, while the Census Bureau's ACS 2006–2010 5-year estimate data is used to obtain demographic, social, economic and housing characteristics.

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Table 5-16 shows the median household income characteristics of the 18 Census block groups in the project area. Of the 18 Census block groups, 13 Census block groups contain populations whose median household incomes are less than the HHS 2012 poverty guideline of $23,050 for a four-person family. Therefore, low-income populations exist in the project area.

TABLE 5-16. CENSUS BLOCK GROUP MEDIAN HOUSEHOLD INCOME

Census Geography	Median Household Income in the Past 12 Months (in 2010 inflation-adjusted dollars)[1]	Total Households[2]	Percentage of Household Income in 2010 Below Poverty Level[2]
Block Group 1, Census Tract 34	**20,184**	**265**	**36%**
Block Group 2, Census Tract 34	30,682	362	30%
Block Group 2, Census Tract 37	**17,745**	**391**	**38%**
Block Group 3, Census Tract 37	27,212	261	24%
Block Group 4, Census Tract 37	**17,782**	**161**	**49%**
Block Group 1, Census Tract 38	**16,821**	**333**	**36%**
Block Group 3, Census Tract 38	**11,406**	**160**	**44%**
Block Group 1, Census Tract 39.02	**17,464**	**203**	**29%**
Block Group 2, Census Tract 39.02	**21,942**	**551**	**31%**
Block Group 1, Census Tract 40	**19,542**	**215**	**30%**
Block Group 2, Census Tract 40	38,542	143	10%
Block Group 1, Census Tract 86.03	**21,797**	**241**	**43%**
Block Group 3, Census Tract 115	**19,118**	**152**	**47%**
Block Group 4, Census Tract 115	25,054	256	56%
Block Group 1, Census Tract 203	**19,554**	**148**	**31%**
Block Group 2, Census Tract 203	**13,511**	**610**	**49%**
Block Group 3, Census Tract 203	**13,169**	**329**	**53%**
Block Group 2, Census Tract 204	33,866	599	22%

Sources:

1. *U.S. Census Bureau ACS 2006-2010 5-year estimates, Table B19013*
2. *U.S. Census Bureau ACS 2006-2010 5-year estimates, Table B17017*

Notes: Census block groups that contain low-income populations are **bolded**.

Transient Population

During field work in April 2011, what appeared to be transient/homeless make-shift camp was observed under the northbound mainlanes of IH 45 just east of the railroad. Based on the temporary shelters, it appeared that approximately 10 people could find shelter at this location. Chained dogs were present, but no people were observed.

Potential Impacts to EJ Populations

Section 5.2.14 summarizes the community impact assessment for this project. Since the project area is has a predominately minority population with sizeable low-income, both impacts and benefits of the proposed project discussed in **Section 5.2.14** would be borne by EJ populations. Therefore, an analysis of disproportionate impacts and mitigation strategies for this vulnerable population are described below.

Potential Disproportionate Impacts to EJ Populations

Based on the definition of 'adverse effect' previously discussed, displacements from the proposed project are considered to be adverse impacts, and these adverse effects would predominately be borne by a minority population and/or a low-income population. Also, these impacts would be suffered by the minority population and/or low-income population and are appreciably more severe or greater in magnitude than the adverse effect that would be suffered by the nonminority population and/or non-low-income population. This is due to the location of the existing roadway being within a predominant EJ community. Therefore, there would be adverse disproportionate impacts to EJ populations associated with the proposed project. However, the same EJ populations that would be adversely affected would benefit from the mitigation commitments for these impacts, as well as, the proposed roadway improvements to improve safety, operations, connectivity, and mobility. As a result of these measures, disproportionate impacts are not considered high.

Proposed Mitigation Strategies

Any potential adverse impacts on EJ populations would be offset in part by project related benefits and mitigation efforts as described below.

Community Outreach

Based upon the EJ community within the project area, extensive public outreach and mitigation measures have been incorporated into the project development process. To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process, efforts have been made to include all affected communities and populations, including potential minority and low income populations. Steps have been taken to ensure that all applicable persons have access to the programs, services, and information TxDOT provides. Various stakeholder work group meetings and general project meetings have occurred regarding the proposed SM Wright Parkway, as well as, three Public Meetings (**Section 2.6**). A proactive public involvement program will continue for the proposed project and all populations affected will have a continuing opportunity to participate in the development of the project, in accordance with applicable federal and state laws.

LEP Populations

Steps have been and would continue to be taken to ensure that LEP populations have access to the programs, services, and information TxDOT provides (see **Sections 2.6** and **5.2.8**).

Relocations and Displacements

As discussed in **Section 5.2.5**, residential and business displacement are associated with the proposed project. EJ populations are anticipated to be impacted by these displacements. TxDOT is committed to coordinate available programs provided by Workforce Solutions to those employees affected by the businesses potentially displaced as a result of the proposed project at the Public Hearing. The Workforce Development Manager and appropriate staff will attend the Public Hearing for the proposed project to answer questions or present services information on behalf of Workforce Solutions (see **Section 5.2.5** and **Section 8.0**). EJ populations would benefit through relocation benefits for businesses, residential home owners, and tenants. Displaced businesses and dislocated workers would benefit from Workforce Solutions programs.

Local services, such as, The Bridge are available to provide homeless/transient populations within the project corridor options for shelter both in the immediate future as well as the construction phase of this project. TxDOT is committed to contacting The Bridge and working with the City of Dallas Police Department in the event homeless/transient populations are within the immediate work area at the time of construction.

Opened in May 2008, The Bridge is dedicated to serving homeless individuals, with the primary focus being the chronically homeless. Based on a unique Public-Private Partnership, the funds for construction were generated through a $23.8 million City Bond Program passed in 2005. The annual budget is uniquely funded through public funds and private donations. Services at The Bridge are managed through a private, non-profit organization, Metro Dallas Homeless Alliance. Nineteen Metro Dallas Homeless Alliance (MDHA) organizations collaborate to provide services at The Bridge. The Bridge is a unique multi-service campus providing a continuum of care developed to engage people experiencing long-term homelessness in both emergency care and housing and transitional care and housing, in one location. Transitional services are available to people residing at The Bridge as well as to people residing in emergency housing throughout the Dallas area. Fifty-two MDHA organizations collaborate to provide outplacements into transitional, permanent, and permanent supportive housing for people experiencing homelessness accessing services at The Bridge.

Community Cohesion

This proposed project offers a much needed and desired enhancement for the local community with regard to improved community cohesion. EJ populations would benefit from improved safety, operability, connections, and mobility.

Aesthetic Considerations

Due to the proximity of the NRHP-listed neighborhoods adjacent to the proposed SM Wright Parkway, efforts would be made to preserve the historic character of the adjacent neighborhood. The proposed improvements are not anticipated to change the aesthetic character of the surrounding communities. Aesthetic structural and landscape design considerations would be incorporated during final project design Plans, Specifications, and Estimates as described in **Section 5.2.11**.

Noise

The proposed project would result in a traffic noise impact. Seventeen noise barriers would be feasible and reasonable for a total of 113 benefited receivers.

Conclusion

Commitments have been made to mitigate for disproportionately adverse impacts on minority and/or low-income populations to prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations. Therefore, the requirements of applicable laws and regulations appear to be satisfied.

5.2.10 Public Facilities and Services

No-Build Alternative

Implementation of the No-Build Alternative would not adversely affect any public facilities or services; however, the No-Build Alternative would not improve mobility to access these facilities and services.

Build Alternative

Table 5-17 lists public facilities identified within the municipalities encompassing the proposed project. There are six health care facilities, five civil service facilities, one library, two senior living centers, 13 schools, 76 worship centers, one cultural center, one municipal building, and 13 parks located within and around the vicinity of the project area.

TABLE 5-17. PUBLIC FACILITIES LOCATED WITHIN AND IN THE VICINITY OF THE PROJECT AREA

FACILITY	PROPERTY ADDRESS
Health Care	
Peabody Health Care Center	1906 Peabody Avenue, Dallas, TX 75215
Hirsch Clinic	1902 Martin Luther King Junior Boulevard, Dallas, TX 75215
Senior Care Health & Rehab	2815 Martin Luther King Junior Boulevard, Dallas, TX 75215
Baylor Senior Center	2835 Grand Avenue, Dallas, TX 75215
City of Dallas: Martin Luther King Jr. Health Center	2922 Martin Luther King Junior Boulevard, Dallas, TX 75215
South Dallas Community Medical and Health	2929 Martin Luther King Junior Boulevard, Dallas, TX 75215
Civil Service	
Dallas Police Department	6500 Bexar Street, Dallas, TX, 75215
DART Transit Police	3021 Oak Lane, Dallas, TX 75226
Dallas Police Association Office	1412 Griffin Street East, Dallas, TX 75215
Dallas Police Department	1400 South Lamar Street, Dallas, TX 75215
Dallas City Fire Station, Number 6	2808 Harwood/ 1902 Park Row, Dallas, TX 75215
Library	
Martin Luther King Junior Library	2922 Martin Luther King Junior Boulevard, Dallas, TX 75215
Senior Living	
South Dallas Nursing Home	3808 South Central Expressway, Dallas, TX, 75215
Bridge at Fair Park – Senior Day Care Center	2535 Martin Luther King Junior Boulevard, Dallas, TX 75215
School	
HS Thompson Learning Center	5700 Bexar Street, Dallas, TX, 75215
St. Philips Episcopal School	1600 Pennsylvania Avenue, Dallas, TX, 75215
Charles Rice Elementary School	2425 Pine Street, Dallas, TX, 75215
Martin Luther King Elementary School	1817 Warren Avenue, Dallas, TX, 75215
Dallas Bethlehem Center – Kindergarten School	4410 Leland Avenue, Dallas, TX 75215
J P Starks Elementary School	3033 Tips Boulevard, Dallas, TX , 75215
City Park Elementary School	1738 Gano Street, Dallas, TX, 75215
Lamar School	1403 Corinth St., Dallas, TX 75215
Cornerstone Crossroads Academy	2711 South Ervay Street, Dallas, TX 75215
Lincoln High School	5000 Malcolm X Boulevard, Dallas, TX 75215
St. Anthony School	3732 Myrtle Street, Dallas, TX, 75215
Phyllis Wheatley Elementary	2908 Metropolitan Avenue, Dallas, TX 75215
Worship	
The Lord's Missionary Baptist Church	6722 Bexar Street, Dallas, TX, 75215
Mount Eria Baptist Church	Municipal Street/Myrtle Street SE Corner, Dallas, TX, 75215
Grand Central Missionary Baptist Church	2620 Rochester Street, Dallas, TX 75215
Mohammed Mosque	2429 Martin Luther King Junior Boulevard, Dallas, TX 75215
Bread of Life primitive Baptist Church	Valentine Street/Bexar Street, Dallas, TX, 75215
Evangelist Temple Church	2627 Dorris Street, Dallas, TX 75215
True Light Missionary Baptist Church	2314 Dyson Street, Dallas, TX 75215
Christ's Willing Workers Baptist	2213 Lowery Street, Dallas, TX 75215
Church of the Living God	2414 Bethurum Avenue, Dallas, TX 75215
Anointed Fellowship Church	2529 Bethurum Avenue, Dallas, TX 75215
Mosley Chapel CME Church	2246 Anderson Street, Dallas, TX 75215
Morning Star Baptist Church	2662 Anderson Street, Dallas, TX 75215
Harding Street Baptist Church	2238 Harding Street, Dallas, TX 75215
New Galilee Baptist Church	2601 Starks Avenue, Dallas, TX 75215

TABLE 5-17. PUBLIC FACILITIES LOCATED WITHIN AND IN THE VICINITY OF THE PROJECT AREA

FACILITY	PROPERTY ADDRESS
Rhodes Terrace Bible Fellowship	2427 Macon Street, Dallas, TX 75215
Friendly Church of God in Christ	2510 Ghent Street, Dallas, TX 75215
Willow Grove Baptist Church	5040 Marne Street, Dallas, TX 75215
Love Chapel Baptist Church	2727 Brigham Lane, Dallas, TX 75215
Trinity Missionary Baptist Church	2635 Brigham Lane, Dallas, TX 75215
Body Of Christ Assembly	5001 Crozier Street, Dallas, TX 75215
Freeman Chapel Primitive Baptist	4911 Wanda Street, Dallas, TX 75215
New Hope Baptist Church	5002 South Central Expressway, Dallas, TX 75215
Rose of Sharon Baptist Church	2251 Lawrence Street, Dallas, TX 75215
New Mt. Moriah Baptist Church	2735 Marder Street, Dallas, TX 75215
Full Gospel Pentecostal Church	2601 Stephenson Drive, Dallas, TX 75215
Church of Christ	2600 Lawrence Street, Dallas, TX 75215
Third Ave Baptist Church	2408 Hatcher Street, Dallas, TX 75215
New Horizon Missionary Baptist Church	2407 Warren Avenue, Dallas, TX 75215
St James Church - God in Christ	2230 Greer Street, Dallas, TX 75215
Greater New Zion Baptist Church	2210 Pine Street, Dallas, TX 75215
Meadow Hill Baptist Church	2922 Marburg Street, Dallas, TX 75215
Oak Hill Baptist Church	4440 Malcolm X Boulevard, Dallas, TX 75215
Baldwin Chapel Church of God	4430 Crozier Street, Dallas, TX 75215
Triumph the Church of God	2314 Greer Street, Dallas, TX 75215
St Paul's Baptist Church	1600 Pear Street, Dallas, TX 75215
Salem Institutional Baptist Church	3918 Crozier Street, Dallas, TX 75215
Romine Avenue Christian Church	2302 Romine Avenue, Dallas, TX 75215
Greater New Bethel Baptist Church	3817 Malcolm X Boulevard, Dallas, TX 75215
Avenue Baptist Church	3745 Dildock Street, Dallas, TX 75215
St Paul AME Church	2420 Metropolitan Avenue, Dallas, TX 75215
Opportunity Church of God and Christ	Malcolm X Boulevard, Dallas TX 75215
St. Mathew Baptist Church	2600 Warren Avenue, Dallas, TX 75215
St. Anthony's Church	2711 Romine Avenue, Dallas, TX 75215
Sunlight Missionary Baptist	2308 Cooper Drive, Dallas, TX 75215
Pleasant Grove Baptist Church	3711 Malcolm X Boulevard, Dallas, TX 75215
Greater St John Baptist Church	3633 Atlanta Street, Dallas, TX 75215
New Friendship Missionary Baptist	2419 Metropolitan Avenue, Dallas, TX, 75215
Mount Moriah Missionary Baptist Church	3611 Latimer Street, Dallas, TX 75215
Ideal Christian Center	3501 Malcolm X Boulevard, Dallas, TX 75215
Haynes Chapel Church of God	3605 Ruskin Street, Dallas, TX 75215
Greater St Luke Missionary	2530 Lenway Street, Dallas, TX 75215
Warren Avenue Christian Church	2431 Warren Avenue, Dallas, TX 75215
Olivet Missionary Baptist	2702 Warren Avenue, Dallas, TX 75215
In His Image Church	1719 Pine Street, Dallas, TX 75215
God House of Worship	2939 Lenway Street, Dallas, TX 75215
Mt Carmel Church of God	3122 Metropolitan Avenue, Dallas, TX 75215
Wheatley Church of God	3118 Metropolitan Avenue, Dallas, TX 75215
Greater Calvary Baptist Church	3733 Myrtle Street, Dallas, TX 75215
Memorial Baptist Church	2312 J B Jackson Junior Boulevard, Dallas, TX 75210
Praise Temple	2409 Pennsylvania Avenue, Dallas, TX 75215

TABLE 5-17. PUBLIC FACILITIES LOCATED WITHIN AND IN THE VICINITY OF THE PROJECT AREA

FACILITY	PROPERTY ADDRESS
Forest Avenue Baptist Church	2502 Martin Luther King Junior Boulevard, Dallas, TX 75215
Warren United Methodist Church	3028 Malcolm X Boulevard, Dallas, TX 75215
Spirit of Hope Primitive Baptist Church	Warren Avenue, Dallas, TX 75215
Israel of God	2903 Martin Luther King Junior Boulevard, Dallas, TX 75215
Church of the Lord Jesus	3015 Malcolm X Boulevard, Dallas, TX 75215
Mt Olive Lutheran Church	3100 Martin Luther King Junior Boulevard, Dallas, TX 75215
Faith Cumberland Presbyterian	2903 Grand Avenue, Dallas, TX 75215
Church of Christ	3220 Park Row Avenue, Dallas, TX 75210
Wayside Missionary Baptist Church	1518 Beaumont Street, Dallas, TX 75215
Gethsemane Church	1823 Richardson Avenue, Dallas, TX 75215
Good Shepherd Primitive Baptist	1833 Richardson Avenue, Dallas, TX 75215
Dallas Masjid Of al-Islam	2604 South Harwood Street, Dallas, TX 75215
Cornerstone Baptist Church	1819 Martin Luther King Junior Boulevard, Dallas, TX 75215
Joy Tabernacle AME Church	3203 Holmes Street, Dallas, TX 75215
New Faith Missionary Baptist Church	3400 Holmes Street, Dallas, TX 75215
Damascus Missionary Baptist Church	3600 Cleveland Street, Dallas, TX 75215
Cultural	
City of Dallas: Juanita Craft Civil Rights House	2618 Warren Avenue, Dallas, TX 75215
Municipal	
City of Dallas: Housing Authority of Park Manor	3333 Edgewood Street, Dallas, TX 75215
Park	
Rhoads Terrace Park	East of Municipal St./ South of C R Hawn Fwy, Dallas, TX, 75215
Exline Park	North Corner of Pine Street/Latimer Street, Dallas, TX, 75215
William Blair, Jr. Park (formerly Rochester Park)	3000 Municipal Street, Dallas, Texas 75215
Lagow Park	3322 Reed Lane, Dallas, TX 75215
Moore Park	E 8th Street/Rockefeller, Dallas, TX, 75215
Opportunity Park	Roberts Avenue/Rutledge Street, Dallas, TX, 75215
Nelson Park	Cason Street/Hatcher Street, Dallas, TX, 75215
Sargent Park	E Overton Road/Sargent Road, Dallas, TX, 75215
Robert Oren Park	E Overton Road/Sargent Road, Dallas, TX, 75215
Trinity Greenbelt Park	IH 35E / S Riverfront Boulevard, Dallas, TX, 75215
Wheatley Park	McDermott Ave/ Havana Street, Dallas, TX, 75215
Old City Park	S Harwood Street/Beaumont Street, Dallas, TX, 75215
Dallas Heritage Village	S Harwood Street/Gano Street, Dallas, TX, 75215

Source: http://www.google.com (May 2011 and January 2012); Field reconnaissance (April 2010).

Note – These public facilities are located within less than 0.5 mile from the proposed project.

The proposed project would improve mobility to access the facilities and services listed in **Table 5-17**. Implementation of the proposed SM Wright project would not displace any of the facilities listed in **Table 5-17**.

5.2.11 Aesthetic Considerations

No-Build Alternative

Aesthetic impacts are not anticipated under the No-Build Alternative.

Build Alternative

As previously discussed, the proposed project would include improvements to the existing SM Wright Freeway/US 175, from IH 45 to north of Budd Street; to the CF Hawn Freeway (US 175) from east of Bexar Street to IH 45; and the construction of a new interchange with IH 45 and the widening/restriping of IH 45 from south of Lamar Street to the SM Wright Freeway/US 175. The visual landscape near the proposed project area is characterized by a combination of urban land uses including: existing roadways, commercial, industrial, institutional, residential developments, and vacant land.

The SM Wright Freeway portion of the proposed project involves the downsizing the existing SM Wright Freeway facility to a six-lane urban arterial facility, known as the SM Wright Parkway. There are two NRHP-listed historic districts, the Colonial Hill Historic District and the South Boulevard-Park Row Historic District, located adjacent to the existing SM Wright Freeway (US 175) (see **Section 5.3.1** for additional information). As this portion of the project area is located within a known NRHP-listed historic district, it is important to enhance the aesthetics of the facility while preserving the historic character of the adjacent neighborhood. Various stakeholder work group meetings, public meetings, and general project meetings have occurred regarding the potential aesthetics for the proposed SM Wright Parkway (**Section 2.6**). Aesthetic design guidelines have been developed based on coordination with various project stakeholders, which resulted in the proposed SM Wright Parkway – Landscape and Aesthetic Concept Plan.

In detail, The SM Wright Parkway – Landscape and Aesthetic Concept Plan includes enhanced landscape plantings along the streetscape and at key intersections would provide an inviting environment for pedestrian and motorists. Aesthetically pleasing, native and adaptive plants have been selected to promote low water requirements and minimal maintenance needs. Visibility clearances would be maintained to meet TxDOT and City of Dallas standards. The potential landscaping plants include the following:

- Trees: Bald Cypress, Live Oak, Shumard Oak, Cedar Elm
- Ornamental Trees: Texas Redbud, Desert Willow, Southern Wax Myrtle, Possumhaw, Yaupon Holly, Afghan Pine, Cherry Laurel, Savannah Holly
- Shrubs: Texas Sage, Tam Juniper, Abelia, Red Yucca
- Ornamental Grass: Adagio Miscanthus, Mexican Feather Grass, Gulf Muhly, Indian Grass
- Perennials: Plumbago, Gregg's Salvia, Russian Sage, Lantana
- Turf Grass: Buffalograss, Bermuda Grass, Annual Rye Grass

Various sizes of gateway monuments would also be included throughout the corridor. The largest type, corridor gateway monuments, would be located off MLK Jr. Boulevard to the north and the connection to CF Hawn Freeway to the south. These large monuments would range in height from 40 to 60 feet and would create bookends to the corridor. Smaller neighborhood monuments would be located at the intersections of Hatcher St., Pine St., Metropolitan Ave., and Pennsylvania Ave. At 20 to 30 feet tall, these would serve as iconic identity markers for each neighborhood. The smallest monuments are trail gateway monuments. These are pedestrian scale and range in height from 7 to 10 feet. The design of each monument is representative of the historic character of the adjacent neighborhoods and would promote a sense of pride and ownership in the community.

The proposed design would be consistent with the City of Dallas' 2005 Trails Master Plan and the 2011 Dallas Bike Plan. The project would include multi-use hike and bike trails located on both sides of the roadway within the landscaped parkway of the proposed SM Wright Parkway. All multi-use trails would be 12 feet wide and designed to meet current AASHTO trail design standards. Not only will this serve pedestrians but it will also serve as a subsidiary bike path to the shared bike lane provided within the outside lane of the roadway facility This project would also include on-street bike facilities that would be accommodated by 16-foot (14-foot and 2-foot shoulder) wide outside vehicular travel lanes. The design speed for SM Wright Parkway is 35 mph to promote low speed vehicular operation and facilitate safe bicycle and vehicular integration in the outside lane.

The proposed design would be compliant with the Americans with Disabilities Act (ADA) Accessibility Guidelines as well as the Manual on Uniform Traffic Control Devices (MUTCD). Additionally, stamped concrete, brick and/or concrete pavers would be utilized to help delineate pedestrian access across busy streets. Intersections would be highlighted with hardscape to alert drivers of pedestrian crossings, the design would emphasize the neighborhood gateways. Pedestrian crossings would include ADA accessible ramps in compliance with the Texas Accessibility Standards including detectable warning surfacing, audible alert systems, and rapid flash vehicular warning signage.

Along the CF Hawn Freeway and IH 45 portions of the proposed project, the aesthetic character of the communities is not anticipated to noticeably change because the proposed project consists of improvements to existing roadways and interchanges. Further, the proposed project is in compliance with local development plans. Aesthetic design guidelines that would apply to the mainlanes and cross street bridges of the proposed project are also being developed. Aesthetic treatments for structural components (retaining walls, bridges, etc.) and landscaping would be incorporated into the proposed project during final design, and stakeholder input would be considered during this design process so as to minimize the potential for aesthetic impacts. Additional aesthetic design concepts would be dependent on additional

funding from local governments, interest groups, and organizations. Finally, the SM Wright Parkway – Landscape and Aesthetic Concept Plan presumes a continuance of the aesthetic contribution made by the dozens of large (frequently 20 to 30 inches dbh) live oak trees lining SM Wright Freeway. As discussed in **Section 5.1.5**, these large trees are generally just outside the proposed project's construction footprint and final design planning for the removal of existing frontage road pavement would consider the close proximity of these trees to avoid damage to them. Every effort would be made to preserve trees within the ROW and other areas where they neither compromise safety nor substantially interfere with the project's construction.

5.2.12 Noise

No-Build Alternative

Highway traffic is the dominant source of noise in developed areas adjacent to the proposed SM Wright project. The predicted increase in future traffic volumes on US 175 (SM Wright Freeway and CF Hawn Freeway), SH 310, and IH 45 would likely increase future ambient noise levels.

Build Alternative

This analysis was accomplished in accordance with TxDOT's (FHWA approved) April 2011 Guidelines for Analysis and Abatement of Roadway Traffic Noise.

Sound from highway traffic is generated primarily from a vehicle's tires, engine and exhaust. It is commonly measured in decibels and is expressed as "dB."

Sound occurs over a wide range of frequencies. However, not all frequencies are detectable by the human ear; therefore, an adjustment is made to the high and low frequencies to approximate the way an average person hears traffic sounds. This adjustment is called A-weighting and is expressed as "dB(A)."

Also, because traffic sound levels are never constant due to the changing number, type and speed of vehicles, a single value is used to represent the average or equivalent sound level and is expressed as "Leq." The traffic noise analysis typically includes the following elements:

- Identification of land use activity areas that might be impacted by traffic noise.
- Determination of existing noise levels.
- Prediction of future noise levels.
- Identification of possible noise impacts.
- Consideration and evaluation of measures to reduce noise impacts.

The FHWA has established the following Noise Abatement Criteria (NAC) (**Table 5-18**) for various land use activity areas that are used as one of two means to determine when a traffic noise impact would occur.

TABLE 5-18. NOISE ABATEMENT CRITERIA

Activity Category	FHWA dB(A) Leq	Description of Land Use Activity Areas
A	57 (exterior)	Lands on which serenity and quiet are of extra-ordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67 (exterior)	Residential.
C	67 (exterior)	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.
D	52 (interior)	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.
E	72 (exterior)	Hotels, motels, offices, restaurants/bars, and other developed lands, properties, or activities not included in A-D or F.
F	--	Agricultural, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing.
G	--	Undeveloped lands that are not permitted.

A noise impact occurs when either the absolute or relative criterion is met:

Absolute criterion: the predicted noise level at a receiver approaches, equals or exceeds the NAC. "Approach" is defined as one dB(A) below the NAC. For example: a noise impact would occur at a Category B residence if the noise level is predicted to be 66 dB(A) or above.

Relative criterion: the predicted noise level substantially exceeds the existing noise level at a receiver even though the predicted noise level does not approach, equal or exceed the NAC. "Substantially exceeds" is defined as more than ten dB(A). For example: a noise impact would occur at a Category B residence if the existing level is 54 dB(A) and the predicted level is 65 dB(A).

When a traffic noise impact occurs, noise abatement measures must be considered. A noise abatement measure is any positive action taken to reduce the impact of traffic noise on an activity area.

The FHWA traffic noise modeling software was used to calculate existing and predicted traffic noise levels. The model primarily considers the number, type and speed of vehicles; highway alignment and grade; cuts, fills and natural berms; surrounding terrain features; and the locations of activity areas likely to be impacted by the associated traffic noise.

Existing and predicted traffic noise levels were modeled at receiver locations (**Table 5-19** and **Appendix C-10, Pages 1, 2, and 3**) that represent the land use activity areas adjacent to the proposed project that might be impacted by traffic noise and potentially benefit from feasible and reasonable noise abatement.

TABLE 5-19. TRAFFIC NOISE LEVELS dB(A) LEQ

Representative Receiver	NAC Category	NAC Level	Existing	Predicted 2035	Change (+/-)	Noise Impact
CF Hawn Freeway (US 175) (Appendix C-10, page1)						
R1 residential	B	67	59	67	+8	Y
R2 residential	B	67	59	68	+9	Y
R3 residential	B	67	59	71	+12	Y
R4 residential	B	67	59	71	+12	Y
R5 residential	B	67	71	72	+1	Y
R6 residential	B	67	69	70	+1	Y
R7 residential	B	67	72	72	0	Y
R8 residential	B	67	67	68	+1	Y
R9 residential	B	67	72	71	-1	Y
R10 residential	B	67	72	71	-1	Y
R11 residential	B	67	73	71	-2	Y
R12 residential	B	67	72	72	0	Y
R13 residential	B	67	72	70	-2	Y
R14 residential	B	67	72	69	-3	Y
R15 residential	B	67	70	69	-1	Y
R16 residential	B	67	62	65	+3	N
R17 Future Dallas Police Station	F	--	68	71	+3	--
R18 residential	B	67	69	70	+1	Y
R19 residential	B	67	66	69	+3	Y
R20 Thompson Learning Center	C	67	64	65	+1	N
R21 residential	B	67	69	69	+0	Y
R22 residential	B	67	66	67	+1	Y
R23 residential	B	67	63	67	+4	Y
R24 residential	B	67	63	66	+3	Y
R25 residential	B	67	62	65	+3	N
SM Wright Freeway (US 175/SH 310) (Appendix C-10, page 2)						
R1 residential	B	67	67	60	-7	N
R2 church	D	52	67	62	-5	N
R3 residential	B	67	67	64	-3	N
R4 residential	B	67	67	62	-5	N
R5 zoned commercial	F	--	66	66	-0	--
R6 residential	B	67	70	67	-3	Y
R7 residential	B	67	75	65	-10	N
R8 residential	B	67	72	67	-5	Y
R9 restaurant bar	E	72	74	64	-10	N
R10 church playground	C	67	73	64	-9	N
R10A church interior	D	52	48	39	-9	N
R11 residential	B	67	72	63	-9	N
R12 residential	B	67	73	63	-10	N
R13 church	D	52	46	40	-6	N
R14 residential	B	67	71	65	-6	N
R15 residential	B	67	71	63	-8	N
R16 residential	B	67	75	63	-12	N
R17 residential	B	67	75	64	-11	N
R18 residential	B	67	74	64	-10	N
R19 residential	B	67	74	63	-11	N
R20 residential	B	67	71	65	-6	N
R21 church	D	52	47	44	-3	N

TABLE 5-19. TRAFFIC NOISE LEVELS dB(A) LEQ

Representative Receiver	NAC Category	NAC Level	Existing	Predicted 2035	Change (+/-)	Noise Impact
R22 residential	B	67	73	65	-8	N
R23 residential	B	67	74	63	-11	N
R24 church	D	52	75	64	-11	N
R25 residential	B	67	75	64	-11	N
R26 residential	B	67	76	63	-13	N
R27 nursing home	D	52	51	41	-10	N
R28 residential	B	67	72	63	-9	N
R29 residential	B	67	70	64	-6	N
R30 residential	B	67	71	64	-7	N
R31 residential	B	67	72	64	-7	N
R32 residential	B	67	71	62	-9	N
R33 residential apartment	B	67	74	61	-13	N
R34 residential	B	67	75	64	-11	N
R35 residential	B	67	74	62	-12	N
R36 residential	B	67	76	64	-12	N
R37 residential	B	67	74	64	-10	N
R38 residential	B	67	70	64	-6	N
R39 Kimble Park	C	67	71	60	-11	N
R40 residential	B	67	72	65	-7	N
R41 residential	B	67	71	64	-7	N
R42 Peabody Health Center	D	52	44	36	-8	N
IH 45 (Appendix C-10, page 3)						
R1 residential	B	67	68	69	+1	Y
R2 residential	B	67	69	72	+3	Y
R3 residential	B	67	72	77	+5	Y
R4 residential	B	67	74	77	+3	Y
R5 residential duplex	B	67	73	75	+2	Y
R6 residential	B	67	75	78	+3	Y
R7 residential	B	67	74	76	+2	Y
R8 residential apartment	B	67	76	78	+2	Y
R9 residential duplex	B	67	72	75	+3	Y
R10 residential	B	67	72	72	0	Y
R11 residential	B	67	69	71	+2	Y
R12 residential apartment	B	67	69	73	+4	Y
R13 duplex	B	67	70	72	+2	Y
R14 school	D	52	43	45	+2	N
R15 duplex	B	67	69	71	+2	Y
R16 residential	B	67	69	71	+2	Y
R17 church	D	52	45	47	+2	N
R18 fire station	F	--	73	75	+2	--
R19 church	D	52	44	46	+2	N

As indicated in **Table 5-19**, the proposed project would result in a traffic noise impact and the following noise abatement measures were considered: traffic management, alteration of horizontal and/or vertical alignments, acquisition of undeveloped property to act as a buffer zone and the construction of noise barriers.

Before any abatement measure can be proposed for incorporation into the project, it must be both feasible and reasonable. In order to be "feasible," the abatement measure must be able to reduce the noise level at greater than 50% of impacted, first row receivers by at least five dB(A); and to be

"reasonable," it must not exceed the cost-effectiveness criterion of $25,000 for each receiver that would benefit by a reduction of at least five dB(A) and the abatement measure must be able to reduce the noise level at least one impacted, first row receiver by at least seven dB(A).

Traffic management: control devices could be used to reduce the speed of the traffic; however, the minor benefit of one dBA per five mph reduction in speed does not outweigh the associated increase in congestion and air pollution. Other measures such as time or use restrictions for certain vehicles are prohibited on state highways.

Alteration of horizontal and/or vertical alignments: any alteration of the existing alignment would displace existing businesses and residences, require additional ROW and not be cost effective/reasonable.

Buffer zone: the acquisition of undeveloped property to act as a buffer zone is designed to avoid rather than abate traffic noise impacts and, therefore, is not feasible.

Noise barriers: this is the most commonly used noise abatement measure. Noise barriers were evaluated for each of the impacted receiver locations.

Noise barriers would not be feasible and reasonable for any of the following impacted receivers and, therefore, are not proposed for incorporation into the project:

SM Wright

R8: This receiver represents an area of mixed use, with three residential properties and two retail/commercial properties. The properties front Hohen Avenue, which is located between the receivers and SM Wright. A continuous noise barrier along Hohen Avenue would restrict access to the residential and retail/commercial properties. Gaps in the noise barrier would satisfy access requirements but the resulting non-continuous barrier segments would not be sufficient to achieve the minimum, feasible reduction of five dB(A) or the noise reduction design goal of seven dB(A).

IH 45

R1 and R2: These receivers represent an area of mixed use. Five retail/commercial properties front the IH 45 northbound frontage road. Two front-row residences and three second-row residential properties front Holmes Street to the east. A continuous noise barrier along the frontage road (at ground level) would restrict access to the retail/commercial properties. Gaps in the noise barrier would satisfy access requirements but the resulting non-continuous noise barrier segments would not be sufficient to achieve the minimum, feasible reduction of five dB(A) or the noise reduction design goal of seven dB(A).

R5: This receiver represents a residential structure surrounded on each side by retail/commercial properties. A continuous noise barrier would restrict access to these structures. Gaps in the noise barrier would satisfy access requirements but the resulting non-continuous barrier segments would not be sufficient to achieve the minimum, feasible reduction of five dB(A) or the noise reduction design goal of seven dB(A).

Summary

Noise barriers would be feasible and reasonable for the following impacted receivers and, therefore, are proposed for incorporation into the project as shown in **Table 5-20**.

TABLE 5-20. NOISE BARRIER PROPOSAL (PRELIMINARY)

Barrier	Representative Receivers	Total # Benefited	Length (feet)	Height (feet)	Total Cost	$/Benefited Receiver
CF Hawn Barrier Proposal						
1	R1, R2, R6, R10	11	1620	8, 10, 12, 14, 16	$331,920	$30,175
2	R3, R4, R9, R12	17	1870	8, 10, 12, 14, 16	$394,560	$23,209
3	R5	4	380	10	$68,400	$17,100
4	R7, R8	7	860	12	$185,760	$26,537
5	R11, R14, R15	11	735	10, 12, 14, 16	$187,200	$17,018
6	R13	8	595	10, 12, 14, 16	$140,400	$17,550
7	R18, R21, R22	12	750	16	$216,000	$18,000
8	R19, R23, R24	12	725	16	$208,800	$17,400
Total CF Hawn		**82**	**7535**		**$1,733,040**	**$21,135**
IH 45 Barrier Proposal						
1 *	R1, R2, R3, R4, R6, R8	32	2040	6, 8, 10, 12	$386,640	$12,083
2	R7, R9	8	730	12	$157,680	$19,710
3	R10, R11	4	270	14	$68,040	$17,010
4	R12	2	140	14	$35,280	$35,280
5			55	14	$13,860	$13,860
6	R13	4	270	18	$87,480	$21,870
7	R15	2	170	14	$42,840	$21,420
8	R16	2	190	14	$47,880	$23,940
Total IH 45		**54**	**3865**		**$839,700**	**$15,550**
Note: * Noise barrier located along ramp and elevated mainlanes						

Any subsequent project design changes may require a reevaluation of this preliminary noise barrier proposal. The final decision to construct the proposed noise barrier will not be made until completion of the project design, utility evaluation and polling of adjacent property owners.

To avoid noise impacts that may result from future development of properties adjacent to the project, local officials responsible for land use control programs must ensure, to the maximum extent possible, no new

activities are planned or constructed along or within the following predicted (2035) noise impact contours as shown in **Table 5-21**.

TABLE 5-21. NOISE CONTOURS

LAND USE	IMPACT CONTOUR	DISTANCE FROM ROW
CF HAWN		
NAC category B & C	66 dB(A)	400 feet
NAC category E	71 dB(A)	100 feet
SM WRIGHT		
NAC category B & C	66 dB(A)	60 feet
NAC category E	71 dB(A)	ROW
IH 45		
NAC category B & C	66 dB(A)	400 feet
NAC category E	71 dB(A)	100 feet

Construction Noise

Noise associated with the construction of the project is difficult to predict. Heavy machinery, the major source of noise in construction, is constantly moving in unpredictable patterns. However, construction normally occurs during daylight hours when occasional loud noises are more tolerable. None of the receivers is expected to be exposed to construction noise for a long duration; therefore, any extended disruption of normal activities is not expected. Provisions will be included in the plans and specifications that require the contractor to make every reasonable effort to minimize construction noise through abatement measures such as work-hour controls and proper maintenance of muffler systems.

A copy of this traffic noise analysis will be available to local officials. On the date of approval of this document (Date of Public Knowledge), FHWA and TxDOT are no longer responsible for providing noise abatement for new development adjacent to the project.

5.2.13 Traffic Operations

No-Build Alternative and Build Alternative

As described in **Section 2.2.1**, a traffic operations analysis performed for the proposed project design year (2035) determined that LOS would improve under the proposed Build Alternative as compared to the No-Build Alternative (see **Table 2-6**). Implementation of the No-Build Alternative would result in safety issues, increased congestion, and poor traffic flow.

5.2.14 Summary of Community Impact Assessment

The following is a summary of the community impact assessment for the proposed project:

Regional and Community Growth: Forecasted regional and community growth and economic conditions in the project area would benefit from the implementation of the proposed project. The proposed reconstruction, which includes the downsizing for the SM Wright Freeway to a low speed urban arterial, improvements to the CF Hawn Freeway (US 175) and the addition of DC ramps to IH 45, as well as the construction of a new interchange with IH 45, would accommodate transportation needs by improving safety, as well as, improving operations, connection, and mobility. In addition, the downgrading of the SM Wright Freeway facility could assist with restoring connectivity within the surrounding neighborhoods.

Land Use, and 4(f) and 6(f) Properties: Current land use would be impacted by the conversion of 31.1 acres to public transportation ROW. Local and regional land use planning efforts are not anticipated to be substantially altered by this conversion to transportation ROW. There are no Section 4(f) properties that would be impacted by the proposed project. The parcels to be acquired as ROW for the proposed project are not encumbered by Land and Water Conservation funds; therefore, consideration under Section 6(f) is not required.

Relocations and Displacements: A total of 15 developed properties would involve the displacement of structures as a result of the proposed ROW acquisition. There are 21 structures associated with these properties, of which 12 are commercial and six are single-family residential. Four of the six displaced single-family residences and four of the nine commercial properties have been early acquired by the City of Dallas (see **Appendix C-11**). All property owners would receive just compensation for their property and relocation assistance would be provided for all affected parties in accordance with applicable state and federal requirements. All potential residential displacements and all potential commercial displacements are located in the City of Dallas. Based on the results of replacement residential and commercial property searches, there appear to be sufficient available replacement properties to accommodate those residences and businesses potentially displaced by the proposed project. Job relocation or loss could occur in association with the impacted businesses; however, NCTCOG employment forecasts, which account for the cyclical nature of employment changes (including economic recessions), predict future employment growth for Dallas (see **Section 5.2.4**) as this municipality responds to increased demand spurred by forecasted population growth (see **Table 2-3)** TxDOT is committed to coordinate available programs provided by Workforce Solutions to those employees affected by the businesses potentially displaced as a result of the proposed project. The Workforce Development Manager and appropriate staff will attend the Public Hearing for the proposed project to answer questions or present services information on behalf of Workforce Solutions at the Public Hearing (see **Section 5.2.5** and **Section 8.0**).

Access: An IAJ report was prepared for the proposed project and approved by FHWA in April 2012. Implementation of the Build Alternative would require additional control of access areas relative to the No-Build Alternative; however, alternative access routes to adjacent properties would be maintained.

Community Cohesion: Since neighborhoods represent a geographic unit that can be readily identified by community members, a correlation of affected block groups to project area neighborhoods was used to determine communities adjacent to the proposed project. All of the potential residential displacements are located in one neighborhood or two Census block groups (40/1 and 40/2), which have a combined population of 1,082 people. The loss of six residential properties from the neighborhood is unlikely to negatively affect the overall cohesiveness and nature of this community. Potential communities were also delineated according to elementary school attendance zones, as many social activities within a community often center around elementary schools. All of the potential residential displacements (two single-family homes) are located within one elementary school attendance zone comprised of approximately 971 acres. It is not anticipated that the loss of two total residences within an attendance zone of this size would negatively affect the overall cohesiveness and nature of the encompassing communities. The downgrading of the SM Wright Freeway facility is expected to assist with restoring connectivity within the surrounding neighborhoods.

LEP: Of the 11,323 persons within all of the block groups located within 0.25 mile of the proposed project, approximately 8.5 percent of the population (966 persons) speaks English less than "very well." Steps have been and would continue to be taken to ensure that LEP populations have access to the programs, services, and information TxDOT provides (see **Sections 2.6** and **5.2.8**).

Environmental Justice: Commitments have been made to mitigate for disproportionately adverse impacts on minority and/or low-income populations to prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations. Therefore, the requirements of applicable laws and regulations appear to be satisfied.

Public Facilities and Services: There are no public facility buildings that would be displaced by this proposed project. In general, the proposed project would improve mobility to the facilities and services within and near the project area.

Aesthetic Considerations: Due to the proximity of the NRHP-listed neighborhoods adjacent to the proposed SM Wright Parkway, efforts would be made to preserve the historic character of the adjacent neighborhood. The proposed improvements are not anticipated to change the aesthetic character of the surrounding communities. Aesthetic structural and landscape design considerations would be

incorporated during final project design Plans, Specifications, and Estimates as described in **Section 5.2.11**.

Noise: The proposed project would result in a traffic noise impact. Seventeen noise barriers would be feasible and reasonable for a total of 113 benefited receivers (see **Table 5-19**). The total cost for the barriers along CF Hawn would be $1,291,680, a total of $21,892$ per benefited receiver and the total cost for barriers along IH 45 would be $839,700, a total of $15,550 per benefitted receiver (see **Table 5-20**). See **Appendix C-10** for noise receiver and proposed noise wall locations.

Traffic Operations: Compared to the No-Build Alternative, the Build Alternative results in improved operations, connectivity, and mobility.

5.3 Cultural Resources

Cultural resources are structures, buildings, archeological sites, districts (a collection of related structures, buildings, and/or archeological sites), cemeteries, and objects. Both federal and state laws require consideration of cultural resources during project planning. At the federal level, NEPA and the National Historic Preservation Act (NHPA) of 1966, among others, apply to transportation projects such as this one. In addition, state laws such as the Antiquities Code of Texas apply to these projects. Compliance with these laws often requires consultation with the Texas Historical Commission (THC)/ TSHPO and/or federally recognized tribes to determine the project's effects on cultural resources. Review and coordination of this project followed approved procedures for compliance with federal and state laws.

5.3.1 Non-Archeological Historic Resources

No-Build Alternative

Under the No-Build Alternative, additional ROW would not be acquired; therefore, no impacts to historic resources are anticipated.

Build Alternative

A portion of the project area was surveyed between 2000 and 2009 as part of the proposed Trinity Parkway Project (CSJ: 0918-45-121). For the proposed, a reconnaissance-level survey and associated fieldwork was conducted in 2010, with a cut-off date of 1968 for the identification of standing historic-age structures. The 2010 survey was conducted in a variable APE, which extended to 150 feet from the existing ROW along the SM Wright Freeway (US 175) and IH 45 project segments, and to 300 feet from the proposed ROW in the new location segment for the DCs from CF Hawn Freeway (US 175) to IH 45. A site visit revealed that there are 585 historic-age resources on 465 sites (built prior to 1968), located within the project APE. Additional information regarding specific historic-age resources within the APE

may be viewed in the Non-archeological Historic-Age Resource Reconnaissance Survey Report, dated December 2011.[56]

The record search revealed no previously recorded State Archeological Landmarks (SAL), Recorded Texas Historic Landmarks (RTHL), or Official Texas Historical Markers (OTHM) within the APE. A review of the NRHP indicated that there are two NRHP-listed historic districts within the APE, the Colonial Hill Historic District and the South Boulevard-Park Row Historic District. TxDOT Historians determined and THC concurred (**Appendix C-6**) that within the APE there is one property, the Former Forest Theater, and one historic district, the Central Park Historic District, which are eligible for inclusion in the NRHP. Upon further review, TxDOT Historians determined and THC concurred that the proposed project would have no adverse effects to the two NRHP-listed districts, the NRHP-eligible property, and/or the NRHP-eligible district within the proposed project APE (**Appendix C-6**). This information has been coordinated with the City of Dallas Historic Preservation Officer, Preservation Dallas, as well as the Dallas County Historical Commission.

Pursuant to Stipulation VI "Undertakings with the Potential to Affect Historic Resources" of the First Amended Programmatic Agreement Regarding the Implementation of Transportation Undertakings (PA-TU) between the FHWA, the TSHPO, the Advisory Council on Historic Preservation, and the TxDOT and the Memorandum of Understanding (MOU), TxDOT Historians have determined that the proposed action will not adversely affect historic properties and that the proposed undertaking would have no reasonably foreseeable adverse effects that may occur later in time, be farther removed in distance, or be cumulative.

5.3.2 Archeological Resources

No-Build Alternative

Under the No-Build Alternative, additional ROW would not be acquired; therefore, no impacts to archeological sites are anticipated.

Build Alternative

Based on the archeological study and consultation results, no further work is warranted.

In July of 2011, an archeological background review report[57] was prepared for the proposed project. A review was conducted through the online THC Historic Sites Atlas and the Archeological Sites Atlas for

[56] Non-Archeological Historic-Age Resource Reconnaissance Survey Report; SM Wright, Dallas County, TxDOT, dated December 2011.

[57] Archeological Background Review of IH 45 at US 175 to Lamar, and US 175 at IH 45 to SH 310, and US 175 at SH 310 to IH 45 in Dallas County, Texas; CSJs: 0093-01-052 and 09718-45-121, dated July 2011.

NRHP properties, SALs, previously recorded archeological sites and surveys that have occurred within a one-kilometer (.61 miles) radius of the APE. Additionally, Sanborn Fire Insurance maps from 1921 were consulted to evaluate prior land use. The background study found that there are no previously recorded archeological sites within the APE of the proposed project. There is some potential for historic period archeological remains to be present in areas adjacent to some parts of the APE; however, the proposed project would require no new ROW in those areas and all work would take place within the limits of the existing pavement. The APE, including areas of proposed new ROW, was inspected by a TxDOT archeologist and found to have low potential for archeological resources. Therefore, the background study found that an archeological survey within the APE of the proposed undertaking is not warranted.

TxDOT archeologists completed their review of this project on November 29, 2011. It was determined that the project will have no effect or no adverse effect on archeological sites or cemeteries that would be afforded further consideration under cultural resource laws. No consultation with the THC/TSHPO was required. In addition, no public controversy exists regarding the project's potential impacts on archeological sites or cemeteries.

Consultation with federally-recognized Native American tribes with a demonstrated historic interest in the area was initiated and ended on January 23, 2012. No objections or expressions of concern were received within the comment period.

In the event that unanticipated archeological deposits are encountered during construction, work in the immediate area would cease, and TxDOT archeological staff would be contacted to initiate post-review discovery procedures.

5.4 Other Resources/Issues

5.4.1 Hazardous Materials

No-Build Alternative

Under the No-Build Alternative, additional ROW would not be acquired; therefore, no impacts from hazardous materials sites are anticipated.

Build Alternative

Based on the following project activities: proposed additional ROW acquisition and excavations exceeding three feet; an Initial Site Assessment (ISA) was conducted to identify potential hazardous materials in the project area. The ISA consisted of the following actions: land use review, regulatory database search, and a site survey.

Pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Resource Conservation and Recovery Act (RCRA), a preliminary investigation was conducted to identify sites within the project area which are "at risk" of environmental contamination by hazardous wastes and substances.

Sites considered likely to be contaminated and within the proposed ROW or sites which have the potential to pose a hazard to construction of the proposed project are categorized as "high risk." Examples of "high risk" sites include landfills, sites that have a subsurface plume of contamination with the potential to have migrated within the project limits, and sites with a history of contamination where the proposed project would require ROW acquisition or where project excavation/trenching would occur during construction. Sites are categorized as "low risk" if available information indicates that some potential for contamination exists, but the site is not likely to pose a contamination problem to highway construction.

The TxDOT Dallas District has procedures intended to minimize cost and construction delays when petroleum-contaminated soils are encountered during roadway construction. The Dallas District has a contractor to remove underground tanks, and a contractor to excavate and haul petroleum-contaminated soils. This procedure has reduced the degree of impact that underground storage tanks could have on TxDOT construction activities. If this or any other type of encounter with hazardous substances does occur, it would be handled according to all applicable state, federal, and local regulations.

The project area includes vacant land and developed land consisting of residential neighborhoods, institutional facilities, places of worship, office buildings, retail establishments, commercial/light industrial, public roadways, and railroad easements.

Sections of the proposed project would require excavation and would be depressed relative to the existing roadway. Other sections of the proposed project would require deep excavations for the installation of columns supporting elevated ramps and bridge structures. The sections of the roadway where excavations are required are listed in **Table 5-22**.

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TABLE 5-22. LOCATIONS OF THE PROPOSED PROJECT REQUIRING EXCAVATION

Location	Type & Approximate Depth of Excavation
SM Wright from Martin Luther King Jr. Blvd. to Pennsylvania Ave.	Reconstruct freeway overpasses to six lane divided arterial with at grade intersections 0 to 18 ft
SM Wright from Pennsylvania Ave. to Warren Ave.	Reconstruct freeway overpasses to six lane divided arterial with at grade intersections 0 to 16 ft
SM Wright from Warren Ave. to Metropolitan Ave.	Reconstruct freeway overpasses to six lane divided arterial with at grade intersections 0 to 3 ft
SM Wright from Metropolitan Ave. to Driskell St.	Reconstruct freeway overpasses to six lane divided arterial with at grade intersections 0 to 7 ft
SM Wright from Driskell St. to Pine St.	Reconstruct freeway overpasses to six lane divided arterial with at grade intersections 0 to 3 ft
SM Wright from Pine St. to Marburg St.	Reconstruct freeway overpasses to six lane divided arterial with at grade intersections 0 to 3 ft
SM Wright from Marburg St. to Hatcher St.	Reconstruct freeway overpasses to six lane divided arterial with at grade intersections 0 to 3 ft
SM Wright from Hatcher St. to Garden St.	Reconstruct freeway overpasses to six lane divided arterial with at grade intersections 0 to 3 ft
SM Wright from Garden St. to CF Hawn	Reconstruct freeway overpasses to six lane divided arterial with at grade intersections 0 to 17 ft
SM Wright from CF Hawn to Haven St.	Reconstruct freeway overpasses to six lane divided arterial with at grade intersections 0 to 17 ft
SM Wright from Haven St. to Budd St.	Reconstruct freeway overpasses to six lane divided arterial with at grade intersections 0 to 3 ft
CF Hawn from Bexar St. to SM Wright	Reconstruct freeway mainlanes and frontage roads 0 to 3 ft Reconstruct overpasses (column drilled shafts) - 20 to 35 ft
CF Hawn from SM Wright to Lamar St.	Reconstruct freeway mainlanes and frontage roads 0 to 6 ft Construct columns (drilled shafts) 20 to 35 ft
CF Hawn from Lamar St. to IH 45	Construct columns (drilled shafts) 20 to 35 ft
IH 45 from Lamar St. to Pennsylvania Ave.	Inside and outside widening 0 to 3 ft Construct retaining wall 0 to 10 ft
IH 45 from Pennsylvania Ave. to Martin Luther King Jr. Blvd.	Inside Widening 0 to 3 ft
IH 45 from Martin Luther King Jr. Blvd. to SM Wright	Restriping only
Source: TxDOT Schematic 2011 and as-built plans for existing bridges.	

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The scope of the preliminary investigation consisted of a review of the TxDOT-specified federal and state environmental regulatory databases supplemented with field surveys to confirm information from the databases and note additional field observations. No land use history searches, title searches, historic aerial photographs/historic maps review, interviews, or consultation with local/state/federal authorities were conducted. The databases and specified search distances are shown in **Table 5-23**.

TABLE 5-23. FEDERAL AND STATE ENVIRONMENTAL DATABASE SEARCH RADII

Database	Search Radius
Federal National Priorities List (NPL)	1.0 mile
Federal Resource Conservation and Recovery Act (RCRA) Corrective Action Report (CORRACTS) facilities list	1.0 mile
Federal Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) list	0.5 mile
Federal RCRA Treatment, Storage, and Disposal (TSD) facilities list	0.5 mile
Federal RCRA Generators RCRA (G)	Proposed project limits (existing and proposed ROW) and Adjoining
Federal Emergency Response Notification System (ERNS) list	Proposed project limits (existing and proposed ROW)
Aerometric Information Retrieval System/ Air Facility Subsystem (AIRSAFS)	Proposed project limits (existing and proposed ROW)
Biennial Reporting System (BRS)	Proposed project limits (existing and proposed ROW)
Facility Registry System (FRS)	Proposed project limits (existing and proposed ROW)
Integrated Compliance Information System (ICIS)	Proposed project limits (existing and proposed ROW)
Toxic Release Inventory (TRI)	Proposed project limits (existing and proposed ROW)
Brownfields Management System (BF)	0.5 mile
No Further Remediation Action Planned Sites (NFRAP)	0.5 mile
Clandestine Drug Laboratory Locations (CDL)	Proposed project limits (existing and proposed ROW)
EPA DOCKETS DATA (DOCKETS)	Proposed project limits (existing and proposed ROW)
Federal Engineering Institutional Control Sites (EC)	Proposed project limits (existing and proposed ROW)
Hazardous Material Incident Reporting System (HMIRS)	Proposed project limits (existing and proposed ROW)
Integrated Compliance Information System National Pollutant Discharge Elimination System (ICISNPDES)	Proposed project limits (existing and proposed ROW)
Material Licensing Tracking System (MLTS)	Proposed project limits (existing and proposed ROW)
National Pollutant Discharge Elimination System (NPDES)	Proposed project limits (existing and proposed ROW)
PCB Activity Database System (PADS)	Proposed project limits (existing and proposed ROW)
Permit Compliance System (PCS)	Proposed project limits (existing and proposed ROW)
CERCLIS LIENS (SFLIENS)	Proposed project limits (existing and proposed ROW)
Section Seven Tracking System (SSTS)	Proposed project limits (existing and proposed ROW)

TABLE 5-23. FEDERAL AND STATE ENVIRONMENTAL DATABASE SEARCH RADII

Database	Search Radius
Toxic Substance Control Act Inventory (TSCA)	Proposed project limits (existing and proposed ROW)
No Longer Regulated RCRA Generator Facilities (NLRRCRAG)	Proposed project limits (existing and proposed ROW) and Adjoining
Land Use Control Information System (LUCIS)	0.5 mile
No Longer Regulated RCRA NON-CORRACTS TSD Facilities (NLRRCRAT)	0.5 mile
Open Dump Inventory (ODI)	0.5 mile
Delisted National Priority List (DNPL)	1.0 mile
Department of Defense Sites (DOD)	1.0 mile
Formerly Used Defense Sites (FUDS)	1.0 mile
No Longer Regulated RCRA Corrective Action Facilities (NLRRCRAC)	1.0 mile
Proposed National Priority List (PNPL)	1.0 mile
Record of Decision System (RODS)	1.0 mile
State landfill and/or solid waste disposal site list	0.5 mile
Texas Voluntary Compliance Program (TX VCP) list	0.5 mile
State Registered Leaking Petroleum Storage Tank (LPST) list	0.5 mile
State Registered Petroleum Storage Tank (PST) list	0.25 mile
State Spills List (SPILLS)	Proposed project limits (existing and proposed ROW)
State Groundwater Contamination Cases (GWCC)	Proposed project limits (existing and proposed ROW)
State Notice of Violations (NOV)	Proposed project limits (existing and proposed ROW)
State Dry Cleaner Registration Database (DCR)	0.25 mile
State Industrial and Hazardous Waste Sites (IHW)	0.25 mile
State Affected Property Assessment Reports (APAR)	0.5 mile
State Closed & Abandoned Landfill Inventory (CALF)	0.5 mile
State Innocent Owner / Operator Database (IOP)	0.5 mile
State Tier II Chemical Reporting Program Facilities (TIER II)	0.5 mile
State Recycling Facilities (WMRF)	0.5 mile
State Historic Groundwater Contamination Cases (HISTGWCC)	Proposed project limits (existing and proposed ROW)
State TCEQ LIENS (LIENS)	Proposed project limits (existing and proposed ROW)
State Municipal Setting Designations (MSD)	Proposed project limits (existing and proposed ROW)
State Institutional/ Engineering Control Sites (SIEC01)	Proposed project limits (existing and proposed ROW)
State Permitted Industrial Hazardous Waste Sites (PIHW)	0.25 mile
State Brownfields Site Assessments (BSA)	0.5 mile
State Railroad Commission VCP and Brownfield Sites (RRCVCP)	0.5 mile
State Radioactive Waste Sites (RWS)	0.5 mile
State Superfund Sites	1.0 mile
Source: *TxDOT Hazardous Materials Manual*, September 2007.	

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Table 5-24 provides a summary of the hazardous material database search results. Twenty-five of the 58 databases are shown in the table because no entries or listings were discovered for the remaining databases. The database identified 188 facilities within the specified distance parameters. **Table 5-24** lists the databases that had entries or listings of recognized environmental conditions (RECs).

TABLE 5-24. HAZARDOUS MATERIAL SITES IN THE PROJECT AREA

Database	Search Distance (miles)	Facilities Within Search Distance	Date Database Updated
Federal Resource Conservation and Recovery Act (RCRA) Corrective Action Report (CORRACTS) facilities list	1.0 mile	4	12/2009
Federal Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) list	0.5 mile	1	12/2009
Federal RCRA Generators RCRA (G)	Proposed project limits (existing and proposed ROW) and Adjoining	6	12/2009
Federal Emergency Response Notification System (ERNS) list	Proposed project limits (existing and proposed ROW)	3	12/2009
Aerometric Information Retrieval System/ Air Facility Subsystem (AIRSAFS)	Proposed project limits (existing and proposed ROW)	2	3/2009
Biennial Reporting System (BRS)	Proposed project limits (existing and proposed ROW)	1	1/2003
Facility Registry System (FRS)	Proposed project limits (existing and proposed ROW)	25	6/2009
Integrated Compliance Information System (ICIS)	Proposed project limits (existing and proposed ROW)	1	3/2009
Toxic Release Inventory (TRI)	Proposed project limits (existing and proposed ROW)	1	12/2007
Brownfields Management System (BF)	0.5 mile	2	1/2010
No Further Remediation Action Planned Sites (NFRAP)	0.5 mile	4	1/2010
State landfill and/or solid waste disposal site list (MSWLF)	0.5 mile	1	12/2009
Texas Voluntary Compliance Program (TX VCP) list	0.5 mile	5	1/2010
State Registered Leaking Petroleum Storage Tank (LPST) list	0.5 mile	40	1/2010
State Registered Petroleum Storage Tank (PST) list	0.25 mile	32	1/2010
State Spills List (SPILLS)	Proposed project limits (existing and proposed ROW)	3	12/2009
State Groundwater Contamination Cases (GWCC)	Proposed project limits (existing and proposed ROW)	1	12/2008
State Notice of Violations (NOV)	Proposed project limits (existing and proposed ROW)	1	12/2009
State Dry Cleaner Registration Database (DCR)	0.25 mile	2	12/2009
State Industrial and Hazardous Waste Sites (IHW)	0.25 mile	16	12/2009
State Affected Property Assessment Reports (APAR)	0.5 mile	3	1/2010
State Closed & Abandoned Landfill Inventory (CALF)	0.5 mile	2	11/2005
State Innocent Owner / Operator Database (IOP)	0.5 mile	3	1/2010
State Tier II Chemical Reporting Program Facilities (TIER II)	0.5 mile	28	12/2007
State Recycling Facilities (WMRF)	0.5 mile	1	3/2009
Source: GeoSearch Radius Report – Job # 14944 dated March 2, 2010. **Note:** LPST sites can also be included in the PST totals			

As shown in **Table 5-25** and described below, the database review indicated six sites which were deemed to pose a high risk to ROW acquisition and/or construction of the proposed project. An additional 25 sites (labeled A through Y in **Table 5-25**) were identified from other available records, which were deemed to have REC and/or pose a high risk to ROW acquisition and construction of the proposed project. The site locations are shown in **Appendix A-6, Pages 4 and 7.**

TABLE 5-25. POTENTIAL HIGH PRIORITY HAZARDOUS MATERIALS SITES

Map Location Appendix A-6	Facility Name /Address/ Parcel ID	Displacement	ROW Acquisition	Adjacent to ROW	Gradient Relative to Project	Excavation, Trenching, Columns, Piers	Database Information	Comments
Page 4 of 9 ID # 1	Gold Metal Recyclers / 4305 S Lamar/ Parcel ID 502, 502B, and 505	Yes	Yes	Yes	Level	From Beginning of Project to South of Lamar Street Bridge the drilled shaft range is 21'-41'. There are drilled shafts on Properties 502 and 505, thus deep excavation is required. 502B would not require deep excavation.	LPST, PST, Tier II, VCP, WMRF, CERCLIS, ERNS, FRS, IHW	Metal Recycling facility. **ERNS -** a spill of unknown material was emitted to the air from this site. The database listed the spill as a possible fire. No other information was available. **CERCLIS -** in continuation to the above air emission violation the "potentially responsible party emergency removal" investigation was started on September 3, 2008. The removal investigation was completed on September 4, 2008. The Priority Level was listed as "cleaned up." **VCP -** Identification No. 2244, January 2009. The Site was described as having VOCs), heavy metals, and total petroleum hydrocarbon (TPH) affected soils and groundwater. The phase was listed as "investigation." A Certificate of Completion (COC) had not been issued for the Site. **LPST Priority -** Minor soil contamination occurred, however a remedial action plan was not required. **LPST Status –** Final Concurrence, Case Closed."
Page 4 of 9 ID # 2	Trinity Recycling / 4801 S Lamar/ Parcel ID 539	Yes	Yes	Yes	Level	Both Direct Connectors are on structures as they cross Parcel ID 539 thus deep excavation is required.	PST	Scrap metal collection and sorting plant. **PST –** A 6,000-gallon out of use diesel above ground storage tank (AST) is on the site. This out of use AST is located in a concrete secondary containment. **Previous Environmental Investigations** - The site was identified on regulatory databases as a large quantity generator of hazardous wastes from at least 1980 until at least 2008 with several recorded violations. - A stormwater compliance inspection of the site noted several violations. - Information received from the Fire Department included two violations involving the burning of automobile parts on the site.

TABLE 5-25. POTENTIAL HIGH PRIORITY HAZARDOUS MATERIALS SITES

Map Location Appendix A-6	Facility Name /Address/ Parcel ID	Displacement	ROW Acquisition	Adjacent to ROW	Gradient Relative to Project	Excavation, Trenching, Columns, Piers	Database Information	Comments
Page 4 of 9 ID # 3	Dugan Industries /3901 S. Lamar/ Parcel ID 416 & 4115 Julius Schepps Fwy/ Parcel ID 419	No	Yes	Yes	Level	At Lamar Street Overpass the drilled shaft range is 11'-33'. There are drilled shafts on Parcel ID 419 thus deep excavation is required. Parcel ID 416 does not have any columns on it.	PST	Structural Steel Product Supplier (former scrap metal facility). **PST –** An 8,000-gallon diesel UST and a 2,000 gallon gasoline UST were installed at this facility in 1990
Page 4 of 9 ID # 4	Herman Gibbons / 5003 S. Lamar/ Parcel ID 553	No	Yes	Yes	Level	Both Direct Connectors are on structures as they cross Parcel ID 553 thus deep excavation is required.	CALF	Inactive Landfill. **CALF -** The facility accepted household trash (municipal solid waste), construction/demolition debris, tires, and brush. The hazardous waste acceptance status for the facility was not reported. Additional information from the NCTCOG indicated that the facility operated as an unauthorized landfill. According to the CALF database, it is currently an inactive landfill (TCEQ Permit # 34259). **Previous Environmental Investigations** - Historical resources indicated that the site was developed with a machine/auto repair shop associated with a meat processing facility during the 1940s and 1950s. - By the 1990s, the site had been utilized for landfill activity - By the 2000s the site appeared to be utilized as an equipment storage yard.
Page 7 of 9 ID # 5	Kreck Foods /4115 S Lamar/ Parcel ID N1132	Yes	Yes	Yes	Level	From Beginning of Project to South of Lamar Street Bridge the drilled shaft range is 21'-41'. There are drilled shafts on Parcel ID NI1132 thus deep excavation is required.	PST, FRS, IHW	Metal Recycling facility. **PST –** A17-year old, 4,000-gallon diesel UST and a 24-year old, 10,000-gallon gasoline UST were removed from the ground at this site in 1988 **Brownfield in Vicinity -** Across the street from the Kreck Foods Plant there is a 0.95 acre site (4106-4110-4114 S Lamar Street, Texas, Map ID, BF-29, Parcel ID NI1129 and NI1130): According to the database, the site was a commercial facility used for truck, bus, automotive or construction equipment repair and service for multiple tenants from 1945 to 1999. The site received a hazardous substance brownfields assessment grant and was assigned a BF ID # 91841. **IHW** – conditionally exempt small quantity generator.

TABLE 5-25. POTENTIAL HIGH PRIORITY HAZARDOUS MATERIALS SITES

Map Location Appendix A-6	Facility Name /Address/ Parcel ID	Displacement	ROW Acquisition	Adjacent to ROW	Gradient Relative to Project	Excavation, Trenching, Columns, Piers	Database Information	Comments
Page 4 of 9 ID # 6	Vacant Station /5006 S Lamar/ Parcel ID 510	No	No	Yes	Level	No deep excavation would be required on this property.	PST , LPST	Automotive repair facility. **PST -** Four 13-year old tanks were removed from the ground at this site in 2000. **LPST –** A subsurface release of petroleum hydrocarbons from this site was reported (date unknown). Groundwater was impacted, no apparent threats or impacts to receptors. The TCEQ is monitoring this site.
REC Sites Identified from Phase I ESA Reports in the Project Area								
Page 4 of 9 ID # A	5211 S Lamar/ Parcel ID 560	No	No	Yes	Level	There are drilled shafts on Parcel ID 560 thus deep excavation is required.	N/A	**Previous Environmental Investigations** - Various automotive repair facilities, gas stations, and auto body shops were located on and around the site from at least the 1950s until at least the 1990s - Site utilized as a wrecking/salvage yard since at least the 1980s until the 2000s. - The southwestern portion of the site was utilized for the placement of fill from at least the 1990s until the 2000s. The origin and environmental quality of the fill materials placed on the site is unknown. - A gas station was located adjacent to the east of the site at 5309 S Lamar Street from the 1930s to 1970s. The USTs at the gas station had been reportedly filled in place or removed from the ground between 1989 and 1999.
Page 4 of 9 ID # B	5019 S Lamar Street/ Parcel ID 534	No	No	Yes	Level	There are drilled shafts close to Property 534 (30 ft) thus deep excavation may be considered.	N/A	**Previous Environmental Investigations** - Tire shop in the 1950s and later as an automotive repair shop from at least the 1960s until the 1970s - Utilized for salvage/wrecking yard storage and for dumping activities in the 1990s. - By 2004, the site appeared to be undeveloped.
Page 4 of 9 ID # C ID # D	5102 S Lamar Street/ Parcel ID 532 5106 S Lamar Street/ Parcel ID 536	Yes Parcel 532	Yes	Yes	Level	There are drilled shafts on Property 536 thus deep excavation is required.	N/A	**Previous Environmental Investigations** - Site was used as a drycleaners, automobile repair, and tool manufacturing facilities in the 1950s. - Moreover, automobile repair facilities and a gas station were located in close proximity (i.e., less than 50 feet) to the southeast and northwest of the site.

TABLE 5-25. POTENTIAL HIGH PRIORITY HAZARDOUS MATERIALS SITES

Map Location Appendix A-6	Facility Name /Address/ Parcel ID	Displacement	ROW Acquisition	Adjacent to ROW	Gradient Relative to Project	Excavation, Trenching, Columns, Piers	Database Information	Comments
Page 4 of 9 ID# E ID # F	5110 Lamar Street/ Parcel ID 540 5114 S Lamar Street/ Parcel ID 546	Yes Parcel 546	Yes	Yes	Level	There are drilled shafts on Parcel ID 540 and 546 thus deep excavation is required.	N/A	**Previous Environmental Investigations** - An automobile repair facility was located on the western portion of Parcel 546 in 1952, and was expanded to the eastern portion of the Parcel by 1965. - Morris Garage and Alber's Auto Body were listed at the site from 1955 to 2008 and 1993 to 2008, respectively. - Parcel 540 has been vacant land since at least 1922.
Page 4 of 9 ID # G ID# H	5202 S Lamar Street/ Parcel ID 550 5206 S Lamar Street/ Parcel ID 552	No	No	Yes	Level	No deep excavation would be required on this property.	N/A	**Previous Environmental Investigations** - An automobile repair facility was located at the site from at least 1945 to 1985. - An automobile repair facility has been located approximately 50 feet north and cross-gradient of the site since at least 1952.

TABLE 5-25. POTENTIAL HIGH PRIORITY HAZARDOUS MATERIALS SITES

Map Location Appendix A-6	Facility Name /Address/ Parcel ID	Displacement	ROW Acquisition	Adjacent to ROW	Gradient Relative to Project	Excavation, Trenching, Columns, Piers	Database Information	Comments
Page 4 of 9 ID# I	5103 Colonial Avenue/ Parcel ID 525	Yes Parcel 528	Yes	Yes	Level	There are drilled shafts on Properties 535, 538, and 543 thus deep excavation is required.	N/A	**<u>Previous Environmental Investigations</u>** - This approximately 0.98-acre site is divided into six smaller parcels and has been developed with various residential structures from at least 1922 to present. - The area surrounding the site has historically been retail, laundry facilities, automobile repair facilities, filling stations, manufacturing facilities, and residential properties.
ID# J	5105 Colonial Avenue/ Parcel ID 528							
ID# K	5109 Colonial Avenue/ Parcel ID 531							
ID# L	5115 Colonial Avenue/ Parcel ID 535							
ID# M	5117 Colonial Avenue/ Parcel ID 538							
ID# N	5123 Colonial Avenue/ Parcel ID 543							

TABLE 5-25. POTENTIAL HIGH PRIORITY HAZARDOUS MATERIALS SITES

Map Location Appendix A-6	Facility Name /Address/ Parcel ID	Displacement	ROW Acquisition	Adjacent to ROW	Gradient Relative to Project	Excavation, Trenching, Columns, Piers	Database Information	Comments
Page 4 of 9 ID# O ID# P ID# Q ID# R ID# S	5106 Colonial Avenue/ Parcel ID 516 5108 Colonial Avenue/ Parcel ID 520 5114 Colonial Avenue/ Parcel ID 523 5118 Colonial Avenue/ Parcel ID 527 5122 Colonial Avenue/ Parcel ID 529	Yes Parcel 516 & 523	Yes	Yes	Level	There are drilled shafts on Properties 523, 527, and 529 thus deep excavation is required.	N/A	**Previous Environmental Investigations** - The site consists of a rectangular-shaped tract of land with a total area of approximately 0.81-acre which is divided into five adjoining parcels - A dry cleaning facility, filling station, and automobile repair facilities were identified in close proximity (i.e., less than 300 feet) to the north of the site from at least the 1930s until at least 1965. - The five adjoining tracks were always developed and used for single-family residential purposes
Page 4 of 9 ID# T ID# U	5115 Hohen Avenue/ Parcel ID 509 5119 Hohen Avenue/ Parcel ID 512	Yes Parcel 509 & 512	Yes	Yes	Level	There are drilled shafts close to these parcels (33 ft) thus deep excavation may be considered.	N/A	**Previous Environmental Investigations** - This 0.29-acre site is composed of two adjoining parcels, Parcel 509 and Parcel 512. - The site was developed with a residential structure from at least 1922 until at least 1984. - A dry cleaning facility, filling station, and automobile repair facilities were identified in close proximity (i.e., less than 300 feet) to the northwest of the site from at least the 1930s until at least 1965.

TABLE 5-25. POTENTIAL HIGH PRIORITY HAZARDOUS MATERIALS SITES

Map Location Appendix A-6	Facility Name /Address/ Parcel ID	Displacement	ROW Acquisition	Adjacent to ROW	Gradient Relative to Project	Excavation, Trenching, Columns, Piers	Database Information	Comments
Page 4 of 9 ID# V ID# W ID# X	5127 Hohen Avenue/ Parcel ID 517 5131 Hohen Avenue/ Parcel ID 521 1645 Starks Avenue/ Parcel ID 522			Yes	Level	There are drilled shafts on Properties 517, 521, and 522 thus deep excavation is required	N/A	**Previous Environmental Investigations** - The site is 0.24- acre and is composed of Parcel 517, Parcel 521, and Parcel 522 which were developed with residential structures from at least 1922 until at least 1958. - From at least 1965 until at least 1984, the site appeared to be developed with two commercial structures. The site was developed with a single commercial structure and associated parking areas, from at least 1995 to present. The commercial structure appeared to be primarily utilized as restaurants/stores. - Based on historical resources reviewed, a dry cleaning facility, filling station, and auto repair facility were identified in close proximity (i.e., less than 400 feet) to the northwest and up-gradient of the site from at least the 1930s until at least 1965.
Page 4 of 9 ID# Y	5305 South Central Expressway/ Parcel ID 530, 533. And 537	Yes Parcel 537	Yes	Yes	Level	There would be a column within 20' of property 530 and 45' of properties 533 and 537, thus deep excavation activities associated with construction of the proposed project would occur within the vicinity of this site.	N/A	**Previous Environmental Investigations** - The building on the site was constructed in 1958 when lead based paint (LBP) and asbestos containing material (ACM) were frequently used in construction. - ACM could have been used in any of the building materials including Heating, Ventilating and Air Conditioning (HVAC) insulations, floor tiles, ceiling etc. - There may be pre-1974 fluorescent lighting in the building with PCBs in the ballast.

The High Priority Sites are described in further details as follows:

Map ID 1 -- Gold Metal Recyclers, 4305 S Lamar Street, Dallas, Texas (Parcel ID 502, 502B and 505): This site is located east of IH 45, south of Pine Street. It is adjacent to IH 45 and at an even gradient. Three small storage sheds located at the southwest side of Parcel 502 is a proposed displacement. Project ROW would be required from this site. There are drilled shafts on Parcels 502 and 505 thus deep excavation is required, though 502B would not require deep excavation. According to the ERNS database, a spill of an unknown material was reportedly emitted to the air from this site. The database listed the spill as a possible fire and noted that the fire department was dispatched to the site. No other information pertaining to the spill was reported. According to the CERCLIS database, the "potentially responsible party emergency removal" investigation was started on September 3, 2008. The removal

investigation was completed on September 4, 2008. The Priority Level was listed as "cleaned up." The Site was also assigned a VCP Identification No. 2244 in January 2009. The Site was described as having VOCs, heavy metals, and total petroleum hydrocarbon (TPH) affected soils and groundwater. The phase was listed as "investigation." A Certificate of Completion (COC) has not been issued for the Site. Three 21-year old 10,000-gallon steel USTs were removed from the ground at this site in May 1992. According to a Remedial Action Report (RAR) provided for review by the TCEQ, the three 10,000-gallons USTs were utilized by a FINA filling station that was located on the northern portion of the property from 1976 until 1978. The USTs were then utilized by Gold Metal Recyclers for approximately three years in the late 1980s. Affected soil was discovered in the tank hold after the tanks were removed from the ground in 1992. According to the LPST database, a subsurface release of petroleum hydrocarbons from this site was reported on April 22, 1992. Minor soil contamination occurred, however a remedial action plan was not required. The TCEQ has issued "Final Concurrence, Case Closed." The site visit confirmed that Gold Metal Recyclers is an ongoing business at this location. A sheet metal fence was located along the majority of the perimeter of the site, which limited observations. Based on the proximity of the LPST site relative to the project, and database information, this site poses a high risk to proposed project ROW acquisition and construction.

Map ID 2 -- Trinity Recycling (Former Orkon Iron and Metals Company), 4801 S Lamar Street, Dallas, Texas (Parcel ID 539): This site is located west of S Lamar Street south of Hatcher Street. It is adjacent to S Lamar Street and at an even gradient. Project ROW would be required from this site. Both direct connectors are on structures as they cross Parcel 539, thus deep excavation is required. The site consists of a 10.73 acres irregular-shaped tract of land. The site is currently occupied by Trinity Metal Recyclers and is utilized for scrap metal collection and sorting including vehicles, automobile engines, miscellaneous 55-gallon drums, removed underground storage tanks, and used tires prior to shipment to off-site recycling facilities for further processing. A 6,000-gallon out of use diesel above ground storage tank (AST) is on the site. This out of use AST is located within a concrete secondary containment. The site visit confirmed that Trinity Recycling is still operating as a current business at this site. A sheet metal fence was located along the majority of the perimeter of the site, which limited observations; however, based on a site reconnaissance of the site on August of 2009 (for a Phase I ESA completed for Trinity Parkway) the site was utilized as a metal press facility, a smelting and refining facility, and a metal recycling and material storage facility. The materials processed, chemicals used and waste management practices at the facilities located on the site were unknown. The site was identified on regulatory databases as a large quantity generator of hazardous wastes from at least 1980 until at least 2008 with several recorded violations. Previous environmental investigations at the site identified several areas of heavy hydrocarbon staining, a complaint involving the alleged dumping of batteries and acid residue, and spent cyanide solution. In addition, a stormwater compliance inspection of the site noted several violations that included oil spills, exposed and rusted scrap metal, a stockpile of residue from the

aluminum smelting process, gasoline and diesels spills, lead acid battery storage, and a benchmark stormwater sample collected from the site that contained concentrations of metals which exceeded stormwater quality limits. Information received from the Fire Department included two violations involving the burning of automobile parts on the site. Based on the proximity of the site relative to the project and project ROW requirements, this site poses a high risk to proposed project ROW acquisition and construction.

Map ID 3 -- Duggan Industries, 3901 S Lamar Street, Dallas, Texas (Parcel ID 416 and 419): This site is located west of IH 45 south of McDonald Avenue. It is adjacent to IH 45 and at an even gradient. Project ROW would be required from this site. There are drilled shafts on Parcel 419 thus deep excavation is required. Parcel 416 does not have any columns on it. An 8,000-gallon diesel UST and a 2,000 gallon gasoline UST were installed at this facility in 1990. The UST tank material/containment is reported as steel/jacketed. The pipe material is reported as steel. The tank release detection, the pipe releases detection and the spill and overflow protection are not reported. The site visit indicated that a business by the name of Dugan & Dimco is currently operating at this site. A chain link fence was located along the majority of the perimeter of the site and from what was visible there was no obvious evidence of contamination, such as stressed vegetation, stained soils, or unusual odors. No obvious evidence of the storage, treatment, or disposal of hazardous wastes was observed at the site. There were no obvious or evident aboveground or underground storage tanks observed at the site. Based on database information and ROW requirements, this site poses a high risk to proposed project ROW acquisition and construction of the project.

Map ID 4 -- Herman Gibbons, 5003 S Lamar Street, Dallas, Texas (Parcel ID 553): This site is located west of S Lamar Street south of Hatcher Street. It is adjacent to S Lamar Street and at an even gradient. Project ROW would be required from this site. Both direct connectors are on structures as they cross Parcel 553 thus deep excavation is required. The site consists of an 11.3-acre irregular-shaped tract of land. Review of the historical data indicated that the site was developed with a horse stable in 1922 and then developed with commercial/industrial buildings associated with a meat packing/processing plant from at least 1942 until the late 1970s. Historical resources also indicated that the site was developed with a machine/auto repair shop associated with the meat processing facility during the 1940s and 1950s. By the 1990s, the site had been utilized for landfill activity and by the 2000s the site appeared to be utilized as an equipment storage yard. According to the CALF database, the site was identified as "Herman Gibbons." The initial date the Herman Gibbons facility occupied the site was not listed and the facility was closed in 1994. The facility accepted household trash (municipal solid waste), construction/demolition debris, tires, and brush. The hazardous waste acceptance status for the facility was not reported. Additional information from the NCTCOG indicated that the facility operated as an unauthorized landfill. According to the CALF database it is currently an inactive landfill (TCEQ Permit #

34259). Based on database information and ROW requirements, this site poses a high risk to proposed project ROW acquisition and construction.

Map ID 5 -- Kreck Foods Plant, 4115 S Lamar Street, Dallas, Texas (Parcel ID N1132): This site is located east of IH 45 north of Pine Street. It is adjacent to IH 45 and at an even gradient. ROW would be required from the site. There are drilled shafts on Parcel ID NI1132 thus deep excavation is required and the site is a displacement. A 17-year-old, 4,000-gallon diesel UST and a 24-year-old, 10,000-gallon gasoline UST were removed from the ground at this site in 1988. Information on the UST tank material/containment was not reported. The site visit indicated that a business by the name of Green Earth Metal Recycling was currently operating at this facility. A chain link fence was located along the majority of the perimeter of the site. Observations did not include any obvious evidence of contamination, such as stressed vegetation, stained soils, or unusual odors. No obvious evidence of the storage, treatment, or disposal of hazardous wastes was observed at the site. There were no obvious or evident aboveground storage tanks found at the site. The location of the former tank bed could not be ascertained. Across the street from the Kreck Foods Plant there is a 0.95 acre site (4106-4110-4114 S Lamar Street, Texas, Map ID, BF-29, Parcel ID NI1129 and NI1130). According to the database, this site was a commercial facility used for truck, bus, automotive or construction equipment repair and service for multiple tenants from 1945 to 1999. The site received a hazardous substance brownfields assessment grant and was assigned a BF ID # 91841. Since the type and extent of contamination that triggered the Brownfield Assessment Grant is not mentioned in the database search; therefore, the extent of the contamination plume, if any, cannot be ascertained and this plume may be encountered when the Kreck Foods Facility is displaced and/or during the deep excavation. This former Kreck Foods Plant site thus poses a high risk to proposed project ROW acquisition and construction of the project.

Map ID 6 -- A site listed as Vacant Station, 5006 S Lamar Street, Dallas, Texas (Parcel ID 510): This site is located east of Lamar Street south of Emery Street. It is adjacent to the Lamar Street and at an even gradient. Deep excavation activities associated with construction of the proposed project would not occur within the vicinity of this site. Proposed project ROW would not be required from the site. Four 13-year old tanks were removed from the ground at this site in 2000. According to the database, a subsurface release of petroleum hydrocarbons from this site was reported (date unknown). Groundwater was impacted, but there were no apparent threats or impacts to receptors. The TCEQ is monitoring this site. The site visit indicated that Parcel ID 508, 510 and 513 were all owned by the same owner with a building on the middle parcel (parcel 510). The other two parcels had a metal fence and construction equipment, a couple of backhoes, a truck and a trailer parked on them. The building on Parcel 510 appears to be an automotive repair facility. The site visit did not reveal any obvious evidence of contamination, such as stressed vegetation, stained soils, or unusual odors. No obvious evidence of the storage, treatment, or disposal of hazardous wastes was observed at the site. There were no obvious or evident aboveground

or underground storage tanks found at the site. Based on database information and proximity of the site relative to the project, this site poses a high risk to construction of the project.

REC Sites Identified from Phase I ESA Reports in the Project Area

Based on the review of the TxDOT-specified federal and state environmental databases, the aforementioned six sites were deemed to pose a high risk to ROW acquisition and/or construction of the proposed project. In addition to the above sites, the following paragraphs describe additional sites which have RECs within the proposed ROW acquisition and/or adjacent to the proposed ROW. The information associated with these REC sites was based on the review of the Phase I ESA Reports completed for the City of Dallas from Fall 2009 through Spring 2010 for the Trinity Parkway Project. Because the limits of the Trinity Parkway study area overlap with the project area, the hazardous material data compiled for the Trinity Parkway project was reviewed to identify other potential hazardous material sites in the project area. The additional potential RECs are discussed below, and their locations are Illustrated in **Appendix A-6, Page 4.**

Map ID A -- 5211 S Lamar Street, Dallas, Texas (Parcel ID 560): This site is located west of S Lamar Street south Hatcher Street. It is adjacent to S Lamar Street and at an even gradient. There are drilled shafts on Parcel ID 560 thus deep excavation is required. Proposed project ROW would not be required from the site. A review of the site history indicates that various automotive repair facilities, gas stations, and auto body shops were located on and around the site from at least the 1950s until at least the 1990s. The site has also been utilized as a wrecking/salvage yard since at least the 1980s until the 2000s. The chemical use and waste management practices associated with the historic auto salvage operations is unknown. The southwestern portion of the site was utilized for the placement of fill from at least the 1990s until the 2000s. The origin and environmental quality of the fill materials placed on the site is unknown. A gas station was located adjacent to the east of the site at 5309 S. Lamar Street from the 1930s to 1970s. The USTs at the gas station had been reportedly filled in place or removed from the ground between 1989 and 1990. Based on historic uses of the site, this site poses a high risk to proposed project construction.

Map ID B -- 5019 S. Lamar Street, Dallas, Texas (Parcel ID 534): This site is located west of S. Lamar Street south Emery Street. It is adjacent to S. Lamar Street and at an even gradient. There are drilled shafts close to Property 534 (30 ft) thus deep excavation may be considered. Proposed project ROW would not be required from the site. A review of the site history indicates that the site was developed with a commercial structure in 1942. The structure was subsequently labeled for use as a tire shop in the 1950s and later as an automotive repair shop from at least the 1960s until the 1970s. The site appeared to be utilized for salvage/wrecking yard storage and for dumping activities in the 1990s. By 2004, the site appeared to be undeveloped. Occupants of the site have included Black and Rubber Manufacturing Co.,

Vurch Tire Co., Jones Auto Wrecking, Danials Auto Parts and Wrecking Yard, B&M Wrecking, and C&C Wrecking. Based on historic use of the site, this site poses a high risk to proposed project construction.

Map ID C and D -- 5102 and 5106 S. Lamar Street, Dallas, Texas (Parcel ID 532 and Parcel ID 536): This site is located east of S. Lamar Street north of Starks Avenue. It is adjacent to S. Lamar Street and at an even gradient. Parcel 532 is a proposed displacement. There are drilled shafts on Parcel 536 thus deep excavation is required and ROW would be required from the site. A review of the site history indicates that the 0.25-acre site was used as a drycleaners, automobile repair, and tool manufacturing facility in the 1950s. Moreover, automobile repair facilities and a gas station were located in close proximity (i.e., less than 50 feet) to the southeast and northwest of the site. The specific chemical use and waste management practices at the drycleaners, automobile repair, and tool manufacturing facilities is unknown. Based on and the historic use of the site and ROW requirements, this site poses a high risk to proposed project ROW acquisition and construction.

Map ID E and F -- 5110 and 5114 S. Lamar Street, Dallas, Texas (Parcel ID 540 and Parcel ID 546): This site is located east of S. Lamar Street north of Starks Avenue. It is adjacent to S. Lamar Street and at an even gradient. Parcel 546 is a proposed displacement. There are drilled shafts on Parcels 540 and 546 thus deep excavation is required and ROW would be required from the site. A review of the site history indicates that Parcel 546 had been developed with a residential structure and a small storage structure by at least 1922. Parcel 546 was vacant land in 1942 and was re-developed with the existing commercial structures from at least 1958 until the present. An automobile repair facility was located on the western portion of Parcel 546 in 1952, and was expanded to the eastern portion of the Parcel by 1965. Morris Garage and Alber's Auto Body were listed at the site from 1955 to 2008 and 1993 to 2008, respectively. Parcel 540 has been vacant land since at least 1922. The area surrounding the site has historically been occupied by retail stores, a laundry facility, automobile repair facilities, filling stations, manufacturing facilities, and residential properties since at least the 1950s. The chemical use and waste management practices at the automobile repair facilities, laundry facility, and filling stations in close proximity or adjacent to the site is unknown. Based on historic use of the site, this site poses a high risk to proposed project ROW acquisition and construction.

Map ID G and H -- 5202 and 5206 S. Lamar Street, Dallas, Texas (Parcel ID 550 and Parcel ID 552): This site is located east of S. Lamar Street north of Starks Avenue. It is adjacent to S. Lamar Street and at an even gradient. Deep excavation activities associated with construction of the proposed project would not occur within the vicinity of this site and no ROW would be required from the site. A review of the site history indicates that an automobile repair facility was located at the site from at least 1945 to 1985. The chemical use and waste management practices at the automobile repair facility is unknown. Moreover, an automobile repair facility has been located approximately 50 feet north and cross-gradient

of the site since at least 1952. Based on the historic uses at and in the vicinity of this site, it site poses a high risk to proposed project construction.

Map ID I, J, K, L, M, and N -- 5103, 5105, 5109, 5115, 5117, and 5123 Colonial Avenue, Dallas, Texas (Parcel ID 525, Parcel ID 528, Parcel ID 531, Parcel ID 535, Parcel ID 538, and Parcel ID 543): This site is located west of SM Wright north of Starks Avenue. It is adjacent to Starks Avenue and the proposed direct connectors would pass over this location. Parcel 528 is a proposed displacement. There are drilled shafts on Parcels 535, 538, and 543, thus deep excavation is required and ROW would be required from the site. This approximately 0.98-acre site is divided into six smaller parcels and has been developed with various residential structures from at least 1922 to present. Land use in the site vicinity was generally residential, commercial/retail, industrial, and public roadways. The area surrounding the site has historically been retail, laundry facilities, automobile repair facilities, filling stations, manufacturing facilities, and residential properties. The chemical use and waste management practices at the automobile repair facilities, laundry facilities, and filling stations in close proximity or adjacent to the site are unknown. Based on the historic uses of the site and ROW requirements, this site poses a high risk to proposed project ROW acquisition and construction.

Map ID O, P, Q, R and S -- 5106, 5108, 5114, 5118, and 5122 Colonial Avenue, Dallas, Texas (Parcel ID 516, Parcel ID 520, Parcel ID 523, Parcel ID 527, and Parcel ID 529): This site is located west of SM Wright north of Starks Avenue. It is adjacent to Starks Avenue and the proposed direct. Parcel 516 and 523 are proposed displacements. There are drilled shafts on Parcels 523, 527, and 529, thus deep excavation is required and ROW would be required from the site. The site consists of a rectangular-shaped tract of land with a total area of approximately 0.81-acre, which is divided into five adjoining parcels. Based on historical review, a dry cleaning facility, filling station, and automobile repair facilities were identified in close proximity (i.e., less than 300 feet) to the north of the site from at least the 1930s until at least 1965. The five adjoining tracks however, were always developed and used for single-family residential purposes. Based on the adjacent land uses and ROW requirements, this site poses a high risk to proposed project ROW acquisition and construction.

Map ID T and U -- 5115 and 5119 Hohen Avenue, Dallas, Texas (Parcel ID 509 and Parcel ID 512): site is located west of Hohen Avenue north of Starks Avenue. It is adjacent to Hohen Avenue and the proposed direct connectors would pass over this location. There are drilled shafts close to these parcels (33 ft) thus deep excavation may be considered. This 0.29-acre site is composed of two adjoining parcels, Parcel 509 and Parcel 512. Both Parcel ID 509 and Parcel ID 512 would be displaced. The site was developed with a residential structure from at least 1922 until at least 1984. A dry cleaning facility, filling station, and automobile repair facilities were identified in close proximity (i.e., less than 300 feet) to the northwest of the site from at least the 1930s until at least 1965. The specific chemical use and waste

management practices at these facilities are unknown. Based on the adjacent land uses, this site poses a high risk to proposed project ROW acquisition and construction.

Map ID V, W, and X -- 5127 and 5131 Hohen Avenue and 1645 Starks Avenue, Dallas, Texas (Parcel ID 517, Parcel ID 521, and Parcel ID 522): This site is located west of SM Wright north of Starks Avenue. It is adjacent to the SM Wright Freeway and at an even gradient. There are drilled shafts on Properties 517, 521 and 522 thus deep excavation is required, but no ROW would be required from the site. The site is 0.24-acre and is composed of Parcel 517, Parcel 521, and Parcel 522, which were developed with residential structures from at least 1922 until at least 1958. From at least 1965 until at least 1984, the site appeared to be developed with two commercial structures. The site was developed with a single commercial structure and associated parking areas, from at least 1995 to present. The commercial structure appeared to be primarily utilized as restaurants/stores. Based on historical resources reviewed, a dry cleaning facility, filling station, and auto repair facility were identified in close proximity (i.e., less than 400 feet) to the northwest and up-gradient of the site from at least the 1930s until at least 1965. The specific chemical use and waste management practices at these facilities are unknown. Based on the historic adjacent land uses, this site poses a high risk to proposed project construction.

Map ID Y -- 5305 South Central Expressway, Dallas, Texas (Parcel ID 530, 533 and 537): This site is located west of SM Wright south of Starks Avenue. It is adjacent to Starks Avenue and the proposed direct connectors would pass over this location. Parcel 537 is a proposed displacement. Project ROW would be required from this site. There would be a column within 20' of Parcel 530 and 45' of Parcels 533 and 537, thus deep excavation activities associated with construction of the proposed project would occur within the vicinity of this site. The building on the site was constructed in 1958 when LBP and ACM were frequently used in construction. ACM could have been used in any of the building materials including Heating, Ventilating and Air Conditioning (HVAC) insulations, floor tiles, ceiling etc. Only LBP and ACM sampling can ascertain the presence or absence of such materials. Moreover, there may be pre-1974 fluorescent lighting in the building with PCBs in the ballast. Since this building is to be displaced, therefore these items must be handled accordingly. Based on the age of the structure on this site and its proximity to the project, this site poses a high risk to proposed project ROW acquisition and construction.

Prior to ROW acquisition and construction of the project, it is recommended that subsurface investigations be conducted within the vicinity of the sites described above to determine if hazardous materials from any of these facilities have adversely affected the subsurface conditions of the proposed project. The subsurface investigations would consist of the sampling of one or more soil borings and associated groundwater or perched water (if applicable) at appropriate location(s), and laboratory analysis of the cuttings/groundwater. Based on the results of the subsurface investigation, remediation

might be required. The subsurface investigation and resulting remediation (if required) would be conducted in a manner complying with applicable federal, state, and local laws.

It is further recommended that any pre-1978 displaced buildings be inspected for LBP and ACM before demolition. ACM could have been used in any of the building materials including Heating, Ventilating and Air Conditioning (HVAC) insulations, floor tiles, ceiling etc. Only LBP and ACM sampling can ascertain the presence or absence of such material. Moreover, there may be pre-1974 fluorescent lighting in the building with PCBs in the ballast. These items, if found, must be handled according to applicable state and federal abatement laws and regulations.

The proposed project includes the demolition and/or renovation of several bridges along the project corridor including the replacement of the existing CF Hawn Overpass over Bexar Street, the removal of the existing SH 310 overpass over CF Hawn, and the removal of the existing SM Wright overpasses over Hatcher Street, Pine Street, Metropolitan Avenue, and Pennsylvania Avenue. The bridges may contain ACM and shall be inspected to verify the presence or absence of ACM. Prior to the bridge demolition(s), a 10-Day Notification shall be submitted to the Department of State Health and Human Services (DSHS).

Bridge demolition or renovation may include the removal of steel beam(s) that may have the potential to contain LBP. Prior to project letting, the steel coatings on the bridges to be demolished/renovated would be analyzed for the presence or absence of LBP. If LBP is discovered, contingencies would be developed to address worker safety, material recycling and proper management of any paint related wastes, as necessary.

A visual survey of the project limits and surrounding area was performed by qualified personnel to identify possible hazardous materials within the proposed project ROW. No surface evidence of contamination was observed. Documentation of the initial site assessment is maintained in the project files.

Additionally, the contractor would take appropriate measures to prevent, minimize, and control the spill of hazardous materials in the construction staging area. The use of construction equipment within sensitive areas would be minimized or eliminated entirely. All construction materials used for this project would be removed as soon as work schedules permit.

5.4.2 Items of a Special Nature

Airway-Highway Clearance

No-Build Alternative

The No-Build Alternative would result in no change in airway-highway clearance.

Build Alternative

The nearest airport to the proposed project is the Dallas Executive Airport, which is located approximately eight miles from the project area. Dallas Love Field, is located approximately nine miles from the proposed project area. Due to the distance between the project area and the nearest runway facility, no impacts to airway-highway clearance are anticipated. In accordance with 23 CFR 620.103, because the proposed project is not located within two miles of an airport, coordination with a local airport and/or the Federal Aviation Administration (FAA) regarding airway-highway clearance would not be required.

Coastal Zone Management Plan

The proposed project is not located within the Texas Coastal Zone Management Program boundary; therefore, the proposed project is not subject to the guidelines of the associated plan.

Wild and Scenic Rivers

There are no wild and scenic rivers in the proposed project area; therefore, there would be no impacts to a river designated as a component or proposed for inclusion in the national system of Wild and Scenic Rivers.

6.0 INDIRECT IMPACTS

This section presents an analysis of the potential indirect impacts (or effects) related to the proposed SM Wright Project. CEQ regulations define a project's direct impacts as those "which are caused by the action and occur at the same time and place."[58] Accordingly, the discussion of direct impacts in **Section 5.0** of this document focuses on impacts within the project construction footprint (i.e., approximately 202.3 acres within existing ROW and proposed new ROW that would undergo ground disturbing construction activity), as well as subsequent operation of the facility within that same footprint. In contrast, the CEQ defines indirect impacts as follows:

> "… effects, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems."[59]

As the CEQ definitions indicate, both direct and indirect impacts are caused by project activities, but indirect impacts extend beyond the construction/operation footprint and/or may occur at some point after the proposed project is completed.

The analysis of indirect impacts discussed in this document follows the seven step process outlined in TxDOT guidance on conducting indirect and cumulative impact analyses ('TxDOT ICI Guidance').[60] In keeping with the TxDOT ICI Guidance, the National Cooperative Highway Research Program (NCHRP) Report 466[61] and the adjunct NCHRP Report 25-25, Task 22[62] were also used to prescreen and/or analyze potential indirect impacts associated with the proposed project. The TxDOT ICI Guidance and the NCHRP Report 466 suggest indirect impacts can occur in three broad categories:

1. Encroachment-Alteration Impacts – Alteration of the behavior and functioning of the physical environment expected as a result of project design features (e.g., stream channel modifications that produce impacts downstream beyond the limits of the project ROW);

[58] 40 CFR 1508.8(a).
[59] 40 CFR 1508.8(b).
[60] TxDOT (September 2010). TxDOT's Guidance on Preparing Indirect and Cumulative Impact Analyses, Revised.
[61] Transportation Review Board (TRB) (2002), NCHRP Report 466, Desk Reference for Estimating the Indirect Effects of Proposed Transportation Projects.
[62] NCHRP – Transportation Research Board (2007), Report 25-25, Task 22, Forecasting Indirect Land Use Effects on Transportation Projects.

2. Project-Induced Land Use Change – Alteration of traffic, access, and mobility that induces change in land use through new development (including redevelopment of already developed land), or accelerates the rate of new development; and,
3. Impacts Resulting from Project-Induced Land Use Change – Impacts to the human and natural environment expected when project-induced development occurs.

For transportation projects, examples of Category 1 impacts could include fragmentation of habitat by a roadway or dispersal of pollutants onto adjacent lands, or the attenuation of impacts that naturally radiate or disperse away from the project (e.g., traffic noise and air emissions). Indirect impacts from Categories 2 and 3 are typically encountered outside of the project ROW, and are most likely to result from actions taken by other parties, such as private land developers not directly associated with the project. Indirect impacts are therefore subject to some level of conjecture as to the extent of changes that may be expected in the project corridor, with and without the project in place. The CEQ definition above indicates the analysis of indirect impacts should identify impacts that are "reasonably foreseeable," and CEQ has issued guidance that equates "reasonably foreseeable" with "probable."[63] In its guidance, CEQ explains that whether a future estimate is speculative, as opposed to probable, should be evaluated in the same manner that an informed land developer would approach the purchase of a parcel of real estate (i.e., based on market trends and other relevant economic information). The TxDOT ICI Guidance elaborates on this topic by suggesting that information such as development trends and local government plans should be used to ensure that judgments about future impacts are based on a logical analysis of reasonably available and relevant information, and that a person of ordinary prudence would consider this information in making important economic decisions.

With regard to encroachment-alteration impacts (Category 1), it is important to note that the scope of the direct impacts analysis presented in **Section 5.0** necessarily includes a discussion of the impacts of some resources/issues that virtually always extend beyond the project construction/operation footprint. This is true for air quality impacts, water quality impacts, noise impacts, and some aspects of community impacts (e.g., traffic operations). The discussion of indirect aspects (i.e., encroachment-alteration impacts) of these topics is traditionally included with direct impacts in environmental assessments because both aspects of project-related impacts are closely interwoven. Thus, the cause-effect relationships between the Category 1 impact-causing activities of the proposed improvements and these resources/issues once they extend beyond the project footprint have already been addressed in **Section 5.0**, and any further discussion of such cause-effect relationships in this section is either abbreviated or omitted.

[63] 46 FR 18026 (March 23, 1981), *Forty Most Asked Questions Concerning CEQ's NEPA Regulations* (see Question 18, re Uncertainties about Indirect Effects of a Proposal).

The indirect impacts analysis was conducted in accordance with the seven-step process described in the TxDOT ICI Guidance for assessing indirect impacts. This approach, which is adapted from the NCHRP Report 466, is outlined in **Table 6-1**.

TABLE 6-1. SEVEN STEP APPROACH TO ESTIMATE INDIRECT IMPACTS

Step 1 – Initial Scoping: Determine the basic approach and level of effort expected for the analysis by examining the scope of key issues, and establish the geographical boundaries of the extent of anticipated indirect impacts.
Step 2 – Identify the Study Area's Goals and Trends: Assemble information on the community goals and general trends regarding demographic, economic, social, and ecological aspects of the study area.
Step 3 – Inventory the Study Area's Notable Features: Highlight the baseline environmental conditions in the study area, emphasizing its notable features including sensitive species and habitats, environmental components of value to the community, unusual landscape features, and vulnerable elements of the population.
Step 4 – Identify Impact-Causing Activities of Proposed Action and Alternatives: Describe the impact-causing activities of the proposed project based on anticipated construction, operation, and maintenance activities.
Step 5 – Identify Potentially Substantial Indirect Impacts for Analysis: Compare the expected impact-causing activities (**Step 4**) with the study area's goals, trends, and notable features (**Steps 2** and **3**) to determine which impacts are potentially substantial and therefore merit further analysis in **Step 6**.
Step 6 – Analyze Indirect Impacts and Evaluate Results: Qualitative and quantitative techniques are employed to estimate the magnitude of the potentially substantial impacts identified in **Step 5** and describe future conditions with and without the proposed transportation improvement. This step also includes a discussion of the assumptions used in the analysis, and the uncertainty of the results based on the limitations of available information.
Step 7 – Assess Consequences and Consider/Develop Mitigation, as Appropriate: The consequences of indirect impacts are evaluated in the context of the full range of project effects. Strategies to avoid or lessen any impacts found to be unacceptable are developed. Impacts are reevaluated in the context of those mitigation strategies.
Sources: TxDOT (2010) *Revised Guidance on Preparing Indirect and Cumulative Impact Analyses*; and, TRB (2002), NCHRP Report 466, *Desk Reference for Estimating the Indirect Effects of Proposed Transportation Projects*.

6.1 Step 1: Scoping and Determination of a Study Area

The first objective of **Step 1** is to define the scope of the analysis by considering the types of potential indirect impacts and the possible geographic range of those impacts. This is done by considering the attributes and context of the proposed project, and leads to a general assessment of the level of impacts anticipated. In addition, the assessment considers the distance from the project construction footprint necessary for those impacts to attenuate to a negligible level. This approach helps determine the level of effort and approach needed to complete the analysis, and is also vital in achieving the second objective of determining the geographic extent of the indirect impacts study area or Area of Influence (AOI). The scoping process continues in **Steps 2** through **5** to identify and eliminate from detailed study (**Step 6**) those resources or issues which do not have the potential for creating substantial indirect impacts.

An essential aspect of scoping the proposed project for potential indirect impacts is coordination with municipal planners who are intimately acquainted with the characteristics of the community and plans for addressing socioeconomic issues. Accordingly, to obtain input relevant to defining the AOI, as well as identifying current planning documents, proposed development projects, and other data relevant to the

analysis of the proposed project's indirect and cumulative impacts, planners in the City of Dallas offices shown below were consulted during May–July, 2010:

- Sustainable Development and Construction Department (Chief Planner, Senior Planner, Senior Program Manager for Transportation Planning, Senior Transportation Planner, and Geographic Information Systems (GIS) Analyst);
- Dallas Design Studio (Senior Planner);
- Housing/Community Services Department (Chief Planner, and Planner II);
- Office of Economic Development (Chief Planner, Economic Development Analyst, and Research Information Planner); and
- Trinity River Corridor Project (Director).

In addition, information was obtained from the Senior Coordinator for the South Dallas/Fair Park Trust regarding community conditions, plans, and projects relating to indirect and cumulative impacts. Information from interviews, planning databases, and maps obtained from the municipal planners described above (hereinafter referred to collectively as "city planners") is provided in the discussion of indirect impacts in this section, and in the analysis of cumulative impacts in **Section 7.0**. Information from city planners also guided the exercise of planning judgment that necessarily extends throughout the analysis of both indirect and cumulative impacts.

6.1.1 Project Attributes and Context

As described in **Sections 1.0** and **2.0**, the proposed project consists of three interrelated transportation components imbedded within the South Dallas area, all of which were constructed at different times. Most prominent in this triangular-shaped project is the proposed downgrading of the SM Wright Freeway/US 175 (2.2 miles) from a controlled-access highway to a low-speed urban parkway. The creation of direct connections between CF Hawn Freeway/US 175 (1.5 miles) and IH 45 are central to the creation of the SM Wright Parkway, and the safety and mobility improvements associated with removing commuter traffic that now passes through South Dallas neighborhoods via the SM Wright Freeway. The proposed improvements are expected to have the overall effect of integrating these three roadways to serve the objectives of commuter transportation via freeways and to transform SM Wright Freeway to a low-speed parkway that would benefit both safety and cohesion within the South Dallas community. Construction sequencing would focus first on creating the connections between CF Hawn Freeway/US 175 and IH 45 to remove commuter traffic from SM Wright Freeway. This would be followed by a complete reconstruction of the SM Wright Freeway and construction of the SM Wright Parkway. Design plans for the SM Wright Parkway include signal intersections at major cross streets and construction of sidewalks on both sides of the parkway.

The existing IH 45 and SM Wright/US 175 freeways have been major north-south transportation corridors since the 1950s and 1960s, providing connections between the City of Dallas, south Dallas County and regions to the south. The SM Wright/US 175 facility is a local urban freeway that carries a substantial amount of local neighborhood traffic as well as through-traffic heading to and from CF Hawn/US 175 and SH 310 toward downtown Dallas and other South Dallas destinations. In addition, SM Wright serves as a parallel freeway for drivers who wish to bypass IH 45 for approximately two miles between the Dallas CBD and the Trinity River, Lamar Boulevard, Loop 12 and IH 20 to the south. The elevated IH 45 within the study corridor is a major interstate highway, handling substantial amounts of through traffic between the City of Dallas, south Dallas County, and numerous municipalities in route to the City of Houston, approximately 225 miles south of the Dallas CBD. There is an interchange of the CF Hawn/US 175 Freeway and SM Wright/US 175, south of which SH 310 is a small north-south connector that carries traffic between the Dallas CBD and IH 45 at its southern terminus.

The proposed project extends through a highly urbanized area within the City of Dallas and has an estimated construction footprint of approximately 202.3 acres. This includes approximately 31.1 acres of new ROW and easements which would affect 4.99 acres of undeveloped land, 25.08 acres of developed property (0.7 acres residential and 24.38 acres commercial), and 1.04 acres of a joint use easement within the UPRR ROW. The project area is on nearly flat land, most of which is within the Trinity River floodplain or on an adjacent, gently sloping terrace to the east. The project area was characterized prehistorically by bottomland forest and prairie savannah vegetation cover, and then was largely converted to crop and pasture use. Much of the project area has been urbanized for over a century, and the SM Wright Freeway has several historic neighborhoods located adjacent to or near it. Much of the prehistoric Trinity River floodplain was initially cleared of trees for agriculture use, but these areas have either been developed for mixed retail/commercial use, industrial use, residential use, parks, or have remained undeveloped and have experienced regrowth of bottomland forests. In general, the demographics of the project area include a predominantly African-American population (i.e., greater than 90%), with a substantial portion of the population living on incomes that are below the HHS poverty level standard. In recent years this EJ community within and near the project area has received substantial attention in terms of city planning initiatives to revitalize South Dallas neighborhoods and to encourage economic development and redevelopment. Improvements to traffic circulation patterns and travel safety are an important component of municipal plans involving South Dallas. Continued land development/redevelopment and urban growth is anticipated throughout the corridor and in the region, and a major purpose for the proposed project is to manage mobility generated by this growth while enhancing access and community cohesion at the local neighborhood level.

6.1.2 Geographic Boundary of the AOI

The basic objective in creating an AOI is to delineate a study area within which all substantial project-related impacts are expected to occur. As the assessment of direct project impacts generally stops at the limits of the construction area within existing and proposed ROW/easements ('project footprint'), establishing an AOI extends the area of consideration to the point where all impacts are expected to attenuate to a negligible level.

The process for establishing an AOI for the proposed project first considered the potential reach of project-induced land use changes. This approach seeks to define an area beyond which the proposed project would not be likely to alter current conditions sufficient to cause investors or land developers to develop undeveloped land or redevelop urban areas. This is essentially a judgment based on the nature of the community to be served by the proposed project and the project's influence on traffic circulation and access to land. For example, access-controlled roadways, such as CF Hawn Freeway and IH 45, would be unlikely to affect changes in land use other than near highway access points or along frontage roads.[64] Within the project area, the proposed project would not create new exit/entry points or frontage roads for these freeways, and most of the improvements to CF Hawn Freeway and nearly all of the improvements to IH 45 would affect bridges or elevated ramps. Consequently, the process of defining the AOI focused primarily on the location of the SM Wright Freeway because it is proposed to be converted to an at-grade parkway that is surrounded by an existing residential community with a substantial commercial component located along major city streets.

As indicated above, within the context of a transportation improvement project, defining the AOI considers primarily the potential effect that improvements to a roadway would have on creating new access to surrounding properties or in increasing the efficiency of existing avenues of access. As the South Dallas area has an abundant network of major and minor roads, it is expected that the influence of reconstructing the SM Wright Parkway on changes in land use would attenuate before reaching major parallel roadways or railroad corridors. Thus, the northern boundary of the AOI follows SH 352 and the Texas and New Orleans Railroad. The western boundary of the AOI follows the route of the Gulf, Colorado, and Santa Fe Railroad corridor. The Trinity River forms a natural boundary to the south, and the Rochester Levee and an electrical transmission line corridor form the boundary to the east. The influence of floodplains and forests to the south and east of the SM Wright Freeway/US 175 ensure the attenuation of any potential project-induced land use change beyond those boundaries. This combination of natural and man-made constraints was used to establish the AOI boundary shown in **Appendix D-1**. The boundaries of the AOI are approximately 0.5 mile or more from the north and south ends of expected SM Wright Parkway construction footprint.

[64] See NCHRP Report 466, page 27.

The AOI boundary, which was included in the coordination with city planners discussed above, comprises an area of approximately 4,069 acres. The general characteristics of existing land use throughout the AOI are illustrated in **Appendix D-2**, which also includes a table of acreages for the types of land use shown.

It is anticipated that any potential encroachment-alteration indirect impacts would occur within the AOI boundary described above. For example, based on the ephemeral nature of storm runoff channels and gently sloping topography of the project area, it is anticipated that most heavy construction-related sediment would be deposited near the construction site, and that after construction the quality of the water leaving the SM Wright and related roadway facilities would be similar to the quality of runoff from the existing facilities. Further, the impacts to riparian forest areas within the project footprint would not affect the vegetation, habitat, or wildlife beyond the direct impacts of the project. In light of the nature of the proposed improvements to existing roadways within this highly urbanized environment, the AOI boundary shown in **Appendices D-1** and **D-2** also serves as the outermost limit for all anticipated indirect impacts (both encroachment-alteration and project-induced land use impacts).

6.1.3 Time Frame for Assessing Indirect Impacts

A temporal frame of reference is necessary in addressing the range of impacts that may be caused by the proposed project in the future. The discussion below considers indirect impacts that may occur between the time of project construction and 2035, the project's design horizon year. The future year 2035 also correlates with the time frame for the *Mobility 2035* MTP.

6.2 Step 2: Development Trends and Community Goals in the AOI

This step presents information on general demographic, economic, social, and ecological trends within the AOI, in addition to goals of the community as reflected in local plans.

6.2.1 Regional and Local Trend Data

As indicated in **Table 6-2,** Dallas County is predicted to have increased growth in population and employment through 2035.

TABLE 6-2. DALLAS COUNTY POPULATION AND EMPLOYMENT GROWTH

Demographic	2005	2035	Growth	Percent Change
Population	2,273,250	3,125,282	852,032	37.5
Employment	1,895,059	2,854,287	959,228	50.6
Source: NCTCOG 2040 Demographic Forecast *http://www.nctcog.org/ris/demographics/forecast/County2040.pdf*, accessed January 2012.				

The indirect impacts AOI encompasses the South Dallas portion of the City of Dallas. As indicated in **Table 6-3**, the City of Dallas is forecasted to experience growth in both household population and employment from 2005 to 2035.

TABLE 6-3. CITY OF DALLAS POPULATION, HOUSEHOLD AND EMPLOYMENT GROWTH

Demographic	2005	2035	Growth	Percent Change
Household Population	1,307,899	1,652,479	344,580	26.3
Employment	1,044,234	1,547,800	503,566	48.2
Source: NCTCOG 2040 Demographic Forecast *http://www.nctcog.org/ris/demographics/forecast/County2040.pdf*, accessed March 2012.				

Digital GIS maps obtained from the NCTCOG were used to identify land use categories and acreage within the AOI for 2010, as shown in **Table 6-4** and in **Appendix D-2**. Half of the AOI is roughly divided between residential and infrastructure land uses. Commercial and industrial uses comprise nearly 600 acres and government/education uses make up 193 acres. There are approximately 496 acres of undeveloped land outside the 100-year floodplain in the AOI.

TABLE 6-4. LAND USE WITHIN THE AOI

Land Use Type	Acreage	Percent
Residential	941	23.1
Commercial	496	12.2
Industrial	98	2.4
Government/Education	193	4.8
Infrastructure[1]	981	24.1
Parks/Open Space	398	9.8
Undeveloped within Floodplain[2]	413	10.1
Undeveloped outside Floodplain[2]	496	12.2
Water	53	1.3
Total	**4,069**	**100**

Source: NCTCOG Land Use (2010).
Notes:
1. Includes transportation and utilities.
2. Includes undeveloped vacant, undeveloped under construction, and undeveloped parking.

6.2.2 Regional and Local Plans

A variety of plans exists to promote, guide, and monitor various development activities ranging from regional transportation infrastructure to residential, commercial, or industrial activities. **Section 2.4** of this EA provides brief descriptions of the following plans related to the project area: Trinity Corridor Comprehensive Land Use Plan (CLUP), the Balanced Vision Plan for the Trinity River Corridor (BVP), the Forward Dallas! Comprehensive Plan, regional rail transportation plans, the South Dallas/Fair Park Economic Development Corridor Plan, the MTP, and the TIP. As discussed in **Section 2.2**, the proposed project would implement a portion of regional transportation plans (i.e., MTP and TIP) to enhance regional mobility by improving the connectivity and safety of existing freeways. The reconstruction of SM Wright

Freeway as the SM Wright Parkway is part of the regional transportation plans as well, but also is a key component of City of Dallas urban planning in recent years.

The *Forward Dallas! Comprehensive Plan* reflects the policies of the Dallas City Council for making decisions about growth and development through 2020. The plan sets forth provisions on land use, transportation, and public facilities and is the city's guide for the establishment of strong development codes (updated in 2007). The Dallas Development Code describes in detail requirements for a variety of land uses including transportation, infill development, site development, and protection of environmentally sensitive areas. The *Forward Dallas!* plan assumes the reconstruction of SM Wright Freeway to a city parkway to accommodate the city's development plans. An action plan for the South Dallas/Fair Park neighborhood is included in the *Forward Dallas!* plan which articulates the city's vision for the future. The indirect impacts AOI falls within the South Dallas portion of the action plan, which focuses attention on the need for redevelopment to attract additional retail stores, removing unsightly landscapes, and preservation of the neighborhood's identity. The action plan summarizes initiatives that are targeted toward preserving and enhancing the relatively contiguous residential community that forms the core of the South Dallas neighborhood, with major commercial/industrial areas located to the west of MLK Jr. Boulevard and to the south of Lamar Street. The *Forward Dallas!* plan incorporates by reference specific planning initiatives for the South Dallas neighborhood that are discussed in the CLUP and BVP. Additionally, the *Forward Dallas!* plan references the South Dallas/Fair Park Economic Development Corridor Plan which includes many area-specific initiatives designed to revitalize the neighborhood. The following listing of planning objectives and initiatives summarize key provisions of these four land use plans as they relate to the South Dallas community:

- Protect existing residential areas, and enhance them by providing better access to regional trails and parks, and by providing greater access to quality retail shopping in adjacent areas;

- Commercial nodes for retail development and redevelopment to support the residential neighborhood should include the intersections of Malcolm X Boulevard and MLK Jr. Boulevard, Malcolm X Boulevard and Hatcher Street, along MLK Boulevard south of Lamar Street, and along Bexar Street north of the CF Hawn/US 175 Freeway;

- Mixed use development/redevelopment should be encouraged in the area south of Lamar Street near the CF Hawn/US 175 Freeway after extensions of the Dallas Floodway levee system are constructed to provide protection from floodwater (existing plans also indicate development/redevelopment of this area and the area south of CF Hawn/US 175 and east of SH 310 would have potential for economic revitalization upon completion of the Trinity Parkway);

- The conversion of SM Wright Freeway to a landscaped boulevard is not viewed primarily as an opportunity for introducing new commercial/retail development along it but to better link residential neighborhoods on both sides of the roadway and promote a greater sense of community.

In addition to the comprehensive and area land use plans discussed above, zoning rules form a key component of city management of urban land use. By enacting city ordinances that establish special purpose districts, the City of Dallas has created numerous zoning subdistricts with designated use authorizations and restrictions associated with each. For example, most of the AOI is located within Special Use District PD 595, which is predominantly comprised of single-family residential subdistricts, along with lesser amounts of duplex and multifamily subdistricts. Also within PD 595 are areas zoned as neighborhood or community commercial subdistricts with allow uses such as retail stores, offices, and personal services. In relation to the SM Wright Freeway, there are five such areas on the south side of the freeway zoned for neighborhood commercial use that total 8.5 acres, ranging in size from 0.7 to 3.4 acres. Additionally, a larger area (16.0 acres) at the intersection of SM Wright Freeway with MLK Jr. Boulevard is zoned for community commercial use. In addition to zoning management of land use, land development regulations also affect the natural resources of the area by regulating such activities as the removal of large trees and by restricting construction within floodplains.

A noteworthy implementation of regional transportation planning includes the completion of DART transit stations in South Dallas for the Green Line at Fair Park (northwest of the AOI limits) and the MLK Jr. Station near J.B. Jackson Avenue. In addition, DART service is now provided to Hatcher Street Station at Hatcher and Scyene Roads. Associated transit oriented development (TOD) is planned for the MLK Station (within the AOI) and around the Hatcher Station. Such TOD is characteristic of the continued push towards mixed-use and commercial development throughout much of the city's urban core.

6.3 Step 3: Inventory the Notable Features within the AOI

The third step in the indirect impacts assessment framework involves conducting an inventory of notable features within the AOI. Notable features include sensitive habitats and species, environmental components of value to the community, relatively unique or sensitive landscape features, and vulnerable elements of the population. The TxDOT ICI Guidance indicates that identifying notable features is important in assessing whether potential indirect impacts are substantial because such features may be more vulnerable or highly valued. The absence of mentioning a notable feature within the AOI does not indicate an absence of indirect impacts, but may be taken as an indication that there is less potential for the impacts to be substantial.

6.3.1 Sensitive Habitats and Species

Past agricultural land use and subsequent widespread urbanization within the AOI have rendered the scattered remnants of high quality forest habitat quite rare. A study of historical aerial photography combined with field reconnaissance indicate the highest quality bottomland/riparian forests in the AOI have reestablished within the past 50 years, and are located to the west of IH 45. Forest habitat of equivalent quality is uncommon to the east of IH 45 due to several factors including past site disturbance, proximity to industrial operations, and general site degradation by invasive species. Accordingly, remaining stands of bottomland forest west of IH 45 that are relatively contiguous are considered a sensitive resource, particularly where trees occur within the area outlined for the Great Trinity Forest. In addition, there are forested wetlands and open water features found in the vicinity of IH 45 that provide habitat to resident and migrating birds that are also sensitive habitat features. With regard to threatened or endangered species and species of concern, as discussed above in **Section 5.1.6**, the AOI does not include wildlife habitat that is essential to the survival of such species.

6.3.2 Valued Environmental Components

The City of Dallas has established several parks within the AOI that preserve open space and provide recreation opportunities for the community, including the following: Exline Park, Kimble Park, Moore Park, Nelson Park, Old City Park, Opportunity Park, and Wheatley Park (see list in **Table 5-19**). In addition, William Blair, Jr. Park (formerly Rochester Park) is a particularly large park which includes substantial bottomland/riparian forest habitat. William Blair, Jr. Park is also included within the much larger area designated for the creation of the Great Trinity Forest Park, which would provide opportunities for outdoor recreation within the forests of the Trinity River floodplain. Similarly, within the highly urbanized upland portion of the AOI, remnant forests have been removed except for individual trees that have survived as landscaping trees within a largely residential setting. Although not particularly valuable for habitat, the large live oak trees (some exceeding 20 inches dbh) that flank the SM Wright ROW are considered an important and sensitive aspect of the urban environment of the AOI.

The City of Dallas has been profoundly influenced by its proximity to the Trinity River, particularly in relation to the history of flooding. For over a century the response to flooding has been to construct and maintain a system of levees and manage the Trinity River floodplain to facilitate the conveyance of flood waters and protect human settlements. Consequently, a variety of governmental agencies have cooperated for decades to prevent encroachments that would diminish the flood storage capacity of the floodplain or interfere with the movement of flood waters through the area. Similarly, levees such as the Rochester Levee and the anticipated Dallas Floodway Extension are key components to the city's approach to co-existing within this flood prone environment.

6.3.3 Relatively Unique or Sensitive Landscape Features

As discussed above in **Step 2**, civic management policies relating to the AOI are reflected in zoning districts/subdistricts, development regulations, and land use plans. It is clear from a review of relevant municipal plans that the City of Dallas places a premium AOI municipalities anticipate continued managed growth and development in accordance with zoning plans. The zoning designations indicate community values in terms of the particular mix and locations of existing and future land uses. Clearly, the preservation and enhancement of residential communities in South Dallas is regarded as an important component of all city plans. For example, city planning documents include community cohesion among the beneficial effects of reconstructing SM Wright Freeway as a city parkway. Moreover, the historical importance of this well-established community is emphasized by the several historic residential districts that have been placed on the NRHP, as well as additional neighborhoods that may be eligible for NRHP listing. There are several historic cemeteries in the AOI, including the following: Oakland Cemetery, Mount Auburn Cemetery, Confederate Cemetery, and L. Butler Nelson Cemetery. There are also numerous NRHP listed or eligible sites (e.g., Forest Theater) within the AOI, along with state historic markers. Collectively, these cultural resources represent unique landscape features within the AOI.

6.3.4 Vulnerable Elements of the Population

The predominantly residential South Dallas community is characterized by several types of vulnerable populations. As discussed in the demographic analysis presented in **Section 5.2.9**, the neighborhoods surrounding the proposed project corridor are inhabited primarily by a relatively low-income African-American population. This population is protected by federal and state EJ policies that seek to avoid or minimize adverse impacts of infrastructure projects to protected populations.

In addition to EJ populations, certain categories of people may find it more difficult to bear the impacts of a transportation project than other groups. These sensitive elements of the AOI population include the elderly, children, medical patients, and persons with disabilities. Although people meeting these criteria may be found throughout the AOI, they tend to concentrate in facilities such as schools, childcare centers, elder care facilities and nursing homes.

6.3.5 Summary of Notable Features

The notable features within the AOI identified in the foregoing discussion are summarized below in **Table 6-5**.

TABLE 6-5. SUMMARY OF NOTABLE FEATURES IN THE AOI

Category of Notable Feature	Description
Sensitive Habitats and Species	Bottomland/riparian forest habitat
	Forested wetlands and open water near IH 45
Environmental Components	City parks and recreation areas
	Recreation areas within the Trinity River floodplain
	Large live oak trees along SM Wright Freeway/US 175
	Trinity River floodplain and levee systems
Unique/Sensitive Landscape Features	Residential community cohesion throughout South Dallas
	Historic residential districts and other cultural resources
Vulnerable Elements of Population	Environmental justice (i.e., low-income minority) population
	Elderly people, children, or persons with disabilities who live in or attend facilities that are proximate to sources of exhaust emissions and/or particulates

6.4 Step 4: Identify Impact-Causing Activities of Proposed Action

This step summarizes the impact-causing activities of the proposed project from the beginning of construction to maintaining the operating facility. The purpose of this step is to identify the anticipated project-related activities that may come into conflict with the community goals and notable features discussed above in **Step 2** and **Step 3**, respectively.

The proposed project would remove frontage roads and bridges, and reconstruct the SM Wright Parkway within existing ROW. Construction of the direct connectors between IH 45 and CF Hawn Freeway/US 175 would require 31.1 acres of additional ROW and UPRR easement. It is estimated that existing pavement and vegetation ground cover would be removed to create the improved meandering SM Wright Parkway design. However, removal of frontage road pavement near the limits of the SM Wright ROW would be accomplished so as to preserve the large live oak trees that are located just beyond the frontage road curbs. Otherwise, vegetation would be removed within a 20-foot construction zone extending from the outer edge of proposed new pavement surfaces. Earth grading equipment would alter the existing facility's vertical alignment according to design specifications, and perform other grading activity within existing and proposed ROW. The overall construction footprint for the proposed project would affect approximately 202.3 acres of land.

Based on the foregoing summary of expected construction activity, descriptions of potential impact-causing activities are summarized in **Table 6-6**. The major headings for items in the table are presented in the same order they appear in **Section 5.0** to facilitate cross-referencing with the corresponding discussion of direct impacts. This assessment of impact-causing activities is based on the assumption that construction and operation of the proposed facility would be in accordance with current industry standards and practices, and consistent with the experience from previous transportation projects. The various types of activities noted in **Table 6-6** are based on the examples provided in the TxDOT ICI

Guidance and NCHRP Report 466, and have been tailored to fit the design and environmental context of the proposed project.

TABLE 6-6. IMPACT-CAUSING ACTIVITIES OF THE PROPOSED PROJECT

Type of Activity – Project Specific Activity	Relevant Details about Project Specific Activity
Natural Resources (see Section 5.1)	
Modification of Regime – Storm Water Drainage	The reconstruction of SM Wright Freeway to create a parkway would not require replacement of storm drains that cross the facility. Likewise, the construction of direct connectors between IH 45 and CF Hawn Freeway/US 175 would utilize existing cross drainage structures or bridge over open storm drainage channels. No aspect of the proposed project would affect water features that are jurisdictional under Section 404 of the CWA. [See **Sections 5.1.1** and **5.1.2**]
Modification of Regime – Floodplain Intersection	Approximately 3.17 acres of at-grade portions of the proposed project overlap with the 100-year floodplain for the Trinity River. Other portions of the proposed project which overlap the floodplain would be on structures elevated above the expected water surface elevation for the 100-year floodplain; bridge columns for these structures would have a negligible impact to the floodplain beneath these elevated structures. The SM Wright Freeway is not within a 100-year floodplain except for 0.46 acre near Hatcher Street. The hydraulic design of the project would permit conveyance of the 100-year flood, and potential inundation of the small roadway sections within the 100-year floodplain would not cause substantial damage to the roadway, the Trinity River or its floodplain, or other property. [See **Section 5.1.3**]
Modification of Regime – Soil Disturbance and Water Quality	Ground disturbance during site grading to create cut and fill to meet design specifications would create the potential for increased erosion of soil, which could lead to sedimentation in local storm runoff channels. During construction, BMPs would be in place (e.g., SW3P) to minimize erosion through temporary reseeding activity, detention facilities, and various approved soil stabilization methods. After construction, herbaceous ground cover would be reestablished with seeding mixtures and techniques that meet TxDOT specifications. Operation of the facility after construction would not be expected to degrade water quality in the area beyond that caused by the existing facilities. [See **Section 5.1.4**]
Modification of Regime – Vegetation Removal	The construction footprint for the project is approximately 202.3 acres, of which 193.65 acres is existing paved surfaces and associated maintained grass. The remaining 8.65 acres would have permanent impacts to forested habitat during land clearing and grading as described below: • 7.57 acres – riparian/bottomland forest (e.g., American elm and hackberry); • 1.08 acres – upland forest that is primarily landscaping for developed areas. The estimated total number of trees greater than six inches dbh to be removed is 1,068 trees. Permanent herbaceous ground cover would be created for cleared areas that are not used for the new facility. [See **Section 5.1.5**] The removal of the 8.65 acres of upland and riparian forest vegetation noted above may affect wildlife habitat available for animal species that commonly occur in the project area. In light of the quantity and quality of this habitat, and its proximity to the human urban environment, no adverse effects are expected to any threatened or endangered species that are thought to occur within Dallas County where preferred habitat exists. In response to the TPWD recommendation, TxDOT will coordinate with appropriate city staff to determine if mitigation for impacts to 1.25 acres of riparian/bottomland habitat may be mitigated for within the planned Great Trinity Forest area (see **Appendix B-5**). [See **Section 5.1.6**]
Modification of Regime – Loss of Prime Farmland	The project is located within the City of Dallas limits and all areas identified for new ROW are zoned for urban uses. Consequently, impacts that might otherwise occur to prime farmland soils are exempt from the provisions of the FPPA. [See **Section 5.1.7**]
Type of Activity – Alter Air Quality	The current and future operation of the three major roadway components of the proposed project would produce air emissions from the mobile sources. The traffic volume for the design year and accompanying air emissions that contribute

TABLE 6-6. IMPACT-CAUSING ACTIVITIES OF THE PROPOSED PROJECT

Type of Activity – Project Specific Activity	Relevant Details about Project Specific Activity
	to the creation of atmospheric ozone are consistent with the MTP and TIP. A modeling study of CO emissions from the project in its design year indicates that air quality standards would not be exceeded. Modeling of MSAT emissions expected from the project indicates that MSAT emissions in the design year would be substantially less than at present; quantitative modeling analysis indicates that, despite an increase in VMT expected for the project, the implementation of EPA's vehicle emission control standards would outpace the effects of increased traffic in terms of MSAT emissions. [See **Section 5.1.8**]
Community Impact Assessment (see Section 5.2)	
Changes in Traffic – Influence on Growth	The estimated increase in population and employment from 2005 to 2035 for Dallas County is 37.5 percent and 50.6 percent, respectively. The projected population and employment growth rates from 2005 to 2030 for the City of Dallas are 13.4 percent and 25.2 percent, respectively. The proposed project would remove commuter traffic from the reconstructed SM Wright Parkway, thereby facilitating municipal plans to enhance community cohesion and encourage economic revitalization. Direct freeway connection between IH 45 and CF Hawn Freeway/US 175 would improve mobility in support of expected regional and community growth by facilitating the movement of goods and commuters. [See **Sections 2.2**, **5.2.1**, and **5.2.4**]
Land Alteration – Conversion to ROW	Approximately 31.1 acres of land would be converted to transportation ROW for the proposed project. This acquisition of new ROW would alter the following amounts and types of land use: 4.99 acres undeveloped; 0.7 acres developed residential; and 24.38 acres developed commercial. The proposed roadway improvements have been coordinated with city planning officials and are included in municipal planning documents. Conversion of land to ROW and construction of the project would require adjustments to existing utilities, but only temporary interruptions in service are anticipated. [See **Sections 2.4** and **5.2.2**] The project would affect structures on 15 properties (six residential and nine commercial). These properties contain 21 structures, consisting of six single-family residences, eight commercial structures, and four billboards. Four of the six residences and four of the nine commercial properties have been early acquired by the City of Dallas. [See **Section 5.2.5** and **Appendix C-11**] The changes in land use associated with the project are not anticipated to alter the aesthetic character of the surrounding South Dallas community. [See **Section 5.2.11**]
Land Alteration – Alter Section 4(f) Land	A survey of the project area indicates there are three Section 4(f) resources, Kimble Park, William Blair, Jr. Park (formerly Rochester Park), and the future Great Trinity Forest located adjacent to the project. No physical impacts would occur to either of the parks, and 1.25 acres of new IH 45 ROW would be required from the future Great Trinity Forest to accommodate design changes. Based on previous coordination with FHWA, the 1.25 acres of land to be converted to transportation use are not currently designated as parkland or other uses subject to Section 4(f) regulations; therefore, Section 4(f) would not apply to these areas. [See **Section 5.2.3**] A traffic noise analysis was conducted to determine whether the proposed project would cause proximity impacts to Kimble Park or William Blair, Jr. Park. The design of the proposed project, including noise abatement walls, would not require the use of, nor substantially impair the purposes of these parks. [See **Section 5.2.12**]
Access Alteration – Alter Travel Circulation	An IAJ report was prepared for the proposed project and approved by FHWA in April 2012. The proposed project would not change access to either IH 45 or CF Hawn Freeway/US 175, but construction of the direct connectors between these facilities would divert commuter traffic from the existing SM Wright Freeway. Control of access for ramps and frontage roads of IH 45 and CF Hawn Freeway/US 175 would be consistent with TxDOT design criteria and would effectively maintain existing access routes to abutting properties. The proposed project would generally improve mobility for both local and regional traffic flow [See **Sections 2.2.1** and **5.2.6**].

TABLE 6-6. IMPACT-CAUSING ACTIVITIES OF THE PROPOSED PROJECT

Type of Activity – Project Specific Activity	Relevant Details about Project Specific Activity
	The reconstruction of the SM Wright Freeway as a city parkway would remove frontage roads and ramps to create a parkway, thereby obviating control of access. The conversion of the existing controlled-access facility would remove pass-through commuter traffic and convert the existing facility into an urban parkway that would promote cohesion within the adjacent residential neighborhoods. [See **Section 5.2.7**] Of the 11,323 persons within the 18 Census block groups located within 0.25 mile of the proposed project ROW, approximately 8.5 percent (966 people) speak English less than "very well." Steps have been and would continue to be taken to ensure all LEP populations have access to programs, services, and information provided by TxDOT. [See **Section 5.2.8**] An analysis of the 223 Census blocks with residential populations, within 0.25 mile of the proposed project ROW indicates that 217 contain minority populations of 50 percent or greater. The demographic data for the Census blocks indicate a predominance of an African American and Hispanic populations throughout the project area. Accordingly, much of the project area consists of EJ populations. Additionally, the percentage of the households within the 18 Census block groups reporting median household incomes below the 2010 poverty level ranges from 10 percent to 56 percent. Based on the totality of effects from the proposed project (impacts not borne by only EJ populations, impacts not appreciably more severe on EJ populations, and benefits associated with the proposed improvements to be felt by both EJ and non-EJ populations), disproportionately adverse impacts on minority and/or low income populations are not anticipated. Indeed, the particular design of the proposed project is expected to result in beneficial effects for EJ and low-income populations in the project area. [See **Section 5.2.9**] The project would generally improve mobility to public facilities and services within the project area. [See **Section 5.2.10**]
Modification of Regime – Traffic Noise	The project would result in traffic noise impacts and implementation of noise abatement measures would occur in accordance with FHWA/TxDOT guidelines. [See **Section 5.2.12**]
Changes in Traffic – Alter Traffic Operations	Overall, the NCTCOG performance reports do not provide a clear indication of substantial or widespread improvement to LOS for the Build Alternative. However, the slight improvements of LOS show the project would improve operability, connection, and mobility. [See **Section 2.2.1**; see also **Section 5.2.13**]
Cultural Resources (see Section 5.3)	
Modification of Regime – Non-Archeological Historic Structures	A 2011 reconnaissance survey identified 290 historic-age properties within the project APE, of which one property and one historic district were recommended as eligible for listing in the NRHP. The proposed project would not have adverse effects on any of the NRHP listed or eligible properties or historic districts within the APE. [See **Section 5.3.1**]
Modification of Regime – Archeological Sites	The proposed project would affect no archeological sites listed in, or determined eligible for designation in, the NRHP. [See **Section 5.3.2**]
Other Resources/Issues (see Section 5.4)	
Modification of Regime – Hazardous Wastes	A total of 31 sites were determined to pose a high risk to ROW acquisition and/or construction of the proposed project. It is expected that subsurface investigations (soil boring samples, ground water samples, etc.) would be conducted within the vicinity of the identified high risk sites prior to ROW acquisition and construction to determine if site remediation is necessary. Measures would be taken during construction to prevent, minimize, and control the spill of hazardous materials and ensure workers' safety. [See **Section 5.4.1**]
Modification of Regime – Airway-Highway Issues and Other Potential Issues	Airway-highway clearance is not required, as the proposed improvements are at least 8 miles away from the nearest airport facility. The proposed project would have no impacts on the Texas Coastal Zone Management Program or on federally-designated Wild and Scenic Rivers. [See **Section 5.4.2**]

TABLE 6-6. IMPACT-CAUSING ACTIVITIES OF THE PROPOSED PROJECT

Type of Activity – Project Specific Activity	Relevant Details about Project Specific Activity
Facility Operation Issues	
Chemical Treatment – Road Maintenance	Various post-construction maintenance activities would be resumed for the project, including grass mowing and use of chemicals, as necessary, for weed or pest control. It is also expected that sand, salt, or a mixture of both would be applied as necessary to road surfaces to prevent icing during cold weather. These activities would be conducted in accordance with standard TxDOT practices and are not expected to affect any change from the activities currently applied to the existing roadway facilities.

6.5 Step 5: Identify Potential Indirect Impacts for Analysis

The objective of this step is to screen the various types of potential indirect impacts for those impacts considered substantial, which are then examined in greater detail in **Step 6**. This approach applies the understanding of impact-causing activities discussed in detail as part of the direct impacts analysis (i.e., **Section 5.0**) and summarized in **Step 4** to explore cause-effect relationships with the study area's goals and notable features (**Steps 2** and **3**). As noted in TxDOT's ICI Guidance, "Whether an impact is substantial is a function of the context, the likelihood of the impact, and the reversibility of the impact." The guidance also points out that evaluating impacts in light of area goals is important because impacts that conflict with area goals would likely be considered substantial. Impacts affecting any of the notable features within an AOI would also likely be considered substantial. This step builds upon the initial screening of potential indirect impacts examined in **Step 1** and used to define the AOI.

In the discussion that follows, relevant aspects of area goals and notable features are considered for each of the three categories of indirect impacts. These goals and notable features were evaluated in terms of whether the impact-causing activities outlined in **Table 6-6** would likely extend beyond the project construction footprint and, if so, the relative magnitude of the expected impacts. The method for this screening step applied the qualitative inference technique discussed in NCHRP Report 466[65] which uses "professional judgment of the possible changes that the proposed project would entail." This approach draws heavily upon an understanding of ecological, economic, demographic, and social information developed during the analysis of direct impacts. This step of the analysis assesses whether notable features within the AOI would likely receive indirect impacts attributable to the proposed project. Potential indirect impacts identified in this step as substantial are then evaluated further in **Step 6**. For those types of potential indirect impacts that are not considered to result in substantial impacts, a brief statement of rationale is provided.

[65] See, NCHRP Report 466, page 66.

6.5.1 Encroachment-Alteration Impacts

Ecological Encroachment-Alteration Impacts

This subsection first considers whether the proposed project would be likely to encroach upon the forested wetlands and open water areas near IH 45, which are notable sensitive habitat features. As suggested in the discussion in **Step 1**, impacts to water resources are not expected to result in substantial impacts that would reach beyond the project construction footprint. As no impacts are expected to water features subject to Section 404 jurisdiction, there would also be no opportunity for fill to be added to jurisdictional water features beyond the construction footprint. Similarly, the minor encroachments to the Trinity River 100-year floodplain (i.e., 3.17 acres) would be limited to the at-grade portions of the proposed project, as the remaining overlap with the floodplain (43.73 acres) would be on structures elevated above the expected water surface level of the 100-year flood. With regard to erosion of soil from construction sites, some sedimentation is possible despite the implementation of erosion and sediment control measures that would be part of the SW3P. Such impacts, however, are expected to be minor and temporary, and would effectively cease upon establishing permanent vegetation cover after construction. In light of local goals and notable features in the AOI, this temporary and limited possibility of erosion and sedimentation is not considered a substantial indirect impact.

A second notable feature, bottomland/riparian forest habitat which also occurs primarily near IH 45, was examined for potential encroachment-related impacts. The effects of removing bottomland/riparian forest habitat from the proposed project would not likely extend beyond the forested areas that would be cleared of woody vegetation. The riparian forest impacts to the west of IH 45 would affect the edge of a rather contiguous bottomland forest, but would not result in fragmentation impacts that could extend beyond the cleared area. That is, the principal fragmentation impacts occurred decades ago with the construction of IH 45 and the Union Pacific Railroad, and removing 1.25 acres of additional forest habitat from the forest edge would not be expected to add appreciably to the existing condition. Moreover, potential indirect impacts would be moderated because, as with the existing IH 45 facility, the proposed access ramp would be on structure approximately 30 feet above the forest floor. This condition allows ground-dwelling wildlife the opportunity to cross underneath IH 45 to access forested areas on either side of the highway. Accordingly, impacts to riparian habitat would be limited to the area of direct impacts and no encroachment impacts are expected to bottomland/riparian forests located beyond the project construction footprint. The limited direct impacts of the proposed project on forest habitat are not expected to affect the populations of any rare species in the area, nor is it expected that there would be indirect impacts to such species elsewhere as a result of forest habitat removal. In response to the TPWD recommendation, TxDOT will coordinate with appropriate city staff to determine if mitigation for impacts to 1.25 acres of riparian/bottomland habitat may be mitigated for within the planned Great Trinity Forest area (see **Appendix B-5**).

The proposed project was evaluated for potential encroachments to the environmental component notable features in **Table 6-5**. With the exception of two parks, all construction aspects of the proposed project would be at least 400 feet removed from any park or recreation area. This distance, when considered within the urban context of the project, would make it very unlikely for proposed roadway improvements to have any encroachment effects on parks or recreation areas. Adverse encroachment alteration impacts are also not expected to Kimble Park and William Blair, Jr. Park (formerly Rochester Park), both of which are adjacent to project roadways. Kimble Park is located north of the proposed SM Wright Parkway, between Warren Avenue and Pennsylvania Avenue, and would benefit from improvements to downgrade the existing freeway which would reduce the traffic noise level by seven dB(A) (see **Table 5-19**, Receiver R39). No adverse encroachment impacts are expected to William Blair, Jr. Park because the park is located on the east side of IH 45, which is opposite the location of a proposed southbound access ramp and nearly 250 feet from it. In addition, this park would be farther removed from any effects of the proposed ramp because the ramp would be built on structure. Similarly, existing and potential future recreation areas within the Trinity River floodplain would not be adversely affected by the addition of a southbound access ramp build on structure on the west side of IH 45. Finally, the large live oak trees along SM Wright Freeway/US 175 are not expected to be harmed by roadway improvements, provided that construction contractors take suitable precautions to prevent injury to these trees during construction in nearby areas.

The analysis of the “direct” impacts of the proposed project to air quality is essentially a study of encroachment-alteration indirect impacts because the impacts are realized after the project is constructed and impacts occur away from the construction footprint. As discussed in detail in **Section 5.1.8**, no substantial impacts are expected in terms of air quality, as air pollutants of concern either attenuate quickly as they move away from the roadway (e.g., CO and MSATs) or are included in air emission budgets that are part of regional ozone abatement plans. As the DFW region is in nonattainment for ozone, the EPA regulates progress toward compliance with the CAA through implementation of emission reduction strategies outlined in the SIP. Mobile source emissions associated with the proposed project improvements are included in regional plans for SIP compliance, and further analysis of potential indirect impacts of ozone-related emissions is not warranted. With regard to MSAT emissions, it is possible that MSAT levels may temporarily increase near sensitive receptor locations in the AOI (e.g., elder care facilities, schools, youth recreation centers, and child care facilities) during project construction. However, over time MSAT emissions would decrease as EPA's national vehicle engine and fuel regulations are implemented. Further consideration of potential indirect impacts of MSAT, CO, and other vehicle emissions relating to vulnerable elements of the local population would not be warranted.

Socioeconomic Encroachment-Alteration Impacts

As discussed in detail in **Section 2.2** and summarized in **Section 6.1.1**, the proposed improvements are designed to improve mobility and enhance safety for all three of the major roadways comprising the proposed project. To a great extent, these major components of the "need" for the proposed project are also a source of anticipated encroachment-alteration indirect impacts. Consequently, several aspects of the Community Impact Assessment that are expected to be affected by changes in travel patterns will be explored further in **Step 6**, including matters relating to the alteration of traffic circulation and traffic operations. Likewise, the proposed project is expected to facilitate the growth of population and employment within the AOI, enhance community cohesion, and encourage economic revitalization, all of which are considered important local area goals. Accordingly, it is expected that beneficial effects to the notable feature relating to community cohesion would result from the proposed project, and further consideration of this aspect of potential encroachment impacts would be unnecessary. Similarly, the community cohesion and safety aspects of the proposed downgrade of SM Wright Freeway would benefit a vulnerable element of the community, which is predominantly an EJ population.

The potential for the proposed project to adversely affect notable cultural resources (e.g., historic residential districts and landmarks) was examined in this step. As with the observation regarding community cohesion above, it is expected that the proposed design to downgrade SM Wright Freeway to a parkway facility would be beneficial for adjacent or nearby historic resources because it would tone down the presence of the roadway within this residential community. The analysis of direct impacts to cultural resources in Section 5.3 also included an assessment of proximity impacts to cultural resources, which is effectively an examination of encroachment alteration effects of the proposed project. As neither direct nor proximity impacts are anticipated to cultural resources, further consideration of potential indirect impacts to cultural notable features would be unwarranted.

6.5.2 Project-Induced Land Use Change

Undeveloped land and potential sites for redevelopment are present within the AOI. The proposed project is anticipated to result in improvements to mobility that, along with forecasted growth, could influence property values and the overall supply and demand for goods and services within the AOI. As the proposed improvements could result in a change to the type, amount, or timing of development within the AOI, additional analysis is warranted in **Step 6**.

6.5.3 Impacts Resulting from Project-Induced Land Use Change

As indicated above, an evaluation of expected project-induced changes in land use are included in **Step 6**. It follows that changes in land cover and other potential impacts to the natural and human environment would accompany changes in land use, which are discussed in **Step 6**.

6.6 Step 6: Analyze Indirect Impacts and Evaluate Results

The purpose of this step is to determine if the indirect impacts identified in **Step 5** are likely to be substantial by further analyzing the magnitude, probability of occurrence, timing and duration, and degree to which the impact can be controlled or mitigated.[66] An integral component to this step is to reconsider key assumptions used in the indirect impacts analysis and evaluate the extent to which uncertainty associated with these assumptions may affect the results of the analysis.

6.6.1 Encroachment-Alteration Impacts

As determined in **Step 5**, substantial encroachment-alteration impacts are not anticipated within the AOI except for several topics related to socioeconomic impacts discussed below. As noted above in **Section 6.5.1**, the discussions of direct impacts for several resources or issues traditionally and appropriately extend the reach of direct impacts beyond the construction footprint of the project and well into the future. Unavoidably, this creates overlap between the direct impacts analysis and the evaluation of indirect impacts for topics such as air quality, traffic noise, and most of the issues addressed in the Community Impacts Assessment in **Section 5.2**. For this reason, references to discussions in the direct impacts analysis (**Section 5.0**) are provided below to avoid unnecessary repetition of information already covered.

Alteration of Travel Circulation

The proposed project improvements would profoundly alter the current circulation of traffic patterns along the SM Wright Freeway/US 175. The reconstruction of the SM Wright Freeway as a low-speed parkway would eliminate the commuter traffic that would be diverted to/from IH 45 by way of the direct connectors to CF Hawn/US 175. The sharp-turn safety hazard located where CF Hawn connects with SM Wright Freeway would be removed. The reconstructed SM Wright Parkway would have stop lights at major cross streets and sidewalks would be created in the place of existing frontage roads. These changes to the purpose and functioning of the SM Wright facility would have a transforming effect on the community. Instead of a high-speed controlled access roadway dividing neighborhoods there would be a landscaped city street that would foster greater cohesion within this community characterized by historic neighborhoods and sites. The removal of existing frontage roads and replacement with pedestrian sidewalks would be an important component to this transformation.

[66] See, Step 6 of NCHRP Report 466, page 71.

This beneficial effect to cohesion is particularly valuable within the AOI in light of the EJ populations that have been adversely affected since the construction of the existing facility. In addition, other vulnerable elements of the population (i.e., elderly people, children, persons with disabilities) near the SM Wright facility would benefit from the lower vehicle speed and traffic volume, increase in safety, and corresponding reduction in traffic noise and exhaust emissions. The overall result would be a safer and more aesthetic roadway that would dovetail with objectives reflected in City of Dallas planning documents. Although such beneficial indirect effects cannot easily be quantified, they are nevertheless substantial and important to the community. Moreover, such benefits would not be achieved at the expense of regional mobility because the direct connectors between IH 45 and CF Hawn/US 175 would create a safer and more efficient route for commuter and regional traffic.

Alteration of Traffic Operations

Changes in traffic operations have been assessed for the design year using NCTCOG data for the proposed SM Wright improvements. Utilizing a traffic study area (3,834 acres) developed by the NCTCOG, performance reports were generated for freeways, frontage roads, principal and minor arterials, collector roads, and freeway ramps. These performance reports allowed for a direct comparison of changes in average speed and LOS within the traffic study area. Project-related data for the 2035 average loaded speed on the various roadway classifications for the No-Build and Build alternatives are provided in **Table 6-7**. The average loaded speed is the volume-weighted average speed on roadways with traffic on the road. An increase in average loaded speed indicates a faster trip time and a decrease in average loaded speed indicates a slower trip time. The NCTCOG performance reports indicate the average daily loaded speed for the Build Alternative (as compared to the No-Build Alternative) increases for freeway ramps and frontage roads, increases slightly for minor arterials and collectors, but decreases slightly for freeways and major arterials.

TABLE 6-7. ESTIMATED AVERAGE LOADED SPEED FOR 2035

Roadway Classification	No-Build – Miles per Hour			Build – Miles per Hour			Percent Change		
	AM	PM	Daily	AM	PM	Daily	AM	PM	Daily
Freeways	34.08	35.65	**42.47**	33.21	35.63	**40.86**	– 2.6	– 0.1	**– 3.8**
Principal Arterials	21.90	25.74	**25.41**	22.76	23.82	**25.20**	3.9	– 7.5	**– 0.8**
Minor Arterials	24.64	25.54	**25.68**	25.69	26.41	**26.82**	4.3	3.4	**4.4**
Collectors	19.97	20.29	**21.18**	20.63	21.14	**21.86**	3.3	4.2	**3.2**
Freeway Ramps	24.30	25.33	**27.88**	28.05	30.40	**33.17**	15.4	20.0	**19.0**
Frontage Roads	23.15	24.49	**25.47**	24.31	28.13	**27.66**	5.0	14.9	**8.6**

Source: NCTCOG TransCAD® data for 2035 Average Loaded Speed - Build and No-Build Alternatives (Complete Performance Report for the proposed SM Wright Project area, November 2011).

NCTCOG performance reports also contain modeled LOS results for the No-Build and Build alternatives under estimated traffic conditions for the design year. These results for the traffic study area are provided in **Table 6-8**. These data suggest improvement in the number of lane-miles with LOS A-B-C under the Build Alternative for principal arterials, but only a slight improvement for minor arterials. Otherwise, the results vary widely with respect to LOS changes relating to freeways and freeway-related components. Overall, the NCTCOG performance reports do not provide a clear indication of substantial or widespread improvement to LOS for the Build Alternative.

TABLE 6-8. ESTIMATED DAILY LEVEL OF SERVICE FOR 2035

Roadway Classification	LOS	No-Build – Lane Miles	Build – Lane Miles	Percent Change
Freeways	**A-B-C**	**6.99**	**5.73**	**– 18.0**
	D-E	22.34	13.76	– 38.4
	F	13.04	18.10	38.8
Principal Arterials	**A-B-C**	**16.98**	**19.74**	**16.3**
	D-E	4.90	8.05	64.3
	F	3.78	5.70	50.8
Minor Arterials	**A-B-C**	**12.52**	**12.58**	**0.5**
	D-E	0.00	0.00	n/a
	F	0.00	0.00	n/a
Collectors	**A-B-C**	**33.04**	**32.90**	**– 0.4**
	D-E	3.07	4.42	44.0
	F	0.55	0.51	– 7.3
Freeway Ramps	**A-B-C**	**6.37**	**6.72**	**5.5**
	D-E	0.33	0.39	18.2
	F	3.14	1.46	– 53.5
Frontage Roads	**A-B-C**	**11.76**	**5.64**	**– 52.0**
	D-E	0.00	0.14	n/a
	F	0.44	0.39	– 11.4

Source: NCTCOG TransCAD® data for 2035 Lane Miles at LOS - Build and No-Build Alternatives (Complete Performance Report for the proposed SM Wright Project, November 2011).

Socioeconomic Impacts

It is expected that the combined effects of altered travel circulation and some improvement in non-highway travel speeds and LOS would positively impact local transit, emergency, and other public services, as time spent in congestion is anticipated to decrease with the overall improvement in roadway operational conditions. This proposed project would succeed if all components are constructed to allow a substantial portion of future traffic to be diverted away from the SM Wright facility as a result of the IH 45 and CF Hawn/US 175 direct connectors. Improved access to these services is a benefit to all populations, including sensitive elements such as the elderly, children, minority groups, and low-income groups. Increased mobility and improved LOS could also stimulate economic growth in the AOI surrounding the SM Wright Parkway, and thereby could result in infill development of residential and commercially zoned parcels. Such infill of existing vacant properties would be consistent with development goals as outlined in City of Dallas comprehensive plans and ordinances. Improved mobility

could also increase visits to the Fair Park tourist attraction as motorists originating their travel from both inside and outside the AOI experience decreased congestion levels on the SM Wright facility.

As the above travel-related impacts are either consistent with the objectives of the City of Dallas for the AOI and with regional transportation plans and do not adversely impact notable features, the anticipated encroachment-alteration effects would be positive. These impacts would also be expected to create a slight increase in demand on the existing undeveloped land of the AOI as well as already developed land that with structures in poor condition. Over the long term, as mobility along the proposed SM Wright Parkway and CF Hawn/US 175 is improved and as growth continues, residential and commercial infill could reach a maximum thereby decreasing supply such that the demand for further new developments increases. The aforementioned would serve as contributing factors to project-induced land use change, which is further discussed in **Section 6.6.2** below.

6.6.2 Project-Induced Land Use Change

The evaluation of whether the proposed project is likely to result in project-induced land use change is patterned after the procedures in the NCHRP Report 25-25, Task 22. Project-induced land use change can include project-induced development, the redevelopment of already developed land, or a change in the rate of development/redevelopment. Of the six land use forecasting tools introduced in the report, the "planning judgment" forecasting tool was used as the framework for the analysis. The planning judgment method requires the use of a stepwise methodology developed for the Oregon Department of Transportation.[67] The planning judgment methodology seeks to make reasonable judgments about potential project-induced impacts based on information gained from the opinions and experience of professionals, through literature review, and through an assessment of existing and forecasted local conditions. To this end, input from local planners was obtained via questionnaires and/or interviews in an effort to assess the potential for project-induced land use impacts. The City of Dallas planners and other officials consulted are listed above in **Section 6.1**.

As described in the NCHRP Report 25-25, Task 22, **Table 6-9** summarizes key variables that might contribute to measurable changes in local development patterns in response to a transportation improvement project.

[67] ECONorthwest and Portland State University for the Oregon Department of Transportation (2001), *A Guidebook for Evaluating the Indirect Land Use and Growth Impacts on Highway Improvements*.

TABLE 6-9. KEY VARIABLES CONTRIBUTING TO INDUCED LAND USE CHANGE

Key Variable	Standards of Assessment	Assumption
Change in Accessibility	Measured in travel time or delay, if available; or ratio of volume/capacity (v/c) or change in access.	The larger the travel time savings or greater the change in LOS, the stronger the potential for project-induced land use change.
Change in Property Value	Likelihood of changes in land price that would influence development.	The greater the change in property values, the stronger the potential for induced land use change.
Forecasted Growth	Measured as population, employment, and land development for a region, city, or sub-area; forecasted population and employment trends may indicate the demand for land development where access and other public services may be available.	If a proposed transportation project improves access and the average annual population/employment growth rate is relatively high, then the stronger the potential for project-induced land use change.
Relationship between Supply and Demand	Measured as population, employment, and land development; determine how much vacant, buildable land is available within a reasonable sub-area.	The more limited the supply is relative to demand, the more likely improved access would increase the probability of development.
Availability of Non-transportation Services and Other Market Factors	Do details exist (i.e. favorable market conditions, utilities, etc.) that would promote or limit development or possible barriers to service?	Access alone is not sufficient to trigger development; favorable market conditions as well as other key public facilities often must be available in the study area at a reasonable cost. If they are, improvements in access are more likely to facilitate land use change.
Public Policy	Are land use plans closely followed and enforced such that development pressures can be resisted?	If there are no policies or weak enforcement, then the potential for land use change would be strong.
Source: NCHRP Project 25-25, Task 22, *Forecasting Indirect Land Use Effects on Transportation Projects* (TRB, 2007).		

The assessment of these key variables relating to indirect land use change should take into consideration two questions:

1. How likely is it that a transportation project would be followed by some noticeable change in land use that would not have occurred in the absence of the project or sooner than anticipated?; and
2. If such changes did occur, would they be consistent with the comprehensive plans and other future planning efforts?

The evaluation of project-induced land use change, in accordance with the NCHRP Report 25-25, Task 22 methodology, is described below and is broken down into two major parts. The first evaluates the existing and forecasted conditions of the indirect impacts AOI (**Section A**, below). Then, based on these evaluations, the second part generates an overall conclusion relating to project-induced land use change (**Section B**, below). It is through this methodology that specific locations of potential project-induced land use change within the AOI are identified. The impacts resulting from project-induced land use change are then assessed in **Section 6.6.3**.

A. Project-Induced Land Use Change Assessment Part 1 (NCHRP Report 25-25, Task 22): Evaluation of Existing and Forecasted Conditions

AOI and Time Frame

A detailed description of the methodology used to delineate the indirect impacts AOI in relation to project-induced land use change is presented in **Section 6.1.2** and the 4,069-acre AOI is shown in **Appendix D-1**. In summary, the AOI was established by considering both natural constraints (i.e., Trinity River and its floodplain) as well as proximity to major transportation facilities in the vicinity. The time frame for assessing project-induced land use change is from the time of the proposed project's construction to 2035, which correlates with the MTP.

Basic Demand Drivers

Land use and transportation planning is driven by population and employment forecasts. As such, forecasted growth tends to help provide an understanding as to the demand for development on a regional and city level. In turn, these regional and city forecasts provide insight as to growth and development trends within the AOI. As these data have already been presented in detail in **Sections 2.2.1** and **6.2.1**, the discussion below is limited to essential conclusions that can be drawn from available demographic data and forecasts.

The NCTCOG demographic forecast for north central Texas anticipates approximately 70 percent growth in population and employment by the year 2035. The growth forecast for Dallas County is expected to be approximately 38 percent for population and 50 percent for employment. Growth estimates for the City of Dallas are approximately 13 percent for population and 25 percent for employment. Although growth trends for the AOI are less than regional and county estimates, growth in population and employment are nevertheless to be expected.

Relevant Plans and Conditions of the Study Area

A key element to identifying the potential for indirect land use impacts involves reviewing of local comprehensive plans and related documents in order to provide a general indication of what land use patterns and densities are desired, expected, and allowed within the AOI. Another key aspect involves gathering data, including opinions, from representatives of the AOI municipalities. These representatives have first-hand knowledge regarding property values, forecasted growth, supply and demand, other market factors affecting their jurisdictions, and the most applicable public policies that would promote and protect future development. A description of the regional and local planning documents in relation to the AOI is provided above in **Section 2.4** and **Section 6.2.2**. A description of the interview process with local planners listed in **Section 6.1** is presented below.

During May–July 2011, city planners from the City of Dallas were contacted for their assistance in ascertaining the potential for indirect impacts resulting from the proposed project. These planners were interviewed regarding factors influencing development within the AOI, including the following:

- The economy (e.g., population and employment growth, strength of regional economy, and employment centers nearby);
- Travel time to places of interest (e.g., employment, services, retail, medical, entertainment, and education);
- Infrastructure (e.g., transportation network, water, wastewater, and electric);
- Development advantages (e.g., low land cost, good availability, and natural amenities);
- Development constraints (e.g., high land cost, low availability, terrain, soils, floodplains, regulatory constraints, environmental regulations, and local ordinances); and
- Social considerations (e.g., proximity to schools, churches, neighborhoods, and parks).

The city planners were also asked for information relating to areas likely to be developed under both the Build and No-Build alternatives. This included questions relating to the amount, type, location, and timing of potential land use change.

It was the consensus among the city planners contacted that existing land use plans for the City of Dallas accurately reflect the community and economic vision for the AOI. Several factors influential to land use change that were emphasized by city planners include the following:

- The extent of the 100-year floodplain is a major constraint to development, and development or redevelopment in such areas is not expected until the construction of the Lamar Levee removes the threat of flooding from those areas;
- Preservation of historic residential districts and landmarks is a priority, making large scale development or redevelopment within residential areas (particularly historic residential districts) unlikely; and
- Conversion of the SM Wright Freeway to a community parkway would have a positive effect in terms of development or redevelopment of properties adjacent to it (e.g., access to the properties would be improved by removing one-way frontage roads).

City planners also shared GIS shape files and other data relating to development permits and other indicia of both constraints and growth relating to economic development within the AOI. City planners also cited a number of reasonably foreseeable activities and pre-existing catalyst projects and plans that would precede the construction of the SM Wright Project which may have substantial influence on development activities in the AOI. For example, the completion of the DART Green Line at the north end of the AOI is seen as an important transportation facility for assisting commuters access job opportunities.

Land Use Capacity and Development Potential

An assessment of land use capacity can provide a municipality with information that helps to monitor the acreage of developed versus undeveloped land supply, growth pressures, demographic trends, and development patterns. The inventory of land use (**Appendix D-2)** prepared by the City of Dallas in 2010 provides an initial indication of undeveloped areas that may be available for development. Undeveloped land within the AOI located outside the 100-year floodplain comprises 496 acres, most of which is located northwest of MLK Jr. Boulevard. Interviews with city planners indicated that urban infill of undeveloped areas adjacent to the proposed SM Wright Parkway would be anticipated.

Future Development Patterns of the AOI

The approach for assessing future development patterns within the AOI involves identifying areas where it would be reasonable to expect shifts in development. In order to identify areas within the AOI where potential future impacts could occur, GIS mapping and analytical techniques were first used to identify existing land use patterns and map areas where existing natural, governmental, or other constraints would make a future change in land use unlikely. Within the densely developed AOI, areas that are already developed and would be unsuitable or unlikely for future development activities are shown in **Appendix D-3** and include the following:

- Existing public facilities (e.g., TxDOT ROW, schools, hospitals, and municipal facilities);
- Public parks and recreation facilities and other city-owned open-space areas;
- Areas owned and/or used for major utilities (e.g., electric substations and transmission lines);
- Areas within the 100-year floodplain and flood protection levees;
- NRHP listed or eligible historic properties, historic neighborhood districts, and cemeteries; and
- Areas currently developed for single-family residential use, and which are reflected as remaining residential in City of Dallas land use plans and zoning ordinances.

What is left following the above identification of land use constraints are those areas to be assessed for potential project-induced land use change.

Another aspect relevant to project-induced land use change is the limited effect construction of the IH 45 and CF Hawn/US 175 direct connectors would have on local land development decisions. For example, improvements to IH 45 and CF Hawn/US 175 do not include the addition of any new entry or exit ramps, nor would any new frontage roads be constructed. Thus, there would be virtually no change at the access points or on frontage roads for the commuter or regional travelers who are the predominant users of these facilities. In addition, the proposed direct connectors would be almost entirely above-ground structures, which effectively eliminates any opportunity for the director connectors to affect land development decision making in the vicinity. This is particularly so at present because the absence of

levee protection places most of the land near the direct connectors within the 100-year floodplain, thus precluding development that might otherwise occur.

As indicated by city planners, the AOI as a whole could experience a change in the rate, type, and amount of development due to the proposed reconstruction of the SM Wright Parkway when coupled with other on-going plans and investments within the AOI and near vicinity, and activities of the local Community Development Corporations, which are active in the AOI.[68] However, it is expected that potential development would ultimately be more heavily influenced by market forces, planning regulations, and existing sub-area planning efforts (e.g., the Balanced Vision Plan, and the Trinity Corridor CLUP) than the proposed SM Wright improvements. It is possible that the implementation of the No-Build Alternative could result in less development/redevelopment within the AOI as a result of increased congestion coupled with safety concerns on CF Hawn/US 175, and a continued reduction in neighborhood accessibility and cohesion.

The No-Build Alternative is inconsistent with the City of Dallas planning documents for the AOI because the proposed project is included in the future development plans and thoroughfare plans. The proposed improvements are included within the regional *Mobility 2035* MTP and the FY 2013-2016 TIP.

Influence of Changes in Travel Patterns

Travel safety, efficiency, and circulation patterns are key transportation measures for estimating impacts on residential and commercial development. Larger traffic volumes or decreased congestion that result from transportation improvements could support an increase of demand for retail and commercial properties along a transportation corridor, which in turn could contribute to the potential for land use changes. Similarly, the substantial changes planned for construction the SM Wright Parkway would remove one-way frontage roads and replace them with safer and more aesthetic landscaping, which would be expected to make residential lots more attractive as home sites. The key questions are whether that potential is sufficient to cause property owners and developers to build faster and differently than they otherwise would have, and whether city plans or zoning would have to be changed in any substantial way to allow that change in development. As discussed in detail in **Section 2.4** and **Section 6.6.1**, the changes in travel patterns would be substantial and are expected to affect development/redevelopment decisions within the AOI. The effect of the SM Parkway improvements on traffic operations is expected to

[68] A community development corporation is a non-profit, community-based organization that anchors capital locally through the development of both residential and commercial property, ranging from affordable housing to developing shopping centers and even owning businesses. Community development corporations s are typically neighborhood-based, 501(c)3 non-profit corporations with a board composed of at least one-third community residents that promote the improvement of the physical and social infrastructures in neighborhoods with populations substantially below the area median income. Many community development corporations perform a wide variety of roles, including housing, commercial, and retail development, as well as leading community planning, assisting with community improvement programs (improved lighting, streetscapes, and the like) and providing social services. Source: *http://www.community-wealth.org/strategies/panel/cdcs/index.html.*

be moderate, and, considering the existing well-developed road network within the AOI, this would suggest that the influence of those improvements would diminish rapidly with increasing distance from the parkway.

B. Project-Induced Land Use Change Assessment Part 2 (NCHRP Report 25-25, Task 22): Overall Determination of Indirect Land Use Impacts

Potential for Land Use Change Assessment

As previously discussed, the potential for land use change can be measured by changes in accessibility, changes in property value, expected growth, the relationship between supply and demand, availability of public services, market factors, and public policy. **Table 6-10** summarizes the potential for land use change within the AOI as influenced by these indicators of potential change. The summary is based on quantitative and qualitative assessments of the AOI as evaluated in **Section A** above (Project-Induced Land Use Change Assessment Part 1) via spatial analysis techniques and using information gathered from city planners. This was then analyzed using thresholds and assumptions described in NCHRP Report 25-25, Task 22.

TABLE 6-10. ASSESSMENT OF INDIRECT LAND USE IMPACTS

CHANGE	DATA SOURCES	ANTICIPATED INDIRECT IMPACTS	POTENTIAL FOR LAND USE CHANGE
Change in Accessibility *Measured as change in travel time or delay, if available. Otherwise, assessment of v/c or change in access.*	Performance reports provided by NCTCOG; expert opinion of city planners and transportation engineers.	• Within the NCTCOG traffic study area (3,834 acres) portion of the AOI, the average loaded speed increases by 3.3-4.4 percent in the AM, PM, and Daily scenarios for the Build Alternative as compared to the No-Build Alternative for minor arterials and collectors, and increases 5 to 20 percent for freeway ramps and frontage roads; increased loaded speed is predicted for major arterials in the AM (3.9 percent), but decreases for PM (7.5 percent) and daily (0.8 percent) estimates; thus average local trip times for travel within the AOI are somewhat less with the proposed improvements. • According to NCTCOG performance reports: for the Build Alternative, there is a 16.3 percent increase in lane-miles operating at LOS A-B-C for principal arterials and 0.5 percent increase for minor arterials; however, there would be a 50.8 percent increase in lane-miles for principal arterials operating at LOS F; other results for freeway and freeway-associated facilities are variable and do not indicate an overall improvement in LOS for these facilities under the Build Alternative as compared to the No-Build Alternative within the NCTCOG traffic study area. • Despite mixed results in terms of improvement based on average loaded speed and LOS, the project would provide travel benefits not reflected in the modeling results summarized above. The removal of the unsafe curve on CF Hawn/US 175 would be an important benefit for the community. Likewise, downgrading the SM Wright Freeway from a high-speed controlled access	**NCHRP Report 25-25 Scale** (a) Less than a couple minutes of time savings for an average trip, or no change in v/c = *none to very weak* (b) 2-5 minutes = *weak to moderate* (c) 5-10 minutes = *strong* (d) more than 10 minutes = *very strong* **Summary of Reasoning** Unmodeled benefits in terms of safety and internal community travel patterns and aesthetics are expected to have substantial effects on future development decision making. In addition, results of traffic modeling for the design year, although variable, demonstrate improvements in average loaded speed and LOS for city streets within the AOI for the Build Alternative. **Conclusion of Potential** Strong with respect to the SM Wright Parkway and cross streets; weak to moderate for the remainder of the AOI.

TABLE 6-10. ASSESSMENT OF INDIRECT LAND USE IMPACTS

CHANGE	DATA SOURCES	ANTICIPATED INDIRECT IMPACTS	POTENTIAL FOR LAND USE CHANGE
		facility to a low-speed landscaped parkway would have a dramatic effect on within-community travel circulation and safety. As indicated in interviews with city planners and transportation engineers, these improvements are likely to favorably influence the rate, type, and amount of land use change in the area and should be given great weight.	
Change in Property Value *Measured in dollars.*	Planning documents for the City of Dallas; interviews with City of Dallas planners.	• The proposed project has been accounted for in planning documents for the City of Dallas. • It is an established goal of the City of Dallas to maintain areas of residential development (neighborhoods) and to protect these established areas from non-conforming uses. • Although an exact percent change in property value is unknown for the Build Alternative, city planners acknowledged on-going planning efforts by CDCs, the City of Dallas, and DART would have more potential to increase property values than would potentially occur as a result of project-induced land use change. They also concur, however, that land use changes would primarily be driven by market forces, not the proposed SM Wright improvements. For example, additional future commercial development/redevelopment along MLK Jr. Boulevard and at several major street intersections in the AOI would be expected to occur under the No-Build Alternative in response to existing market influences and city plans to encourage such activity. However, changing SM Wright to a parkway would be expected to greatly improve the likelihood of economic incentives for residential and commercial development for undeveloped land or land with deteriorated structures located adjacent to the proposed SM Wright Parkway. • In relation to the economy, city planners anticipate that property values could decrease somewhat in the immediate future, but that forecasted growth and investments in the AOI should aid in stabilizing and eventually increasing property values over the long-term.	**NCHRP Report 25-25 Scale** (a) No change = *none to very weak* (b) 0-20 percent increase = *weak to moderate* (c) 20-50 percent increase = *strong* (d) More than 50 percent increase = *very strong* **Summary of Reasoning** Percent change in property value for the Build Alternative is unknown; however, city planners acknowledge a potential increase in property value for certain properties adjacent to SM Wright under the Build Alternative, but that any AOI-wide increases resulting from the proposed project would generally be outweighed by market conditions. **Conclusion of Potential** Generally weak for the AOI as a whole, but strong relative to developable properties adjacent to the proposed SM Wright Parkway.

TABLE 6-10. ASSESSMENT OF INDIRECT LAND USE IMPACTS

CHANGE	DATA SOURCES	ANTICIPATED INDIRECT IMPACTS	POTENTIAL FOR LAND USE CHANGE
Forecasted Growth *Measured as population, employment, land development; for region, city, or sub-area.*	NCTCOG 2035 forecast; planning documents for the City of Dallas; interviews with City of Dallas planners.	• Based on input from City of Dallas planners, the annual growth rate (average for years 2000 through 2009) for the city is 1.2 percent. NCTCOG estimates (**Table 5-6**) of average annual population growth through 2035 are 0.9 percent to 1.3 percent for the city and county, respectively. NCTCOG estimates (**Table 5-8**) of average annual employment growth through 2035 are 1.6 percent and 1.7 percent for the city and county, respectively. • According to City of Dallas planners, land use conversion is limited in many areas throughout the AOI due to the presence of constraining factors to development such as 100-year floodplains, dedicated parklands, listed or eligible historic residential districts and sites, cemeteries, and/or residential zoning. • For the City of Dallas, population and employment projections city-wide increase from 2005 to 2035. The rate of residential and commercial growth could slow somewhat under the current economic conditions, but the forecasted trend of population growth is still expected. It is important to note that estimated population and employment increases from 2005 to 2035 (provided by the NCTCOG) represent long-term projections that generally account for the cyclical nature of economic downturns.	**NCHRP Report 25-25 Scale** (a) <1 percent = *none to very weak* (b) 1 to 2 percent = *weak to moderate* (c) 2 to 3 percent = *strong* (d) over 3 percent = *very strong* **Summary of Reasoning** AOI municipality total average annual population and employment growth rates are both weak to moderate. Population and employment forecasts account for the cyclical nature of the economy. **Conclusion of Potential** Weak to moderate for both population and employment growth.
Relationship between Supply and Demand *Measured as population, employment, and development.*	Planning documents for the City of Dallas; interviews with City of Dallas planners.	• The amount of undeveloped land located outside the 100-year floodplain is 496 acres, or 12 percent of the AOI. Applying the 1.2 percent growth rate from city planners, the predicted build-out year for the AOI would be within 10 years. In addition, the size and context of individual undeveloped parcels may substantially reduce the likelihood of development (e.g., proximity to residential neighborhoods or historic properties/districts). Accordingly, it is anticipated that the supply of developable land would extend to approximately 10 years. Also, given the age and condition of many commercial structures, redevelopment of already developed areas is likely and may be the preferred alternative to undeveloped land (although the extent and location of redevelopment cannot be determined from available information). Finally, planned construction of levee improvements (e.g., Lamar Levee) would augment the existing supply of undeveloped land by providing flood protection, thereby extending the supply of developable land beyond 10 years. • City planners cite market forces as the primary factor in meeting the build-out year estimate above. For example, the weakening of the regional economy in recent years has slowed the progress of some development projects and it is impossible to predict when that trend may reverse. However, even though growth rate in the immediate future may continue to unusually slow in the near term, the overall trend for population and employment growth is still anticipated in the AOI over the long term.	**NCHRP Report 25-25 Scale** (a) More than 20-year supply of land types = *none to very weak* (b) 10 to 20-year supply = *weak to moderate* (c) Less than 10-year supply = *strong* (d) Less than 10-year supply and identified problems within the study area = *very strong* **Summary of Reasoning** Based on the city growth rate and supply of undeveloped land, market demand for land should be weak to moderate. The recent downturn in the economy makes it difficult to estimate the build-out year in light of slowed progress of some development projects. However, even though growth in the immediate future may continue to be slow due to economic conditions, the overall trend of weak to moderate population and employment growth is still anticipated for the AOI. As such, continued (and perhaps increased) demand is also expected to accompany this growth. **Conclusion of Potential** Weak in the immediate future; moderate over the long-term.

TABLE 6-10. ASSESSMENT OF INDIRECT LAND USE IMPACTS

CHANGE	DATA SOURCES	ANTICIPATED INDIRECT IMPACTS	POTENTIAL FOR LAND USE CHANGE
Availability of Non-transportation Services *Measured number of people or employees that can be served; or barriers to service provision.*	Planning documents for the City of Dallas; interviews with City of Dallas planners.	• The areas of existing development within the AOI are, in general, outfitted with necessary infrastructure (streets, sewer, sidewalk, curb, gutter, etc.), and are currently engaging in plans to enhance parks and recreation. • Where infrastructure proves to be unavailable for a particular type of economic development, the City of Dallas has a planning process that would readily program and provide necessary services. Through the city's Economic Development Office and other departments, encouraging development/redevelopment of areas such as the AOI remains a priority as reflected in current comprehensive planning documents.	**NCHRP Report 25-25 Scale** (a) Key services not available and difficult to provide = *none to weak* (b) Not available and can be provided = *weak to moderate* (c) Not available, easily provided and programmed = *strong* (d) Available now = *very strong* **Summary of Reasoning** Within the AOI, in general, key services are available; if unavailable, easily provided and programmed through capital improvement programs (CIP) or other planning regulations. **Conclusion of Potential** Strong
Other Factors that Impact the Market for Development	Planning documents for the City of Dallas; interviews with City of Dallas planners; current economic development activities in surrounding area.	• The City of Dallas accounts for the proposed SM Wright and associated improvements within existing planning documents. • City planners acknowledge that the proposed project could somewhat influence the value of existing land near areas of expected project-induced development; however, changes to such property values would be driven primarily by market forces and influenced by local planning documents, not the proposed SM Wright improvements. • Based on current market forces, city planners anticipate a somewhat weaker market for development in the immediate future. However, even with the economic downturn, overall population growth is still anticipated within the AOI. In turn, continued demand is expected in order to accommodate this forecasted growth. Over the long-term, forecasted growth is expected to create a stronger market for development/redevelopment. Highly localized development/redevelopment is more likely for properties that are adjacent to the proposed SM Wright Parkway. In contrast, project-induced land use change is much less likely to occur because the AOI has an existing road network that the proposed project would only marginally affect.	**NCHRP Report 25-25 Scale** (a) Weak market for development = *none to very weak* (b) Weak to moderate market = *weak to moderate* (c) Strong market = *strong* (d) Very strong market = *very strong* **Summary of Reasoning** City planners indicate an overall weak market for development is anticipated based on current economic conditions. However, the proposed SM Wright Parkway would dramatically change the potential for land use changes for adjacent undeveloped or deteriorated developed properties. **Conclusion of Potential** AOI-wide: weak to moderate in the immediate future; stronger over the long-term. Properties adjacent to SM Wright: strong potential for development or redevelopment.

TABLE 6-10. ASSESSMENT OF INDIRECT LAND USE IMPACTS

CHANGE	DATA SOURCES	ANTICIPATED INDIRECT IMPACTS	POTENTIAL FOR LAND USE CHANGE
Public Policy	NCTCOG plans; planning documents for the City of Dallas; interviews with City of Dallas planners.	• The proposed improvements to SM Wright Project roadway segments are accounted for within both regional and local planning initiatives. • As determined in interviews with city planners and a review of city land use plans, the City of Dallas supports the proposed SM Wright Project because the it would facilitate the city's objectives for the AOI. • The City of Dallas has a strong commitment to land policy (i.e., zoning) enforcement and its commitment to maintaining the overall character and mix of land uses within the AOI is reflected in relevant comprehensive planning documents. • City planning documents support and encourage the type of land use change that may be induced as a result of the proposed SM Wright improvements, which would be consistent with existing zoning and CLUPs.	**NCHRP Report 25-25 Scale** (a) Strong policy and record of policy enforcement and implementation = *none to very weak* (b) Weak policy and enforcement = *moderate to strong* (c) No policy, weak enforcement = *very strong* **Summary of Reasoning** The City of Dallas has a strong commitment to policy enforcement, and would likely ensure that any development or redevelopment would conform to existing zoning designations. **Conclusion of Potential** None to very weak.
Format Reference: TRB (2007), NCHRP Report 25-25, Task 22*, Forecasting Indirect Land Use Effects on Transportation Projects.*			

Conclusions Regarding Project-Induced Land Use Change

As indicated in **Table 6-10**, conditions within the AOI vary from "none to very weak" to "strong" in terms of the potential to influence land use change. However, AOI conditions relative to properties adjacent to the proposed SM Wright Parkway suggest a predominance of "moderate" and "strong" change indicators/categories listed in **Table 6-10**, especially with regard to properties adjacent to the proposed project. In addition, feedback from city planners suggested that future development generally throughout the AOI is less likely to be influenced by the proposed SM Wright improvements than by market forces and regulations established within planning documents.

Taking into consideration current/future zoning and land use, and input from city planners relating to access issues, the presence of constraining factors (e.g., the 100-year floodplain), and current market and development trends within the AOI, 14 locations of potential project-induced land use change were identified (labeled Sites 1-14 in **Appendix D-4**). These 14 sites located along the proposed SM Wright Parkway account for approximately 10.8 acres of project-induced development/redevelopment for properties ranging in size from 0.2 acre to 3.6 acres. These locations of potential land-use change fall into the following categories:

1. Undeveloped land zoned for residential use that would likely result in construction of a residence (or, could possibly be rezoned for neighborhood commercial use);
2. Undeveloped land zoned for neighborhood commercial use that would likely be developed;
3. Developed commercial land with structures that are either abandoned or in deteriorated condition that would likely be redeveloped.

Of these 14 sites, ten are vacant lots comprising 5.2 acres. The other four sites comprise 5.6 acres, and are a mixture of developed (2.3 acres) and undeveloped (3.3 acres) land. The developed portion of these sites includes 11 structures, which include two residential structures (one is partially collapsed and the other is boarded up), two abandoned commercial buildings, and seven operating commercial structures, as follows: two retail liquor stores, three nightclubs, one diner, and one barber shop.

6.6.3 Impacts Resulting from Project-Induced Land Use Change

The potential for the expected project-induced land use change described above is consistent with City of Dallas plans, policies, and/or ordinances. However, additional discussion is necessary because project-induced land use conversion could potentially impact sensitive habitats and species, valued environmental components, sensitive landscape features, and/or any vulnerable elements of the population associated with the specific locations of land use change. In order to ensure a comprehensive assessment, any resource/issue assessed for direct impacts was also screened for potential impacts resulting from project-induced land use conversion of 10.8 acres (14 sites) adjacent to the proposed SM Wright Parkway. As a continuation of **Step 5**, the objective of this screening process is to determine the extent to which the 14 sites (10.8 acres) of expected land use change could result in substantial impacts to each resource/issue category by assessing the context, likelihood, and reversibility of the types of project-related impact-causing activities discussed in **Table 6-6**. The results of this process, as applied to the 10.8 acres of anticipated land use change, are summarized in **Table 6-11**. However, a new category not found in **Table 6-6**, Land Alteration – Induced Land Development and/or Redevelopment, has been included in the table below because it reflects an entirely indirect consequence of the SM Wright Project and is not a direct result of it. A review of the impacts in **Table 6-11** indicate that only the potential impacts to upland forest resources and project-induced land development and/or redevelopment warrant further discussion.

TABLE 6-11. POTENTIAL IMPACTS OF INDUCED LAND USE CHANGE

Type of Activity – Project Specific Activity	Relevant Details about Project Specific Activity
Natural Resources (see Section 5.1)	
Modification of Regime – Storm Water Drainage	None of the properties include in land use change would affect any surface water features, and drainage would be to the existing storm drainage system.
Modification of Regime – Floodplain Intersection	None of the land use change properties are within the 100-year floodplain.
Modification of Regime – Soil Disturbance and Water Quality	Ground disturbance during site grading for building foundations and landscaping would create the potential for increased erosion of soil, which could lead to sedimentation in local storm sewer systems. However, construction activity is expected to comply with City of Dallas construction permit requirements which prescribe BMPs to minimize erosion. After construction, herbaceous ground cover would be reestablished in accordance with city landscaping requirements. No appreciable long-term degradation of water quality is expected.
Modification of Regime – Vegetation Removal	It is presumed that development of the 14 sites of expected land use change would potentially result in the removal of all existing vegetation cover from the total of the 10.8 acres. The 14 sites are comprised of existing buildings or paved surfaces, maintained lawns, and upland forest cover (i.e., solitary trees or small

TABLE 6-11. POTENTIAL IMPACTS OF INDUCED LAND USE CHANGE

Type of Activity – Project Specific Activity	Relevant Details about Project Specific Activity
	groups of trees). The amount of upland forest cover that would potentially be removed from these sites would be a total of 3.7 acres. These impacts are discussed further at the end of this table. No impacts to protected species are anticipated as a result of potential removal of existing vegetation.
Modification of Regime – Loss of Prime Farmland	All development of the 14 sites is presumed to be non-federal and would therefore not be subject to the FPPA.
Type of Activity – Alter Air Quality	Based on existing zoning, development/redevelopment of the 14 sites would result in residential buildings or buildings that meet the requirements for areas zoned as neighborhood commercial (e.g., personal services, small retail). These potential uses would not be expected to have substantial mobile source or stationary source air pollution sufficient to affect ambient air quality.
Community Impact Assessment (see Section 5.2)	
Changes in Traffic – Influence on Growth	The creation of residences or small businesses on the 14 sites would be expected to contribute to the overall well-being of the community, as the development would be consistent with zoning requirements and city planning documents. The estimated infill development that could be induced by the proposed project is not expected to have a substantial effect on growth elsewhere in the AOI.
Land Alteration – Conversion to ROW	Not applicable.
Land Alteration – Project-Induced Land Development and/or Redevelopment	The project would be expected to induce the development of ten vacant lots comprising 5.2 acres, and the redevelopment of four sites comprising 5.6 acres. The potential redevelopment sites are a mixture of developed (2.3 acres) and undeveloped (3.3 acres) land. The developed portion of these sites two residential structures (one is partially collapsed and the other is boarded up), two abandoned commercial buildings, and seven operating commercial structures, as follows: two retail liquor stores, three nightclubs, one diner, and one barber shop. Workforce Solutions programs are available for displacement employers and dislocated employees.
Land Alteration – Alter Section 4(f) Land	All development of the 14 sites is presumed to neither be transportation related nor involve federal funding and would therefore not be subject to Section 4(f).
Access Alteration – Alter Travel Circulation	Private development of the 14 sites would not affect travel circulation. It is expected that any development/redevelopment would be subject to City of Dallas oversight, which would ensure conformity with city planning objectives. Also, as all development would comply with city zoning requirements. Workforce Solutions programs are available for displacement employers and dislocated employees.
Modification of Regime – Traffic Noise	Any traffic noise associated with development/redevelopment would be subject to City of Dallas zoning and other regulations, and is presumed to be insubstantial.
Changes in Traffic – Alter Traffic Operations	It is presumed that any development of the 14 sites would be subject to City of Dallas oversight regarding impacts to local traffic to insure impacts would be mitigated to insubstantial levels.
Cultural Resources (see Section 5.3)	
Modification of Regime – Non-Archeological Historic Structures	As any development of the 14 sites would be subject to City of Dallas oversight, it is presumed that all of the sites would be required to conform to city protections of cultural resources such as historic residential districts.
Modification of Regime – Archeological Sites	Development of the 14 sites would not be expected to affect any archeological sites.
Other Resources/Issues (see Section 5.4)	
Modification of Regime – Hazardous Wastes	It is presumed that property owners would perform due diligence research to ensure appropriate remediation of any site contamination prior to development or redevelopment.
Modification of Regime – Other Potential Issues	No other issues are anticipated for the 14 sites of project-induced land use change.
Facility Operation Issues	
Chemical Treatment – Road Maintenance	Not applicable.

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As indicated above, potential impacts to 3.7 acres of upland forest is the only notable type of impact expected for the project-induced land use changes assessed the proposed project. These forest resources consist of individual trees or small groups of trees loosely scattered throughout the 14 sites of expected land use change. Similar to the upland forest habitat described in **Section 5.1.5**, these sites offer relatively poor quality wildlife habitat because understory vegetation is mowed lawn grass and because of the highly fragmented nature of the trees or groups of trees. The location of all of these sites within a residential setting near a major roadway further detracts from habitat value. Although these areas do not offer much in terms of wildlife habitat other than for squirrels and birds, the removal of trees from the sites would be subject to site development requirements in the City of Dallas tree preservation ordinance.[69] More important, it is expected that the economic and aesthetic qualities of mature trees would be valued by developers as an enhancement to property value and that site development plans would be designed to preserve the most valued trees (i.e., in terms of tree species and tree size).

6.6.4 Evaluation of Conclusions

As indicated in NCHRP Report 466 (Page 92), "[t]here is inherent uncertainty in estimating indirect effects." Various methods were utilized to gather information on the existing and forecasted conditions of the AOI under the Build and No-Build Alternatives. These included: spatial analysis of geographic data, assessment of demographic trends, literature review of planning documents and ordinances, and interviews and information acquired from City of Dallas planners. Communications from city planners provided the benefits professional judgments based on years of service, knowledge of development trends particular to the AOI, and backgrounds as informed stakeholders in the planning and development of the proposed SM Wright Project. The input from city planners provided essential insights into the potential for both encroachment-alteration effects and project-induced land use change within the AOI. The overall consensus of city planners is that economic conditions would be the primary factor affecting land use change within the AOI. However, construction of the SM Wright Parkway is expected to affect highly localized economic conditions, which led to concluding that project-induced land use change would occur on 14 sites located adjacent to the parkway.

There are several socioeconomic facets related to the expected project-induced land use change for the 14 sites comprising 10.8 acres adjacent to the proposed SM Wright Parkway. With regard to the ten sites which are vacant lots (5.2 acres), the development of these sites would be expected to benefit the surrounding largely residential community. That is, the downgrading of the SM Wright Freeway to a community parkway, accompanied by the removal of frontage roads and the overall aesthetic enhancements that would result to the community, would likely induce the construction of new homes on these vacant lots and further contribute to the residential feel of the community and to community

[69] The Landscape and Tree Preservation Ordinance, Article X of the Dallas Development Code, see *http://www.dallascityhall.com/arborist/index.html*

cohesion. The other four sites (5.6 acres) include 11 structures, of which two are residential structures in poor condition and two abandoned are commercial buildings. The redevelopment of the sites containing these four structures in would improve the socioeconomic condition of the community through the construction of new homes and/or businesses. The remaining seven structures are currently-operating commercial buildings which include two retail liquor stores, three nightclubs, one diner, and one barber shop. The potential development or redevelopment of these properties is not regarded as a potential displacement in the traditional sense because it is presumed that any sale of a property to a prospective developer would be made voluntarily (i.e., the redeveloper would not have eminent domain authority to force the sale of property). Nevertheless, the redevelopment of land on which any of these several existing businesses are located could result in the loss of employment for current employees, in which case the services of Workforce Solutions would be available for business and employees (see **Section 5.2.5**). While it is to be expected that the redevelopment of land may create new jobs for the community that may exceed the quantity and salaries of current positions, this potential beneficial offset for the community would not lessen the need to make Workforce Solutions services available to those persons who could still lose their jobs in existing businesses.

6.7 Step 7: Assess the Consequences of Indirect Impacts and Develop Appropriate Mitigation

This step of the indirect impacts analysis assesses the consequences of the expected indirect impacts and considers/develops strategies to address unacceptable indirect impacts. Virtually all of the readily identifiable indirect impacts involve project-induced land use change within the AOI. This project-induced land use change (10.8 acres) accounts for 0.3 percent of the AOI (4,069 acres). Land development activities would generally be private ventures regulated by City of Dallas land development ordinances. Such regulation addresses environmental and social impacts by requiring mitigation as part of site design and construction such that development is in accordance with overall city objectives. In addition, much of the discussion of agencies and programs that would guide any development induced by a potential project would be similar to typical mitigation and permitting measures, as described within **Section 5.0** and **Section 8.0** of this report. For example, all development must comply with the city tree preservation ordinance.

Ultimately, because the proposed project is not anticipated to cause substantial encroachment-alteration indirect impacts, the requirement for mitigation of environmental impacts would be limited to mitigating only the direct impacts associated with this proposed project. Any mitigation for project-induced land development impacts, which may arise after construction of the proposed SM Wright improvements, would be overseen by the City of Dallas and would be the responsibility of the land developer. Therefore, mitigation for indirect impacts would not be required of the proposed project sponsors based on the foregoing analysis. However, to assist in mitigating for the loss of employment that could accompany the potential project-related redevelopment of seven operating businesses along the proposed SM Wright

Parkway, a description of services offered by Workforce Solutions will be presented during the public hearing for the SM Wright Project to raise community awareness of this resource.

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7.0 CUMULATIVE IMPACTS

This section presents an analysis of the potential cumulative impacts related to the proposed SM Wright Project.

7.1 Introduction and Methodology

CEQ regulations[70] define cumulative impacts (i.e., effects) as "the impact on the environment which results from the incremental impact of the proposed action when added to other past, present and reasonably foreseeable future actions." As this regulation suggests, the purpose of a cumulative impacts analysis is to view the direct and indirect impacts of the proposed project within the larger context of past, present, and future activities that are independent of the proposed project, but which are likely to affect the same resources in the future. Second, these same resources are evaluated from the standpoint of their relative abundance among similar resources within a larger geographic area. Broadening the view of resource impacts in this way allows the decision maker to evaluate the incremental impacts of the proposed Build Alternative in light of the overall health and abundance of selected resources. In essence, a cumulative impacts evaluation first paints a conceptual picture of the existing or "baseline" condition of each resource which is based on historical information and an assessment of the current condition of the resource. Second, the analysis then inventories future projects in the vicinity that are planned and financed, but unrelated to the proposed project, and assesses the likely collective impacts of those projects for each resource. Third, the analysis essentially paints a picture reflecting the expected future status of the resource (i.e., in terms of quantity and condition) after the 'cumulative' effects of the proposed project and other foreseeable projects are fully realized. Finally, the cumulative impacts analysis assesses the level of concern that should be associated with the expected cumulative impacts to a resource based on the scarcity or current condition of that resource. The evaluation process for each resource considered may be expressed in shorthand form as follows:

DIRECT IMPACTS + INDIRECT IMPACTS + FUTURE PROJECT IMPACTS = CUMULATIVE IMPACTS
(construction-related) (removed in time/space) (independent and foreseeable) (future condition of resource)

The evaluation of cumulative impacts discussed in this document follows the eight-step process in guidance set forth in the TxDOT ICI Guidance.[71] The methodology used to prepare this evaluation is also in accordance with the requirements of controlling case law[72] and cumulative effects guidance from the CEQ[73] (hereinafter 'CEQ Cumulative Effects Guidance').

[70] 40 CFR Section 1508.7
[71] TxDOT (September 2010). TxDOT's *Guidance on Preparing Indirect and Cumulative Impact Analyses, Revised*.
[72] 772 F.2d 1225, 5th Circuit (1985), *Fritiofson v. Alexander*
[73] CEQ (January 1997), *Considering Cumulative Effects under the National Environmental Policy Act*.

The following eight steps of the TxDOT ICI Guidance serve as guidelines for identifying and assessing cumulative impacts:

1. Identify the resources to consider in the analysis;
2. Define the study area for each affected resource analyzed;
3. Describe the current health and historical context for each resource analyzed;
4. Identify direct and indirect impacts that may affect each resource analyzed;
5. Identify impacts from reasonably foreseeable actions that may affect each resource analyzed;
6. Assess potential cumulative impacts to each resource analyzed;
7. Report the results; and,
8. Assess and discuss mitigation issues for all adverse impact for each resource analyzed.

7.2 Step 1: Resource Identification

A cumulative impacts analysis uses information from the evaluation of direct and indirect impacts in the selection of environmental resources that should be evaluated to determine cumulative impacts. TxDOT ICI Guidance states that "the cumulative impact analysis should focus on: (1) those resources substantially impacted by the project; and (2) resources currently in poor or declining health or at risk even if project impacts are relatively small." The guidance further states that, as a caveat to the above two rules, a cumulative analysis should also be performed even when direct or indirect impacts are "minor or potentially appear inconsequential, but actions by other agencies/developers cause substantial impacts." Similarly, CEQ Cumulative Effects Guidance recommends narrowing the focus of the cumulative impacts analysis to important issues of national, regional, or local significance so as to "'count what counts', not produce superficial analysis of a long laundry list of issues that have little relevance to the impacts of the proposed action or the eventual decisions." Thus, the cumulative impacts analysis should focus only on those resources that are substantially affected by the proposed project as a result of direct and/or indirect impacts, resources that are in poor or declining health, or resources that are particularly scarce. Whether a resource is substantially affected by the proposed project is a function of the existing abundance and condition of the resource and includes resources that are at risk, potentially from other actions, even if the proposed project impacts are relatively small.

The foregoing criteria were applied individually to all of the topics considered throughout the analysis of direct impacts in **Section 5.0**. An explanation as to the rationale for either including or excluding each resource/issue addressed in **Section 5.0** is provided in **Table 7-1**. Several topics were excluded from further analysis because beneficial effects would be expected as a result of the proposed project, and many of the resources or issues from **Section 5.0** were excluded from cumulative impacts analysis because the assessment of direct and indirect impacts indicated there would either be no adverse impacts or that impacts would be insubstantial. Hazardous materials is an inappropriate topic for cumulative impacts analysis because the topic does not concern a resource but instead focuses on

whether the project would be adversely affected by the potential release of pre-existing site contamination in the project vicinity. Similarly, traffic noise impacts is a category of impacts that should not be considered for cumulative impacts even though adverse direct impacts may occur. This is because the analytic model embodied in CEQ regulations and guidance for assessing cumulative impacts assumes there is a definable resource within the surrounding area that can be inventoried and meaningfully evaluated, and which is a criterion this topic does not meet.

TABLE 7-1. RESOURCES/ISSUES CONSIDERED FOR CUMULATIVE IMPACTS ANALYSIS

Subject Considered for Direct and Indirect Impacts	TxDOT/CEQ Criteria [1]		Included for Cumulative Impacts Analysis	Explanation for Including or Excluding the Subject from Cumulative Impacts Analysis [3]
	Would Proposed Project Result in Substantial Adverse Impacts? [2]	Is Subject a Scarce Resource or in Poor or Declining Health? [2]		
NATURAL RESOURCES (see Section 5.1)				
Water Resources (see Sections 5.1.1 – 5.1.4)				
Waters of the U.S., Including Wetlands	No	No	No	Excluded because no jurisdictional water features are within the construction footprint of the proposed project.
Navigable Waters	No	No	No	Excluded because the proposed project would not affect any portion of the Trinity River, the nearest navigable waterway.
Floodplains	No	No	No	Excluded because nearly all of the overlap between the proposed project and the 100-year floodplain is from bridges and ramps that would be elevated above the floodplain, and any other impacts would be insubstantial.
Water Quality	No	Yes	No	Excluded because no permanent water quality impacts are expected from the proposed project, and required permits to control erosion during construction are expected to result in minimal temporary degradation of water quality.
Biological Resources (see Sections 5.1.5 – 5.1.6)				
Vegetation and Wildlife Habitat	No	Yes	Yes	Resource included because the proposed project would remove 7.57 acres of riparian forest habitat.
Threatened/ Endangered Species	No	Yes	No	Excluded because no adverse impacts are anticipated for federal or state listed species. Although removal of forested habitat might affect the timber/canebrake rattlesnake, such effects would be minor; also, high value habitat for wildlife species is already included for cumulative analysis (i.e., vegetation and wildlife habitat).
Topography and Soils (see Section 5.1.7)				
Topography and Soils	No	No	No	Excluded because, although topographic changes would occur, they would not substantially affect soil stability in the area. Also, the proposed project is exempt from the requirements of the FPPA.
Air Quality (see Section 5.1.8)				
Change in Air Quality	No	Yes	Yes	Resource included because of prevailing ozone non-attainment conditions, even though the proposed project is not expected to adversely affect the region's ability to comply with prevailing regulations/standards; the region is in attainment for all other NAAQS criteria (including CO), with the exception of a portion of Collin County that is in nonattainment for lead. All aspects of air quality are included in the assessment of cumulative impacts for air quality, including CO and MSATs, to provide a complete discussion based on available data.

TABLE 7-1. RESOURCES/ISSUES CONSIDERED FOR CUMULATIVE IMPACTS ANALYSIS

Subject Considered for Direct and Indirect Impacts	TxDOT/CEQ Criteria [1]		Included for Cumulative Impacts Analysis	Explanation for Including or Excluding the Subject from Cumulative Impacts Analysis [3]
	Would Proposed Project Result in Substantial Adverse Impacts? [2]	Is Subject a Scarce Resource or in Poor or Declining Health? [2]		
COMMUNITY IMPACT ASSESSMENT (see Section 5.2)				
Land Use (see Section 5.2.2)				
Change in Land Use	---	---	Yes	This issue is included because land used for additional ROW makes the land unavailable for other uses, and approximately 31.1 acres be required for ROW in a highly urbanized corridor where land not already developed is scarce. Also, project-induced changes in land use were identified as potential indirect impacts.
Section 4(f) and 6(f) Properties (see Section 5.2.3)				
Parks and Recreation Areas	No	Yes	No	Excluded because no adverse impacts are anticipated to local parks and recreation areas.
Economic Impacts (see Section 5.2.4)				
Local Economy	No	Yes	Yes	Included due to poor or declining health of economic conditions in the community even though the proposed project is expected to enhance projected employment growth by improving work force mobility and by enhancing the residential character of the area.
Relocation and Displacement Impacts (see Section 5.2.5)				
Relocations and Displacements	---	---	Yes	Included as part of the overall discussion of other community socioeconomic topics considered for cumulative impacts and because of the generally weak economic conditions in this community, Although relocations and displacements are impacts and do not represent a resource, this category is of particular importance in the evaluation of other socioeconomic aspects in this community.
Social Impacts (see Sections 5.2.6 – 5.2.10)				
Access	---	---	No	Excluded because this topic does not involve a resource and because access to properties would be maintained throughout construction.
Community Cohesion	No	Yes	Yes	Included due to the influence of the original construction of the SM Wright Freeway on community cohesion, and for a more extensive review of related project-related impacts on the community,
Limited English Proficiency	---	---	No	Excluded because this topic does not involve a resource and because adequate steps are planned to assist the small LEP population within the project area.
Environmental Justice	No	Yes	Yes	Included due to the presence of EJ populations throughout the project area and federal and state policies implemented to ensure equitable treatment of these populations when planning infrastructure projects.
Public Facilities and Services	No	No	No	Excluded because although the proposed project would not displace any public facilities/services, and improved mobility provide a benefit.
Aesthetic Considerations (see Section 5.2.11)				
Aesthetic Views	No	Yes	Yes	Included because aesthetic views are an important resource within this predominantly residential community which includes historic neighborhoods.
Noise Impacts (see Section 5.2.12)				
Traffic Noise	---	---	No	Excluded because traffic noise is a potential direct/indirect impact and is not a resource.
Traffic Operations (see Section 5.2.13)				
Congestion, Traffic Patterns, and Safety	---	---	No	Excluded because proposed project is expected to manage traffic congestion, and be beneficial for vehicle utilization, roadway effectiveness, and safety. Also, subject is not a resource.

TABLE 7-1. RESOURCES/ISSUES CONSIDERED FOR CUMULATIVE IMPACTS ANALYSIS

Subject Considered for Direct and Indirect Impacts	TxDOT/CEQ Criteria [1]		Included for Cumulative Impacts Analysis	Explanation for Including or Excluding the Subject from Cumulative Impacts Analysis [3]
	Would Proposed Project Result in Substantial Adverse Impacts? [2]	Is Subject a Scarce Resource or in Poor or Declining Health? [2]		
CULTURAL RESOURCES (see Section 5.3)				
Non-Archeological Historic Resources (see Section 5.3.1)				
Historic Bridges, Buildings and Districts	No	Yes	No	Excluded because the proposed project is not expected to adversely affect historic resources.
Archeological Resources (see Section 5.3.2)				
Archeological Sites	No	No	No	Excluded because the proposed project is not expected to adversely affect any archeological resources or cemeteries.
OTHER RESOURCES/ISSUES (see Section 5.4)				
Hazardous Materials (see Section 5.4.1)				
Hazardous Waste or Materials Sites	---	---	No	While the proposed project would likely encounter sites in or near the proposed ROW, this subject was excluded because it does not represent a resource.
Items of Special Nature (see Section 5.4.2)				
Airway-Highway Clearance	No	n/a	No	Excluded because the proposed project is not expected to adversely affect any airport facilities.
Coastal Zone Management Plan	No	n/a	No	Excluded because the proposed project is not within a coastal zone.
Wild and Scenic Rivers	No	n/a	No	Excluded because there are no wild or scenic rivers in the project vicinity.

Notes:
1. In accordance with TxDOT and CEQ selection criteria for limiting the scope of cumulative impacts analyses.
2. "---" Represents an environmental "issue" but not a resource (i.e., natural resource, ecosystem, or human community), and generally does not lend itself to an evaluation of resource condition and context (i.e., amount of similar resources within a defined resource study area).
3. For each resource/issue considered, the section number in this EA is provided in row headings for the discussion of direct impacts. Indirect impacts for each resource/issue were also considered, and reference to indirect impacts is noted in the explanation below where such impacts are considered to be substantial (see **Section 6.0**).
4. The term "n/a" = not applicable, meaning that the resource or issue is not present within the project area.

7.2.1 Biological Resources

The Texas Transportation Code (Section 201.607) directs TxDOT to adopt memoranda of understanding with appropriate environmental resource agencies, including TPWD. The responsibilities of the TPWD relate primarily to its function as a natural resource agency, including its resource protection functions, designated by the Parks and Wildlife Code. The 1998 Memorandum of Understanding between TxDOT and TPWD[74] required an interagency team to establish procedures and a consistent methodology for describing habitats, transportation impacts to those habitats after avoidance and minimization efforts, and mitigation to be considered as a result of those impacts. TPWD and TxDOT subsequently adopted a

[74] Title 43 Texas Administrative Code Section 2.22.

Memorandum of Agreement (MOA)[75] which identifies specific types of vegetation/habitat resources that should be given consideration for compensatory mitigation. Vegetation and wildlife habitat was included in the evaluation of cumulative impacts because the proposed improvements could potentially result in the loss of "unusual" and/or "special" habitat in an area that has historically seen encroachment and the loss of such habitat. This includes the loss of riparian/bottomland forests and unmaintained vegetation such as upland forests. Although no project-related impacts are expected to any rare species, riparian and bottomland forest habitat is preferred by the state-listed timber/canebrake rattlesnake and two species of concern (Texas garter snake and plains spotted skunk). The importance of forested habitat to rare species such as these is an additional reason for analyzing the cumulative impacts to riparian/bottomland forests.

7.2.2 Air Quality

The Clean Air Act Amendments (CAAA) of 1990 require the EPA to set NAAQS for pollutants considered harmful to public health and the environment. The EPA has established NAAQS for six "criteria" pollutants, which include ozone and CO (pollutants largely associated with mobile source emissions). Inclusion of air quality in the cumulative impacts evaluation was determined due to the prevailing ozone moderate "nonattainment" conditions within Dallas County and potential impacts relating to the expected future increase in vehicle emissions related to an expected increase in VMT. Thus, air quality (in terms of ozone levels) is considered a resource in poor health which warrants closer examination for potential cumulative impacts.

Although both CO and MSATs were determined to have negligible potential project-related impacts to local and regional air quality, these additional types of air pollution are nevertheless included as part of this review of cumulative effects to regional air quality. This is because both CO and MSATs may be expected to increase for the Build Alternative as compared to the No-Build Alternative due to the projected relative increase in VMT for the Build Alternative design year even though no state or federal air quality standard would be threatened by that increase. Also, both of these types of pollution are linked primarily to mobile sources and to the overall status of ambient air quality, even though the levels of CO and MSATs are not chemically involved in the determination of regional ozone levels (and, therefore, do not contribute toward attainment of the ozone standard). In sum, all aspects of air quality examined for direct and indirect impacts are included in the cumulative impacts analysis to provide a more comprehensive picture of available information on air quality as it may relate to the proposed project.

[75] Memorandum of Agreement between TxDOT and TPWD for Finalization of 1998 MOU, Concerning Habitat Descriptions and Mitigation (2001); see *http://ftp.dot.state.tx.us/pub/txdot-info/library/pubs/bus/natural/habitat_desc_mitigation.pdf.*

7.2.3 Land Use

Land use within and near the project area is regulated by the City of Dallas through comprehensive land use plans and zoning/development ordinances designed to manage growth and to achieve targeted social objectives throughout this large and diverse city. Municipal zoning and land use regulations control the intensity and type of development and control where land should be developed and where land should be preserved. Change in land use has been included within this cumulative impacts assessment because additional acreage would be required for ROW in a highly urbanized corridor where land not already developed is somewhat limited. In addition, undeveloped land acquired for the proposed new ROW would be made unavailable for other uses, and already developed land would experience a permanent change in urban land use. Further, project-induced changes in land use were identified as potential indirect impacts.

Land use is not a 'resource' such as forest habitat and clean air discussed above. Instead, land use is the 'result of decisions' involving both civic authorities and the property owner about the use of land (which is a resource). With regard to privately-owned property within the City of Dallas, it is the city that makes the initial determination of land use by enacting a zoning ordinance. The 'decision' as to the land use for a particular parcel of property is further modified by the city through the adoption of comprehensive land use plans, land development regulations, and the city's participation in the preparation of regional transportation plans which plan and program roadway improvements. The same principle applies to other public works projects such as water and power utilities. Subject to such preliminary decisions within the province of the municipal authority, a property owner may develop or redevelop a parcel of property. Because of this land use decision-making process which jointly involves the city and the property owner, there is no inherent value to an existing type of land use that compels it to remain unchanged. For this reason it cannot simply be assumed that conversion of an existing land use to transportation use is per se an adverse impact to land use because the proposed transportation use of a particular piece of land may offer tremendous benefits for the community/region that is to be served by the transportation project.

The determination of whether a proposed change in land use is adverse or beneficial may only be objectively judged within the planning/zoning framework established by elected City of Dallas leaders, as reflected in planning/zoning policies as outlined above. Consequently, the change in land use associated with the proposed project is assessed for cumulative impacts to ensure that the nature and extent of the expected changes are consistent with the overall planning objectives of the City of Dallas. The primary indicator of whether project-related changes in land use are adverse or beneficial depends on whether these changes are specifically mentioned in comprehensive land use plans or, if not mentioned by name, whether approval for the changes are implied by more broadly-stated policies and objectives. Additionally, of necessity land use is implicated in all regional planning as NCTCOG, TxDOT, FHWA, and local government leaders collaborate in addressing regional transportation, socioeconomic, and

environmental issues in planning documents such as the MTP and TIP (i.e., these plans call for changes in the transportation network that may require new ROW acquisition to implement).

7.2.4 Community

Several aspects of the fragile socioeconomic conditions of the residential community surrounding the proposed project warrant further discussion in terms of cumulative impacts. The demographic data presented in the discussion of community impacts (**Section 5.2**) demonstrate the need for heightened sensitivity toward this predominantly racial minority community, which is characterized by generally low household income. Communities with such characteristics may be expected to be more deeply affected by the impacts of the construction related to roadway improvements, and federal and state policies require a closer look at transportation projects which impact such communities to ensure fair treatment of EJ populations.

The primary focus of evaluating impacts to an EJ community is whether a proposed build alternative would result in a disproportionate impact to EJ populations. The requirement to examine of a project for potential disproportionate EJ impacts could be interpreted to imply a possibility of shifting a proposed project to a location where the construction impacts could be equitably shared by non-EJ populations. While such an analysis is well suited for transportation projects, which involve finding a site for a new location roadway, it is no practical utility for a project, which proposes to make safety and mobility improvements to existing roadways. That is, it is simply not an option to relocate the direct and indirect impacts associated with reconstructing the proposed SM Wright Parkway to some other part of the city to avoid impacts to the adjacent EJ community. In this circumstance, it may be said that the expected adverse impacts are necessary so the EJ community to realize the expected benefits of safety, mobility, and community cohesion from the project. Instead, for the proposed project, impacts would be "predominately borne by"[76] an EJ population simply because the site where improvements are needed happens to be in an EJ community. Instead, the focus for the proposed project shifts from avoidance to minimization of impacts to this vulnerable community, and to planning for mitigation measures which are both practicable and tailored to the proposed project (i.e., commensurate with anticipated adverse impacts and related to those impacts).

The examination of potential cumulative impacts to the particular community surrounding the proposed project has included several socioeconomic factors related to the quality of life for the people who work and live nearby. These factors include general aspects of the local economy, the expected impacts resulting from the relocations and displacements of homes and businesses, the sense of cohesion within the community, the characteristics of EJ populations near the project, and the way the proposed project

[76] FHWA Order 6640.23A, *FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (June 14, 2012). http://www.fhwa.dot.gov/legsregs/directives/orders/664023a.htm.

would affect aesthetic aspects of the community. Assessing potential impacts to these factors involves a qualitative evaluation of direct and indirect impacts, as well as the expected impacts of other transportation or development projects in the community which are reasonably foreseeable.

7.2.5 Summary of Resource Indicators

As recommended by the CEQ Cumulative Effects Guidance (Page 26), specific indicators of each resource's condition have been identified and are shown in **Table 7-2**. The use of indicators of a resource's health, abundance, and/or integrity is a helpful tool in formulating quantitative or qualitative metrics for characterizing overall impacts to resources. These indicators are also key aspects of each resource (or issue, in the case of land use) that have already been evaluated in terms of the project's direct and indirect impacts, and facilitate greater consistency and objectivity in the analysis of cumulative impacts. In essence, the identification of indicators relevant to each resource/issue assists in focusing attention on the aspects of the resource or issue of greatest importance in assessing cumulative impacts for that resource or issue.

TABLE 7-2. RESOURCE INDICATORS

Resource Category	Indicators of Resource Condition and Potential Impacts
Biological Resources	Vegetation/Wildlife Habitat: the amount and quality of riparian/bottomland and upland forest habitat areas suitable for sustaining a diversity of wildlife species locally.
Air Quality	Ozone: the ability of the DFW ozone moderate nonattainment area to meet the eight-hour ozone standard, as modeled on a regional level.
	MSATs: trend of emissions over time, as modeled on a regional level.
	Carbon Monoxide (CO): indications of worsening of ambient air concentrations of this criteria pollutant, as modeled along the project ROW under worst case meteorological conditions.
Land Use	Land Use Plans: consistency of the proposed project and changes in land use with local land use plans.
Community	Local Economy: trends in economic conditions as reflected by indicators such as changes in the number of jobs in an area, and the amount of new development or redevelopment of land.
	Relocations and Displacements: the number of relocations and displacements expected and the services available to assist persons who may become unemployed.
	Community Cohesion: qualitative assessment as to how changes in the community may affect overall cohesion within and between residential neighborhoods.
	Environmental Justice: qualitative evaluation of how a planned project may affect the community's predominantly EJ population (i.e., racial minority and low income), considering planned mitigation measures that are both appropriate and practicable.
	Aesthetic Views: qualitative assessment of how planned projects may alter the visual characteristics of the community.

7.3 Step 2: Resource Study Area

Cumulative impacts analysis requires an evaluation of the sustainability of each resource of interest as viewed from the perspective of a geographic context that is larger than the project area. This spatial frame of reference for evaluating the cumulative impacts of each of the three resource categories in **Table 7-2** is referred to as a "resource study area" (RSA). The RSAs for the resources/issues evaluated for cumulative impacts were established using the criteria in CEQ/TxDOT guidance cited above. Each RSA represents a geographic area of sufficient size to sustain the long-term vitality of a given resource,

and defining the RSA is largely a function of the nature of each resource as defined on a case-by-case basis after considering the unique aspects of a particular proposed project.[77] As suggested in the discussion above, some of the topics considered for cumulative impacts should be considered "issues" rather than resources. That is, some issues of interest do not lend themselves to a more traditional assessment of an amount and condition of a particular resource, as compared to the amount and condition of the same resource within a larger frame of reference (e.g., land use). Nevertheless, for all resources/issues considered, the cumulative impacts analysis considered a larger frame of reference (i.e., RSA) so as to allow the expected impacts of the proposed project to be viewed within a larger context for each resource/issue. As cumulative impacts analysis guidelines also require the setting of general temporal boundaries to better define the time period considered, a brief statement regarding the cumulative impacts temporal frame of reference is included below in the discussion of each resource/issue.

7.3.1 Biological Resources

The RSA evaluated for biological resources consists of the lower reaches of watersheds (e.g., Trinity River and White Rock Creek) and associated streams and open water that may be found both upstream and downstream of the proposed project. This RSA, shown in **Appendices E-1–E-3**, encompasses approximately 16,858.1 acres and comprises the natural network of watershed surfaces and interconnected hydrologic features that surround the proposed project. This water-centered integration of resources is linked directly to the biological resources. Moreover, while little detailed information is available on wildlife populations in the project area, inferences may be drawn from a study of habitat that is known to support a diversity of animal species. Key wildlife habitat, in turn, is often proximate to water sources that characterize local watersheds such as bottomland and riparian forests. This RSA provides a suitable context for evaluating impacts to forest habitat that is approximately 142 times larger in area than the expected project construction footprint (i.e., 202.3 acres).

The year 1984 was used as the beginning temporal boundary for vegetation resources as it corresponds to the year TPWD published its Vegetation Types of Texas MAP, indicating a point in time marking heightened awareness of the connection between wildlife populations and available habitat. The ending temporal boundary for both resources was established as 2035, again in correspondence with the project design year and other local and regional (*Mobility 2035*) planning documents.

[77] CEQ (January 1997), *Considering Cumulative Effects under the National Environmental Policy Act*, page 15.

7.3.2 Air Quality

The RSA for evaluating the ozone NAAQS is the ten-county moderate eight-hour ozone nonattainment area established by the EPA for the DFW Metropolitan Area, which includes Collin, Dallas, Denton, Tarrant, Ellis, Johnson, Kaufman, Parker, Rockwall and Wise Counties. The RSA for MSATs is composed of an affected 12-county transportation network developed by NCTCOG which includes the proposed road network links and other transportation model links reflecting a plus or minus five or greater percent change in traffic volume when comparing the proposed project's Build and No-Build scenarios in the year 2035. As CO levels are primarily of concern at a local level and modeled accordingly, the RSA for CO was based on the ROW limits for the proposed project, which represents the locations with the highest potential for CO concentrations. These three air quality RSAs are shown in **Appendix E-1**, and additional background information regarding study areas for air quality modeling analyses is in **Section 5.1.8**.

In addition, the temporal boundaries for analyzing air quality cumulative impacts are the years 1990 to 2035. The earlier date was established because the CAA, as amended in 1990 (CAAA), authorized the EPA to designate areas in nonattainment for failing to meet established NAAQS. The year 2035 was chosen as the future temporal limit in order to capture the primary impacts that would be realized by the proposed project and estimated changes in roadway traffic volumes, as well as the expected implementation of local land use plans and the *Mobility 2035* MTP.

7.3.3 Land Use

As land use is not a resource in the traditional sense as discussed in CEQ regulations and guidance documents, defining an appropriate RSA requires a fundamentally different approach. Although real estate is clearly a resource, the use to which a particular parcel of land is put is not a resource but the result of myriad factors. Within modern urban settings such as South Dallas, the owner of real property is constrained to the range of permissible land uses prescribed by the city zoning ordinance applicable to that property. While private property owners are subject to the constraints of zoning, public works projects such as road improvements are not subject to zoning rules because such projects are planned and owned by government agencies who act for the benefit of the community or region. The reality of these aspects of modern urban life presents a dilemma because there is no universally accepted hierarchy of land uses that can be referenced to ascertain whether a change from private to public land use is always adverse or always beneficial. For example, to the private owner of real estate that is located within proposed new ROW, the change may be perceived as adverse, but may be viewed as highly beneficial to the rest of the community.

As suggested in **Step 1**, the assessment of impacts is an exercise in judgment that is always context dependent and best left to the elected municipal representatives who are accountable to voters for

creating and implementing land use policies and thoroughfare plans. For these reasons and because the proposed project is located within the City of Dallas, the RSA for assessing project-related land use changes is the city boundary (**Appendix E-1**). Again, because land use is not a resource, the basis for assessing cumulative impacts is whether the proposed SM Wright Project and expected project-related changes in land use are included within City of Dallas comprehensive land use and thoroughfare plans; if not specifically in such planning documents, then the assessment of impacts focuses on whether the proposed project is consistent with overall planning goals and objectives articulated in city plans. Although comprehensive planning is generally done for the city as a whole, the discussion of potential impacts below emphasizes the aspects of city plans focusing on the South Dallas and Trinity River portions of the city. Also, the city participates in the development of regional plans such as the MTP and TIP which have a much wider field of view, but only those portions of regional transportation plans that relate to the land use RSA (City of Dallas) are considered in this analysis.

Because the above municipalities began to experience substantial growth in the mid to late 1960s and present day, 1965 was established as the early temporal boundary for assessing cumulative impacts to land use. The design year for the proposed project (2035) because it provides an adequate future frame of reference which overlaps with the planning horizons for city planning documents as well as the regional MTP and TIP.

7.3.4 Community

The examination of cumulative impacts for the community affected by the SM Wright Project takes in both the areas immediately adjacent to the areas designated for roadway improvements but also areas of the community farther removed in space. Designation of a RSA for this community relied primarily on City of Dallas planning documents, such as the South Dallas/Fair Park Economic Development Corridor Plan (see **Section 2.4**), which refer to the area surrounding SM Wright Freeway as the South Dallas area or community. The boundaries of this community RSA are depicted in **Appendix E-1**, and corresponds with the area considered in the indirect impacts analysis (4,069 acres). This area is considered a suitable frame of reference for further consideration of the socioeconomic impacts of reasonably foreseeable projects planned and programmed within the RSA, in addition to the direct and indirect impacts within this area that have already been discussed.

The temporal frame of reference for the community RSA begins with the time period when the SM Wright Freeway was first constructed (approximately 1955) and ends with the design year of the proposed downgrading of the freeway to create the SM Wright Parkway (2035).

7.3.5 Summary of RSAs

A summary of the geographic RSA for each resource/issue examined for cumulative impacts is provided in **Table 7-3**.

TABLE 7-3. RESOURCE STUDY AREAS

Resource Category	RSA Geographic Boundaries *	RSA Temporal Boundaries
Biological Resources	Portions of the lower reaches of adjacent watersheds consisting of the Trinity River and White Rock Creek.	1984 - 2035
Air Quality	Ten-county moderate nonattainment area for the eight-hour ozone standard, which includes Collin, Dallas, Denton, Tarrant, Ellis, Johnson, Kaufman, Parker, Rockwall Wise Counties.	1990 - 2035
	Affected transportation network located which includes roadway links with a ± five or greater percent traffic volume change (comprising a 12-county area).	1990 - 2035
	Project ROW line, which represents the locations with the highest potential for CO concentrations.	1990 - 2035
Land Use	City of Dallas municipal boundaries.	1965 - 2035
Community	South Dallas community surrounding the proposed project.	1955 - 2035
Notes: * See **Appendix E-1** for visual representation of the geographical boundaries for the RSAs.		

7.4 Step 3: Resource Health and Historical Context

7.4.1 Biological Resources

The local watershed in which the proposed project occurs is located in an area TPWD has identified as 'Urban' due to the nearly complete replacement of original vegetation with residential, commercial, industrial, and other urban landscapes. Even parks and open space patches within this area are urban in character, with parks and cemeteries consisting of frequently-mowed non-native lawn grasses. However, areas within local floodplains occur with the 'Water Oak-Elm-Hackberry' ecological subregion. These local bottomland forests include some old growth riparian and bottomland trees, but a review of historic aerial photography indicates that much of the existing forested area within the RSA has emerged over the past half-century from areas previously cleared for agricultural use. These observations are consistent with the general historical pattern of development in which, over the course of a century (i.e., late 1800s to late 1900s), nearly all the native environment was dramatically altered by conversion of native grasslands and many bottomland forested areas to croplands and pastures. In recent decades, urban expansion has converted many agricultural lands and much of the surviving native areas to residential, commercial, and other urban uses. Consequently, only wildlife species that have been able to adapt to the impacts of these human encroachments have survived in the area, and species abundance and diversity have declined (and would be expected to decline further) as forested and aquatic resources are replaced by urban developments.

To further describe characteristics of the biological RSA, GIS mapping was used to delineate the various land cover types based on aerial orthophotography (2009). An estimate of bottomland/riparian forests within the RSA was acquired by mapping tree cover observed within the 100-year floodplain. The

summary of land cover in the RSA is presented in **Table 7-4**, which provides the acreage and relative amount of riparian/bottomland forest and other habitat within this larger frame of reference.

TABLE 7-4. HABITAT/COVER WITHIN THE RSA

Habitat/Cover Types	Area within the RSA (acres)	Percent of Total RSA
Riparian/Bottomland Forest	3,894.2	23.1
Upland Forest	854.9	5.1
Open Water	798.7	4.7
Grass-dominated Area	3,365.8	20.0
Urban Landscape	7,944.5	47.1
TOTAL	**16,858.1**	**100.0**

7.4.2 Air Quality

The amount of pollution emitted into the local atmosphere has been the net effect of population growth. The DFW Metropolitan Area has seen tremendous population growth in recent decades and the trend is for that growth to continue. With growth comes increased development, an increase in vehicles, and an increase in daily VMT on the area's transportation systems. Traffic congestion on the transportation system has become one of the greatest challenges facing the DFW Metropolitan Area, and is a primary contributor to regional levels of ozone. Throughout recent decades, multiple regional and local initiatives have been planned and implemented in an effort to reduce emission of pollutants that lead to the formation of ozone. Several of these initiatives specific to the area's transportation system include increased capacity highways and roadways (through construction of additional travel lanes and bottleneck improvements), construction of high-occupancy vehicle lanes, and the promoting of alternative transportation (e.g., hike and bike trails, bus, and light rail). An additional initiative in the area has been the promotion of redevelopment and sustainable development (and particularly TOD). Land development patterns that encourage walking, bicycling, bus and rail use, and overall shorter automobile trips benefit the transportation systems in the area by reducing vehicles and vehicle congestion (demand) and improving air quality in the long-term. Local governments, with the support of regional transportation authorities (e.g., NCTCOG) or in joint venture projects, promote these types of land development initiatives by changing zoning to allow higher densities, expanding transit services, establishing tax increment refinance zones to support infill, promoting mixed-use development, and working with the private development community. The success of these initiatives has had a tremendous impact on the regional air quality as indicated by current trends. For example, the number of days the ozone standard has been exceeded in the DFW area over the past decade has substantially decreased. Although there have been year-to-year fluctuations, the ozone trends continue to show improvement. Otherwise, the ten-county ozone nonattainment area is currently in attainment for all other criteria pollutants (CO, PM, nitrogen dioxide, and sulfur dioxide), with the exception of a small part of Collin County that is in nonattainment for lead.

The CAA requires states with areas that fail to meet the NAAQS prescribed for criteria pollutants to develop a State Implementation Plan (SIP). The SIP describes how the state will reduce and maintain air pollution emissions in order to comply with the federal standards. Important components of a SIP include emission inventories, motor vehicle emission budgets, control strategies, and an attainment demonstration. The TCEQ develops the Texas SIP for submittal to the EPA. One SIP is created for each state, but portions of the plan are specifically written to address each of the nonattainment areas (e.g., a "Dallas-Fort Worth SIP"). As changes are needed, the SIP is revised rather than rewritten in its entirety. Revisions are often prompted by new federal or state regulations, new modeling techniques, or a change in an area's attainment status. These regulatory controls, as well as other local transportation and development initiatives implemented throughout the DFW Metropolitan Area by the NCTCOG and local governments provide the framework for growth throughout the area consistent with air quality goals regarding ozone levels and air quality in general.

In addition to the criteria air pollutants for which there are NAAQS, EPA also regulates air toxics. Most air toxics originate from human-made sources, including on-road mobile sources, non-road mobile sources (e.g., airplanes), area sources (e.g., dry cleaners), and stationary sources (e.g., factories or refineries). Although no NAAQS for MSATs exist, EPA has certain responsibilities regarding the health effects of MSATs. The EPA controls emissions of air pollutants through one of two major strategies: NAAQS or regulatory controls that result in specific emission reductions. Both strategies provide for increased protection of human health and the environment. In order to more quickly implement MSAT emission reductions, the EPA has focused efforts on nationwide regulatory controls, some of which are summarized below.

On March 29, 2001, the EPA issued a Final Rule on Controlling Emissions of Hazardous Air Pollutants from Mobile Sources.[78] In its rule, EPA examined the impacts of existing and newly promulgated mobile source control programs, including its reformulated gasoline program, its national low-emission vehicle standards, its Tier II motor vehicle emissions standards and gasoline sulfur control requirements, and its 26 proposed heavy-duty engine and vehicle standards and on-highway diesel fuel sulfur control requirements. Between 2000 and 2020, FHWA expects that even with a 64 percent increase in VMT, these programs will reduce on-highway emissions of benzene, formaldehyde, 1,3- butadiene, acrolein, and acetaldehyde between 57 percent and 65 percent, and will reduce on highway diesel particulate matter and diesel organic gas emissions by 87 percent. Additional EPA rules to further reduce MSATs became effective on April 27, 2007.[79] In these rules the EPA adopted the following new requirements to substantially lower emissions of benzene and the other MSATs by: (1) lowering the benzene content in gasoline; (2) reducing NMHC exhaust emissions from passenger vehicles operated at cold temperatures

[78] 66 FR 17229 (March 29, 2001).
[79] The Final Rules on Control of Hazardous Air Pollutants from Mobile Sources (72 FR 8427, February 26, 2007) modified regulations in 40 CFR Parts 59, 80, 85 and 86.

(under 75 degrees); and (3) reducing evaporative emissions that permeate through portable fuel containers. Additional EPA MSAT regulations include: petroleum refiners meeting an annual average gasoline benzene content standard for reformulated and conventional gasoline (beginning in 2011), implementation of EPA standards to reduce non-methane hydrocarbon exhaust emissions from gasoline-fueled vehicles (implemented in phases based on vehicle type, beginning in 2010), evaporative requirements for portable gas containers (beginning in 2009), and more stringent evaporative emission standards for new passenger vehicles (effective in 2009 for light vehicles and 2010 for heavy vehicles).

7.4.3 Land Use

According to information provided by City of Dallas planners, the city comprises approximately 308 square miles of area, of which there are 179 square miles of developed land and 24 square miles of undeveloped land that is developable (i.e., 7.8 percent). The remaining 105 square miles within the city are lands that are either escarpments or within floodplains and are therefore considered undevelopable. As indicated for the indirect impacts AOI in South Dallas (**Table 6-4**), the amount of undeveloped developable land near the proposed project comprises approximately 12.2 percent of the area (i.e. 496 acres).

Historically, there has been a direct correlation between the use of land (development) and population growth. As a population grows, additional infrastructure and facilities are needed to adequately support the population, thus creating a constant need to balance the amount of land needed for transportation versus other land uses. Information from City of Dallas planners and NCTCOG (**Table 6-3**) indicate recent past and projected future growth rate to be approximately one percent per year. Accordingly, city comprehensive land use plans reflect a continuation of urban development and roadway improvements designed to bear the demands of future growth and traffic. However, as indicated in the Forward Dallas! Comprehensive Plan [80], the city is essentially landlocked and city leaders/planners envision the future infilling of available undeveloped land and redevelopment of underutilized land with the overarching goal of creating more livable communities. With the advent of widespread commuting and other transportation and electronic connections throughout the DFW Metropolitan Area, the importance of regional transportation plans has grown in importance; these regional plans should also be viewed as intergovernmental with very real local land use consequences.

7.4.4 Community

South Dallas is a distinctive community characterized by a predominantly EJ population within the context of several historic residential neighborhoods. This community is an important part of the historical development of the City of Dallas, and has received substantial attention in terms of various city plans

[80] See Forward Dallas! Comprehensive Plan (June 2006), Land Use Assessment Appendix, pages 1 and 2; *http://www.dallascityhall.com/forwardDallas/comprehensive_plan.html.*

and policies discussed previously in **Sections 2.4**, **5.2**, and **6.2.2**. City planning initiatives seek to preserve aspects of the community which promote an urban residential neighborhood atmosphere by taking actions to improve education, public safety, healthy environment, job growth, and mobility. A key component of city plans includes encouraging the development of the limited amount of remaining undeveloped land in South Dallas and the redevelopment of underutilized properties with either residences or commercial retail or services within designated business nodes. City plans make redevelopment of land a priority to attract new retail stores, remove unsightly landscapes, and preserve the strong sense of neighborhood that exists throughout this area.

7.5 Step 4: Direct and Indirect Impacts

7.5.1 Biological Resources

Direct Impacts

The proposed improvements for the SM Wright Project would result in approximately 7.57 acres of permanent impacts to riparian/bottomland forests and 1.08 acres of upland forests. No other direct impacts to unusual or special habitat features described in the TPWD-TxDOT MOA are expected.

Indirect Impacts

Expected indirect impacts from project-induced land use change would affect 10.8 acres, of which 3.7 acres would be upland forest. No other indirect impacts to unusual or special habitat features described in the TPWD-TxDOT MOA are expected.

7.5.2 Air Quality

Direct Impacts

Direct impacts on ozone-forming emissions, CO, and MSATs related to the SM Wright Project are primarily those associated with increased capacity, accessibility, and the resulting projected increases in VMT. For example, the estimated VMT for the 2035 No-Build Alternative is 421.5 million miles/year in the MSATs RSA as compared to 487.6 million miles/year for the 2035 Build Alternative, an increase of 66.1 million miles/year or 15.7 percent. Just as this difference in VMT produced an estimated 16.7 percent increase in computed total 2035 MSATs emissions for the 2035 Build Alternative as compared to the No-Build Alternative (see **Table 5-5**), some level of increase in CO and ozone precursors would also be expected to occur. However, emission reductions as a result of EPA's new fuel and vehicle standards are anticipated to generally offset air quality impacts associated with VMT increases. Additional observations regarding potential direct impacts of the three types of indicators of air quality under consideration are provided below.

Long-term meteorological data and detailed wide emission rates for industry, business, and transportation sources are required in the complex process of modeling ozone concentrations. As this process is generally beyond the scope of a typical environmental analysis for a highway project, concentrations of ozone for the purpose of comparing the results of the NAAQS are modeled by the regional air quality planning agency (NCTCOG) for the SIP. The contribution of the Build Alternative in terms of increased emissions of VOCs and NOx (ozone precursors) is included in the regional transportation network modeling for future conditions, and is included in the determination of conformity of the MTP and TIP with the SIP (see **Section 5.1.8**). Accordingly, any future increases in emissions of ozone precursors attributable to the SM Wright Project are factored into regional NCTCOG ozone modeling that has been determined to conform with the EPA requirement to for ozone air quality to be making reasonable progress toward achieving attainment of the eight-hour ozone standard.

A quantitative analysis of MSATs within the project-affected transportation network found that the 2035 No-Build Alternative would reduce the combined emissions of seven priority air toxics by 43 percent as compared to the 2012 base year; this reduction in the tons/year of the seven MSATs is expected despite a 60 percent increase in VMT by 2035. Similarly, MSAT modeling predicts a 33 percent decrease in priority MSAT emissions for the 2035 Build Alternative, despite an 85 percent increase in VMT. The total MSAT load for the Build Alternative in 2035 is approximately 0.57 ton higher (i.e., 16.7 percent) than the No-Build scenario. The total amount of the seven priority MSATs for the 2035 Build Alternative are higher than the No-Build scenario because of the greater number of vehicles utilizing the affected area roadways and the higher amount of VMT. However, as compared to the 2012 base year, both 2035 Build and No-Build alternatives have estimated emissions lower than present levels because of EPA's national control programs that are projected to reduce MSAT emissions by 72 percent between 1999 and 2050. Local conditions may differ from these national projections in terms of fleet mix, vehicle turnover rates, VMT growth rates, and local control measures. However, the magnitude of the EPA-projected reductions indicates that MSAT emissions in the study area are likely to be lower in the future in all cases.

In accordance with the TxDOT Air Quality Guidelines, CO modeling included adverse meteorological conditions and sensitive receptors at the ROW line (i.e., the worst-case scenario). Modeling was performed for the project estimated year of completion (2020) and design year (2035) using traffic obtained from the TxDOT TPP Division. Per the modeling results, as detailed in **Table 5-2**, local concentrations of CO are not expected to exceed national standards at any time.

Indirect Impacts

Project-induced land use change is anticipated to affect 0.3 percent (10.8 acres at 14 locations) of the indirect impacts study AOI. This change in land use would result in the development of vacant lots or redevelopment of existing neighborhood commercial properties, resulting in the construction of

residences or small-scale commercial development. These types of changes are not expected to result in appreciable changes to the amount of vehicles or patterns of vehicle movement within the RSAs for ozone, MSATs, or CO. No change in ozone attainment status is anticipated within the indirect impacts AOI as this amount of land use conversion is not expected to provide enough change, if any, on its own to alter the nonattainment status of ozone. Further, there are mandatory federal and state air emissions regulations enforced by the EPA and TCEQ, as well as other strategies (e.g., CMP for managing congestion (see **Table 5-4**), to ensure that growth and development do not prevent regional compliance with the ozone standard. Even with an increase in VMT and possible temporary emission increases related to construction activities, the EPA's vehicle and fuel regulations, coupled with fleet turnover, would over time cause substantial reductions of mobile source emissions, including the ozone precursors VOC and NOx. Similarly, minor increases in vehicles associated with new residences and commercial developments in the AOI would not be expected to exceed local CO ambient air quality standards or contribute substantially to MSAT emissions within the affected transportation network.

Off-road emissions from construction equipment may temporarily degrade air quality through dust and exhaust gases. However, EPA has issued regulations to control air pollutants from off-road mobile sources. Indirect air quality impacts from MSATs are unquantifiable due to existing limitations in determining pollutant emissions, dispersion, and impacts to human health; however emissions would likely be lower than present levels in future years as a result of the EPA's national control regulations (i.e., new light-duty and heavy-duty on road fuel and vehicle rules; use of low sulfur diesel fuel). Even with an increase in VMT and possible temporary emission increases related to construction activities, the EPA's vehicle and fuel regulations, coupled with fleet turnover, would over time cause substantial reductions of on road emissions, including CO, MSATs, and the ozone precursors VOCs and NOx.

7.5.3 Land Use

Direct Impacts

The proposed SM Wright improvements would require approximately 31.1 acres of ROW/easement to construct the project, of which approximately 4.99 acres are undeveloped, 0.7 acres are developed residential, 24.38 acres are developed commercial, and 1.04 acres would require a joint use easement with Union Pacific Railroad (UPRR) property.

The required new ROW is expected to result in the displacement of six residential and nine commercial properties, which would then result in indirect impacts associated with the relocation of persons and businesses. These properties contain 21 structures, consisting of six single-family residences (including car garages), eight commercial structures (including buildings and canopies at gasoline service stations) and four billboards that would be displaced by the proposed project. However, four of the six displaced

single-family residences have been early acquired by the City of Dallas as well as two of the potential business displacements. Three of the four billboards have also been early acquired by the City of Dallas. See the below ***Early Acquisitions*** subheading and **Appendix C-11** for additional details on early acquisition parcels.

A discussion of affordable housing in the area, opportunities for business relocation, and TxDOT policies for assisting persons and businesses affected by dislocations was included in **Section 5.2.5**. Based on that information relating to the availability of suitable relocation opportunities for the number and types of residential and businesses affected by the proposed project, there does not appear to be a substantial impediment to orderly relocations related to project displacements.

Indirect Impacts

Project-induced land use change was assessed for 14 sites comprising 10.8 acres adjacent to the proposed SM Wright Parkway (**Appendix D-4**). Of these 14 sites, ten are vacant lots comprising 5.2 acres. The other four sites comprise 5.6 acres, and are a mixture of developed (2.3 acres) and undeveloped (3.3 acres) land. The developed portion of these sites includes 11 structures, which include two residential structures (one is partially collapsed and the other is boarded up), two abandoned commercial buildings, and seven operating commercial structures, as follows: two retail liquor stores, three nightclubs, one diner, and one barber shop. The potential development or redevelopment of these properties is not regarded as a potential displacement because it is presumed that any sale of a property to a prospective developer would be made voluntarily. Nevertheless, the redevelopment of land on which any of these several existing businesses are located could result in the loss of employment for current employees, in which case the services of Workforce Solutions would be available for business and employees to assist those who may lose employment (see **Section 5.2.5**). While it is to be expected that the redevelopment of land may create new jobs for the community that may exceed the quantity and salaries of current positions, this potential beneficial offset for the community would not lessen the need to make Workforce Solutions services available to those persons who could still lose their jobs in existing businesses. Accordingly, the types of services offered by Workforce Solutions will be presented during the public hearing for the SM Wright Project to raise community awareness of this resource (see **Sections 6.6.3** and **6.7**). The potential development of these 10.8 acres would represent 0.3 percent of the AOI (4,069 acres). It is presumed that any development or redevelopment of these 14 sites of potential project-induced land use change would be in compliance with City of Dallas zoning and development requirements.

7.5.4 Community

Direct Impacts

The projected employment growth rate from 2005 to 2035 is approximately 1.6 percent per year for the City of Dallas. NCTCOG employment forecasts, which account for the cyclical nature of employment changes (including economic recessions), predict future employment growth for the City of Dallas as this municipality responds to increased demand spurred by forecasted population growth. The proposed project would provide a portion of the additional mobility necessary to support the increasing traffic associated with this projected growth.

It is anticipated that a range of 18 to 33 employees could experience job relocation or loss in association with nine businesses that would likely be displaced by the proposed project. However, there appears to be sufficient future employment opportunities of varying skill requirement intensities within the City of Dallas based on information provided by the NCTCOG's Development Monitoring database and interviews with planning officials from the City of Dallas. Mitigation for job losses would be implemented through proactive use of services available from the TWC's Workforce Solutions for Greater Dallas for both business owners and employees. These efforts will include increasing community awareness of the Workforce Solutions' services at the Public Hearing. It is expected that this approach will minimize adverse impacts to employees, thereby avoiding substantial economic impacts to the local economy.

The proposed project would require the acquisition of 15 developed properties, including six residential and nine commercial. The six residential displacements would include six single-family residences. The nine commercial properties have an associated eight commercial structures and four billboards (see **Table 5-9** and **Appendix A-6** for details). Four of the six displaced single-family residences and four of the nine displaced commercial properties have been early acquired by the City of Dallas as explained in **Appendix C-11**. Based on the results of the replacement residential (see **Table 5-10**) and commercial property searches (see **Section 5.2.5**), there appears to be a sufficient number of vacant and developed properties to accommodate those residences and businesses impacted by the proposed project. Relocation assistance and compensation would follow in accordance with applicable state and federal requirements. As discussed above, job losses associated with business displacements would be mitigated in part through the use of services from Workforce Solutions. Also, future employment opportunities are expected based on the number of future developments planned within the City of Dallas (see **Sections 5.2.5** and **7.4.5**).

Since neighborhoods represent a geographic unit that can be readily identified by community members, a correlation of affected block groups to project area neighborhoods was used to determine communities adjacent to the proposed project. The loss of six residential properties from a neighborhood is unlikely to

negatively affect the overall cohesiveness and nature of this community. Elementary school attendance zones were also used as a means to determine potential communities adjacent to the proposed project. A loss of two single-family residential homes within the attendance zone of an elementary school with an enrollment of over 500 students is unlikely to negatively impact the overall cohesiveness and nature of its encompassed community. A positive impact of the proposed project includes enhanced community cohesion of the neighborhoods in the project area resulting from the downgrade of SM Wright Freeway to the proposed SM Wright Parkway. This change to the community would effectively 'turn back the clock' to more closely approximate the situation that existed at the time the SM Wright Freeway was originally constructed in the 1950s. That is, the preexisting condition to the freeway was the Houston and Texas Central Railroad corridor, which predates urban development in the South Dallas area (see **Section 5.2.7**).

The demographic characteristics from U.S. Census data presented in **Section 5.2.9** indicate the area surrounding the proposed project is comprised of a predominantly African-American population with generally low income households. More than half of the block groups in the areas near the proposed project have reported median household incomes below the HHS 2012 poverty guideline. As the construction impacts of the proposed project would be primarily borne by EJ populations, efforts to mitigate those impacts has been a central aspect of the discussion of direct impacts. These mitigation efforts focus on coordinating with Workforce Solutions to assist persons who may lose employment as the result of a displace business and on including aesthetic enhancements in the project design to create a greater sense of community. In addition, the proposed project is designed to create benefits that would be realized primarily by this same EJ community in terms of safety, improvements to existing freeway design deficiencies, managed traffic congestion, and improved mobility. The downgrading of SM Wright Freeway to a landscaped urban arterial would also benefit community cohesion in an area that is currently divided by the existing controlled-access freeway.

Due to the proximity of the NRHP-listed neighborhoods adjacent to the proposed SM Wright Parkway, efforts would be made to preserve the historic character of the adjacent neighborhood. The proposed improvements are not anticipated to change the aesthetic character of the surrounding communities but would contribute to a greater sense of community cohesion within this EJ setting. Aesthetic structural and landscape design considerations would be incorporated during final project design Plans, Specifications, and Estimates.

The SM Wright Parkway – Landscape and Aesthetic Concept Plan, discussed in detail in **Section 5.2.11** would include enhanced landscape plantings along the streetscape and at key intersections that would provide an inviting environment for pedestrian and motorists. Aesthetically pleasing, native and adaptive plants have been selected to promote low water requirements and minimal maintenance needs. Visibility

clearances would be maintained to meet TxDOT and City of Dallas standards. Various sizes of gateway monuments ranging from 7 feet to 60 feet in height would also be included throughout the corridor. The design of each monument is representative of the historic character of the adjacent neighborhoods and would promote a sense of pride and ownership in this well-established EJ community.

The proposed design would be consistent with the City of Dallas' 2005 Trails Master Plan and the 2011 Dallas Bike Plan, and include multi-use hike and bike trails located on both sides of the roadway within the landscaped parkway of the proposed SM Wright Parkway. All multi-use trails would be 12 feet wide and designed to meet current AASHTO trail design standards. This project would also include on-street bike facilities that will be accommodated by 16-foot (14-foot and 2-foot shoulder) wide outside vehicular travel lanes.

The proposed design would be compliant with the ADAAG as well as the MUTCD. Stamped concrete, brick and/or concrete pavers would delineate pedestrian access across busy streets. Intersections would be highlighted with hardscape to alert drivers of pedestrian crossings, the design would emphasize the neighborhood gateways. Pedestrian crossings would include ADA accessible ramps in compliance with the Texas Accessibility Standards including detectable warning surfacing, audible alert systems, and rapid flash vehicular warning signage.

The SM Wright Parkway – Landscape and Aesthetic Concept Plan presumes a continuance of the aesthetic contribution made by the dozens of large (frequently 20 to 30 inches dbh) live oak trees lining SM Wright Freeway. As discussed in **Section 5.1.5**, these large trees are generally just outside the proposed project's construction footprint and final design planning for the removal of existing frontage road pavement would consider the close proximity of these trees to avoid damage to them. Every effort would be made to preserve trees within the ROW and other areas where they neither compromise safety nor substantially interfere with the project's construction.

Indirect Impacts

As discussed in detail in the Community Impact Assessment (**Section 5.2**) and summarized in **Section 6.1.1**, the proposed improvements are designed to improve mobility and enhance safety for all three of the major roadways comprising the proposed project. To a great extent, these major components of the "need" for the proposed project are also a source of anticipated encroachment-alteration indirect impacts. Likewise, the proposed project is expected to facilitate the growth of population and employment within the AOI, enhance community cohesion, and encourage economic revitalization, all of which are considered important local area goals established by City of Dallas elected officials and staff planners. Accordingly, it is expected that beneficial effects to the notable feature relating to community cohesion

would result from the proposed project. Similarly, the community cohesion and safety aspects of the proposed downgrade of SM Wright Freeway would benefit this predominantly EJ community.

It is expected that the combined effects of altered travel circulation and some improvement in non-highway travel speeds and LOS would positively impact local transit, emergency, and other public services, as time spent in congestion is anticipated to decrease with the overall improvement in roadway operational conditions. This proposed project would succeed if all components are constructed to allow a substantial portion of future traffic to be diverted away from the SM Wright facility as a result of the IH 45 and CF Hawn/US 175 direct connectors. Improved access to these services is a benefit to all populations, including particularly vulnerable elements such as the elderly, children, minority groups, and low-income groups. Increased mobility and improved LOS could also stimulate economic growth in the AOI surrounding the SM Wright Parkway, and thereby could result in infill development of residential and commercially zoned parcels. Such infill of existing vacant properties would be consistent with development goals as outlined in City of Dallas ordinances and comprehensive land use plans.

As the above travel-related impacts are either consistent with the objectives of the City of Dallas for the AOI and with regional transportation plans and do not adversely impact notable features, the anticipated encroachment-alteration aspects of indirect impacts would be positive. These impacts would also be expected to create a slight increase in demand on the existing undeveloped land of the AOI as well as already developed land that with structures in poor condition. Over the long term, as mobility along the proposed SM Wright Parkway and CF Hawn/US 175 is improved and as growth continues, residential and commercial infill could reach a maximum thereby decreasing supply such that the demand for further new developments increases.

The encroachment-alteration indirect effects outlined above would also serve as contributing factors to project-induced land use change in the AOI. There are several socioeconomic facets related to the expected project-induced land use change for the 14 sites comprising 10.8 acres adjacent to the proposed SM Wright Parkway. With regard to the ten sites which are vacant lots (5.2 acres), the development of these sites would be expected to benefit the surrounding largely residential community. That is, the downgrading of the SM Wright Freeway to a community parkway, accompanied by the removal of frontage roads and the overall aesthetic enhancements that would result to the community, would likely induce the construction of new homes on these vacant lots and further contribute to the residential feel of the community and to community cohesion. The other four sites (5.6 acres) include 11 structures, of which two are residential structures in poor condition and two abandoned are commercial buildings. The redevelopment of the sites containing these four structures in would improve the socioeconomic condition of the community through the construction of new homes and/or businesses.

The remaining seven structures that could be displaced by future land redevelopment are currently-operating commercial buildings which include two retail liquor stores, three nightclubs, one diner, and one barber shop. The potential development or redevelopment of these properties is not regarded as a potential displacement in the traditional sense because it is presumed that any sale of a property to a prospective developer would be made voluntarily (i.e., the redeveloper would not have eminent domain authority to force the sale of property). Nevertheless, the redevelopment of land on which any of these several existing businesses are located could result in the loss of employment for current employees, in which case the services of Workforce Solutions would be available for business and employees (see **Section 5.2.5**). While it is to be expected that the redevelopment of land may create new jobs for the community that may exceed the quantity and salaries of current positions, this potential beneficial offset for the community would not lessen the need for business owners to seek out the services of Workforce Solutions on behalf of employees who could still lose their jobs. For this reason, TxDOT will seek to increase community awareness of Workforce Solutions at the Public Hearing.

7.6 Step 5: Reasonably Foreseeable Actions

CEQ regulations indicate that cumulative impacts analyses must include an assessment of "reasonably foreseeable future actions" affecting the issues/resources studied (40 CFR Section 1508.7). This step of the cumulative impacts analysis identifies other transportation projects and flood control projects, as well as planned large-scale residential and commercial developments within the RSA for biological resources. The identification of reasonably foreseeable future actions for this assessment was based on a review of proposed and ongoing development projects located within the RSA that are reflected in materials provided by City of Dallas planners or Web sites, and from entities involved with proposed developments. Transportation projects were identified from NCTCOG and TxDOT databases and engineering documents. Reasonably foreseeable projects were not specifically inventoried for the much larger RSAs associated with air quality and land use because such projects are already included in relevant NCTCOG projections of future air emissions and City of Dallas land use plans, respectively.

7.6.1 Biological Resources

Continued growth and development within the project vicinity from other reasonably foreseeable actions would result in further changes in land use and accompanying loss of available habitat and/or habitat fragmentation. As previously described, the approach to identifying reasonably foreseeable future projects involved a review of city and regional land use plans, project plans, and interviews with City of Dallas planners. This approach led to the identification of 47 projects that are expected to occur within the biological resources RSA in future years. Of this total, 33 of the projects involve private or public land development that would be expected to result in site construction affecting land ranging in size from 0.4 acre to 253.2 acres. The locations of these development projects are shown in **Appendix E-2**, and a list of the projects is provided in **Appendix E-4**. An additional 14 projects include a combination of

transportation and flood control projects ranging in size from 0.8 acre to 136.5 acres. The transportation and flood control projects in the RSA are shown in **Appendix E-3**, and a list of the projects is provided in **Appendix E-4**. The estimated potential construction footprint for the combined group of reasonably foreseeable projects is 1,608.2 acres. It is estimated that impacts from these 47 projects could potentially affect as many as 139.3 acres of riparian/bottomland forests and 1.2 acres of upland forests. Although final design plans for these projects may result in a reduction of the acreage trees affected, this provides a general estimate of forest impacts for future expected projects within the RSA.

7.6.2 Air Quality

Reasonably foreseeable projects were not inventoried for the ten-county ozone moderate nonattainment area because air quality is regulated and managed on a regional level where expected development projects and air emissions are included in pollution budgets, dispersion modeling, and air quality implementation plans. In general, implementation of transportation system improvements and reasonably foreseeable development in the region would likely result in temporary negative impacts to air quality in terms of construction-related impacts. However, the impact of reasonably foreseeable projects on air quality would be minimized through the EPA and TCEQ enforcement of federal and state regulations. These mandates ensure that despite the increase in urbanization (and likely increase in VMT), compliance with ozone standards is not prevented and the maintenance of air quality standards for all other criteria pollutants, including CO, is not jeopardized.

The EPA's vehicle and fuel regulations, coupled with fleet turnover, will over time cause substantial reductions of on-road emissions. In almost all cases, lower emissions will cause VOCs and NOx levels, CO, and MSATs to be substantially lower than they are today. Although the health effects of MSATs from reasonably foreseeable projects are unquantifiable due to unavailable or incomplete information, the EPA projects dramatic reductions in MSATs emissions based on its regulation of vehicle engines and fuels. With regard to ozone air quality conformity, reasonably foreseeable transportation projects are primarily managed through the NCTCOG and urban growth-related plans are factored into models that provide estimates of future ozone levels. For example, the NCTCOG includes in its emission modeling the operational CMP details, the type of strategy, implementing responsibilities, schedules, and expected costs of all regional project commitments.

7.6.3 Land Use

The fact that land use is a decision and not a resource may appear to render the consideration of reasonably foreseeable actions somewhat problematic. For example, based on spreadsheets and shape files provided by City of Dallas planners, there are hundreds to thousands of pending/potential development projects at any given time that could affect land use in some way. Besides the unwieldy nature of the data, knowing that other projects may affect land use throughout the City of Dallas does not

contribute to the analysis of cumulative impacts of the proposed SM Wright Project. This is because all such projects have been entered into city records to receive the various permits or other authorizations necessary for the projects to be approved for construction. As ultimately all proposed/pending projects that could result in a land use change would only be approved upon compliance with city zoning and development regulations, simply amassing an inventory of such projects does nothing to assist in the analysis of land use cumulative impacts. For example, the reasonably foreseeable development, transportation, and flood control projects planned/programmed in the general area surrounding the proposed project have been inventoried and information about them is included in **Appendices E-2** through **E-4**. Such information demonstrates that the City of Dallas has been very active in terms of participation in both private and public works developments, as would be expected, but this inventory of projects alone sheds no light on the importance of the SM Wright Project in city planning. Instead, it is the City of Dallas planning documents that provide the reasonably foreseeable aspect of the analysis because these documents represent a synthesis of trends in urban land development/redevelopment, existing and future socioeconomic conditions and demographics, and myriad other relevant social issues of interest to voters and their elected leaders. For example, the Trinity River Corridor CLUP[81] includes a listing of important transportation projects that are planned to serve citywide objectives addressing growth and revitalization of local economies, among which the SM Wright Freeway downgrade is included. In this sense, patterns in urban development and socioeconomic needs of the community relating to land use are interwoven into the planning documents that guide city planners and other officials in the execution of their offices.

The reasonably foreseeable trends in urban land use management for the City of Dallas are embodied in the several comprehensive plans discussed above in **Sections 2.4**, **3.2**, **5.2.2**, and **6.2.2**. The Forward Dallas! Comprehensive Plan is the primary planning document used to assess cumulative impacts to land use related to the proposed project. This plan references and builds upon planning elements contained in the Trinity Corridor Comprehensive Land Use Plan and the Balanced Vision Plan for the Trinity River Corridor. With regard to the proposed project, the South Dallas/Fair Park Economic Development Corridor Plan is a particularly relevant city plan. Finally, the reflection of the proposed project within the MTP and TIP is an important dimension of cumulative impact considerations relating to project-related land use changes.

Numerous initiatives reflected in the above-referenced planning documents would continue to shape land development and redevelopment within the land use RSA. The population and employment growth projected for the City of Dallas is expected to be accompanied by continued urbanization through the redevelopment of underutilized areas, as guided by local land use plans and policies. At this point in time, however, the specific impacts of continued development within the project area are speculative due

[81] See the List of Citywide Projects over $7.5 Million within the Trinity River Corridor, page 30.

to the unpredictability of market forces and individual developer decisions. In general, as indicated by city land use plans and by the input from city planners, anticipated beneficial impacts include new economic opportunities, housing alternatives, employment, community services, redevelopment of deteriorated buildings or areas, and recreational resources. Land use planning documents and goals prepared by the City of Dallas, as augmented by regional planning participants, seek to achieve a balance of community amenities (e.g., public services, parks/open space, and transportation routes), while maximizing the land that may be developed for various private uses.

Transportation projects play a major role in the process of achieving the appropriate balance of land uses to meet the needs of local residents and businesses. Although implementation of planned transportation projects within the land use RSA (as detailed in city thoroughfare plans, CIPs, etc.) could result in impacts to land use, but these projects would improve local and regional traffic circulation by providing reduced congestion/bottlenecks on local streets and highways, additional system capacity, improved regional mobility, accident reduction, and travel time savings. Transportation mobility is an essential aspect of the successful operation of any developed property, and both city and regional transportation planning is closely intertwined with future economic prosperity. While reasonably foreseeable transportation projects embodied in the MTP/TIP will of necessity affect land use within the RSA, government leaders and agencies at all levels of government may be expected to continue to seek the optimum balance of land uses to meet the needs of the local and regional populace by sustaining growth throughout the region.

7.6.4 Community

Continued growth and development within the project area from reasonably foreseeable actions unrelated to the proposed project would result in land use changes of importance to the South Dallas community. As described above in **Section 7.6.1**, reasonably foreseeable ongoing or future projects were identified from a review of city and regional land use plans, project plans, and interviews with City of Dallas planners and are listed in **Appendix E-5** (with locations shown in **Appendices E-2** and **E-3**). As the community RSA is located entirely within the biological resources RSA, the foreseeable project identification numbers used for the biological resources RSA were also used to identify corresponding foreseeable projects in the community RSA. This resulted in the identification of 20 projects that are expected to occur within the community RSA in future years. Of this total, 14 of the projects (244.5 acres) involve private or public land development that would be expected to result in site construction affecting land ranging in size from 0.6 acre to 84.8 acres (shown in **Appendix E-2**). These land development projects would be largely residential area, but would also include parks and open space, and mixed use commercial areas. An additional six projects (306.9 acres) include a combination of transportation and flood control projects ranging in size from 0.8 acre to 136.5 acres (shown in **Appendix E-3**). These infrastructure projects are split between transportation projects including the Trinity Parkway and two bridge improvement projects (138.2 acres), construction of the Lamar Levee (61.5 acres), improvements to the William Blair, Jr. Park (formerly Rochester Park) Levee (35.8 acres), and proposed sump areas

(71.4 acres). The estimated potential construction footprint for the combined group of reasonably foreseeable projects is 551.4 acres. Although final design plans for these projects may result in changes to the land acreage affected, this provides a general estimate of future land development/redevelopment within the community RSA.

7.7 Step 6: Cumulative Impacts Assessment

7.7.1 Biological Resources

Although urbanized areas within the biological RSA contain limited habitat associated with landscaping, these areas are not included in this discussion of potential impacts to unusual or special habitat features. That is, such areas do not represent preferred habitat for many wildlife species because of habitat fragmentation by urban structures and proximity to human activities. Similarly, grass-dominated areas are not considered further because these areas are predominantly frequently mowed lawns in close proximity to urban structures, which are not considered to provide valuable habitat to wildlife. Finally, cumulative impacts for open water resources have not been assessed because no direct or indirect impacts are expected. The discussion of biological resources focuses on forested areas within the RSA to facilitate a better understanding of the magnitude of direct and indirect impacts to riparian and upland forests attributable to the SM Wright Project.

The estimated cumulative impacts to forest resources from direct and indirect impacts of the SM Wright Project, combined with the potential impacts from 47 reasonably foreseeable projects within the RSA, are shown in **Table 7-5**. These cumulative impacts represent the loss of approximately 3.8 percent of the total existing riparian/bottomland forests in the RSA, and 0.7 percent of upland forests. In terms of riparian/bottomland forest impacts, over half of the projected future impacts are associated with the construction of three trails as part of the Dallas Floodway Extension (39.4 acres) and the construction of the proposed Lamar Levee and Cadillac Heights Levee (35.4 acres). However, in light of the federal and state policies and plans that foster preservation of natural features and/or public safety within floodplain areas, the remaining riparian/bottomland forests in the RSA are expected to undergo very few additional impacts in future years. The existing William Blair, Jr. Park and the planned Great Trinity Forest would serve as important additional protections of the remaining forested habitat within the floodplains of the RSA, which is expected to be preserved and enhanced in accordance with city, state, and federal plans.

TABLE 7-5. SUMMARY OF FOREST HABITAT AND IMPACTS

Forest Habitat Types	Total Forest Habitat (acres) within the RSA	Potential Impacts: All Sources (acres) *	Total Forest Habitat Remaining (acres) within the RSA
Riparian/Bottomland Forest	3,894.2	146.8	3,747.4
Upland Forest	854.9	6.3	848.6
TOTAL	**4,749.1**	**153.1**	**4,596.0**

Notes:
1. This column represents the expected potential impacts within the RSA from direct/indirect impacts of the proposed project when added to the impacts of reasonably foreseeable future actions; information is from **Steps 4** and **5** above.

The extent to which the proposed project contributes to cumulative impacts to forest resources is evaluated in terms of the relative contribution of direct and indirect impacts to the overall cumulative impacts expected. With regard to riparian/bottomland forests, direct and indirect impacts would amount to 7.5 acres of the 146.8 acres of cumulative impacts, or 5.1 percent. Based on the continued availability of protected forest habitat areas in floodplains, and assuming appropriate implementation of regulated avoidance, minimization, and mitigation strategies for vegetation and habitat impacts, the proposed project would not contribute to substantial cumulative impacts to the area's vegetation and habitat. Although the total expected cumulative impacts to upland forests is small relative to riparian/bottomland forest impacts, the contribution of the proposed project to the 6.3 acres of cumulative impacts is a much larger 80.9 percent (5.1 acres). As discussed in **Section 5.1.5**, however, the importance of upland forest habitat to wildlife populations is marginal within the RSA because most of the upland forest resources are landscaping trees for residences and commercial/industrial land uses, and occur within a highly fragmented environment in close proximity to frequent human activity. In addition, these forests are generally characterized by an understory of mowed non-native lawn grass, a condition that further diminishes the value of these forests for wildlife habitat.

7.7.2 Air Quality

Cumulative impacts to ozone levels from the proposed project and other reasonably foreseeable transportation projects are addressed by the NCTCOG at the regional level by analyzing the air quality impacts of transportation projects in the MTP and the TIP. The proposed improvements are consistent with the MTP and the current TIP.

The DFW Metropolitan Area is expected to continue to experience substantial population growth, urbanization, and economic development. The cumulative impact of reasonably foreseeable future growth and urbanization on ozone levels would be minimized by enforcement of federal and state regulations by the EPA and TCEQ, respectively. These agencies are mandated to ensure that such growth and urbanization does not prevent compliance with the ozone standard or threaten the maintenance of the other air quality standards, including CO. Throughout the region, EPA's vehicle and fuel regulations, coupled with fleet turnover, will over time cause substantial reductions of on-road

emissions including the ozone precursors (VOC and NOx) and CO. This is illustrated with reference to ozone in **Table 7-6**, which shows that although VMT in the ten-county nonattainment area is projected to increase over time, VOC and NOx on-road emission trends are expected to generally decrease substantially through 2030 before rising somewhat by 2035. Modeling results under the worst-case conditions indicate that CO concentrations would not exceed the NAAQS, and cumulative impacts regarding CO emissions are not expected. A quantitative MSAT analysis (**Section 5.1.8**) indicates that by 2035 MSAT emissions would substantially decrease when compared to 2012 despite increases in annual VMT.

TABLE 7-6. REGIONAL TRENDS OF OZONE PRECURSORS AND VMT

Analysis Year	Ozone Precursor Emissions		Ozone Season VMT (10^6 miles)*
	NOx (tons/day)	VOC (tons/day)	
2012	133.1	84.0	168
2020	57.6	58.2	206
2030	46.7	58.4	245
2035	49.5	63.4	265

Source: Chapters 4 and 7 of NCTCOG's 2011 Transportation Conformity Analysis and Documentation for *Mobility 2035* and the FY 2013-2016 TIP for North Central Texas; see *http://www.nctcog.org/trans/air/conformity/2011.asp.*
Note: * The ozone season for the DFW Metropolitan Area extends from May 1 through October 31; see *http://www.tceq.texas.gov/airquality/monops/ozoneaction.html#metro.*

In sum, any increase in ozone precursor emissions resulting from increased capacity, accessibility, and development are projected to be more than offset by emissions reductions from EPA's new fuel and vehicle standards or addressed by EPA's and TCEQ's regulatory emissions limits programs. Projected traffic volumes are expected to result in minimal or no impacts on air quality. Moreover, improved mobility and circulation may benefit air quality or may offset the negative effects that increasing urbanization would likely have on air quality. However, planned transportation improvements in the project area, included in and consistent with a conforming MTP and TIP, are anticipated to have a cumulatively beneficial impact on air quality. As previously stated, FHWA will not take final action until a project is included in and consistent with a conforming MTP and TIP.

7.7.3 Land Use

As discussed above, whether the project-related land use impacts result in cumulative impacts is determined by the extent to which the SM Wright Project conforms with the vision of elected City of Dallas leaders and city planners as reflected in comprehensive and localized land use planning documents. Such documents reflect the overall City of Dallas strategy for managing growth and accomplishing the overarching objective of improving the quality of life for city residents. In this regard, the SM Wright Project is a notable component of relevant city plans and an important element of the future socioeconomic landscape of South Dallas.

The Trinity River Corridor CLUP spotlights the importance of protecting and enhancing family residential areas in South Dallas, and improving access to Trinity River greenbelt natural resources. Although this plan recognizes the need for quality mixed-use development near neighborhoods, the plan emphasizes the need to strike an appropriate balance between the overall residential setting and providing small (preferably locally-owned) mixed use development to support the local community.[82] This plan further emphasizes the SM Wright Freeway "urban design plan and roadway downgrade conversion / reconstruction into a neighborhood 'signature' parkway" as a means for "uniting the east and west sides of the neighborhood."[83] This theme relating to the SM Wright Project was echoed in the city's Balanced Vision Plan, which includes the following transportation-related vision statement:

> "Because the connection between IH 45 and CF Hawn Freeway removes the need for SM Wright to remain as a freeway, the Trinity River Corridor Comprehensive Land Use Plan proposes the conversion of SM Wright Freeway to an at-grade, landscaped boulevard. This would link the residential neighborhoods on both sides of the roadway, and strengthen the viability of the neighborhood currently between SM Wright and Lamar [Street]."[84]

A very detailed socioeconomic and land use planning document for South Dallas dates to 2001, and includes a statement similar to that quoted above.[85] That plan also focused on undesirable conditions within the community that city leaders should address in future decision making regarding zoning and development incentives. The plan highlighted certain "obnoxious" land uses that should be discouraged within and in close proximity to residential neighborhoods, including alcohol-related businesses such as bars, liquor stores, and night clubs.[86] This local economic development plan includes extensive planning initiatives to encourage development of vacant lands as well as redevelopment of underdeveloped land as well as connecting downtown with the Great Trinity Forest.

The current land use plan (i.e., Forward Dallas! Comprehensive Plan), reaffirms the points outlined in the above discussion of important city planning initiatives relevant to this assessment of cumulative impacts. The objective of implementing steps to revitalize the South Dallas area remains a strong theme of the plan, which includes preservation of residential neighborhoods while attracting additional retail (e.g., grocery stores) and redevelopment of "local eyesores."[87] Transportation planning to improve the efficiency and safety of traveling to/from and within the South Dallas area is an integral part of current Dallas comprehensive land use plans.

[82] Trinity Corridor District Plans – North Trinity Forest District, Trinity River Corridor CLUP (pages 59 and 60).
[83] Trinity Corridor District Plans – Lamar Center Prototype Site, Trinity River Corridor CLUP (pages 73 and 74).
[84] Chapter II – Vision, Balanced Vision Plan for the Trinity River Corridor (page 63).
[85] South Dallas/Fair Park Economic Development Corridor Plan (page 66).
[86] South Dallas/Fair Park Economic Development Corridor Plan (pages 6 and 7, and 11).
[87] Major Plans – South Dallas/Fair Park Neighborhood, Forward Dallas! Comprehensive Plan (page III-2-34).

Based on a review of the foregoing and other relevant City of Dallas land use plans and feedback from interviews with city planners, the direct and indirect impacts of the SM Wright Project on land use are in harmony with city planning objectives. The conversion of approximately 31.1 acres of undeveloped and developed land to transportation use is an implicit tradeoff that is contemplated in the various land use plans that encourage the construction of the planned SM Wright Project. This "decision" to make an adjustment in land use is part of planning initiatives that City of Dallas elected officials and staff planners have contemplated for years. Indeed, this change in land use is vital to implementing an important component of the vision city leaders/planners have for South Dallas neighborhoods. Similarly, the indirect impacts to nearly 11 acres of undeveloped or underutilized land along SM Wright is consistent with city objectives to enhance the quality of life of residential neighborhoods. These direct and indirect shifts in land use are consistent with City of Dallas land use plans, including the myriad reasonably foreseeable projects and social initiatives the city is pursuing to promote socioeconomic conditions within South Dallas and for the city at large. Additionally, the improvements reflected in the SM Wright Project dovetail with regional plans developed by NCTCOG, TxDOT, and FHWA. Thus, the proposed project is expected to have cumulatively beneficial effects on land use, as such changes are necessary to implement the desired land use objectives embodied in local and regional plans.

7.7.4 Community

Much of the city planning concerning South Dallas concentrates on taking coordinated actions to improve the overall socioeconomic conditions of this EJ community. A primary consideration for cumulative impacts to the community is the long term beneficial effects of downgrading the SM Wright Freeway to create a more community-friendly parkway. This will assist the local community by transforming the roadway from a commuter thoroughfare to a local arterial, which is expected to enhance socioeconomic conditions by improving mobility and traffic safety. The proposed project would require 31.1 acres of new ROW. Short-term impacts resulting from the potential business displacements may result in the loss of 18 to 33 jobs. Improved community conditions resulting from completion of the proposed project are expected to induce the development or redevelopment of nearly 11 acres of land, which may result in further job losses from seven commercial businesses currently in operation. Such short-term impacts to businesses and jobs are expected to be offset somewhat by the project-induced new residences and businesses along SM Wright Parkway that would be an expected indirect benefit to the local economy. However, these impacts on the local economy are dwarfed by the socioeconomic impacts to the community from the reasonably foreseeable projects outlined in **Appendix E-5** and discussed further below.

Most notable among these foreseeable future projects is the proposed Lamar Levee, which would protect approximately 424 acres within the community RSA which is currently subject to floodwater inundation by the 100-year flood. It is expected that this levee-protected area located along both sides of Lamar Boulevard and zoned for industrial and planned development would be likely to attract future development

of unused land and redevelopment of underutilized land. While it is beyond the scope of cumulative analysis to speculate as to the particular types of land development that may result from the removal of flood risk to this area, it is nevertheless foreseeable that economic development in this part of the city would occur with resulting beneficial effects for the community. Certainly such result is consistent with the planning and expectations included in current City of Dallas land use plans. For example, the city's Trinity River Corridor Comprehensive Land Use Plan states the following with reference to the Lamar Boulevard area: "The [Lamar] levee extension and [Trinity Parkway] development will open up land development opportunities for areas once considered risky or unfavorable for redevelopment."[88]

Other reasonably foreseeable projects would be primarily private land developments which would create new residential areas, mixed-use areas, and parks. As with the foreseeable public infrastructure projects discussed above, these other planned land developments would be consistent with City of Dallas plans for growth and redevelopment targeted at improving the overall socioeconomic conditions of the South Dallas community. However, unlike the infrastructure projects, such developments would have a much greater potential for creating permanent jobs with the various commercial enterprises expected to be constructed within this EJ community.

The cumulative socioeconomic effects attributable to the proposed project and other foreseeable projects (**Appendix E-5**) would also result in anticipated beneficial effects to community cohesion. In general, all future development anticipated within the community RSA has been and would continue to be guided by City of Dallas policies and plans for South Dallas. For example, land development ordinances would require site plans to conform to development landscaping standards and tree preservation requirements. Consequently, the reasonably foreseeable projects anticipated within the community RSA would contribute positively to the aesthetic views within the community and the general sense of community within South Dallas.

7.8 Step 7: Results

The data and principles discussed in **Step 1** through **Step 6** establish the basis for developing findings regarding potential cumulative impacts considering the condition and trend of each resource or socioeconomic issue examined herein. This step in the analysis considers the available information on direct and indirect impacts of the proposed project in addition to impacts of expected future actions in drawing conclusions as to whether there would be cumulative impacts, in addition to the relative contribution of the proposed project to cumulative impacts. Key data and principles related to each of the topics under consideration are therefore summarized in **Table 7-7**, and the column farthest to the right in the table represents the potential cumulative impacts for each resource/topic considered.

[88] Trinity Corridor District Plans – Lamar Center Prototype Site, Trinity River Corridor CLUP (page 73).

TABLE 7-7. SUMMARY OF EXISTING RESOURCE CONDITIONS AND POTENTIAL IMPACTS

Indicator of Resource Condition (Step 1)	Resource Study Area (Step 2)	Summary of Existing Resource Conditions and Potential Impacts (Analysis Step #)				
		Existing Condition [1] (Step 3)	Proposed Project: Direct Impacts [1&2] (Step 4)	Proposed Project: Indirect Impacts [1&2] (Step 4)	Impacts from Other Foreseeable Projects [1&2] (Step 5)	Potential Cumulative Impacts Step 4 + Step 5 [1&2] (Step 6)
Biological Resources: **Vegetation and Habitat –** Amount and quality of forest habitat	Portions of the lower reaches of adjacent watersheds consisting of the Trinity River and White Rock Creek	Riparian Forest: 3,894.2 acres Upland Forest: 854.9 acres	Riparian Forest: 7.57 acres (variable quality habitat) Upland Forest: 1.08 acres (poor quality habitat) In response to the TPWD recommendation, TxDOT will coordinate with appropriate city staff to determine if mitigation for impacts to 1.25 acres of riparian/bottomland habitat may be mitigated for within the planned Great Trinity Forest area (see **Appendix B-5**).	Riparian Forest: No impacts Upland Forest: 3.7 acres (poor quality habitat)	Riparian Forest: 139.3 acres (variable quality habitat) Upland Forest: 1.2 acres (poor quality habitat)	Riparian Forest: 146.8 acres (variable quality habitat) Upland Forest: 6.3 acres (poor quality habitat)
Air Quality: **Ozone –** Ability of the DFW Region to achieve the eight-hour ozone standard **CO –** Risk of violating the CO standard as modeled at edge of ROW	**Ozone:** Ten-county nonattainment area for the DFW MPA (includes Dallas County) **CO:** Project ROW line, which represents the locations with the highest potential for CO concentrations	Air Quality Control Region (10-county DFW area) is currently in nonattainment (EPA classification level ("moderate") for the eight-hour ozone standard and in attainment for other NAAQS criteria pollutants (including CO), with the exception of a portion of Collin County that is in nonattainment for lead.	The proposed project is included in and is consistent with the *Mobility 2035* MTP and the FY 2013-2016 TIP. The MTP/TIP were found to conform to the SIP on July 14, 2011 and November 1, 2012, respectively. The proposed project would not cause or contribute to any new localized CO violations or increase the frequency and severity of any existing CO violations.	Project-induced land use change accounts for approximately 0.3 percent of the indirect impacts AOI, which is not expected to provide enough change to alter the nonattainment status of ozone or the attainment status of all other NAAQS criteria pollutants, including CO and lead.	Regional modeling to estimate future ozone levels include all planned and financed major transportation projects as well as other major sources of air emissions of ozone precursors (SOCs and NOx). These planned and programmed projects reflect ongoing urbanization and redevelopment within the region, and would likely have a temporary negative effect on air quality due to construction-related impacts. However, the contribution of reasonably foreseeable future growth and urbanization on air quality would be minimized by enforcement of federal and state regulations by the EPA and TCEQ, and regional planning efforts led by NCTCOG.	Currently the SM Wright/US 175 segment and the CF Hawn/US 175 segment of the project (including the direct connectors) are included in both the MTP and TIP. All major reasonably foreseeable planned transportation improvements are included in the MTP and TIP, which were found to conform to the SIP. Therefore, the proposed project is unlikely to have an appreciable contribution to adverse effects relating to ozone. EPA's vehicle and fuel regulations, coupled with fleet turnover, will over time cause substantial reductions of on-road emissions including CO and the ozone precursors VOC and NOx.

TABLE 7-7. SUMMARY OF EXISTING RESOURCE CONDITIONS AND POTENTIAL IMPACTS

Indicator of Resource Condition (Step 1)	Resource Study Area (Step 2)	Summary of Existing Resource Conditions and Potential Impacts (Analysis Step #)				
		Existing Condition [1] (Step 3)	Proposed Project: Direct Impacts [1&2] (Step 4)	Proposed Project: Indirect Impacts [1&2] (Step 4)	Impacts from Other Foreseeable Projects [1&2] (Step 5)	Potential Cumulative Impacts Step 4 + Step 5 [1&2] (Step 6)
Air Quality: **MSATs –** trend of emissions over time, as modeled on a regional level	Affected transportation network which includes roadway links with a ± five percent traffic volume change (i.e., a 12-county area)	No NAAQS have been established for MSATs. Instead, EPA's regulatory efforts to reduce MSAT emissions focuses on rules that reduce MSATs from new engines and gasoline formulations. Although VMT is will continue to increase in future years, the reductions in MSATs are expected to outpace that increase and result in a net reduction in MSATs.	The quantitative MSAT analysis (**Section 5.1.8**) for the proposed project indicates that in the design year (2035) MSAT emissions related to the proposed project would substantially decrease when compared to 2012, even with projected increases in VMT.	Indirect air quality impacts from MSATs are unquantifiable due to existing limitations in determining pollutant emissions, dispersion, and impacts to human health. Even with an increase in VMT and possible temporary emission increases related to construction activities for project-induced land use changes, MSAT emissions are expected to be lower than present levels in future years as a result of EPA regulations.	Although increased development and urbanization would likely have a negative effect on air quality, the cumulative impact of reasonably foreseeable future growth and urbanization on air quality would be minimized by enforcement of federal and state regulations, by the EPA and TCEQ.	Although increased development and urbanization would likely have a negative effect on air quality, the cumulative impact of reasonably foreseeable future growth and urbanization on air quality would be minimized by enforcement of federal and state regulations by the EPA and TCEQ. Even with an increase in VMT and possible temporary emission increases related to construction activities, the EPA's vehicle and fuel regulations, coupled with fleet turnover, will over time cause reductions of MSAT emissions.
Land Use: Consistency with city land use plans	City limits for the City of Dallas	Approximately 7.8 percent of the land in the City of Dallas is undeveloped and developable (i.e., 24 square miles). Although the city is surrounded by other cities and cannot spread outward, opportunities exist for urban infill and redevelopment of underutilized land. Population growth is projected to continue at the rate of one percent per year. Local land use plans reflect an intertwining of urban growth and management policies that are supported by transportation improvements.	Approximately 31.1 acres of additional ROW/easement are to be converted to road transportation ROW/easement, thereby affecting the following types of existing land use: Undeveloped: 4.99 acres Developed residential: 0.7 acres Developed commercial: 24.38 ac. Railroad property: 1.04 acres	Project-induced land use change is expected to affect 14 sites comprising 10.8 acres along SM Wright Parkway. Existing land use for these properties is summarized below: Undeveloped: 8.5 acres Developed residential: 0.2 acres Developed commercial: 2.1 ac. The changes above could likely include redevelopment of land that would not categorically change land use, but would revitalize an existing use with improved structures and landscaping.	City of Dallas planning documents embody the plans and policies of civic leaders and planners for future management of existing urban conditions and the anticipated growth and redevelopment actions that affect land use. These plans contain the types of land use changes that are "reasonably foreseeable" in order to effectuate the objectives of voters and their elected leaders.	The proposed project would cumulatively affect decisions regarding land use for 42.61 acres, as follows: Undeveloped: 13.82 acres Developed residential: 1.21 acres Developed commercial: 26.54 ac. Railroad property: 1.04 acres The changes in land use attributable to ROW acquisition for the SM Wright Project are contemplated in city land use plans, and would effect a cumulative benefit in terms of effectuating city plans. Likewise, changes in land use that are indirectly related to the proposed project would also be in synch with the policies and vision for community revitalization embodied in city planning documents. All changes in land use would be subject to permits and other approvals to ensure compliance with appropriate city plans, zoning, and land development rules.

TABLE 7-7. SUMMARY OF EXISTING RESOURCE CONDITIONS AND POTENTIAL IMPACTS

Indicator of Resource Condition (Step 1)	Resource Study Area (Step 2)	Summary of Existing Resource Conditions and Potential Impacts (Analysis Step #)				
		Existing Condition [1] (Step 3)	Proposed Project: Direct Impacts [1&2] (Step 4)	Proposed Project: Indirect Impacts [1&2] (Step 4)	Impacts from Other Foreseeable Projects [1&2] (Step 5)	Potential Cumulative Impacts Step 4 + Step 5 [1&2] (Step 6)
Community: **Local Economy –** trends in jobs and new development **Relocations and Displacements –** potential job loss **Community Cohesion –** factors affecting residential areas **EJ –** potential for disproportionate effects **Aesthetic Views –** visual aspects of planned projects	South Dallas community surrounding proposed project	South Dallas is predominantly an EJ population generally characterized by low-income households. There is a strong historic/cultural element to this community (i.e., several historic neighborhood districts and historic structures). City of Dallas plans emphasize projects/initiatives to improve the quality of neighborhoods by discouraging alcohol-related businesses and encouraging retail and service businesses that service the residential community. The area near Lamar Boulevard is viewed as an area that could be revitalized economically with the advent of levee protection from the 100-year flood. City plans also target specified areas and transportation intersections for business development.	ROW acquisition of 31.1 acres would be required for the proposed project. Approximately 18 to 33 employees could experience job relocation or loss in association with the businesses that would likely be displaced. Six residences (four have been early acquired by the City of Dallas) would be affected. Loss of businesses and residences would have minor effect on community cohesion. Direct adverse socioeconomic impacts would occur within an EJ community that is predominantly low income. Downgrading of the SM Wright Freeway to a local parkway would effect a major improvement in community cohesion. The proposed project would include landscaping design that would greatly improve the aesthetic views of the proposed parkway as compared to the existing freeway.	The proposed project would enhance traffic safety and improve mobility within the RSA. Encroachment alteration effects include enhancing community cohesion by transforming the freeway to a local parkway and encouraging economic revitalization. Project-induced land use change is expected to affect 14 sites comprising 10.8 acres along SM Wright Parkway, of which 10 sites (5.2 acres) are vacant land. The remaining four sites (5.6 acres) have 11 structures only 7 of which are businesses in current use: two retail liquor stores, three nightclubs, one diner, and one barber shop. Potential loss of jobs would accompany the redevelopment of these businesses. This loss would likely be offset by the creation of new commercial enterprises on these redeveloped properties.	There are 14 private or public land development projects (244.5 acres) within the RSA ranging in size from 0.6 acre to 84.8 acres. These land development projects include residential areas, parks and open space, and mixed-use developments. There are six transportation or flood control projects (306.9 acres) ranging in size from 0.8 acre to 136.5 acres. The Trinity Parkway and two bridge projects would make up 138.2 acres of the total, Levee improvements and sumps would comprise 168.7 acres. Total area affected by reasonably foreseeable projects is 551.4 acres in size.	Direct and indirect impacts of the proposed project would affect a total of 41.9 acres of land use change for new ROW and project-induced development or redevelopment. Foreseeable projects unrelated to the proposed project would affect a total of 551.4 acres in the community RSA. The cumulative changes in land use, and associated impacts to the South Dallas community, would be 593.3 acres. The proposed project would contribute 7 percent to the cumulative impacts related to land use changes in the community. While total acreage of land use change is only one indicator to be used in assessing the range of socioeconomic and other community impacts that would accompany those land use changes, All anticipated projects in the RSA are expected to effect long term objectives of the City of Dallas and would contribute toward greater employment opportunities, increased community cohesion, and improved aesthetic views within this EJ community.

NOTES:
1. Acreages are approximate estimates, and are based on information presented earlier in this report.
2. The information presented reflects expected impacts, and does not take into consideration potential mitigation or other measures stipulated/required by regulatory authorities. These factors are discussed in **Section 7.9**.

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7.9 Step 8: Mitigation

7.9.1 Biological Resources

As discussed above, the TxDOT – TPWD MOA provides a methodology for assessing habitats of particular value to wildlife and encourages compensatory mitigation for high-quality resources that would unavoidably be affected by a roadway project. Non-regulatory habitat mitigation was considered, but is not proposed for impacts to the 1.08 acres of upland forest or the 3.9 acres of riparian/bottomland forest located to the east of IH 45 and the railroad embankment (Areas 1 and 5 shown in **Appendix B-2**). These areas are generally of poor quality, are already highly fragmented, and/or have a high portion of invasive vegetation species (see **Section 5.1.5** for additional information). The remaining 3.6 acres of proposed impacts to riparian/bottomland habitat (located on west side of IH 45 within Areas 2 and 3 shown in **Appendix B-2**), were considered for compensatory mitigation. Of the 3.6 acres of riparian/bottomland forest, approximately 2.35 acres is located within existing TxDOT ROW and is subject to periodic mowing. The remaining 1.25 acres of riparian/bottomland forest is located within the planned Great Trinity Forest. In response to the TPWD recommendation, TxDOT will coordinate with appropriate city staff to determine if mitigation for impacts to 1.25 acres of riparian/bottomland habitat may be mitigated for within the planned Great Trinity Forest area (see **Appendix B-5**). During construction, TxDOT would minimize the amount of wildlife habitat disturbed. Existing vegetation, especially native trees, would be preserved wherever practicable. No mitigation is proposed for project-related upland forest impacts as these areas are generally isolated patches of trees associated with urban landscapes, and offer poor quality habitat for local wildlife. See **Section 5.2.11** for a description of landscaping enhancements that are proposed.

Additional riparian/bottomland forests (139.3 acres) are expected to be removed as part of reasonably foreseeable future projects in the biological RSA. All but 17.8 acres of these expected impacts would be the result of projects sponsored by federal and state agencies. It is expected that mitigation for these losses would occur in accordance with the laws and agreements that are binding on such agencies. Riparian/bottomland forest impacts from private development would be subject to City of Dallas land development regulations, which impose site landscaping requirements and are subject to city tree preservation/mitigation ordinances. Mitigation is not anticipated for potential impacts to upland forest trees associated with reasonably foreseeable projects or project-induced land use change, other than as required by city site development and tree preservation regulations.

In the future, preferred riparian/bottomland forest habitat would continue to be preserved by local, state, and federal agency policies and regulations that restrict development within floodplains. Based on the availability of already-designated park and floodplain forested habitat in the RSA, and assuming appropriate implementation of regulated avoidance, minimization, and mitigation strategies for vegetation

and habitat impacts, the proposed project would not contribute to substantial cumulative impacts to the area's vegetation and high-quality forest habitat.

7.9.2 Air Quality

Extensive mitigation efforts continue to be implemented to ensure that the region continues its progress toward attainment of the eight-hour ozone standard. The NCTCOG is the focal point of those efforts due to the region-wide effects of the photochemical reactions involving VOCs and NOx to form ozone. The well-established process of inventorying existing and projected sources of ozone-related pollution and modeling future levels has proven to be an effective component of the overall mitigation strategy as ozone levels continue to decrease despite regional increases in VMT. As discussed in **Sections 2.4** and **5.1.8**, the creation of the MTP and TIP, combined with myriad programs at all levels of government, work together to achieve this result. As this comprehensive ozone air quality planning and management framework will continue to pursue progress toward attainment of the ozone standard, no additional mitigation for the exhaust emissions attributable to the proposed project or the reasonably foreseeable projects included in the MTP and TIP would be warranted as long as these plans remain in conformity with the SIP.

The EPA has not sought to reduce MSAT emissions by promulgating ambient air standards for MSATs but has focused on reducing MSATs by regulating emission levels for new engines and fuels. Based on estimated reductions from its engine/fuel regulatory programs, nationwide MSAT emissions are expected to drop substantially in spite of projected increased in VMT. Based on quantitative modeling of MSATs for the project-affected transportation network (i.e., 12-county area), MSAT emissions within the DFW Metropolitan Area are expected to be substantially below current calculated levels. No additional mitigation efforts would appear warranted based on these findings.

Based on proposed project modeling of CO for the RSA, no violations of the CO standard are expected and specific mitigation action is neither expected nor warranted. That is, the generalized reductions in mobile source emissions outlined above for MSATs would also combine to reduce CO emissions.

7.9.3 Land Use

As there is no universally-accepted hierarchy of land uses, the choice to construct transportation projects in the project area or otherwise develop or redevelop land reflects a balancing of competing land uses to meet city and regional needs. Mitigation is part of transportation planning, however, and all transportation projects are subject to an extensive environmental review process to ensure that the amount of ROW needed for a project is minimized. Also, extensive programs are in place to ensure compensation and assistance to those persons or businesses that would be displaced/relocated to accommodate community/regional needs for transportation improvements. Similarly, municipal and private development

actions are subject to established policies and procedures that allow a weighing of public interests (e.g., zoning and development ordinances). As TxDOT and FHWA do not have the authority to implement zoning or planning regulations, mitigation for cumulative impacts to land use, redevelopment, or continued conversion of undeveloped land to developed land requires the collaborative efforts of local, county, and regional planners, the public, and private developers. These parties all have a stake in the ultimate landscape in which they reside and only proactive, cooperative interactions can provide the optimum blend of natural and developed communities.

The proposed SM Wright Project improvements are included within and consistent with City of Dallas comprehensive land use and economic development plans. Potential project-induced land use changes would be subject to the requirements of city plans, zoning restrictions, and land development procedures. Assuming appropriate implementation of applicable land use planning regulations and control strategies, related effects on air and water and other natural systems, including ecosystems, would be avoided and minimized. Other than the collaborative planning process involving multiple government agencies at the federal, state, regional, and municipal level, no additional mitigation would be warranted to address changes in land use and the short-term disruption to persons/businesses that may be affected thereby.

7.9.4 Community

The proposed project is somewhat anomalous in that the proposed SM Wright Parkway itself may be viewed as ‘mitigation’ for adverse impacts to the South Dallas community caused by originally constructing the SM Wright Freeway. Prior to that time, the South Dallas community had grown up around the Houston and Texas Central Railroad corridor with its numerous at-grade crossings, which was then transformed into the existing freeway corridor in the 1950s. Although the proposed SM Wright Parkway and the former railroad corridor have many obvious differences, they are similar in that both represent a transportation corridor with multiple at-grade crossings that promote greater community cohesion as compared to a controlled access freeway. Although short term adverse impacts to the South Dallas community are unavoidable in order to achieve the ‘big picture’ mitigation inherent in the overall design of the proposed project, the EJ nature of the community warrants additional mitigation efforts to ease key socioeconomic impacts. Additionally, the cumulative beneficial effects to the socioeconomics of the community attributable to the proposed project and to other reasonably foreseeable future projects would be substantial, but this does not detract from the need to take appropriate and practicable steps to mitigate short term socioeconomic effects associated with job losses associated with business displacements.

TxDOT is committed to coordinate available programs provided by Workforce Solutions to those employees affected by the businesses potentially displaced as a result of the proposed project at the Public Hearing. The Workforce Development Manager and appropriate staff will attend the Public Hearing for the proposed project to answer questions or present services information on behalf of

Workforce Solutions (see **Section 5.2.5**). In addition, although it is uncertain whether and when the seven businesses along SM Wright Parkway would be acquired and redeveloped as a result of project-induced land use change, TxDOT will ensure that a description of services offered by Workforce Solutions will be presented during the Public Hearing for the SM Wright Project to raise community awareness of this resource.

Project planning has also addressed measures to ensure the aesthetic character of the community is enhanced by the proposed SM Wright Parkway, with particular sensitivity to NRHP-recognized historic residential districts. This includes steps to preserve the large live oak trees that are found along the fringes of the existing freeway. In addition, the SM Wright Parkway – Landscape and Aesthetic Concept Plan (see **Section 5.2.11**) is a mitigation measure targeted at substantially strengthening the sense of community within the South Dallas area. The design features in this conceptual plan would include enhanced landscape plantings along the streetscape and at key intersections that would provide an inviting environment for pedestrian and motorists. The creation of monuments of various sizes and hike/bike trails would further enhance the community feel along the SM Wright Parkway corridor. The details of the aesthetic improvements will be developed in close coordination with the leaders and citizens of the South Dallas community.

8.0 MITIGATION AND MONITORING COMMITMENTS

All project-specific commitments and conditions of approval, including resource agency permitting compliance and monitoring requirements, would be incorporated in the project plan for the proposed SM Wright Project. These project-specific commitments and conditions for approval, as further described below, may vary depending on the project's final design and construction. Mitigation monitoring would be conducted by TxDOT and other federal, state, and local agencies to ensure compliance.

8.1 Water Quality

The proposed project would disturb more than one acre; therefore, TxDOT compliance is required with the TCEQ TPDES General Permit for Construction Activity. The proposed project would also disturb more than five acres; therefore, a Notice of Intent would be filed to comply with TCEQ stating that TxDOT would have a SW3P in place during construction of the proposed project.

8.2 Vegetation and Wildlife Habitat/Threatened or Endangered Species

In accordance with the TxDOT-TPWD MOA, appropriate habitats were given consideration for non-regulatory mitigation during project planning. TxDOT will coordinate with appropriate City of Dallas staff to determine if mitigation for impacts to 1.25 acres of riparian/bottomland habitat may be mitigated for within the planned Great Trinity Forest area (see **Section 5.1.5**). During construction, TxDOT would minimize the amount of wildlife habitat disturbed. Existing vegetation, especially native trees, would be preserved wherever practicable.

Re-vegetation and landscaping activities would occur in compliance with EO 13112, which calls for preventing and controlling the spread of invasive plant and animal species. Further, landscaping activities would be follow the Executive Memorandum on Beneficial Landscaping, thereby utilizing techniques that complement and enhance the local environment and seek to minimize the adverse effect that the landscaping would have on it (e.g., use of regionally native plants and water conservation practices). Such efforts would be limited to seeding and replanting in the project ROW (where cost effective and to the extent practicable).

The forested habitat in the project area would be surveyed for signs of the timber/canebrake rattlesnake prior to construction activities. If evidence of the species is observed, TxDOT personnel would be contacted to determine an appropriate course of action.

A brief field survey would be conducted prior to construction to determine if migratory birds are present within the project area. If species are present, work should cease at the location, and TxDOT personnel should be contacted. Between October 1 and February 15, the contractor would remove all old migratory

bird nests from any structures that would be affected by the proposed project, and complete any bridge work and/or vegetation clearing. If construction or clearing is to take place during nesting season, which could extend from February 15 through October 1, the area would need to be checked for active nests prior to the commencement of work. If any active nests are found, local USFWS biologists should be contacted by TxDOT to determine an appropriate plan of action.

8.3 Local Economy

TxDOT is committed to coordinate available programs provided by Workforce Solutions to those employees affected by the businesses potentially displaced as a result of the proposed project at the Public Hearing. The Workforce Development Manager and appropriate staff will attend the Public Hearing for the proposed project to answer questions or present services information on behalf of Workforce Solutions (see **Section 5.2.5**).

8.4 Relocations and Displacements

Approximately 31.1 acres of additional ROW are required under the Build Alternative. ROW acquisition would impact a total of 7 residences and businesses containing nine structures, of which include two single-family residences, six commercial structures and one billboard. All relocation efforts would be consistent with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 as amended, the Civil Rights Act of 1964, and the Urban Development Act of 1974 (see **Section 5.2.5**).

Local services, such as, The Bridge are available to provide homeless/transient populations within the project corridor options for shelter both in the immediate future as well as the construction phase of this project. TxDOT is committed to contacting The Bridge and working with the City of Dallas Police Department in the event homeless/transient populations are within the immediate work area at the time of construction (see **Section 5.2.5**).

8.5 Aesthetic Considerations

The SM Wright Parkway – Landscape and Aesthetic Concept Plan would include enhanced landscape plantings along the streetscape and at key intersections that would provide an inviting environment for pedestrian and motorists. Aesthetically pleasing, native and adaptive plants have been selected to promote low water requirements and minimal maintenance needs. Visibility clearances would be maintained to meet TxDOT and City of Dallas standards. Various sizes of gateway monuments would also be included throughout the corridor. The design of each monument is representative of the historic character of the adjacent neighborhoods and would promote a sense of pride and ownership in the community.

The proposed design would be consistent with the City of Dallas' 2005 Trails Master Plan and the 2011 Dallas Bike Plan, and include multi-use hike and bike trails located on both sides of the roadway within the landscaped parkway of the proposed SM Wright Parkway. All multi-use trails would be 12 feet wide and designed to meet current AASHTO trail design standards. This project would also include on-street bike facilities that will be accommodated by 16-foot (14-foot and 2-foot shoulder) wide outside vehicular travel lanes.

The proposed design would be compliant with the ADAAG as well as the MUTCD. Stamped concrete, brick and/or concrete pavers would delineate pedestrian access across busy streets. Intersections would be highlighted with hardscape to alert drivers of pedestrian crossings, the design would emphasize the neighborhood gateways. Pedestrian crossings would include ADA accessible ramps in compliance with the Texas Accessibility Standards including detectable warning surfacing, audible alert systems, and rapid flash vehicular warning signage (see **Section 5.2.11**).

8.6 Noise

Traffic noise impacts would occur from the construction and operation of the proposed project. Seventeen noise barriers were determined to be both feasible and reasonable as to mitigate for anticipated traffic noise impacts. **Appendix C-10** shows the proposed noise walls. There are 113 receivers that would benefit (experience a reduction in noise levels by at least five dBA) from the proposed noise barriers. The final decision to construct the proposed noise barriers would be made upon completion of the project design and utility evaluation, as well as through public involvement efforts (i.e., noise workshops). Such noise briefings would determine if the noise walls are desired and, if so, assist in their aesthetic design. Any subsequent project design changes may require a reevaluation of this proposal (see **Section 5.2.11**).

8.7 Archeological Resources

If evidence of archeological deposits is encountered during construction, work in the immediate area would cease and TxDOT archeological staff would be contacted to initiate accidental discovery procedures under the provisions of the Programmatic Agreement between TxDOT, THC, FHWA, and the Advisory Council on Historic Preservation, and the MOU between TxDOT and the THC (see **Section 5.3**).

8.8 Hazardous Wastes/Substances

Additional subsurface investigations would be required to confirm if contamination may be encountered during construction. During the ROW negotiation and acquisition process, further inquiry into the existing and previous ownership and uses of each property would be performed. Further assessment and investigations, if required, would be postponed until ROW can be obtained in later stages of project development. If identified and confirmed, any hazardous material issues would be addressed during the

ROW negotiation, acquisition, or eminent domain process prior to construction. Appropriate soils and/or groundwater management plans for activities within these areas would be developed. Special provisions or contingency language would be included in the project's plans, specifications, and estimates to address hazardous materials and/or petroleum contamination according to applicable state, federal and local regulations per TxDOT Standard Specifications. In addition, any unanticipated hazardous materials and/or petroleum contamination encountered during construction would be addressed according to applicable state, federal and local regulations per TxDOT Standard Specifications (see **Section 5.4.1**).

9.0 DETERMINATION OF ASSESSMENT

The No-Build Alternative would avoid the direct impacts envisioned for the Build Alternative; however, it would not address the need and purpose for the proposed project as summarized below.

The Build Alternative is recommended, as it is responsive to the needs for the transportation improvement project based on historic and projected population increases, urbanization, and the existing inadequacy of the road network in the area. If constructed, the proposed Build Alternative would fulfill the public's need for a safe and efficient transportation system in the project area that satisfies the project objectives, as outlined below.

Improve Safety – The proposed Build Alternative includes improvements to the existing SM Wright Freeway/US 175, to the CF Hawn Freeway (US 175) (with the addition of DC ramps to IH 45), as well as the construction of a new interchange with IH 45. Roadway improvements would address many of the existing roadway deficiencies and would remove the sharp, accident-prone curve at the existing US 175/SH 310 interchange. In addition, the proposed improvements would provide a safer and more secure driving experience for motorists.

Improve Operability, Connections, and Mobility – The realignment of the existing US 175 freeway as well as the removal of the 25 mph, accident-prone curve at the US 175/SH 310 interchange, would enhance operations of the US 175 facility by improving the design speeds through the area. This realignment of US 175 would manage congestion in the freeway-to-freeway traffic traveling west from US 175 to IH 45 and east from IH 45 to US 175. In addition, the associated improvements to IH 45 would improve the existing weaving on the facility, from less than ½ mile to approximately 2 miles. The downsizing and downgrading of the existing SM Wright Freeway to a six-lane arterial, known as the SM Wright Parkway, would provide an alternate route throughout the area for local traffic, which would also assist in managing traffic congestion. The proposed Build Alternative would improve mobility within the project area by increasing the overall design speed of US 175 through the removal the sharp curve at the US 175/SH 310 interchange, which has a 25 mph posted speed. In addition, the downsizing of the SM Wright Freeway would provide an alternate route throughout the area for local traffic.

Compatibility with Local, County, and Regional Needs and Plans – The proposed Build Alternative is compatible with local and regional planning. The Build Alternative has been incorporated into the municipal planning documents of the project area and the project is included in and consistent with both the *Mobility 2035* and the FY 2013-2016 TIP.

Minimize Social, Economic, and Environmental Effects on the Human Environment – The proposed Build Alternative is the result of close examination of the No-Build Alternative, as well as other

alternatives via the MIS process. Through active participation among public officials and citizens in the consideration of potential impacts as well as avoiding/minimizing impacts where practicable, the Build Alternative design described herein is the result of efforts to avoid or minimize social, economic, and environmental impacts. TxDOT is committed to coordinate available programs provided by Workforce Solutions to those employees affected by the businesses potentially displaced as a result of the proposed project at the Public Hearing. The Workforce Development Manager and appropriate staff will attend the Public Hearing for the proposed project to answer questions or present services information on behalf of Workforce Solutions.

Conclusion

The engineering, social, economic, and environmental investigations conducted thus far indicate that the proposed project would result in no significant impacts to the quality of the human or natural environment. TxDOT requests that FHWA find that implementing the proposed project would not be a major federal action significantly affecting the quality of the human environment and thus, issue a Finding of No Significant Impact (FONSI) for this project.

10.0 LIST OF ACRONYMS

AADT	Average Annual Daily Traffic
AASHTO	American Association of State Highway and Transportation Officials
ACM	asbestos containing materials
ACS	American Community Survey
ADA	Americans with Disabilities Act
ADAAG	Americans with Disabilities Act Accessibility Guidelines
ADT	Average Daily Traffic
AM	Morning hours (i.e. before noon)
AOI	Area of Influence
APE	Area of Potential Effects
BMP	Best Management Practice
CAA	Clean Air Act
CAAA	Clean Air Act, as Amended
CDA	Comprehensive Development Agreement
CDC	Corridor Development Certificate (CDC)
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CFR	Code of Federal Regulations
CIP	Capital Improvement Program
CLUP	Comprehensive Land Use Plan
CMP	Congestion Management Process
CMS	Congestion Management System
CO	Carbon Monoxide
CORRACTS	Corrective Action Report
CWA	Clean Water Act
DART	Dallas Area Rapid Transit
dB	Decibels
dBA	Decibels (A-weighted)
dbh	Diameter at Breast Height
DC	Direct Connecting
DCAD	Dallas Central Appraisal District
DE	Diesel Exhaust
DFE	Dallas Floodway Extension
DFW	Dallas-Fort Worth

1	DFWRTM	Dallas-Fort Worth Regional Travel Model
2	DPM	Diesel Particulate Matter
3	EA	Environmental Assessment
4	EJ	Environmental Justice
5	EO	Executive Order
6	EOID	Element Occurrence Identification
7	EPA	Environmental Protection Agency
8	ER	Entrance Ramp
9	ERNS	Emergency Response Notification System
10	ESA	Endangered Species Act
11	ESL	Effects Screening Levels
12	ETC	Estimated Time Completion
13	FEMA	Federal Emergency Management Agency
14	FHWA	Federal Highway Administration
15	FIRM	Flood Insurance Rate Map
16	FLUP	Future Land Use Plan
17	FPPA	Farmland Protection Policy Act
18	FTA	Federal Transit Administration
19	GIS	Geographic Information Systems
20	HEI	Health Effects Institute
21	HHS	Department of Health and Human Services
22	HVAC	Heating, Ventilating, and Air Conditioning
23	IH	Interstate Highway
24	IRIS	Integrated Risk Information System
25	ITS	Intelligent Transportation Systems
26	LBP	lead based paint
27	LEP	Limited English Proficiency
28	Leq	Average/equivalent Sound Level
29	LOS	Level of Service
30	LPST	Leaking Petroleum Storage Tank
31	LWCF	Land and Water Conservation Fund
32	MBTA	Migratory Bird Treaty Act
33	MOA	Memorandum of Agreement
34	MOU	Memorandum of Understanding
35	MPA	Metropolitan Planning Area
36	mph	Miles per Hour
37	MPO	Metropolitan Planning Organization

MSAT	Mobile Source Air Toxic
MTP	Metropolitan Transportation Plan
MUTCD	Manual on Uniform Traffic Control Devices
NAAQS	National Ambient Air Quality Standards
NAC	Noise Abatement Criteria
NAFTA	North American Free Trade Agreement
NATA	National Air Toxics Assessment
NB	Northbound
NCHRP	National Cooperative Highway Research Program
NCTCOG	North Central Texas Council of Governments
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NIOSH	National Institute of Occupational Safety & Health
NLEV	National Low Emission Vehicle
NMHC	Non-methane Hydrocarbon
NOx	Nitrogen Oxides
NPL	National Priorities List
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NTTA	North Texas Tollway Authority
NWP	Nationwide Permit
O&D	Origin and Destination
OSHA	Occupational Safety and Health Administration
PA-TU	First Amended Programmatic Agreement Regarding the Implementation of Transportation Undertakings
PCBs	polychlorinated biphenyls
PCN	Preconstruction Notification
PCWG	Project Coordination Work Group
PEL	Permissible Exposure Limits
PM	Afternoon/evening hours (i.e. after 12:00)
PM	Particulate Matter
PST	Petroleum Storage Tank
RAC	Reference Air Concentration
RCCT	Rail with County Control Totals
RCRA	Resource Conservation and Recovery Act
REC	recognized environmental condition
RFG	Reformulated Gasoline

RIA	Regulatory Impact Analysis
ROD	Record of Decision
ROW	right-of-way
RSA	Resource Study Area
RTC	Regional Transportation Council
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SB	Southbound
SGC	Short-Term Guideline Concentration
SH	State Highway
SIP	State Implementation Plan
SOC	Species of Concern
SPF	standard project flood
STAND	Statistical trends and News of Dallas
ST-ESL	Short Term Effects Screening Levels
STIP	Statewide Transportation Improvement Program
SW3P	Storm Water Pollution Prevention Plan
T.A.C.	Texas Administrative Code
TCAA	Texas Clean Air Act
TCEQ	Texas Commission on Environmental Quality
TEA-21	Transportation Equity Act for the 21st Century
THC	Texas Historical Commission
TIP	Transportation Improvement Program
TOD	Transit Oriented Development
TPDES	Texas Pollutant Discharge Elimination System
TPH	Total Petroleum Hydrocarbons
TPP	Transportation Planning and Programming
TPWD	Texas Parks and Wildlife Department
TRB	Transportation Research Board
TRE	Trinity Railway Express
TREIS	Trinity River and Tributaries Regional Environmental Impact Statement
TSD	Treatment, Storage, and Disposal
TSHPO	Texas State Historic Preservation Officer
TX VCP	Texas Voluntary Compliance Program
TxDOT	Texas Department of Transportation
TXNDD	Texas Natural Diversity Database
USACE	United States Army Corps of Engineers
USDOT	United States Department of Transportation

1	US	United States Highway
2	U.S.C.	United States Code
3	USCG	United States Coast Guard
4	USFWS	United States Fish and Wildlife Service
5	USGS	United States Geological Survey
6	v/c	Volume/Capacity
7	VMT	Vehicle Miles Traveled
8	VOC	Volatile Organic Compounds
9	vpd	Vehicles per Day
10	WRDA	Water Resources Development Act

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APPENDIX A
PROJECT FIGURES

Legend

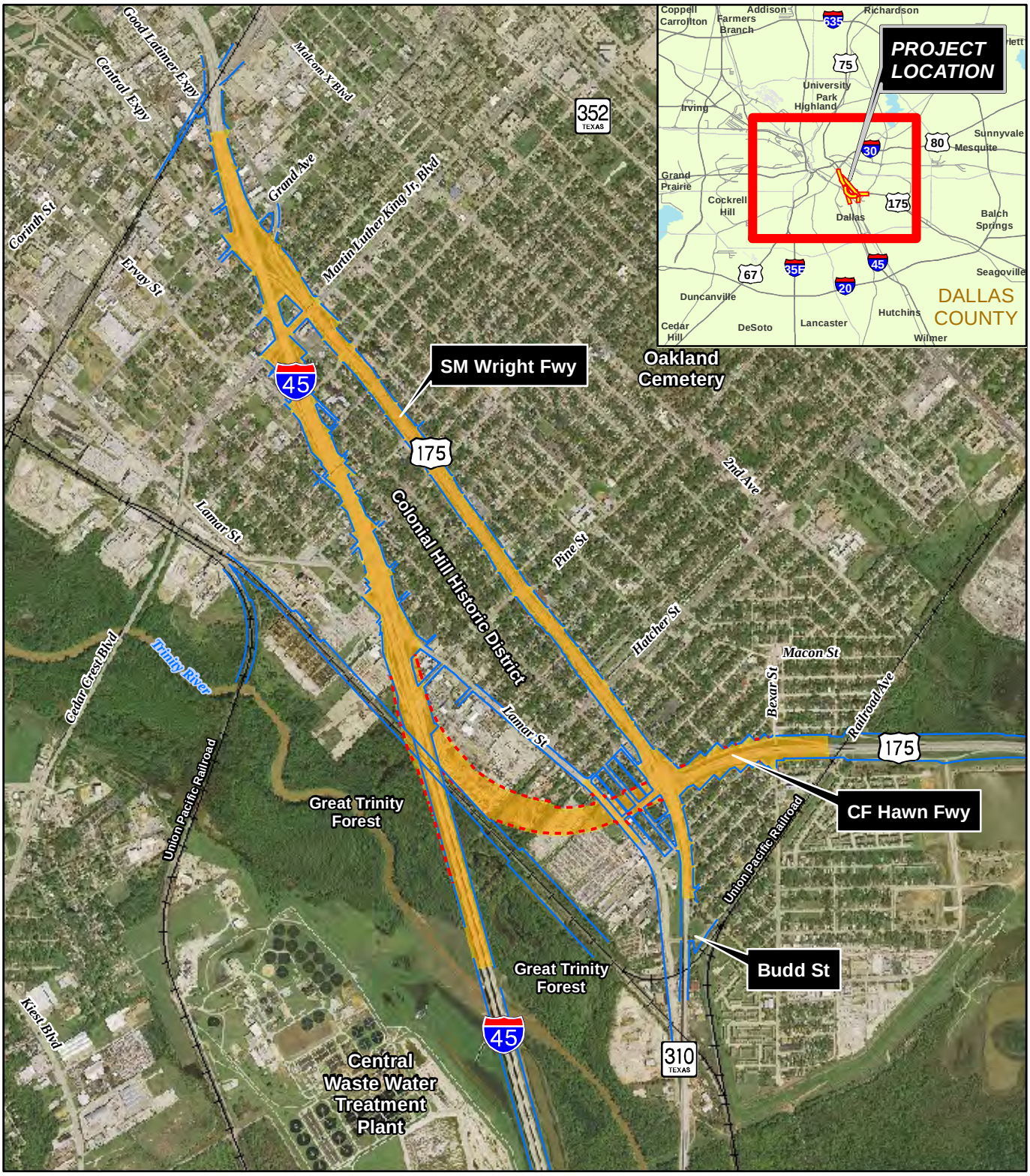
- Project Right of Way
- Railroad
- River

Source/Year of Aerial Photograph: Landiscor/2009

Project Vicinity Map

SM Wright Project
Dallas, Texas

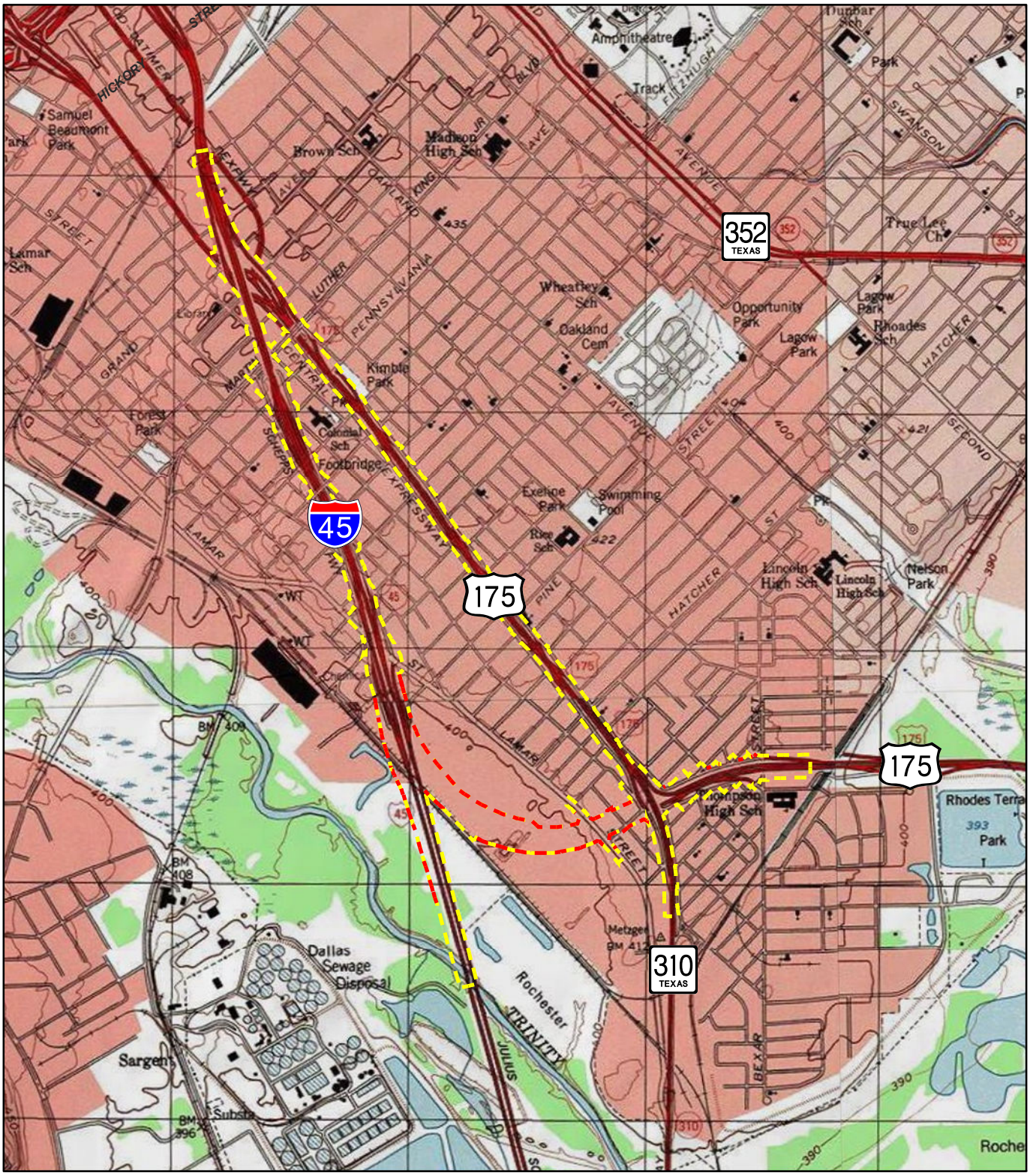
CSJs: 0092-01-052, 0197-02-108, & 0092-14-081



Project Location Map on Aerial Photograph

SM Wright Project
Dallas, Texas

CSJs: 0092-01-052, 0197-02-108, & 0092-14-081



Legend

- Proposed Right of Way
- Project Right of Way

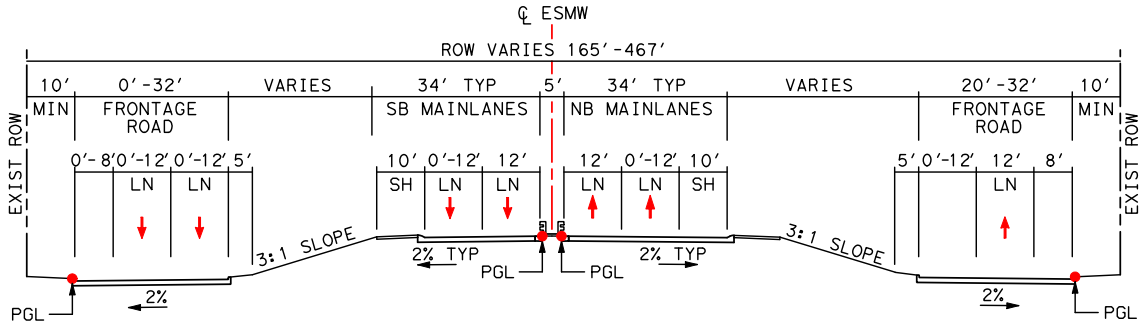
N
W E
S

0 1,000 2,000
Feet

Source: 7.5 Minute Series (Topographic)
Base Map: Dallas, Oak Cliff, & Hutchins Quadrangles, TX
Map Year: Dallas 1981; Oak Cliff 1981; Hutchins 1973

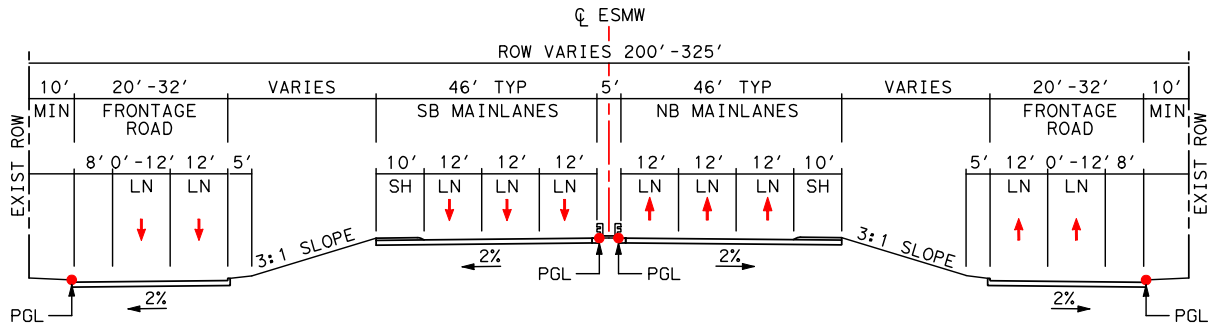
Project on Topographic Map

SM Wright Project
Dallas, Texas



Existing Typical Section SM Wright Freeway (SH 310)

4 General Purpose Lanes
North of Budd Street to North of CF Hawn Freeway
STA 35+00 to STA 58+00 (NB)
STA 35+00 to STA 55+60 (SB)



Existing Typical Section SM Wright Freeway (US 175)

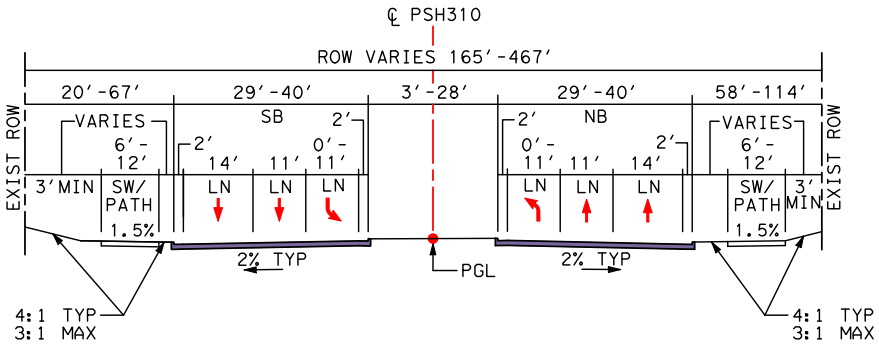
6 General Purpose Lanes
North of CF Hawn Freeway to Martin Luther King Jr. Boulevard
STA 58+00 to STA 132+52 (NB)
STA 55+60 to STA 132+52 (SB)

-- Not to Scale --

APPENDIX A-4 (SHEET 1 OF 7)

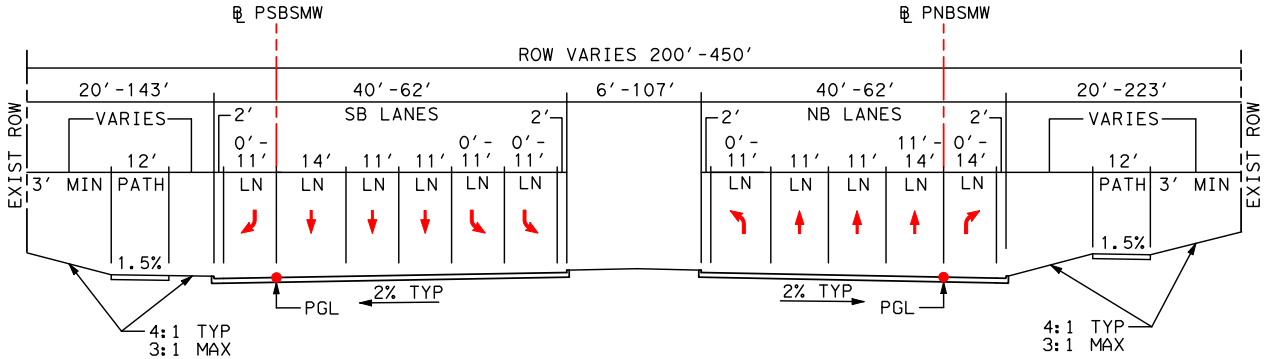
SM Wright Project Typical Sections

APPENDIX A-4



Proposed Typical Section SM Wright Parkway

4 Lane Low Speed Arterial
North of Budd Street to CF Hawn Freeway
STA 35+00 to STA 52+59



Proposed Typical Section SM Wright Parkway

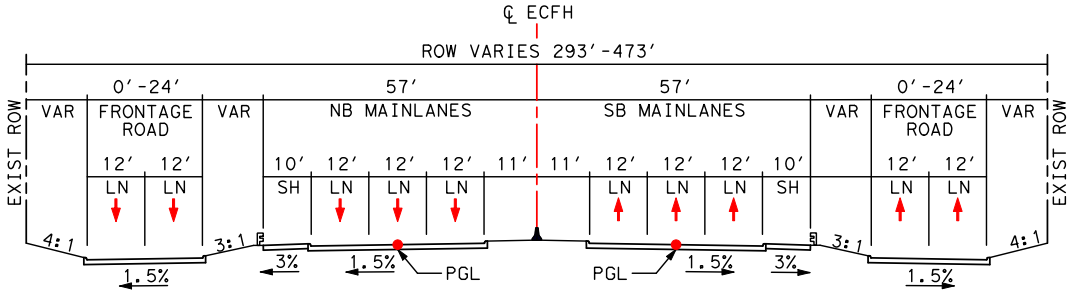
6 Lane Low Speed Arterial
CF Hawn Freeway to Martin Luther King Jr. Boulevard
STA 52+59 to STA 132+51

-- Not to Scale --

APPENDIX A-4 (SHEET 2 OF 7)

SM Wright Project Typical Sections

APPENDIX A-4

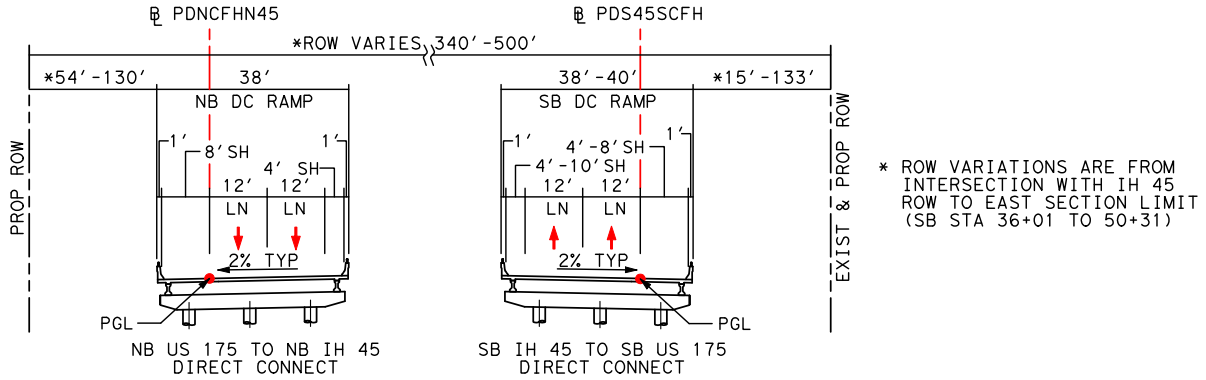


Existing Typical Section CF Hawn Freeway (US 175)

NB Frontage Road
SM Wright Freeway to Bexar Street
STA 1443+00 to STA 1456+00

6 General Purpose Lanes
SM Wright Freeway to UP Railroad
STA 1444+00 to STA 1463+50

SB Frontage Road
SM Wright Freeway to Shields Street
STA 1439+00 to STA 1452+00



Proposed Typical Section CF Hawn Freeway Direct Connects (US 175)

2 Lane DC Ramps
IH 45 to West of Lamar Street
STA 16+20 to STA 54+51 (NB DC)
STA 18+84 to STA 50+31 (SB DC)

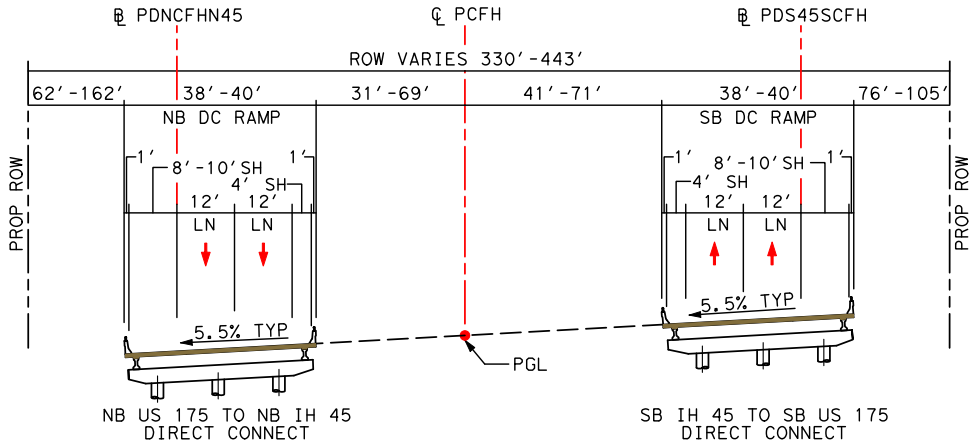
NOTE: US 175 IS A NORTH/SOUTH FREEWAY. WITHIN THE PROJECT LIMITS, THE ALIGNMENT REQUIRES THE NORTHBOUND MOVEMENT TO TRAVEL WESTERLY AND THE SOUTHBOUND MOVEMENT TO TRAVEL EASTERLY.

-- Not to Scale --

APPENDIX A-4 (SHEET 3 OF 7)

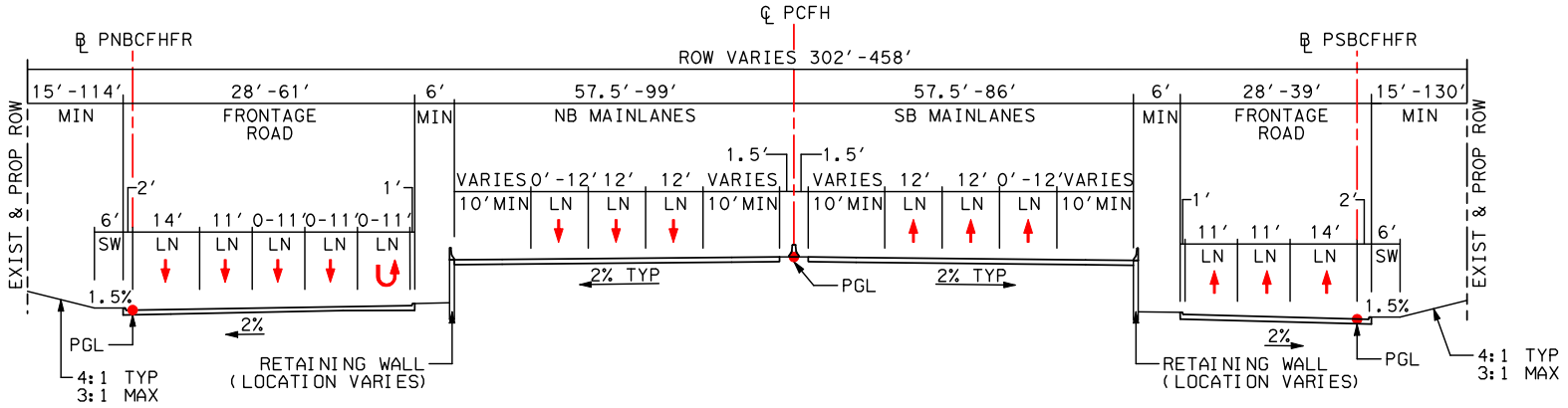
SM Wright Project Typical Sections

APPENDIX A-4



Proposed Typical Section CF Hawn Freeway Direct Connects (US 175)

2 Lane DC Ramps
West of Lamar Street to CF Hawn Freeway
STA 1423+85 to STA 1431+29 (NB)
STA 1420+30 to STA 1431+29 (SB)



Proposed Typical Section CF Hawn Freeway (US 175)

2 Frontage Road Lanes
Lamar Street to Bexar Street
STA 1432+00 to STA 1456+00

4-6 General Purpose Lanes
Lamar Street to UP Railroad
STA 1431+29 to STA 1463+50
(Bridge Structure Not Shown)

2 Frontage Road Lanes
Lamar Street to Bexar Street
STA 1432+00 to STA 1456+00

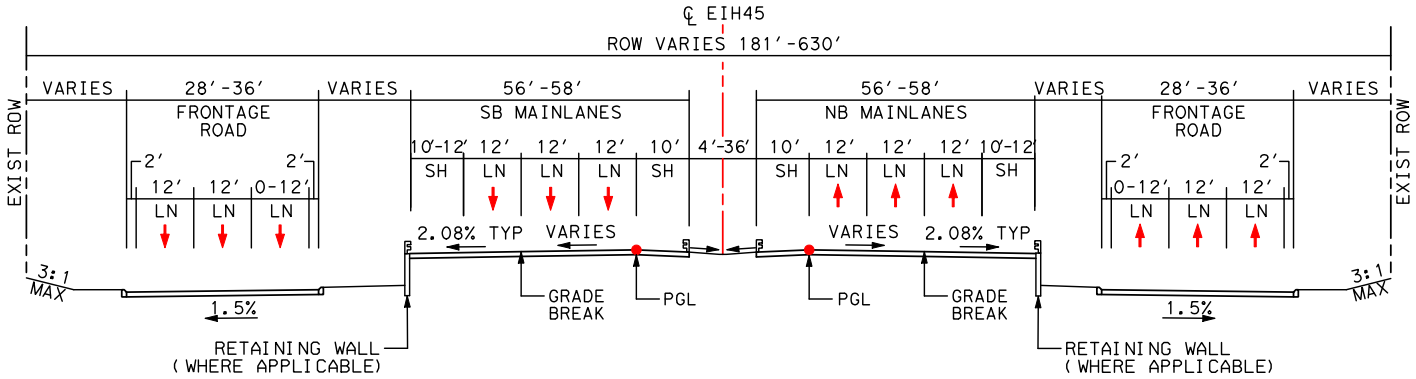
NOTE: US 175 IS A NORTH/SOUTH FREEWAY. WITHIN THE PROJECT LIMITS, THE ALIGNMENT REQUIRES THE NORTHBOUND MOVEMENT TO TRAVEL WESTERLY AND THE SOUTHBOUND MOVEMENT TO TRAVEL EASTERLY.

-- Not to Scale --

APPENDIX A-4 (SHEET 4 OF 7)

SM Wright Project Typical Sections

APPENDIX A-4

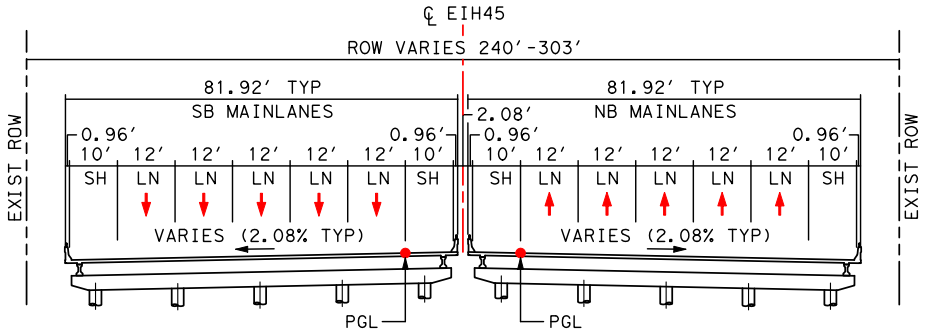


Existing Typical Section IH 45

SB Frontage Road
South of Lamar Street to North of Pennsylvannia Avenue
STA 487+00 to STA 540+00

6 General Purpose Lanes
Project Limits to SM Wright DC Ramps
STA 449+00 to STA 561+75 (NB)
STA 449+00 to STA 565+15 (SB)
(Bridge Structures Not Shown)

NB Frontage Road
South of Lamar Street to North of Pennsylvannia Avenue
STA 487+00 to STA 540+00



Existing Typical Section IH 45 on Structure

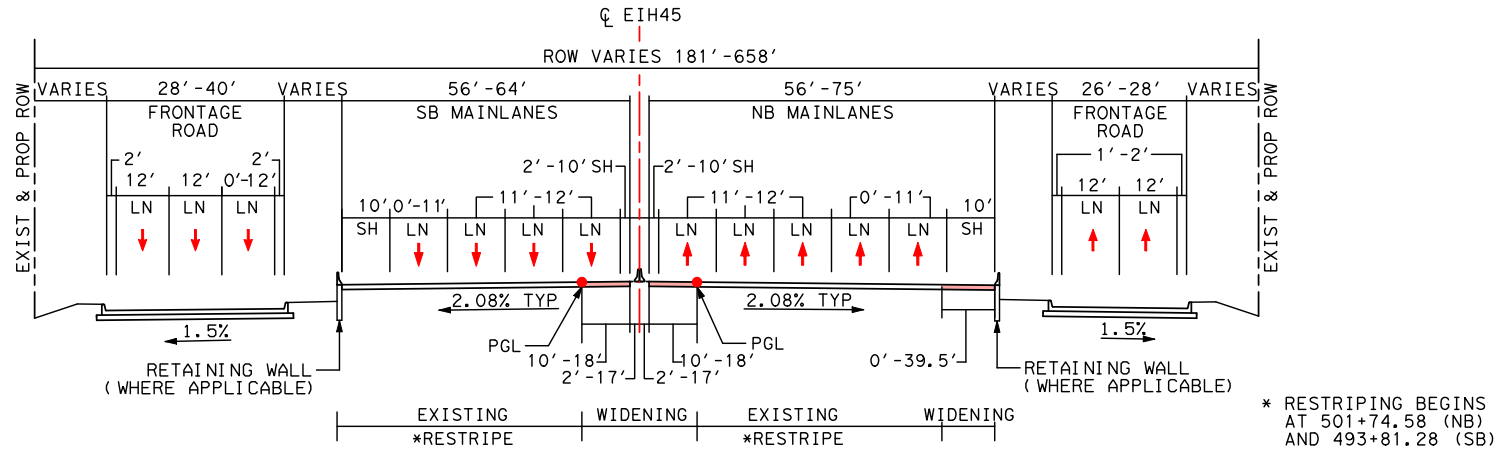
10 General Purpose Lanes
SM Wright DC Ramps to Project Limits
STA 561+75 to STA 572+00 (NB)
STA 565+15 to STA 572+00 (SB)

-- Not to Scale --

APPENDIX A-4 (SHEET 5 OF 7)

SM Wright Project Typical Sections

APPENDIX A-4

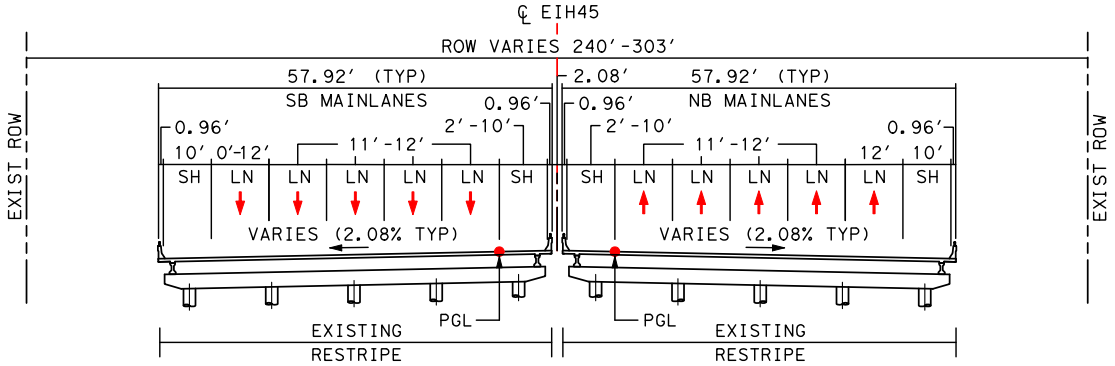


Proposed Typical Section IH 45 Inside & Outside Widening

2 Frontage Road Lanes
Lamar Street to North of Pennsylvania Avenue
Proposed STA 496+20 to STA 500+19
Existing STA 500+19 to STA 540+00

6-8 General Purpose Lanes
CF Hawn DC Ramps to SM Wright DC Ramps
STA 449+92 to STA 561+75 (NB)
STA 449+92 to STA 565+15 (SB)
(Bridge Structure Not Shown)

2 Frontage Road Lanes
Lamar Street to North of Pennsylvania Avenue
Proposed STA 492+20 to STA 499+08
Existing STA 499+08 to STA 540+00



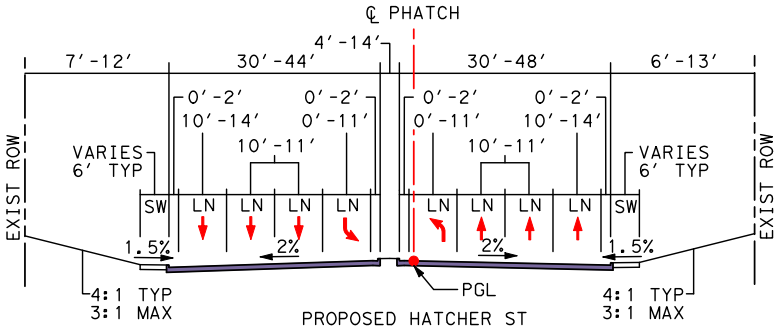
Proposed Typical Section IH 45 on Structure Restriping

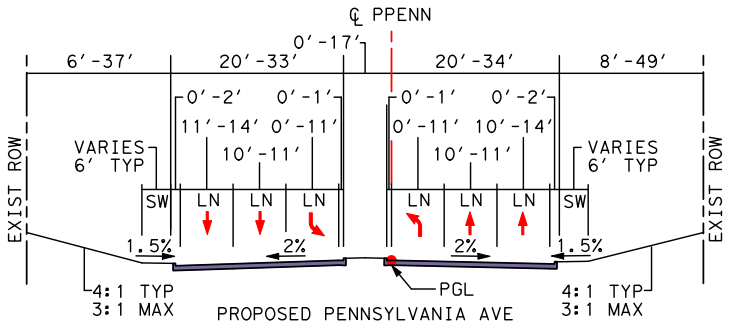
10 General Purpose Lanes
SM Wright DC Ramps to Project Limits
STA 561+75 to STA 572+00 (NB)
STA 565+15 to STA 572+00 (SB)

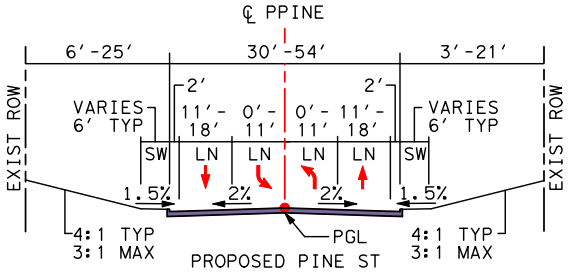
-- Not to Scale --

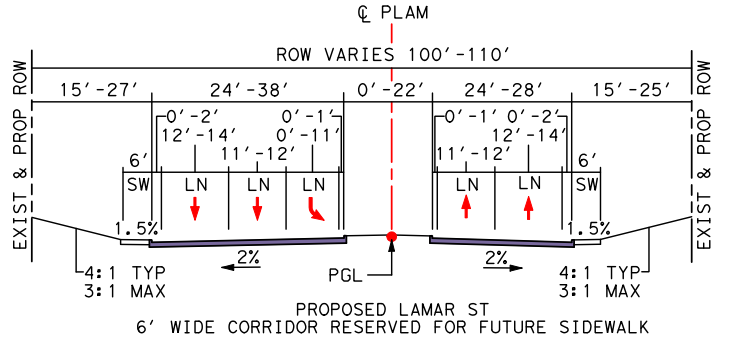
APPENDIX A-4 (SHEET 6 OF 7)

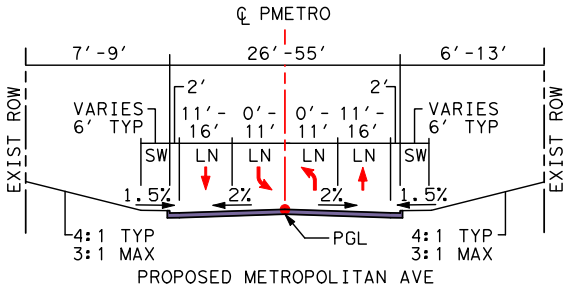
SM Wright Project Typical Sections

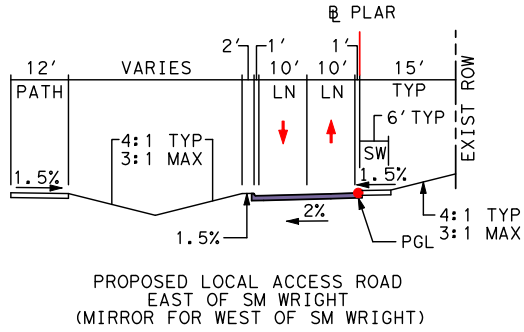












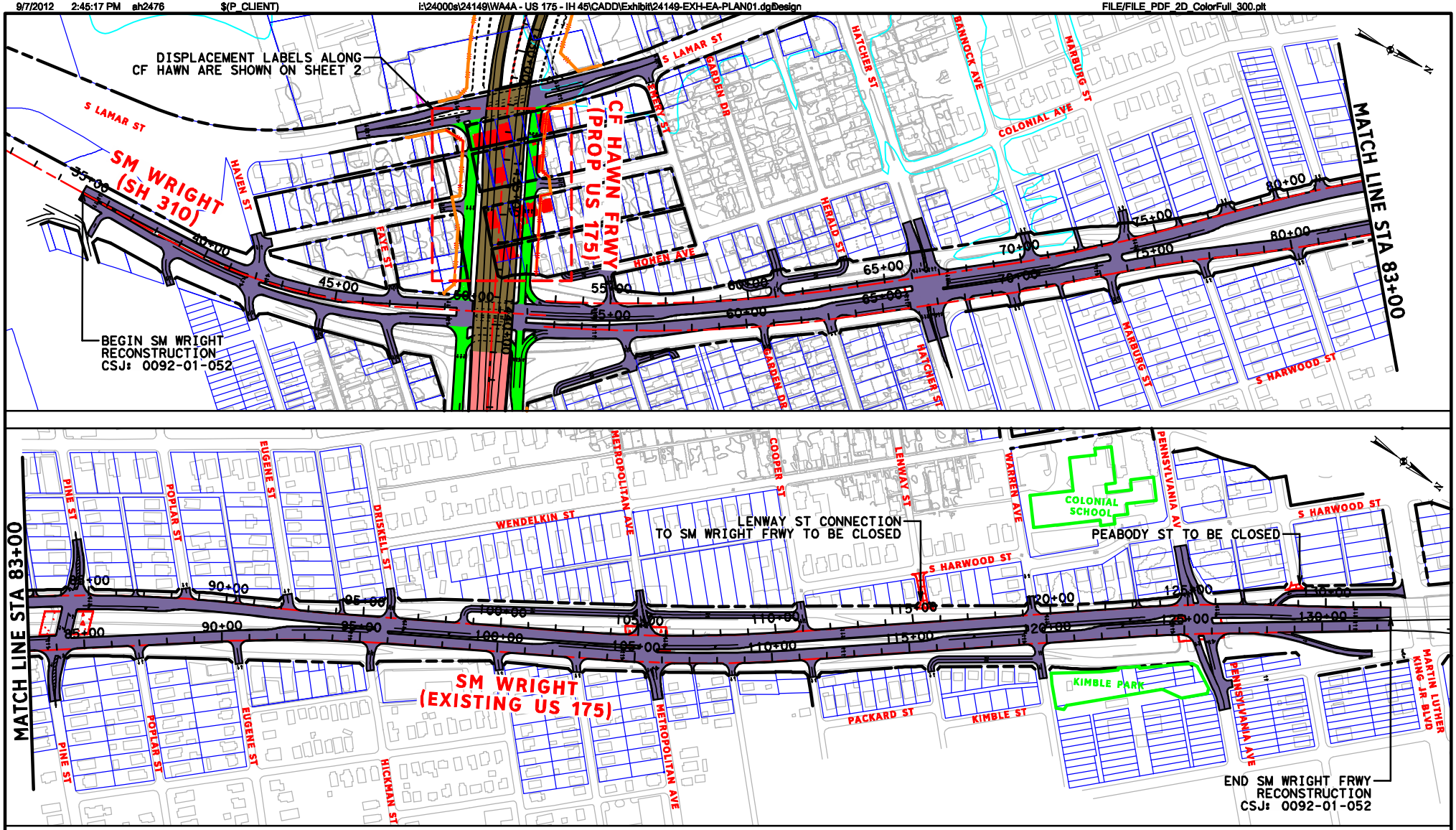
NOTES:
1) 14′ SHARED USE OUTER LANES PLUS 2′ CURB OFFSET PROVIDED THROUGH SM WRIGHT INTERSECTIONS. CROSS STREET APPROACHES TRANSITION BACK TO EXISTING WIDTHS.
2) CROSS STREET CENTERLINE/PGL LOCATIONS VARY WHERE CROSS STREET WIDENS AT INTERSECTIONS FOR DEVELOPMENT OF TURNING LANES.
3) PROPOSED CROSS STREET SIDEWALK TRANSITION TO EXISTING WIDTHS.

-- Not to Scale --

APPENDIX A-4 (SHEET 7 OF 7)

SM Wright Project Typical Sections

APPENDIX A-4



LEGEND:

- CENTERLINE
- EXISTING R.O.W.
- PROPOSED R.O.W.
- PROPOSED RETAINING WALL
- PROPERTY LINES
- 100 YR. FLOODPLAIN LIMITS
- FUTURE PROJECT (BY OTHERS)
- PAVEMENT TO BE REMOVED
- POTENTIAL DISPLACED STRUCTURE
- EXISTING OVERPASS TO BE REMOVED

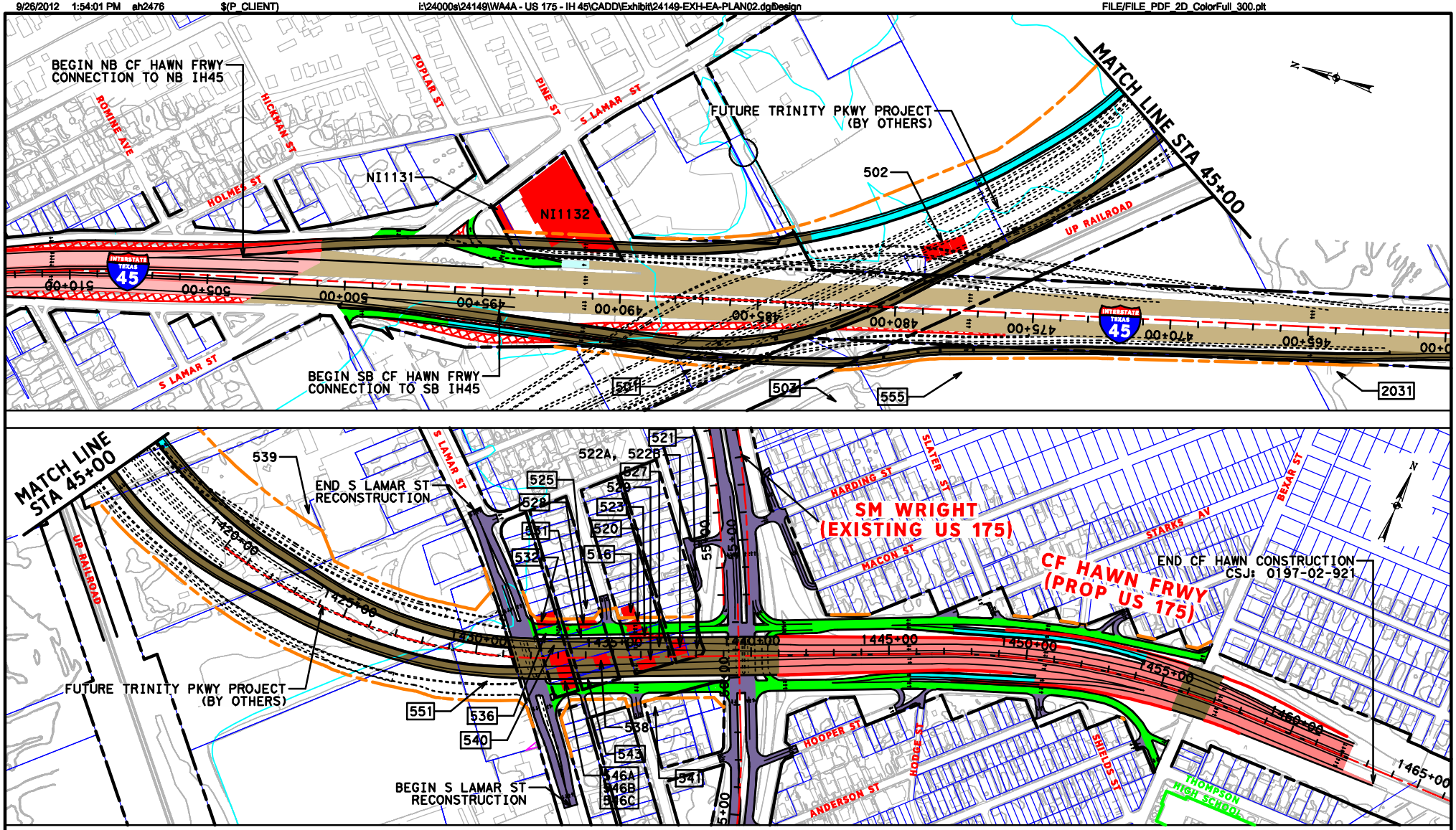
- 501 — PROPERTY ID - EARLY ACQUISITION ROW BY CITY OF DALLAS / POTENTIAL DISPLACEMENT
- 501 — PROPERTY ID - POTENTIAL DISPLACEMENT (NOT EARLY ACQUIRED)
- EXISTING MAIN LANE ON STRUCTURE
- EXISTING MAIN LANE AT GRADE
- EXISTING RAMP
- PROPOSED STRUCTURE
- PROPOSED MAIN LANE AT GRADE
- PROPOSED RAMP / DIRECT CONNECT
- PROPOSED FRONTAGE ROAD
- PROPOSED CROSS STREET / ARTERIAL

0 250 500 750 1000
SCALE: 1"=500'

US 175/SH 310 (SM WRIGHT FRWY)
Plan View of Project Design Features

US 175 - IH 45, Dallas County, TX

(Sheet 1 of 4) Appendix A-5



LEGEND:

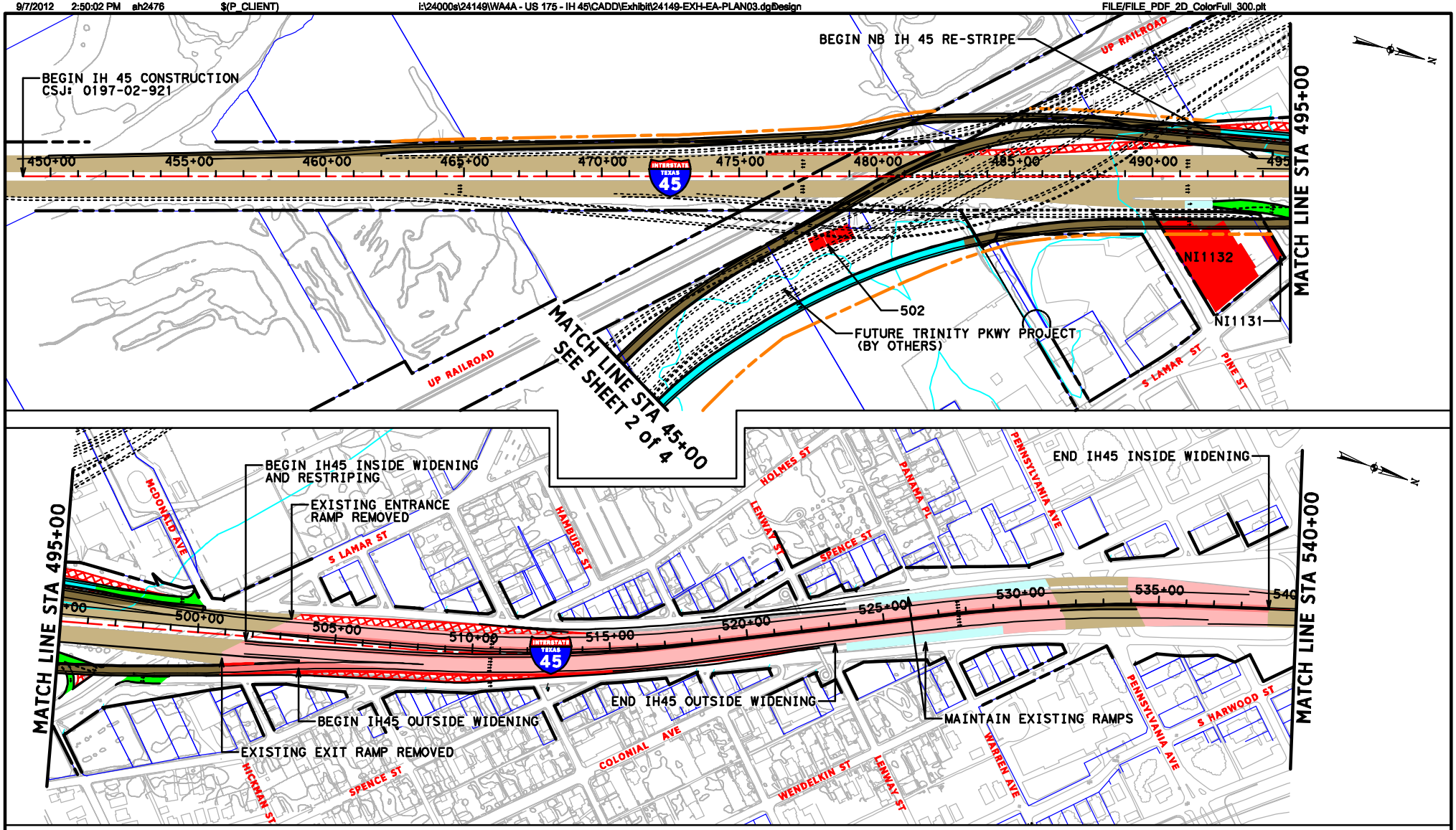
- CENTERLINE
- EXISTING R.O.W.
- PROPOSED R.O.W.
- PROPOSED RETAINING WALL
- PROPERTY LINES
- 100 YR. FLOODPLAIN LIMITS
- FUTURE PROJECT (BY OTHERS)
- PAVEMENT TO BE REMOVED
- POTENTIAL DISPLACED STRUCTURE
- EXISTING OVERPASS TO BE REMOVED

- 501 — PROPERTY ID - EARLY ACQUISITION ROW BY CITY OF DALLAS / POTENTIAL DISPLACEMENT
- 501 — PROPERTY ID - POTENTIAL DISPLACEMENT (NOT EARLY ACQUIRED)
- EXISTING MAIN LANE ON STRUCTURE
- EXISTING MAIN LANE AT GRADE
- EXISTING RAMP
- PROPOSED STRUCTURE
- PROPOSED MAIN LANE AT GRADE
- PROPOSED RAMP / DIRECT CONNECT
- PROPOSED FRONTAGE ROAD
- PROPOSED CROSS STREET / ARTERIAL

0 250 500 750 1000
SCALE: 1"=500'

US 175 (CF HAWN FRWY)
Plan View of Project Design Features
US 175 - IH 45, Dallas County, TX

(Sheet 2 of 4) Appendix A-5



LEGEND:

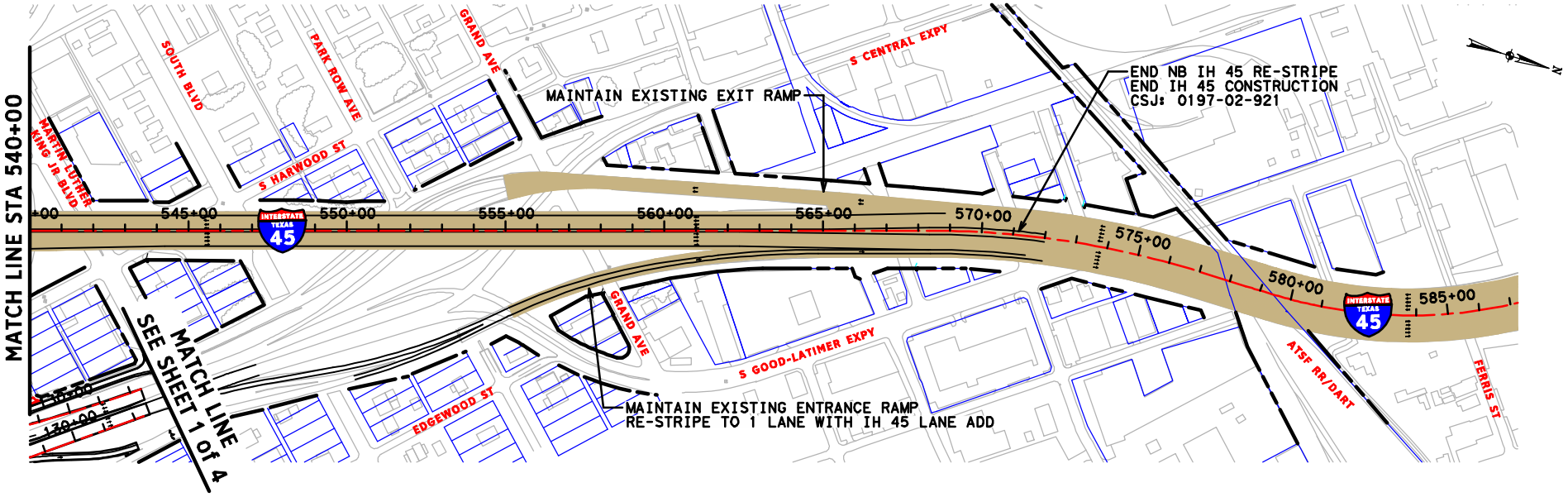
- CENTERLINE
- EXISTING R.O.W.
- PROPOSED R.O.W.
- PROPOSED RETAINING WALL
- PROPERTY LINES
- 100 YR. FLOODPLAIN LIMITS
- FUTURE PROJECT (BY OTHERS)
- PAVEMENT TO BE REMOVED
- POTENTIAL DISPLACED STRUCTURE
- EXISTING OVERPASS TO BE REMOVED

- 501 — PROPERTY ID - EARLY ACQUISITION ROW BY CITY OF DALLAS / POTENTIAL DISPLACEMENT
- 501 — PROPERTY ID - POTENTIAL DISPLACEMENT (NOT EARLY ACQUIRED)
- EXISTING MAIN LANE ON STRUCTURE
- EXISTING MAIN LANE AT GRADE
- EXISTING RAMP
- PROPOSED STRUCTURE
- PROPOSED MAIN LANE AT GRADE
- PROPOSED RAMP / DIRECT CONNECT
- PROPOSED FRONTAGE ROAD
- PROPOSED CROSS STREET / ARTERIAL

0 250 500 750 1000
SCALE: 1"=500'

IH 45
Plan View of Project Design Features
US 175 - IH 45, Dallas County, TX

(Sheet 3 of 4) Appendix A-5



LEGEND:

- CENTERLINE
- EXISTING R.O.W.
- PROPOSED R.O.W.
- PROPOSED RETAINING WALL
- PROPERTY LINES
- 100 YR. FLOODPLAIN LIMITS
- FUTURE PROJECT (BY OTHERS)
- PAVEMENT TO BE REMOVED
- POTENTIAL DISPLACED STRUCTURE
- EXISTING OVERPASS TO BE REMOVED

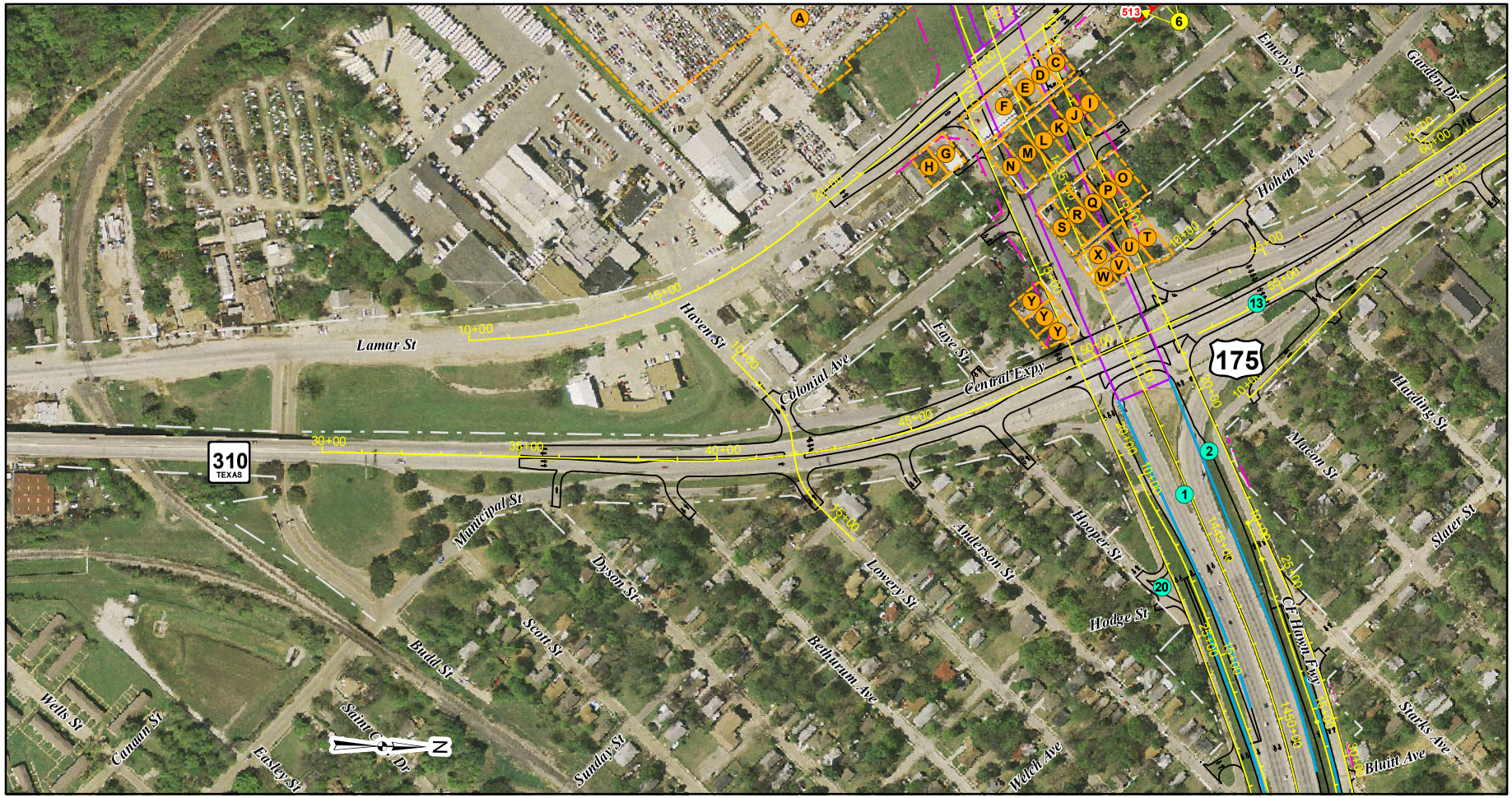
- 501 — PROPERTY ID - EARLY ACQUISITION ROW BY CITY OF DALLAS / POTENTIAL DISPLACEMENT
- 501 — PROPERTY ID - POTENTIAL DISPLACEMENT (NOT EARLY ACQUIRED)
- EXISTING MAIN LANE ON STRUCTURE
- EXISTING MAIN LANE AT GRADE
- EXISTING RAMP
- PROPOSED STRUCTURE
- PROPOSED MAIN LANE AT GRADE
- PROPOSED RAMP / DIRECT CONNECT
- PROPOSED FRONTAGE ROAD
- PROPOSED CROSS STREET / ARTERIAL

0 250 500 750 1000
SCALE: 1"=500'

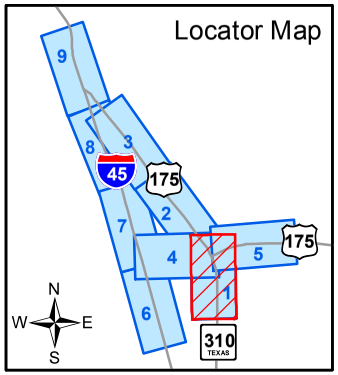
IH 45
Plan View of Project Design Features
US 175 - IH 45, Dallas County, TX

(Sheet 4 of 4) Appendix A-5

CSJ: 0092-01-052, 0197-02-108, & 0092-14-081



Locator Map



Legend

- Direction Arrows
- Existing Right of Way
- Proposed Right of Way
- Proposed Centerline
- Retaining Wall
- Proposed Bridge
- Proposed Edge of Pavement
- Ground Photograph Point (See Appendix A-7)
- High Priority Haz Mat Site from Databases
- Parcel Boundary around High Priority Haz Mat Site
- Other Haz Mat Site
- Parcel Boundary around Other Haz Mat Site

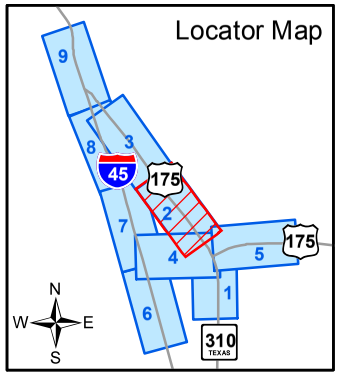
0 400 800 Feet

Project Plan View on Aerial Photograph

SM Wright Project
Dallas, TX

CSJ: 0092-01-052, 0197-02-108, & 0092-14-081

13



Legend

- Direction Arrows
- Existing Right of Way
- Proposed Right of Way
- Proposed Centerline
- Retaining Wall
- Proposed Bridge
- Proposed Edge of Pavement
- Ground Photograph Point (See Appendix A-7)
- High Priority Haz Mat Site from Databases
- Parcel Boundary around High Priority Haz Mat Site
- Other Haz Mat Site
- Parcel Boundary around Other Haz Mat Site

0 400 800 Feet

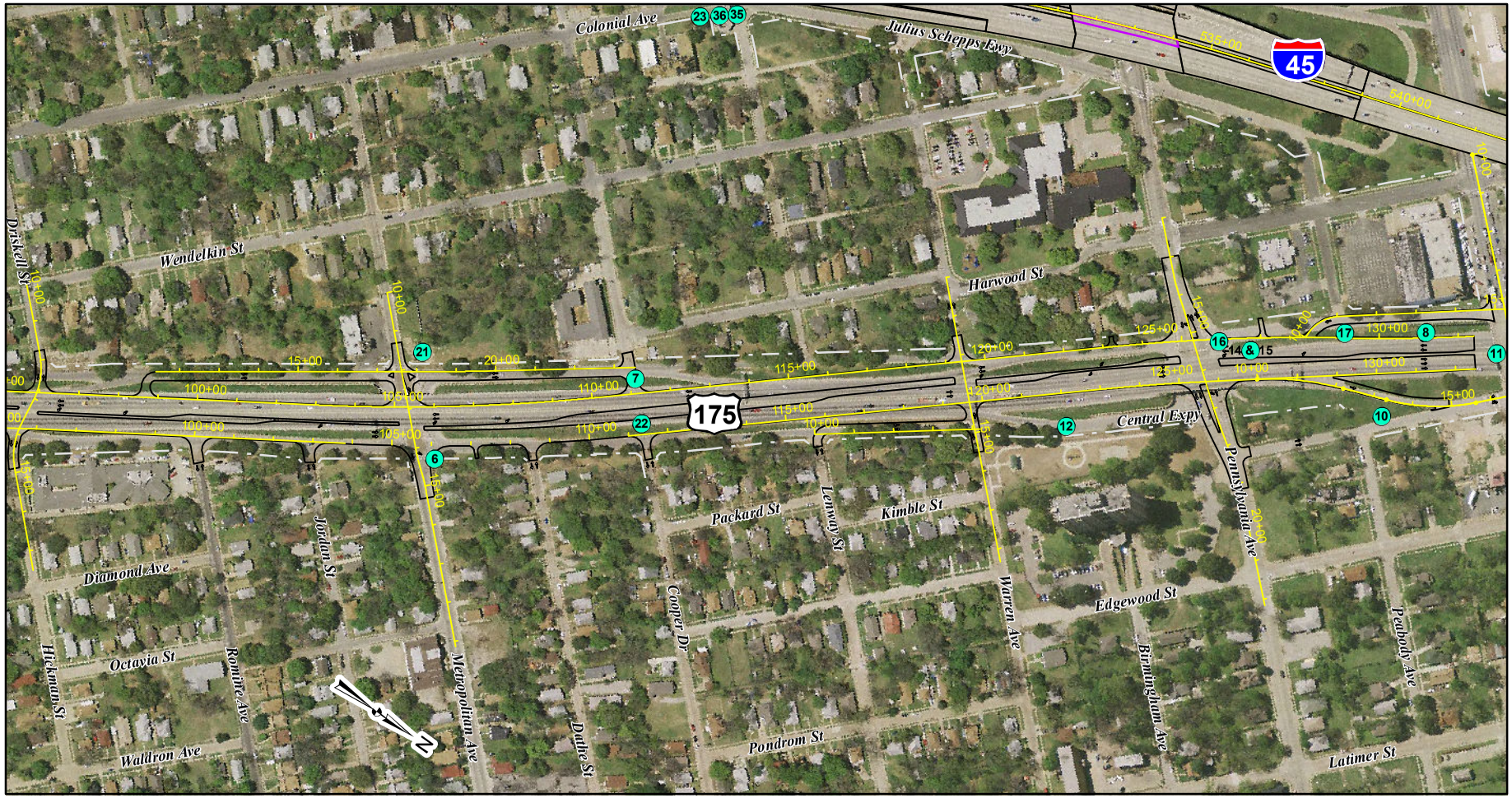
(Page 2 of 9)

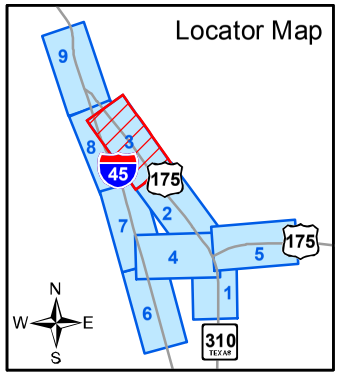
Project Plan View on Aerial Photograph

SM Wright Project
Dallas, TX

Appendix A-6

CSJ: 0092-01-052, 0197-02-108, & 0092-14-081





Legend

- Direction Arrows
- Existing Right of Way
- Proposed Right of Way
- Proposed Centerline
- Retaining Wall
- Proposed Bridge
- Proposed Edge of Pavement
- Ground Photograph Point (See Appendix A-7)
- High Priority Haz Mat Site from Databases
- Parcel Boundary around High Priority Haz Mat Site
- Other Haz Mat Site
- Parcel Boundary around Other Haz Mat Site

0 400 800 Feet

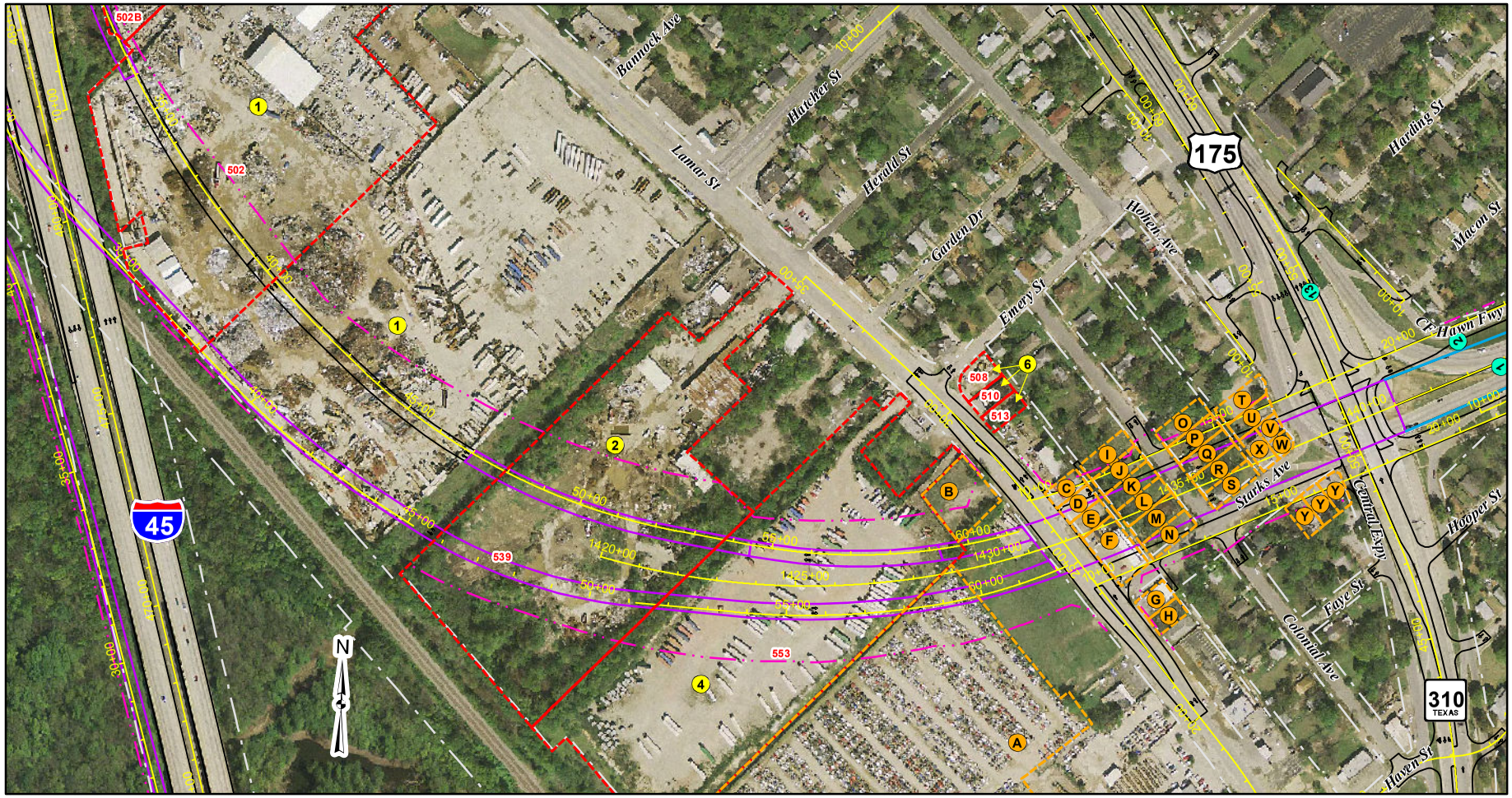
(Page 3 of 9)

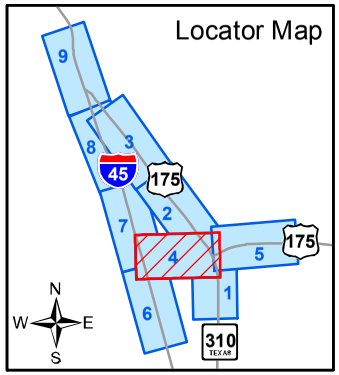
Project Plan View on Aerial Photograph

SM Wright Project
Dallas, TX

Appendix A-6

CSJ: 0092-01-052, 0197-02-108, & 0092-14-081





Legend

- Direction Arrows
- Existing Right of Way
- Proposed Right of Way
- Proposed Centerline
- Retaining Wall
- Proposed Bridge
- Proposed Edge of Pavement
- Ground Photograph Point (See Appendix A-7)
- High Priority Haz Mat Site from Databases
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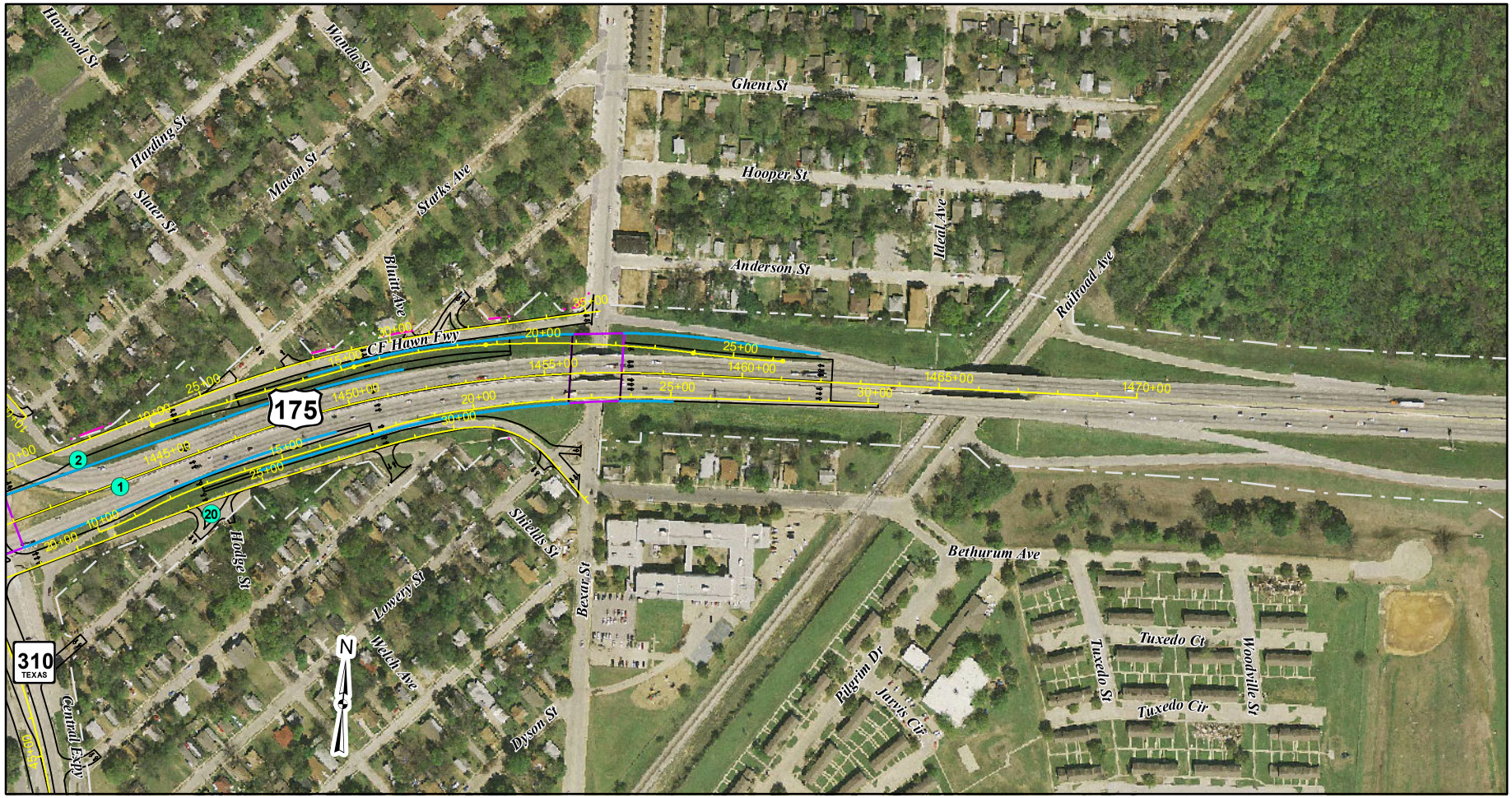
- Other Haz Mat Site
- Parcel Boundary around Other Haz Mat Site

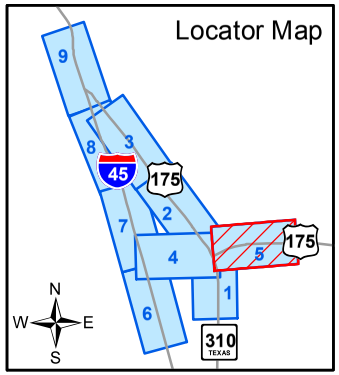
0 400 800 Feet

Project Plan View on Aerial Photograph

SM Wright Project
Dallas, TX

CSJ: 0092-01-052, 0197-02-108, & 0092-14-081





Legend

- Direction Arrows
- Existing Right of Way
- Proposed Right of Way
- Proposed Centerline
- Retaining Wall
- Proposed Bridge
- Proposed Edge of Pavement
- Ground Photograph Point (See Appendix A-7)
- High Priority Haz Mat Site from Databases
- Parcel Boundary around High Priority Haz Mat Site
- Other Haz Mat Site
- Parcel Boundary around Other Haz Mat Site

0 400 800 Feet

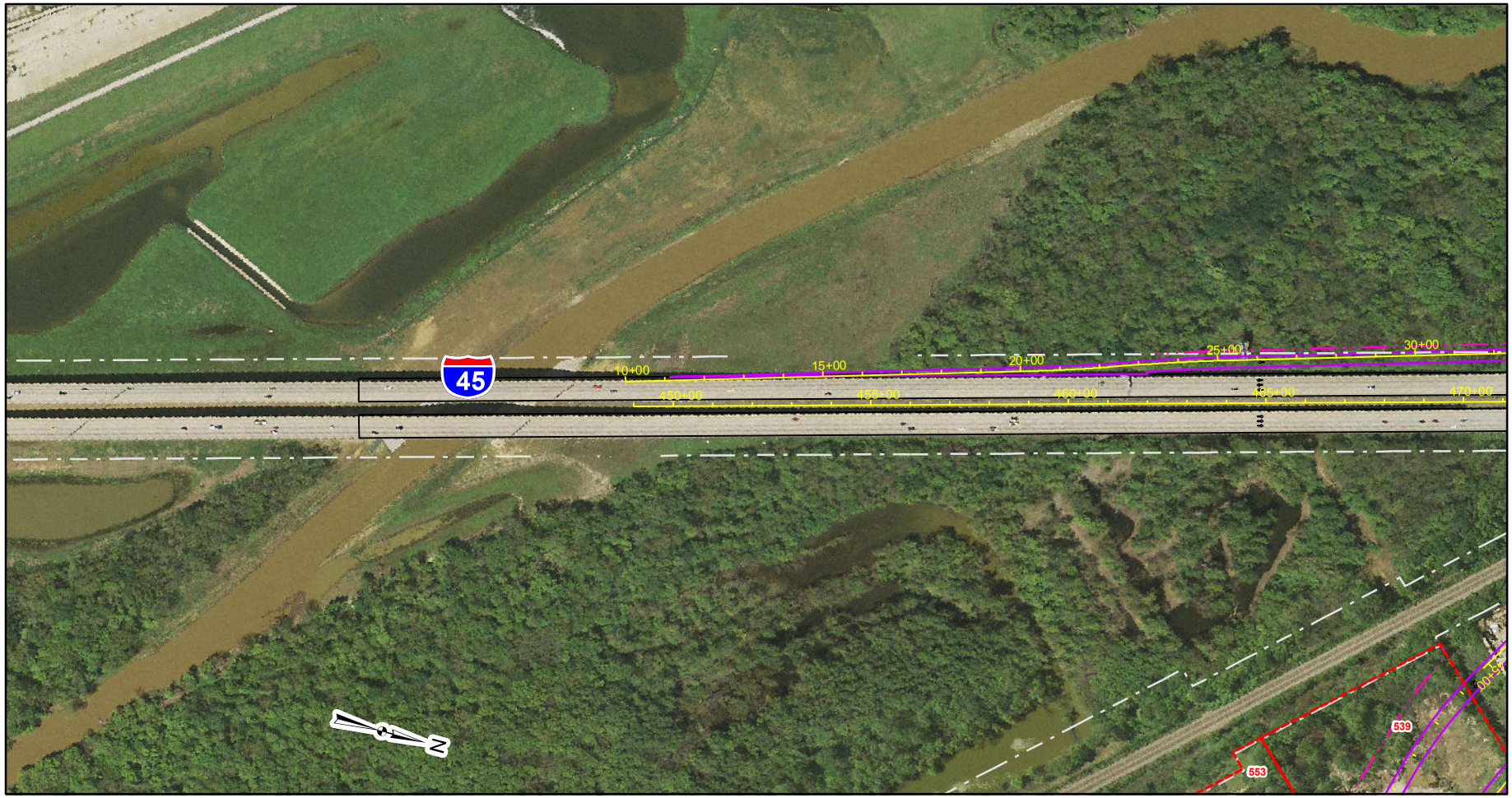
(Page 5 of 9)

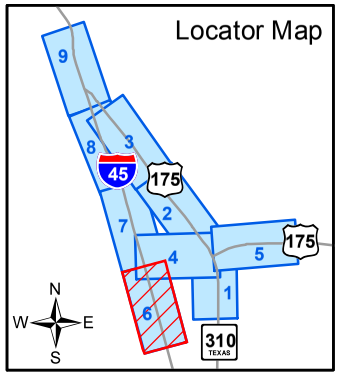
Project Plan View on Aerial Photograph

SM Wright Project
Dallas, TX

Appendix A-6

CSJ: 0092-01-052, 0197-02-108, & 0092-14-081





Legend

- Direction Arrows
- Existing Right of Way
- Proposed Right of Way
- Proposed Centerline
- Retaining Wall
- Proposed Bridge
- Proposed Edge of Pavement
- (1) Ground Photograph Point (See Appendix A-7)
- (1) High Priority Haz Mat Site from Databases
- Parcel Boundary around High Priority Haz Mat Site
- (A) Other Haz Mat Site
- Parcel Boundary around Other Haz Mat Site A

0 400 800 Feet

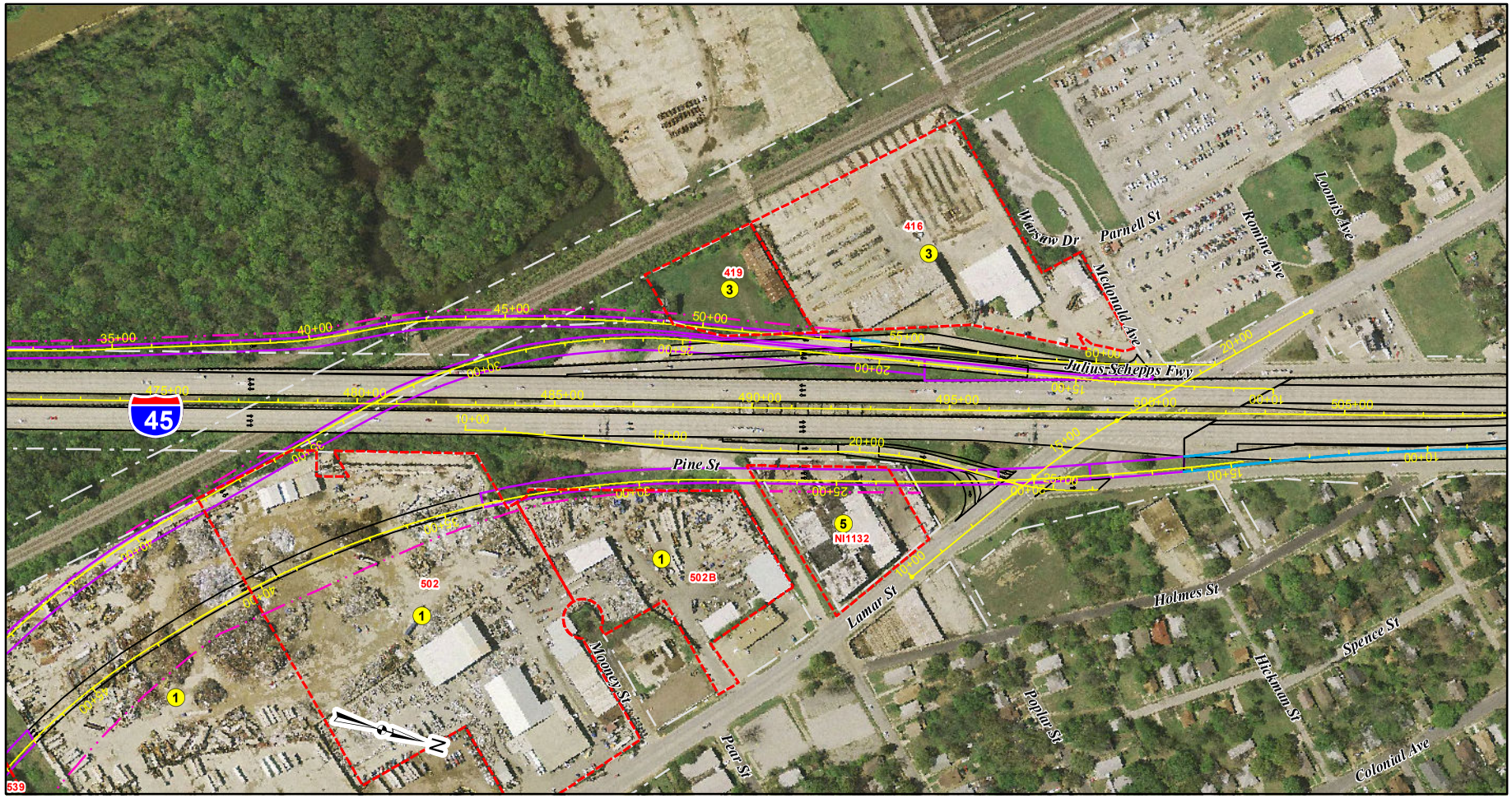
(Page 6 of 9)

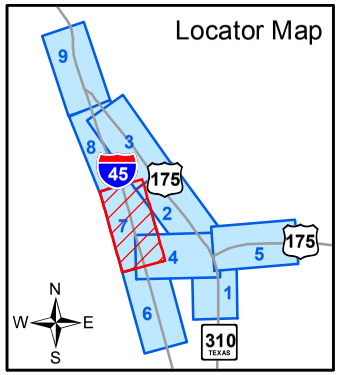
Project Plan View on Aerial Photograph

SM Wright Project
Dallas, TX

Appendix A-6

CSJ: 0092-01-052, 0197-02-108, & 0092-14-081





Legend

- Direction Arrows
- Existing Right of Way
- Proposed Right of Way
- Proposed Centerline
- Retaining Wall
- Proposed Bridge
- Proposed Edge of Pavement
- Ground Photograph Point (See Appendix A-7)
- High Priority Haz Mat Site from Databases
- Parcel Boundary around High Priority Haz Mat Site
- Other Haz Mat Site
- Parcel Boundary around Other Haz Mat Site

0 400 800 Feet

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Project Plan View on Aerial Photograph

SM Wright Project
Dallas, TX
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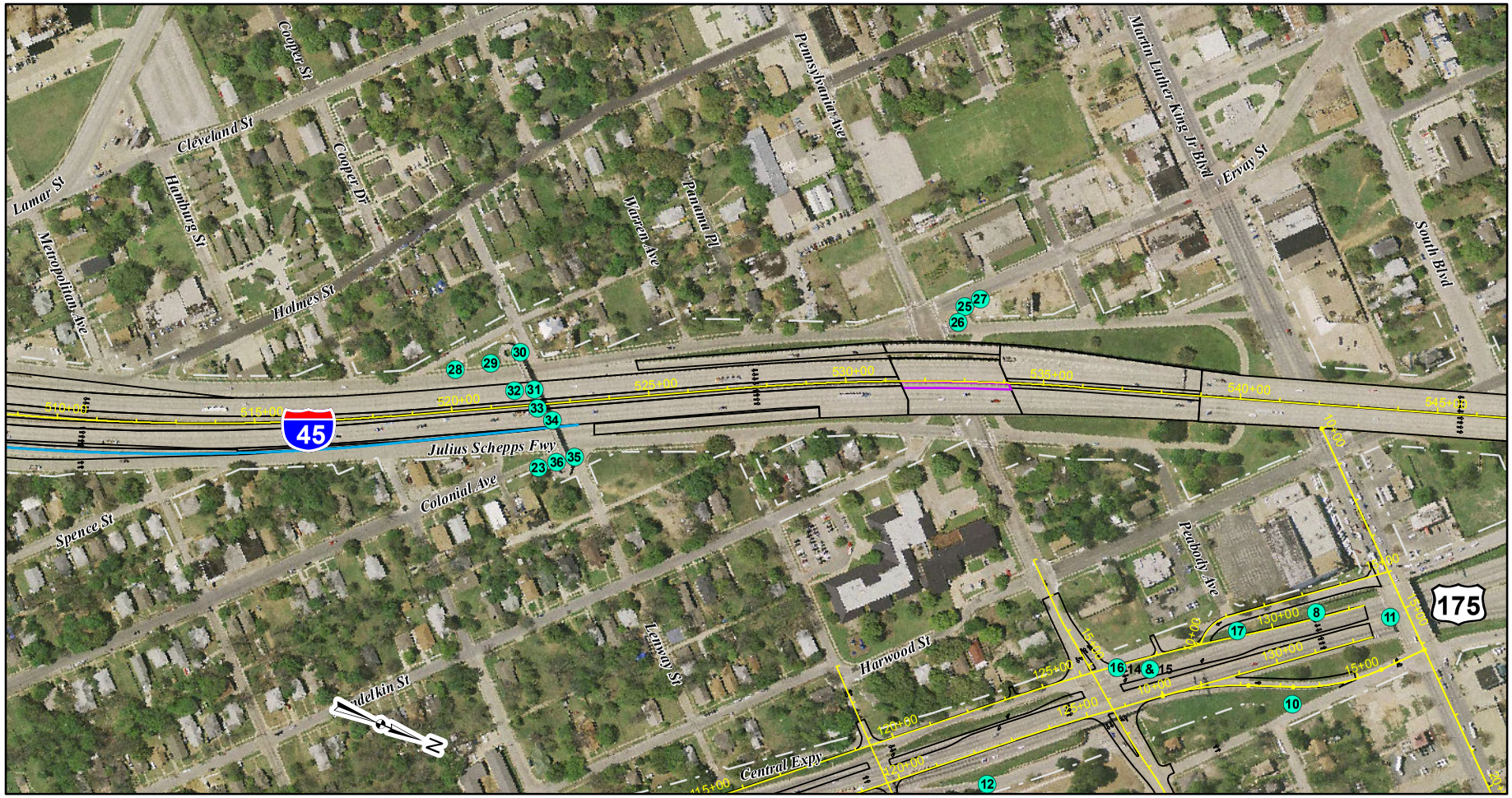
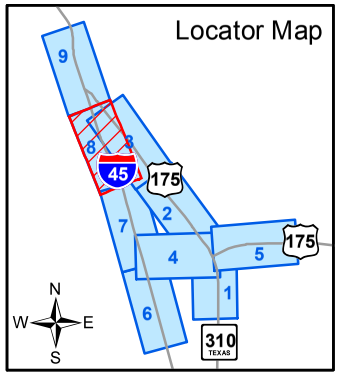
Appendix A-6

CSJ: 0092-01-052, 0197-02-108, & 0092-14-081





Legend

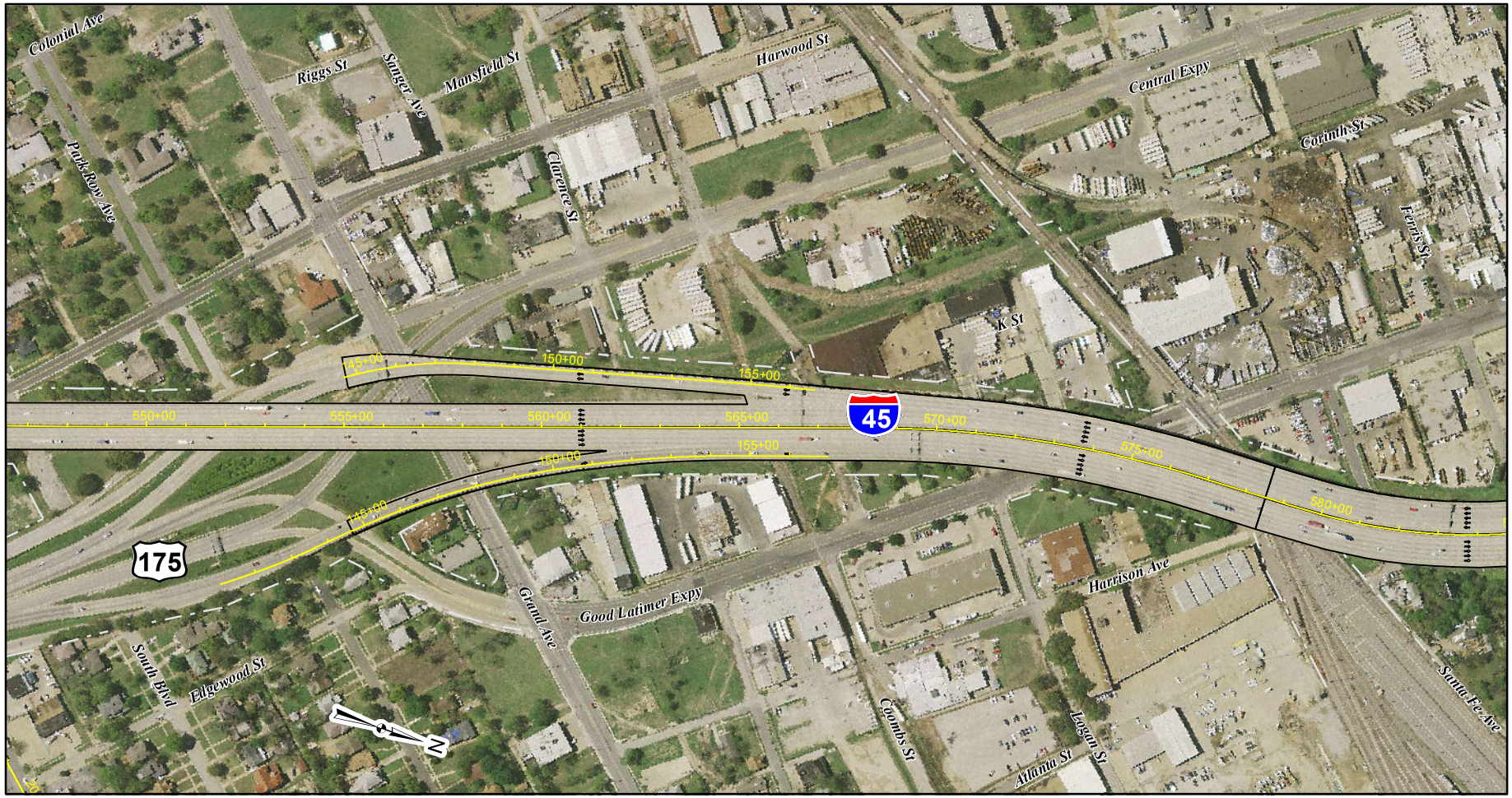
- Direction Arrows
- Existing Right of Way
- Proposed Right of Way
- Proposed Centerline
- Retaining Wall
- Proposed Bridge
- Proposed Edge of Pavement
- Ground Photograph Point (See Appendix A-7)
- High Priority Haz Mat Site from Databases
- Parcel Boundary around High Priority Haz Mat Site
- Other Haz Mat Site
- Parcel Boundary around Other Haz Mat Site

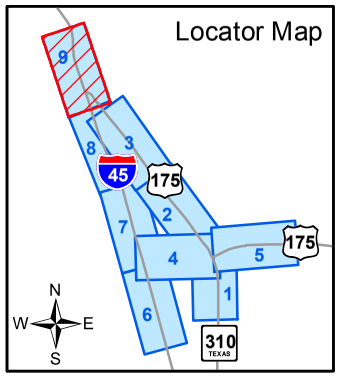
0 400 800 Feet

Project Plan View on Aerial Photograph

SM Wright Project
Dallas, TX

CSJ: 0092-01-052, 0197-02-108, & 0092-14-081





Legend

- Direction Arrows
- Existing Right of Way
- Proposed Right of Way
- Proposed Centerline
- Retaining Wall
- Proposed Bridge
- Proposed Edge of Pavement
- (1) Ground Photograph Point (See Appendix A-7)
- (1) High Priority Haz Mat Site from Databases
- Parcel Boundary around High Priority Haz Mat Site
- (A) Other Haz Mat Site
- Parcel Boundary around Other Haz Mat Site

0 400 800 Feet

(Page 9 of 9)

Project Plan View on Aerial Photograph

SM Wright Project
Dallas, TX

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Appendix A-6

Photograph 1. SH 310/ US 175 Intersection looking West.

Photograph 2. SH 310/ US175 Intersection looking Northwest

Photograph 3. Poplar Street and SM Wright – looking southeast at existing residential development.

Photograph 4. Pine Street and SM Wright – looking Southeast on SM Wright.

Photograph 5. Eugene Street and SM Wright – looking north on SM Wright towards downtown Dallas.

Photograph 6. Metropolitan Avenue and SM Wright – looking southwest towards existing commercial development.

Appendix A-7 (Sheet 1 of 6)

Project Area Ground Photographs

S.M Wright (IH 45 from US 175 to Lamar Blvd. and US 175 from IH 45 to SH 310 at Budd Street)

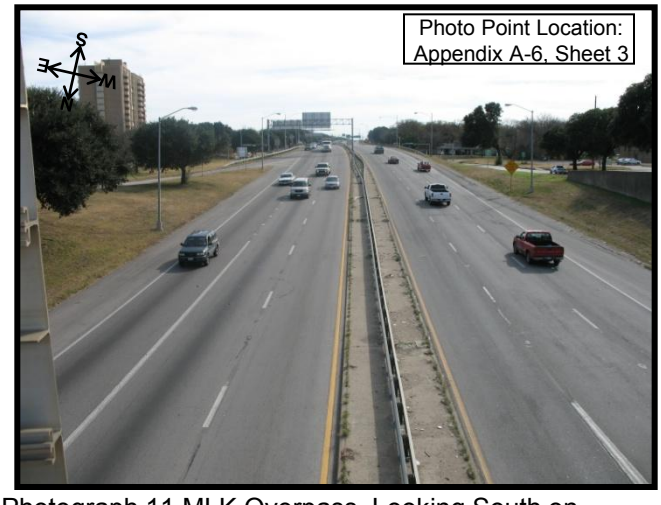
See Appendix A-6 for Photo Point Locations

Photograph 7. Cooper St. and SM Wright-looking northeast on SM Wright.

Photograph 8. Peabody Ave and S.M. Wright-looking north on SM Wright towards MLK Jr. Boulevard and downtown Dallas.

Photograph 9. Stoneman Street and S.M. Wright-looking south on SM Wright).

Photograph 10. MLK and Hwy175, SE Corner – looking north on Hwy175.



Photograph 11 MLK Overpass, Looking South on Hwy 175

Photograph 12. Pennsylvania and Hwy175, Southeast Corner.

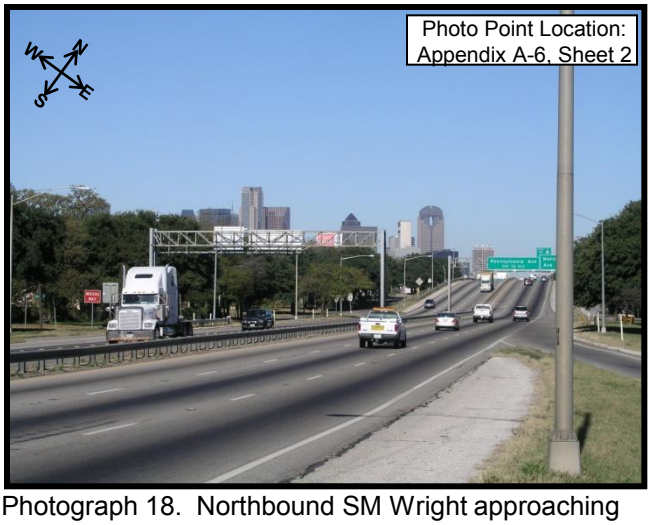
Photograph 13. SM Wright looking Northwest.

Photograph 14. Pennsylvania Ave. and SM Wright-looking South on SM Wright

Photograph 15. Pennsylvania Ave. and SM Wright-looking South on SM Wright

Photograph 16. Pennsylvania Ave. and SM Wright-looking South on SM Wright

Photograph 17. Peabody Ave and SM Wright-looking north on SM Wright towards MLK Jr. Boulevard and downtown Dallas.



Photograph 18. Northbound SM Wright approaching Metropolitan Ave).

Appendix A-7 (Sheet 3 of 6)

Project Area Ground Photographs

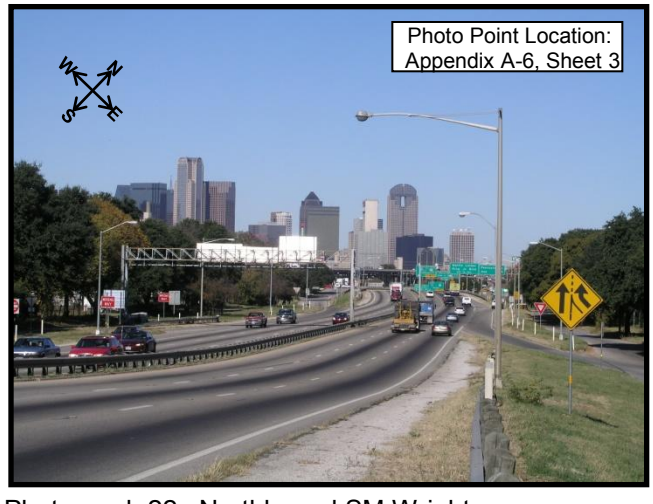
S.M Wright (IH 45 from US 175 to Lamar Blvd. and US 175 from IH 45 to SH 310 at Budd Street)

See Appendix A-6 for Photo Point Locations

Photograph 19. 175 and Hatcher Street, NW Corner

Photograph 20. 310-175, SE Corner – looking north.

Photograph 21. Metropolitan and 175, NW Corner.



Photograph 22. Northbound SM Wright approaching Martin Luther King Jr. Blvd.

Photograph 23. IH 45 Pedestrian Bridge near Lenway Street.

Photograph 24. Pine Street and 175, SE Corner.

Appendix A-7 (Sheet 4 of 6)

Project Area Ground Photographs

S.M Wright (IH 45 from US 175 to Lamar Blvd. and US 175 from IH 45 to SH 310 at Budd Street)

See Appendix A-6 for Photo Point Locations

Photograph 25. IH 45 - Pennsylvania southbound frontage road, looking south bound

Photograph 26. IH 45 - Pennsylvania southbound frontage road, looking north bound

Photograph 27. IH 45- Pennsylvania southbound frontage road, looking southwest near St. Phillips school.

Photograph 28. Pedestrian Bridge at IH 45 and Lenway, from the southbound frontage road, looking northbound.

Photograph 29. IH 45 and Lenway, taken from the pedestrian bridge ramp on the southbound frontage road, looking northeast

Photograph 30. IH 45 and Lenway, taken from the pedestrian bridge ramp on the southbound frontage road, looking northeast

Appendix A-7 (Sheet 5 of 6)

Project Area Ground Photographs

S.M Wright (IH 45 from US 175 to Lamar Blvd. and US 175 from IH 45 to SH 310 at Budd Street)

See Appendix A-6 for Photo Point Locations

Photograph 31. IH 45 and Lenway, taken from the pedestrian bridge, looking north on IH 45

Photograph 32. IH 45 and Lenway, taken from the pedestrian bridge, looking south on IH 45

Photograph 33. IH 45 and Lenway, from the pedestrian bridge, looking north on IH 45

Photograph 34. IH 45 and Lenway, from the pedestrian bridge, looking south on IH 45

Photograph 35. IH 45 and Lenway, from the pedestrian bridge ramp on the northbound frontage road, looking northwest

Photograph 36. IH 45 and Lenway, from the pedestrian bridge ramp on the northbound frontage road, looking southwest

Appendix A-7 (Sheet 6 of 6)

Project Area Ground Photographs

S.M Wright (IH 45 from US 175 to Lamar Blvd. and US 175 from IH 45 to SH 310 at Budd Street)

See Appendix A-6 for Photo Point Locations

APPENDIX B
NATURAL RESOURCES

Legend

- Project Right of Way
- 100-Year Floodplain in Project Right of Way
- 100-Year Floodplain

N
W E
S

0 1,000 2,000
Feet

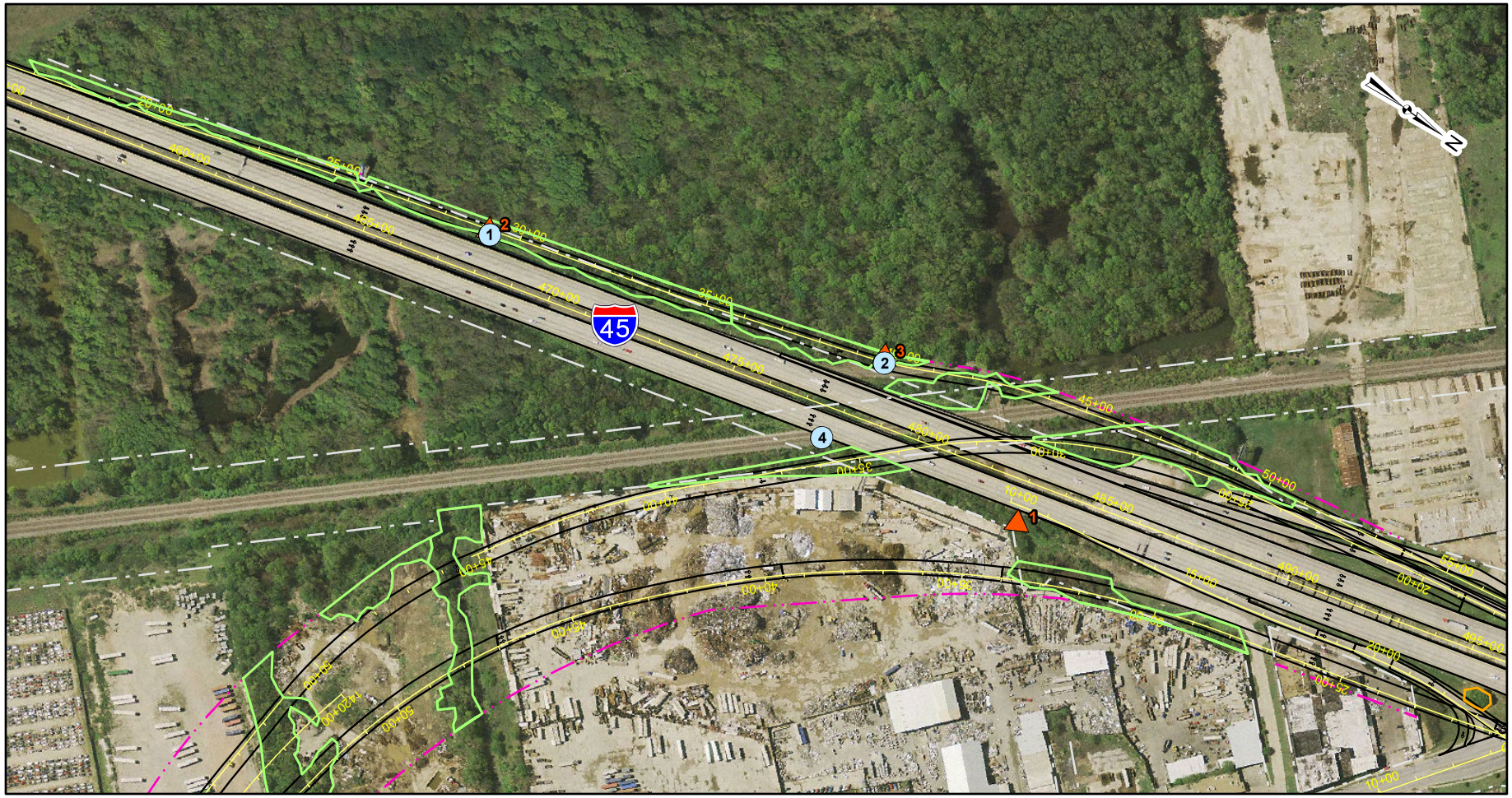
Source/Year:
Landiscor Aerial Photograph/2009
Effective FEMA Floodplain/2001
Total Acreage of 100-Year Floodplain in Project Right of Way: 46.9 Acres

100-Year Floodplain in the Project ROW

SM Wright Project
Dallas, Texas

CSJs: 0092-01-052, 0197-02-108, & 0092-14-081

CSJ: 0092-01-052, 0197-02-108, & 0092-14-081



Legend

- Direction Arrows
- Existing Right of Way
- Proposed Right of Way
- Proposed Centerline
- Proposed Edge of Pavement
- Photograph Point Location (See App. B-3 for photographs)
- Woodland Data Point
- Riparian Forest
- Upland Forest

Source/Year of Aerial Photograph: Landiscor/2009

0 400 800 Feet

Forest Impacts

SM Wright Project
Dallas, TX

CSJ: 0092-01-052, 0197-02-108, & 0092-14-081

Legend

- Direction Arrows
- Existing Right of Way
- Proposed Right of Way
- Proposed Centerline
- Proposed Edge of Pavement
- Photograph Point Location (See App. B-3 for photographs)
- Woodland Data Point
- Riparian Forest
- Upland Forest

Source/Year of Aerial Photograph: Landiscor/2009

0 400 800 Feet

Forest Impacts

SM Wright Project
Dallas, TX

Photograph 1. Riparian forest just west of IH 45 at Woodland Data Point 2. View is toward the west.

Photograph 2. Riparian forest just west of IH 45 at Woodland Data Point 3. View is toward the west.

Photograph 3. Riparian forest area near industrial property on Lamar Blvd. View is toward the south.

Photograph 4. Riparian forest is fragmented by the railroad embankment near IH 45. View is to the south.

Photograph 5. Landscaping trees form typical upland forest habitat near Starks Ave. View is to the northwest.

Photograph 6. No construction impacts are expected to most of the large live oak trees along the proposed SM Wright Parkway. View is southward.

Ground Photographs of Forest Resources

SM Wright Project -- Dallas, Texas

See Appendix B-2 for Photo Point Locations

TxDOT WOODLANDS DATA FORM

GENERAL

Project/Site	SM Wright—IH 45/US 175		**Area #: 1**	Date	28 April 2011
CSJs	0092-01-052, 0197-02-108, & 0092-14-081	Investigator	Rich Jaynes	County	Dallas
Filename	I:\24000s\24149\WA4A - US 175 - IH 45\ENVIRONMENTAL\2-Back-up Data\Vegetation & Habitat\Woodland Data Forms\App -- Completed Woodland Data Forms.docx				

Project Scope

Conversion of S.M. Wright Freeway to a signalized urban arterial, and improvements to connecting roads.

Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)

Location: East side of IH 45 – nearest IH 45 Centerline Station: 483 + 50

Vegetation type: riparian forest (drainage ditch bottom and banks)

Overstory: dominated by red mulberry trees; trees generally not more than 50 feet tall

Understory: sparse and dominated by woody vines, and includes the following—
- vines: dewberry (*Rubus* spp.) and Virginia creeper (*Parthenocissus quinquefolia*)
- shrubs:
- grasses and sedges: perennial rye grass (*Lolium perenne*) and Virginia wildrye (*Elymus virginicus*)
- forbs: giant ragweed (*Ambrosia trifida*), hedge parsley (*Torilis arvensis*), bedstraw (*Galium aparine*), cornsalad (*Valerianella radiata*), curly dock (*Rumex crispus*), wild onion (*Allium* sp.)

Is Site Unusual or Typical of Others in the Area?	typical

SPECIES DESCRIPTION

Species by Order of Dominance

Common Name	Taxonomic Name	Range of Sizes (dbh)
red mulberry	*Morus rubra*	<1" – 8"
American elm	*Ulmus americana*	<1" – 8"
China-berry	*Melia azedarach*	<1" – 10"
green ash	*Fraxinus pennsylvanica*	<1" – 3"

Acreage of Trees to be Removed	1.2 acres (total trees >6" dbh to be removed: 107)
Density per Acre (trees > 6" dbh)	89

Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)

Impacts: permanent removal of forested vegetation and conversion to either paved surface or grass

Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 4 trees
Average size of trees >6" dbh within density sample: 8" dbh
Canopy coverage estimate: 100%
Tree notes:

HABITAT VALUE

Is the Site Adjacent to Water?	yes (near ephemeral channel; within Trinity River floodplain)
Is the Site in a Developed Area?	yes (near IH 45 and Lamar Blvd.)

Do Plants Produce Nuts, Berries, or Acorns?

Yes: mulberry—aggregate; elm and box elder—samara; China-berry—berry

Land Use in the Project Area

Transportation and vacant land within floodplain

Evidence or Sightings of Wildlife in the Project Area?

Remarks

TxDOT WOODLANDS DATA FORM

GENERAL

Project/Site	SM Wright—IH 45/US 175		**Area #: 2**	Date	28 April 2011
CSJs	0092-01-052, 0197-02-108, & 0092-14-081	Investigator	Rich Jaynes	County	Dallas
Filename	I:\24000s\24149\WA4A - US 175 - IH 45\ENVIRONMENTAL\2-Back-up Data\Vegetation & Habitat\Woodland Data Forms\App -- Completed Woodland Data Forms.docx				

Project Scope

Conversion of S.M. Wright Freeway to a signalized urban arterial, and improvements to connecting roads.

Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)

Location: West side of IH 45 – nearest IH 45 Centerline Station: 468 + 00

Vegetation type: riparian forest
Overstory: dominated by hackberry trees; trees generally not more than 70 feet tall

Understory: sparse and dominated by woody vines, and includes the following—

- vines: poison ivy (*Toxicodendron radicans*), saw greenbrier (*Smilax bona-nox*), Virginia creeper (*Parthenocissus quinquefolia)*, Carolina snailseed (*Cocculus carolinus*), wild grape (*Vitis* sp.)
- shrubs: Eve's necklace (*Sophora affinis*)
- grasses and sedges: Virginia wildrye (*Elymus virginicus*)
- forbs: giant ragweed (*Ambrosia trifida*)

Is Site Unusual or Typical of Others in the Area?	typical

SPECIES DESCRIPTION

Species by Order of Dominance

Common Name	Taxonomic Name	Range of Sizes (dbh)
American elm	*Ulmus americana*	<1" – 18"
box elder	*Acer negundo*	<1" – 8"
hackberry	*Celtis laevigata*	<1" – 6"
China-berry	*Melia azedarach*	<1" – 8"
red mulberry	*Morus rubra*	<1" – 2"
green ash	*Fraxinus pennsylvanica*	<1" – 5"
pecan	*Carya illinoinensis*	15"
bur oak	*Quercus macrocarpa*	8"
soapberry	*Sapindus saponaria* var. *drummondii*	<1"

Acreage of Trees to be Removed	1.6 acres (total trees >6" dbh to be removed: 250)
Density per Acre (trees > 6" dbh)	156

Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)

Impacts: permanent removal of forested vegetation and conversion to either paved surface or grass

Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 7 trees
Average size of trees >6" dbh within density sample: 10" dbh
Canopy coverage estimate: 100%
Tree notes:

HABITAT VALUE

Is the Site Adjacent to Water?	yes (within Trinity River floodplain)
Is the Site in a Developed Area?	yes (near IH 45)

Do Plants Produce Nuts, Berries, or Acorns?

Yes: box elder, ash, and elm—samara; hackberry, China-berry, and soapberry—berry; mulberry—aggregate; pecan and oak—nut

Land Use in the Project Area

Transportation and vacant land within floodplain

Evidence or Sightings of Wildlife in the Project Area?

Remarks

TxDOT WOODLANDS DATA FORM

GENERAL

Project/Site	SM Wright—IH 45/US 175		**Area #: 3**	Date	28 April 2011
CSJs	0092-01-052, 0197-02-108, & 0092-14-081	Investigator	Rich Jaynes	County	Dallas
Filename	I:\24000s\24149\WA4A - US 175 - IH 45\ENVIRONMENTAL\2-Back-up Data\Vegetation & Habitat\Woodland Data Forms\App -- Completed Woodland Data Forms.docx				

Project Scope

Conversion of S.M. Wright Freeway to a signalized urban arterial, and improvements to connecting roads.

Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)

Location: West side of IH 45 – nearest IH 45 Centerline Station: 478 + 00

Vegetation type: riparian forest

Overstory: dominated by hackberry trees; trees generally not more than 60 feet tall

Understory: sparse and dominated by woody vines, and includes the following—

- vines: poison ivy (*Toxicodendron radicans*), saw greenbrier (*Smilax bona-nox*), Virginia creeper (*Parthenocissus quinquefolia*), Japanese honeysuckle (*Lonicera japonica*), Carolina snailseed (*Cocculus carolinus*)
- shrubs: Chinese privet (*Ligustrum sinense*), Japanese privet (*Ligustrum japonicum*)
- grasses and sedges: Virginia wildrye (*Elymus virginicus*)
- forbs: hedge parsley (*Torilis arvensis*), giant ragweed (*Ambrosia trifida*)

Is Site Unusual or Typical of Others in the Area?	typical

SPECIES DESCRIPTION

Species by Order of Dominance

Common Name	Taxonomic Name	Range of Sizes (dbh)
hackberry	*Celtis laevigata*	<1" – 14"
American elm	*Ulmus americana*	<1" – 18"
box elder	*Acer negundo*	<1" – 6"
bois d'arc	*Maclura pomifera*	10"
pecan	*Carya illinoinensis*	4"
red mulberry	*Morus rubra*	<1" – 2"
China-berry	*Melia azedarach*	<1"
eastern red cedar	*Juniperus virginiana*	<1"

Acreage of Trees to be Removed	2.0 acres (total trees >6" dbh to be removed: 400)
Density per Acre (trees > 6" dbh)	200

Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)

Impacts: permanent removal of forested vegetation and conversion to either paved surface or grass

Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 9 trees
Average size of trees >6" dbh within density sample: 9" dbh
Canopy coverage estimate: 90%
Tree notes:

HABITAT VALUE

Is the Site Adjacent to Water?	yes (within Trinity River floodplain)
Is the Site in a Developed Area?	yes (near railroad and IH 45)

Do Plants Produce Nuts, Berries, or Acorns?

Yes: hackberry and China-berry—berry; elm and box elder—samara; mulberry and bois d'arc--aggregate; pecan—nut; cedar—berry-like cone

Land Use in the Project Area

Transportation and vacant land within floodplain

Evidence or Sightings of Wildlife in the Project Area?

Remarks

TxDOT WOODLANDS DATA FORM

GENERAL

Project/Site	SM Wright—IH 45/US 175		**Area #: 4**	Date	28 April 2011
CSJs	0092-01-052, 0197-02-108, & 0092-14-081	Investigator	Rich Jaynes	County	Dallas
Filename	I:\24000s\24149\WA4A - US 175 - IH 45\ENVIRONMENTAL\2-Back-up Data\Vegetation & Habitat\Woodland Data Forms\App -- Completed Woodland Data Forms.docx				
Project Scope					
Conversion of S.M. Wright Freeway to a signalized urban arterial, and improvements to connecting roads.					
Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)					
Location: North of Starks Avenue, between Lamar Street and Colonial Avenue – nearest C.F. Hawn Centerline Station: 1434 + 00 Vegetation type: upland forest (residential landscaping) Overstory: dominated by tree-of-heaven trees; trees generally not more than 40 feet tall Understory: sparse and dominated by woody vines, and includes the following— ▪ vines: Carolina snailseed (*Cocculus carolinus*) ▪ shrubs: ▪ grasses and sedges: Bermuda grass (*Cynodon dactylon*) ▪ forbs: giant ragweed (*Ambrosia trifida*) and hedge parsley (*Torilis arvensis*)					
Is Site Unusual or Typical of Others in the Area?	typical				

SPECIES DESCRIPTION

Species by Order of Dominance		
Common Name	Taxonomic Name	Range of Sizes (dbh)
tree-of-heaven	*Ailanthus altissima*	<1" – 7"
hackberry	*Celtis laevigata*	<1" – 14"

Acreage of Trees to be Removed	1.4 acres (total trees >6" dbh to be removed: 125)
Density per Acre (trees > 6" dbh)	89

Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)
Impacts: permanent removal of forested vegetation and conversion to either paved surface or grass Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 4 trees Average size of trees >6" dbh within density sample: 8" dbh Canopy coverage estimate: 50% Tree notes:

HABITAT VALUE

Is the Site Adjacent to Water?	no
Is the Site in a Developed Area?	yes (residential/commercial)
Do Plants Produce Nuts, Berries, or Acorns?	
Yes: tree-of-heaven—samara; hackberry—berry	
Land Use in the Project Area	
Residential, industrial, and undeveloped vacant land	
Evidence or Sightings of Wildlife in the Project Area?	
Remarks	

TxDOT WOODLANDS DATA FORM

GENERAL

Project/Site	SM Wright—IH 45/US 175		**Area #: 5**	Date	28 April 2011
CSJs	0092-01-052, 0197-02-108, & 0092-14-081	Investigator	Rich Jaynes	County	Dallas
Filename	I:\24000s\24149\WA4A - US 175 - IH 45\ENVIRONMENTAL\2-Back-up Data\Vegetation & Habitat\Woodland Data Forms\App -- Completed Woodland Data Forms.docx				

Project Scope

Conversion of S.M. Wright Freeway to a signalized urban arterial, and improvements to connecting roads.

Description of Wooded Site (riparian, upland, fence line, overstory/understory, disturbed, diverse, etc.)

Location: West side of Lamar Street, between Starks Avenue and Emery Street – nearest C.F. Hawn Centerline Station: 1430 + 50

Vegetation type: riparian forest (between two lots within industrial area)

Overstory: dominated by American elm trees; trees generally not more than 50 feet tall

Understory: sparse and dominated by woody vines, and includes the following—

- vines: trumpet-creeper (*Campsis radicans*), and Carolina snailseed (*Cocculus carolinus*)
- shrubs: crape-myrtle (*Lagerstroemia indica*)
- grasses and sedges: Bermuda grass (*Cynodon dactylon*) and Johnson grass (*Sorghum halepense*)
- forbs: hedge parsley (*Torilis arvensis*)

Is Site Unusual or Typical of Others in the Area?	typical

SPECIES DESCRIPTION

Species by Order of Dominance

Common Name	Taxonomic Name	Range of Sizes (dbh)
American elm	*Ulmus americana*	2" – 7"
hackberry	*Celtis laevigata*	<1" – 5"
pecan	*Carya illinoinensis*	2" – 6"
eastern cottonwood	*Populus deltoides*	3" – 5"
China-berry	*Melia azedarach*	<1" – 5"
red mulberry	*Morus rubra*	2" – 4"

Acreage of Trees to be Removed	2.7 acres (total trees >6" dbh to be removed: 186)
Density per Acre (trees > 6" dbh)	69

Remarks, Description of any Unique, Large, or Mature Trees (>20" dbh)

Impacts: permanent removal of forested vegetation and conversion to either paved surface or grass

Density sample: trees >6" dbh within a circle with a radius of 25 feet (0.045 acre) = 3 trees
Average size of trees >6" dbh within density sample: 6" dbh
Canopy coverage estimate: 90%
Tree notes:

HABITAT VALUE

Is the Site Adjacent to Water?	yes (near ephemeral channel; within Trinity River floodplain)
Is the Site in a Developed Area?	yes (industrial/residential)

Do Plants Produce Nuts, Berries, or Acorns?

Yes: elm—samara; hackberry and China-berry—berry; pecan—nut; mulberry--aggregate

Land Use in the Project Area

Residential, industrial, and undeveloped vacant land

Evidence or Sightings of Wildlife in the Project Area?

Remarks

Texas Department of Transportation
DEWITT C. GREER STATE HIGHWAY BLDG. • 125 E. 11TH STREET • AUSTIN, TEXAS 78701-2483 • (512) 463-8585

May 16, 2012

Environmental Document Coordination
CSJ: 0092-01-052
Highway: US 175 (SM Wright Freeway)
From: IH 45
To: SH 310, et al
County: Dallas

Ms. Kathy Boydston
Texas Parks and Wildlife Department
Wildlife Division – Wildlife Habitat Assessment Program
4200 Smith School Road
Austin, Texas 78744

Dear Ms. Boydston:

Consistent with the Memorandum of Understanding signed by our two agencies, attached is a copy of the environmental document covering the subject project for your review and comment. Any comments you may have on this document will assist the Texas Department of Transportation (Department) in ensuring that the Department's projects are sensitive to the natural resources of the state.

Please submit any comments you may have within 45 days from the date of this letter. If you do not have any comments on the document, please sign and date the bottom of this letter and return a copy to the Environmental Affairs Division. If no response is received after the 45 days have expired, we will proceed with project development. If you have any questions regarding this project please contact me at (512) 416-2511.

Sincerely,

Stirling J. Robertson, Ph.D.
Biological Resources Management Branch
Environmental Affairs Division

SJR: jas
Enclosure
Bcc: DAL SJR FILE/rl

☐ NO COMMENT: _____
Wildlife Habitat Assessment Program

DATE: _____

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T. Dan Friedkin
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Boerne

S. Reed Morian
Houston

Dick Scott
Wimberley

Lee M. Bass
Chairman-Emeritus
Fort Worth

Carter P. Smith
Executive Director

June 11, 2012

Stirling J. Robertson, Ph.D.
Biological Resources Management Branch
Environmental Affairs Division
Texas Department of Transportation
125 East 11th Street
Austin, TX 78701-2483

RE: Environmental Assessment for SM Wright Project
Dallas County (CSJs 0092-01-052, 0197-02-108, and 0092-14-081)

Dear Dr. Robertson:

The Texas Parks and Wildlife Department (TPWD) has reviewed the Environmental Assessment (EA) for the project referenced above. The proposed project involves the western extension of US 175 on new location from east of Bexar Street to IH 45, improvements on IH 45 from south of Lamar Street to the existing US 175, and improvements on existing US 175 from IH 45 to north of Budd Street. Upon completion of construction, the section of existing US 175 north of the realigned US 175 would be downgraded from a six-lane freeway to a low speed, signalized six-lane urban arterial and would be removed from the state roadway system for City of Dallas control. The project would require 31.81 acres of additional right-of-way (ROW).

Under section 12.0011 of the Texas Parks and Wildlife Code, TPWD is charged with "providing recommendations that will protect fish and wildlife resources to local, state, and federal agencies that approve, permit, license, or construct developmental projects" and "providing information on fish and wildlife resources to any local, state, and federal agencies or private organizations that make decisions affecting those resources." TPWD provides the following recommendations to minimize impact to fish and wildlife resources.

Mature Trees and Riparian Vegetation

Although the project area is highly urbanized, it is also located adjacent to the Great Trinity Forest, an approximately 7,000-acre area within the Trinity River floodplain that contains approximately 4,600 acres of relatively contiguous forest that is planned for parkland, recreation, ecosystem restoration, and flood control by the City of Dallas *Great Trinity Forest Master Plan*. The project would impact approximately 3.6 acres of riparian/bottomland forest located west of IH 45 and the Union Pacific Railroad embankment in an area designated for the Great

4200 SMITH SCHOOL ROAD
AUSTIN, TEXAS 78744-3291
512.389.4800
www.tpwd.state.tx.us

Trinity Forest. Of this area of impact, 1.25 acres have already been acquired by the City of Dallas for the Great Trinity Forest. In addition to 3.6 acres of riparian/bottomland forest impact within the Great Trinity Forest area, the project would impact 3.9 acres of more-fragmented riparian/bottomland forest habitat located east of IH 45 and Union Pacific Railroad embankment. An estimated 943 trees greater than six inches diameter-at-breast-height (dbh) would be removed in association with these impacts.

The EA evaluation of indirect impacts identifies the scattered remnants of high quality forest habitat as rare due to widespread urbanization within the Area of Influence (AOI) and that the highest quality bottomland/riparian forest in the AOI have been reestablished within the past 50 years and are located west of IH45. These stands are relatively contiguous and considered a sensitive resource, particularly where trees occur within the area outlined for the Great Trinity Forest. The future Great Trinity Forest Park is identified as a valued environmental component providing opportunities for outdoor recreation within the forests of the Trinity River floodplain.

The EA evaluation of cumulative impacts identifies that species abundance and diversity have declined due to urban expansion and past agricultural use and that species abundance and diversity would be expected to decline further as forested resources are replaced by urban developments. The cumulative impacts assessment indicates that 47 reasonable foreseeable actions would impact 139.3 acres of riparian/bottomland forest within the Resource Study Area (RSA) and that the project's proposed 7.5 acres of impact to riparian/bottomland forest would amount to 5.1 % of the 146.8 acres of cumulative impacts. The EA identifies the project impacts as not contributing to substantial cumulative impacts to the area's vegetation and habitat, but this is based on an assumption that there would be appropriate implementation of regulated avoidance, minimization and mitigation strategies for vegetation and habitat impacts on the reasonably foreseeable actions.

The EA indicates that the Texas Department of Transportation (TxDOT) expects mitigation to be provided for impacts to riparian/bottomland forest for the reasonably foreseeable actions, though TxDOT does not offer mitigation for such impacts associated with this current project. The EA indicates that preferred riparian/bottomland forest habitat would continue to be preserved by local, state, and federal agency policies and regulations that restrict development within floodplains, though TxDOT is not providing preservation of riparian/bottomland forest habitat within the Trinity River floodplain for this project or mitigation for the impacts.

The TxDOT-TPWD Memorandum of Agreement (MOA) for the finalization of the 1998 Memorandum of Understanding (MOU) concerning habitat descriptions and mitigation includes bottomland hardwood and riparian areas as habitat types

to be considered for non-regulatory mitigation during project planning. For this project, TxDOT has not offered non-regulatory compensatory mitigation for loss to riparian/bottomland forest habitat. Based on the sensitivity of the resource and the parkland, recreation, and ecosystem restoration value of the riparian/bottomland forest area being impacted, TPWD encourages TxDOT to provide compensatory mitigation for impacts to riparian/bottomland forest habitat for this project.

> **Recommendation:** TPWD recommends that TxDOT provide mitigation to offset the loss of valuable riparian/bottomland forest habitat within the planned Great Trinity Forest. Mitigation should be directed toward enhancement or restoration of riparian/bottomland forest habitat within the Great Trinity Forest area.

Please be aware that a written response to a TPWD recommendation or informational comment received by a state governmental agency may be required by state law. For further guidance, see the Texas Parks and Wildlife Code, Section 12.0011, which can be found online at http://www.statutes.legis.state.tx.us/Docs/PW/htm/PW.12.htm#12.0011. For tracking purposes, please refer to TPWD Project Number ERCS-932 in any return correspondence regarding this project.

If you have any questions, please contact me at (903) 322-5001.

Sincerely,

Karen B. Hardin
Wildlife Habitat Assessment Program
Wildlife Division

kbh/ERCS-932

Texas Department of Transportation

P.O. BOX 133067 • DALLAS, TEXAS 75313-3067 • (214) 320-6100

July 5, 2012

CSJs: 0092-01-052, 0197-02-108, & 0092-14-081
Environmental Assessment for SM Wright Project
Dallas County

Karen B. Hardin
Texas Parks and Wildlife Department
Wildlife Habitat Assessment Program
4200 Smith School Road
Austin, Texas 78744-3291

Dear Ms. Hardin:

Thank you for your comments and associated recommendation regarding the above referenced project. In response to the Texas Parks and Wildlife Department (TPWD) letter dated June 11, 2012, the Texas Department of Transportation (TxDOT) offers the following information and discussion for your use.

TPWD Recommendation: TPWD recommends that TxDOT provide mitigation to offset the loss of valuable riparian/bottomland forest habitat within the planned Great Trinity Forest. Mitigation should be directed toward enhancement or restoration of riparian/bottomland forest habitat within the Great Trinity Forest area.

TxDOT Response: The proposed project would impact approximately 3.6 acres of riparian/bottomland forest on the west side of IH 45. Of the 3.6 acres of riparian/bottomland forest, approximately 2.35 acres is located within existing TxDOT ROW and is subject to periodic mowing. The remaining 1.25 acres of riparian/bottomland forest is located within the planned Great Trinity Forest. The clearing of the trees within this area would be required to meet TxDOT roadway design standards for a buffer to prevent trees from interfering with the elevated structure (the IH 45 freeway). In addition, the clearing of these trees is to preserve access to the facility for future inspections and maintenance.

The 1.25 acres of riparian/bottomland forest within the planned Great Trinity Forest, is located on three parcels of land currently owned by the City of Dallas. Because portions of the planned Great Trinity Forest are located within the federally authorized Dallas Floodway Extension (DFE) project area, TxDOT must coordinate any mitigation (tree planting) with the City in order to ensure that floodway function is not disturbed. In response to the above TPWD recommendation, TxDOT will coordinate with appropriate City staff to determine if mitigation for impacts to 1.25 acres of riparian/bottomland habitat may be mitigated for within the planned Great Trinity Forest area. Should a mitigation location within the planned Great Trinity Forest area be identified, mitigation for the anticipated 1.25 acres of riparian/bottomland forest impacts would be completed at that location in accordance with *TxDOT Dallas District Standards for Woodlands Mitigation.*

C-56

If you have any questions regarding this project please contact Robert Hall, TxDOT Dallas District at 214-320-6157 or Robert.Hall@txdot.gov.

Sincerely,

H. Stan Hall, P.E.
District Advance Project
Development Engineer

Copy to: Stirling Robertson, TxDOT ENV
Ashley Oliver, Halff Associates
C-5E, 0092-01-052, etc., 1-2 Response to TPWD-WH Cmts 07-03-12

Texas Department of Transportation Dallas District
Standards for Woodlands Mitigation

In accordance with the Memorandum of Understanding between TxDOT and the Texas Parks and Wildlife Department (TPWD), mitigation should be provided when TxDOT construction activities remove significant amounts of riparian woodlands or other natural plant communities. The following information shall be used to develop mitigation plans for loss of woody vegetation. Ordinarily, mitigation plans shall replace lost vegetation on an acre-per-acre basis (i.e., one acre replanted for each acre removed), not on a plant-per-plant basis. The exact species composition given in the table below may be adjusted due to commercial availability or site specifics; however, the total number of plants shall remain at 30 large trees and 60 small trees/shrubs per acre (90 plants per acre). Only those plants listed below shall be used, unless approved by Dallas Advance Project Development (and TPWD).

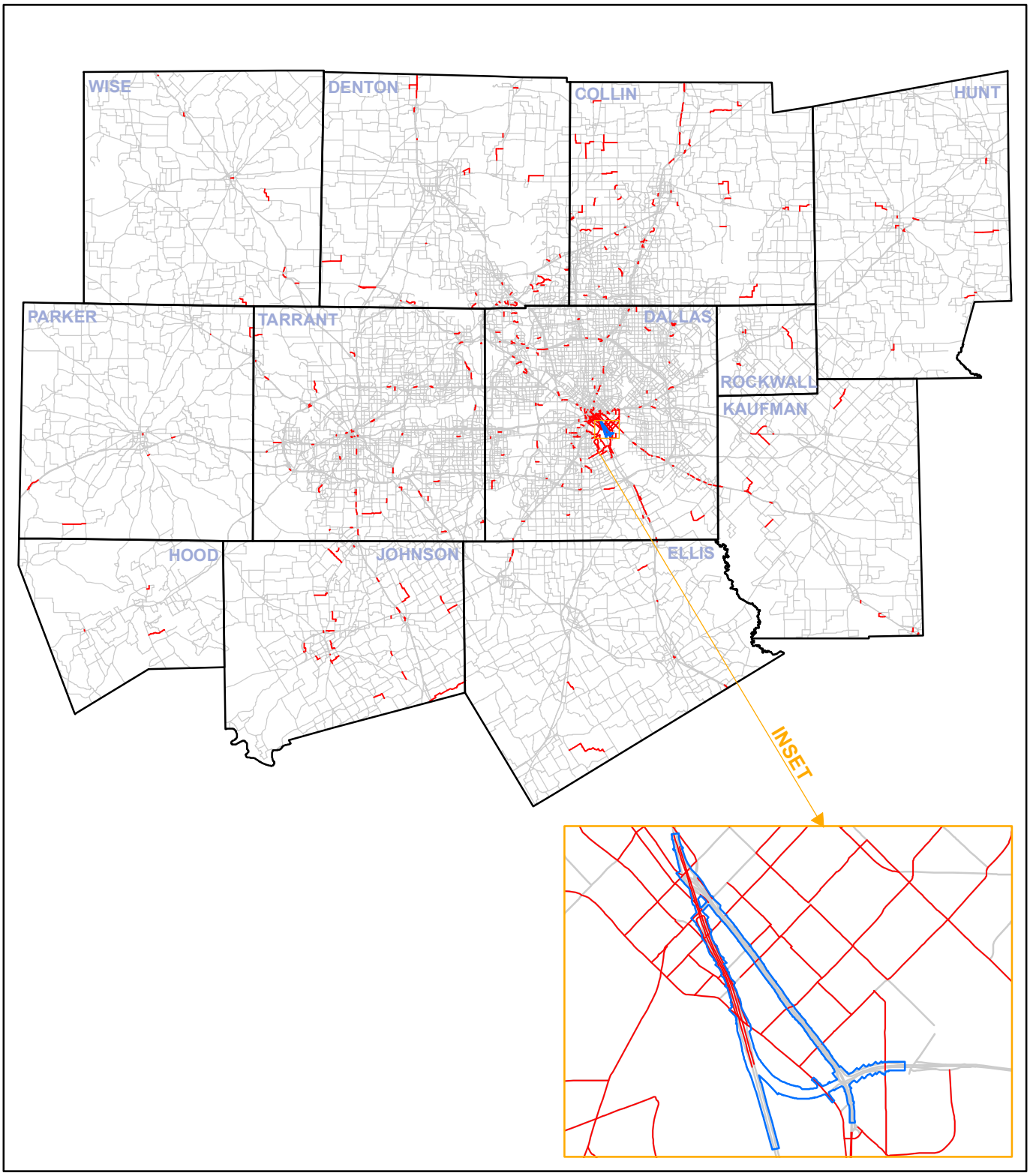
Species	Spacing	Quantity	Remarks
Large Trees			
Bur Oak (*Quercus macrocarpa*)	30-35 ft. o.c.	10 per acre	
Chinkapin Oak (*Quercus muehlenbergii*)	30-35 ft. o.c.	5 per acre	
Shumard Red Oak (*Quercus shumardii*)	30-35 ft. o.c.	5 per acre	Check branching structure to avoid Pin Oak hybrids.
Pecan (*Carya illinoensis*)	30-35 ft. o.c.	10 per acre	Use native variety if available. Plant B&B trees from Jan.15 to Mar.15, containerized from Sep.15 to Apr.15.
Small Trees/Shrubs			
Possumhaw Holly (*Illex decidua*)	15-20 ft. o.c.	12 per acre	Specify female plants (3:1).
Mexican Plum (*Prunus mexicana*)	15-20 ft. o.c.	12 per acre	
Common Persimmon (*Diospyros virginiana*)	15-20 ft. o.c.	12 per acre	Specify female plants (3:1).
Carolina Buckthorn (*Rhamnus caroliniana*)	15-20 ft. o.c.	12 per acre	
Flameleaf Sumac (*Rhus lanceolata or Rhus copallina)*	15-20 ft. o.c.	12 per acre	Specify female plants (3:1).

Large trees shall be 1½" to 2" caliper at planting; small trees and shrubs shall be 6' to 8' in height at planting. Standard TxDOT planting details shall be used. A maintenance period lasting at least one full growing season shall be specified for all mitigation plantings. Maintenance shall include: supplemental watering of all plants; maintaining an 8" layer of mulch on all plantings; replacement of all dead plants at the end of the maintenance period. Whenever possible, planting should be scheduled during the fall of the year to improve the survival rate. Additional information is available through Dallas District landscape architect.

APPENDIX C

ADDITIONAL RESOURCES/ISSUES

(AIR QUALITY, COMMUNITY IMPACTS, CULTURAL RESOURCES, AND NOISE)



Legend

- Year 2012 Affected Transportation Network
- Project Right of Way
- 2035 MPA Boundary (12 Counties)

Data Source: NCTCOG, 2011

N W E S

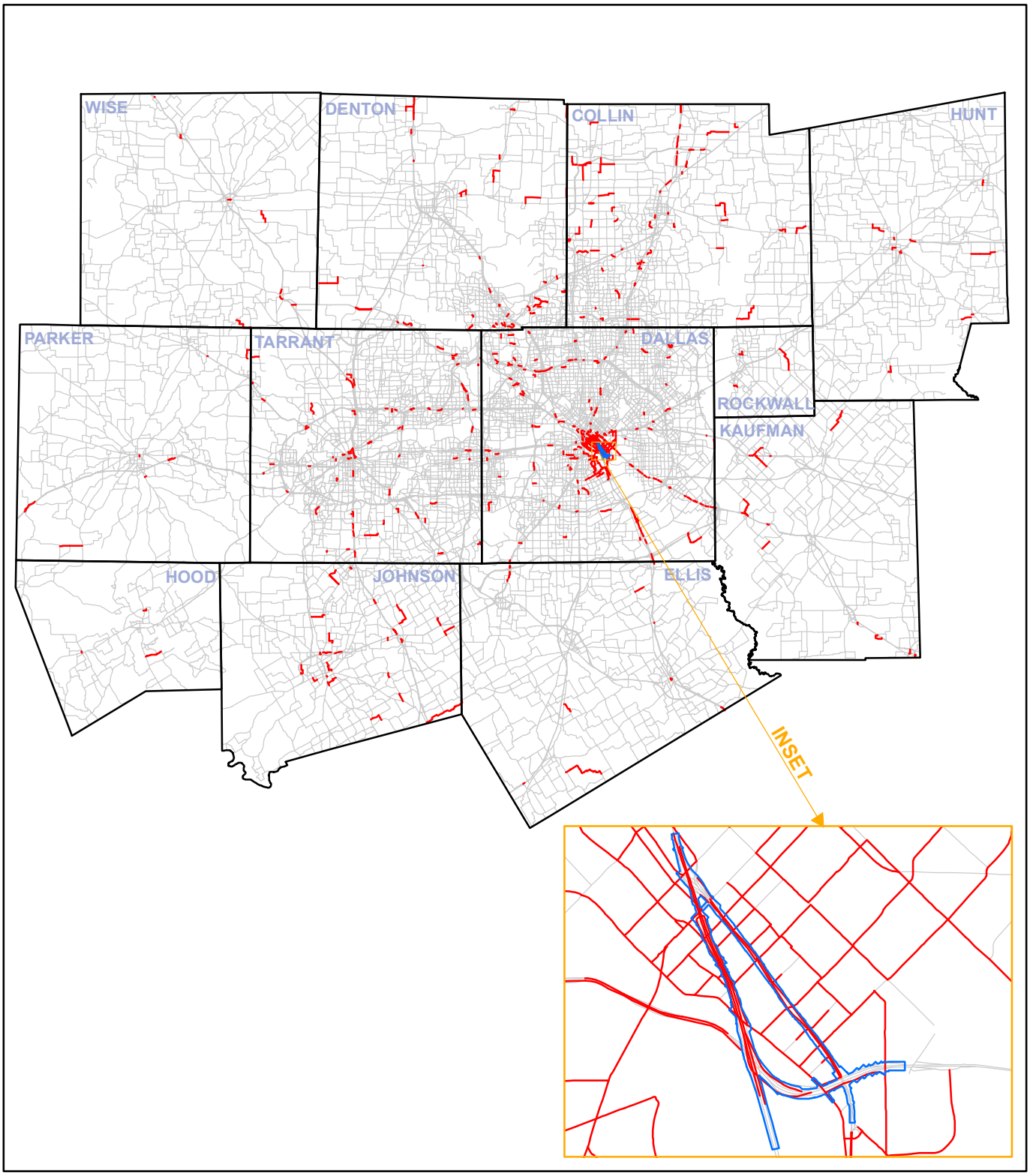
0 5 10

Miles

Year 2012 MSAT Affected Transportation Network

SM Wright Project
Dallas, Texas

CSJs: 0092-01-052, 0197-02-108, & 0092-14-081



Legend

- Year 2035 Affected Transportation Network
- Project Right of Way
- 2035 MPA Boundary (12 Counties)

Data Source: NCTCOG, 2011

N
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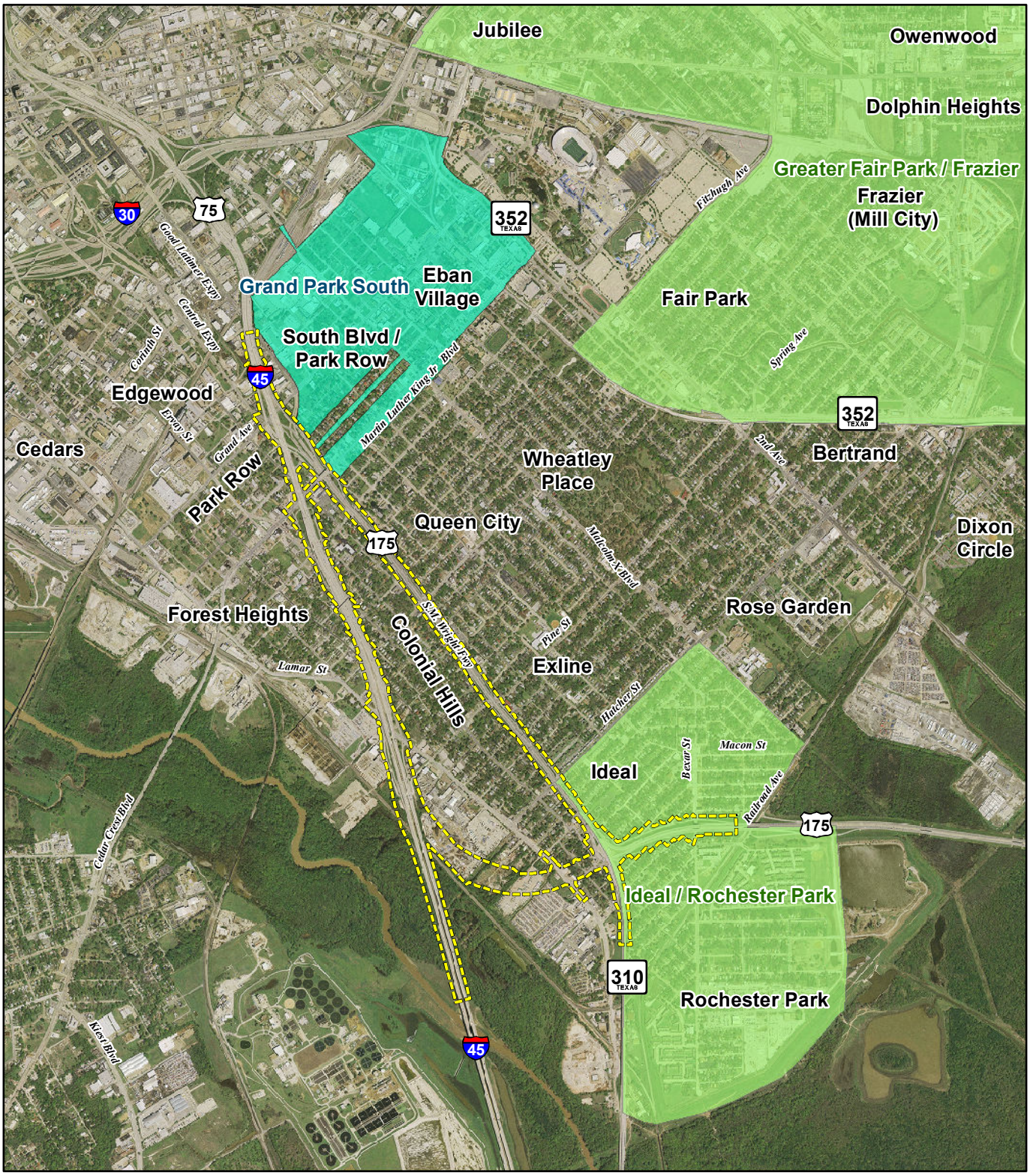
Year 2035 MSAT Affected Transportation Network

SM Wright Project
Dallas, Texas

CSJs: 0092-01-052, 0197-02-108, & 0092-14-081



Legend

- Project Right of Way
- Tax Increment Financing District
- Neighborhood Investment Program Area

0 1,250 2,500
Feet

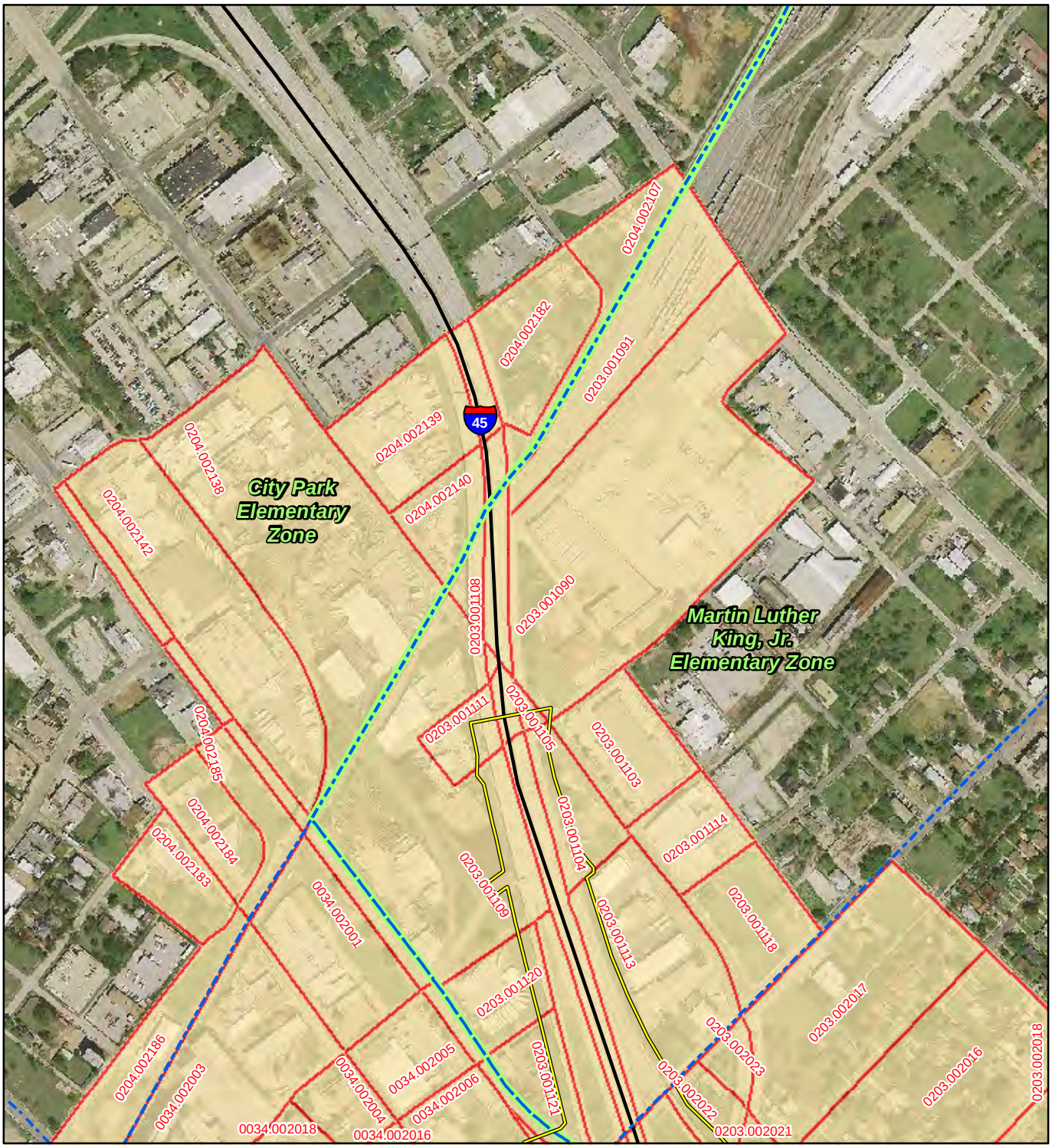
N
W E
S

Source/Year of Aerial Photograph: Landiscor/2009

South Dallas Neighborhoods within the Proposed Project Area

SM Wright Project
Dallas, Texas

CSJs: 0092-01-052, 0197-02-108, & 0092-14-081



Source/Year: NCTCOG/2011

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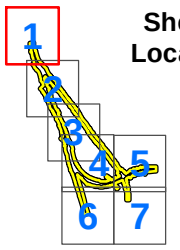


Legend

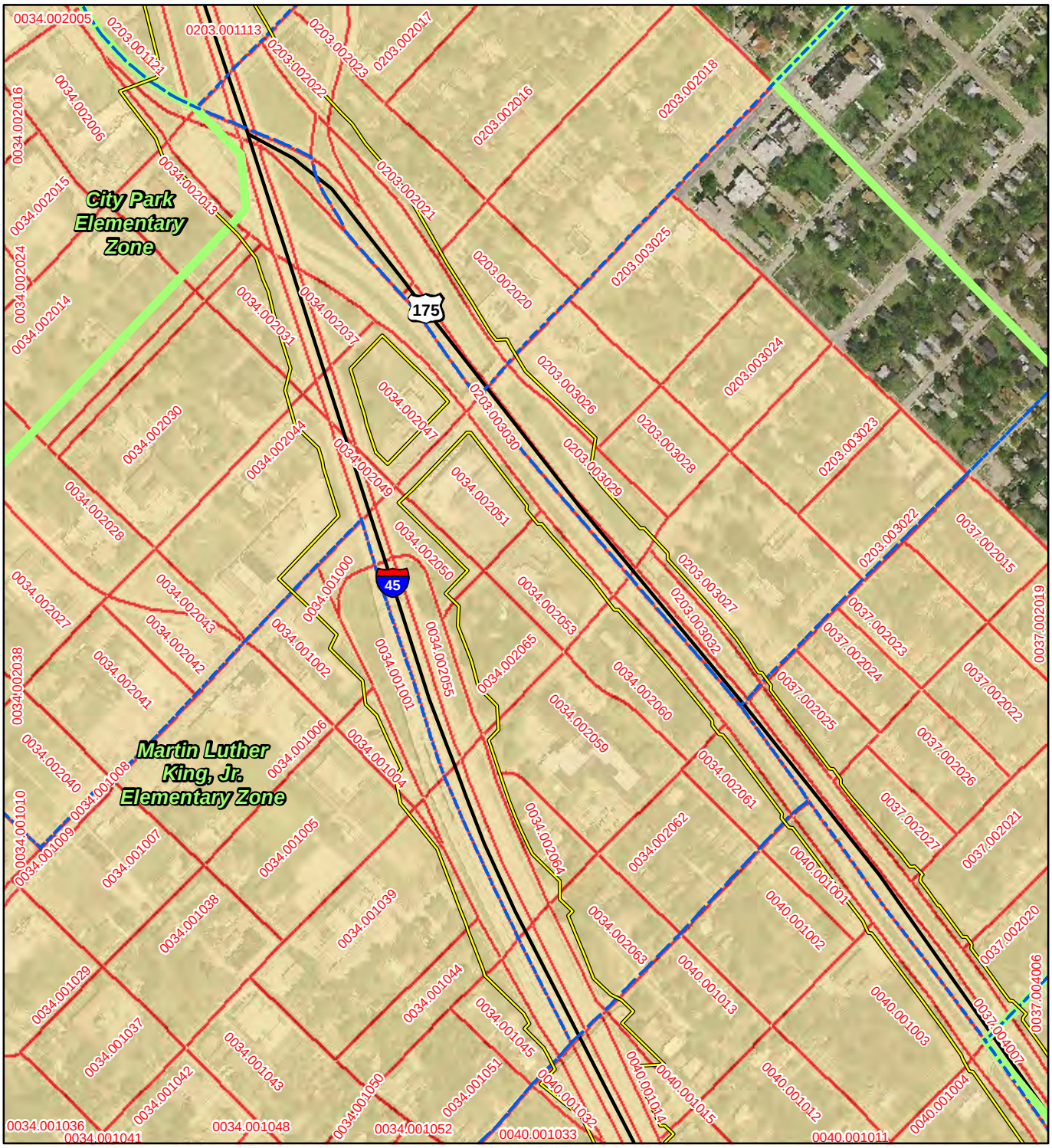
- Project Right of Way
- Census Block
- Census Block Group
- School Attendance Zones
- Major Freeway

Census Geography Year: 2010

N W E S

Census Block Map with School Attendance Zones

SM Wright Project
Dallas, Texas



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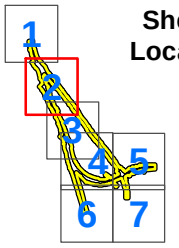


Legend

- Project Right of Way
- Census Block
- Census Block Group
- School Attendance Zones
- Major Freeway

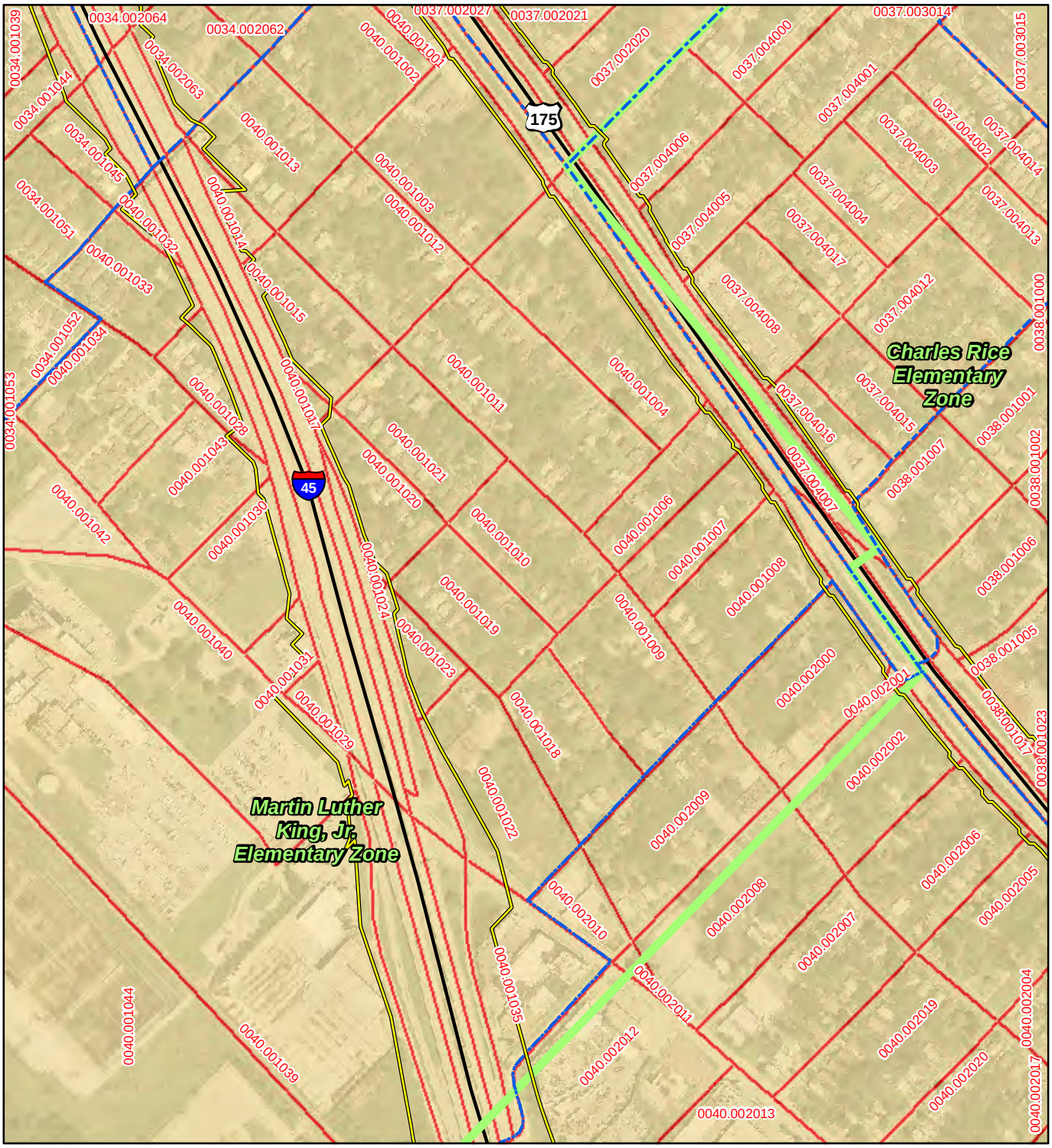
Census Geography Year: 2010

N W E S

Census Block Map with School Attendance Zones

SM Wright Project
Dallas, Texas

CSJs: 0092-01-052, 0197-02-108, & 0092-14-081



Source/Year: NCTCOG/2011

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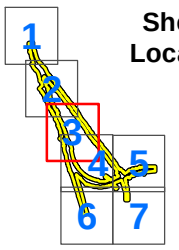


Legend

- Project Right of Way
- Census Block
- Census Block Group
- School Attendance Zones
- Major Freeway

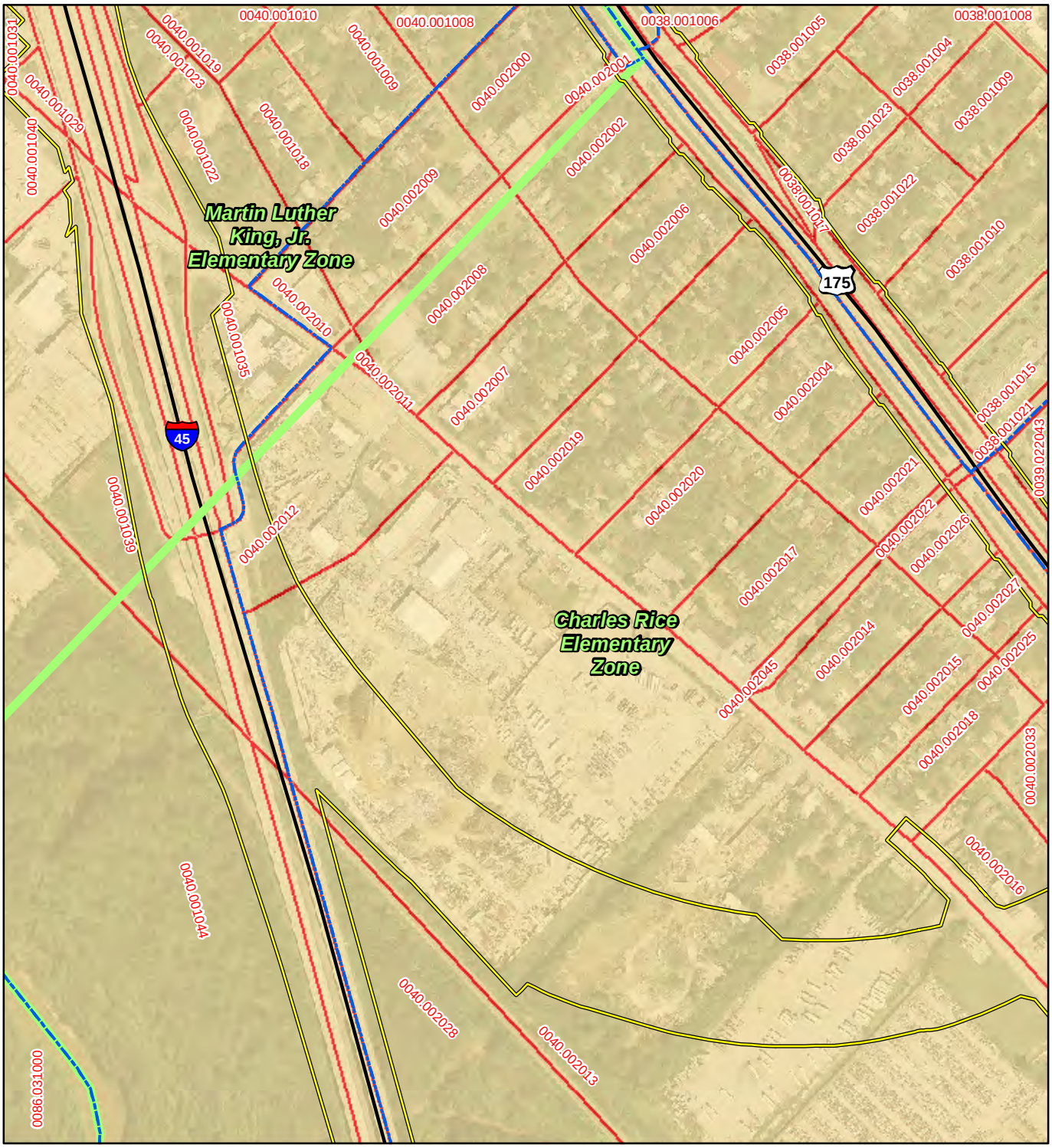
Census Geography Year: 2010

N W E S

Census Block Map with School Attendance Zones

SM Wright Project
Dallas, Texas

CSJs: 0092-01-052, 0197-02-108, & 0092-14-081



Source/Year: NCTCOG/2011

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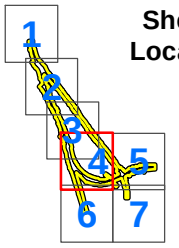


Legend

- Project Right of Way
- Census Block
- Census Block Group
- School Attendance Zones
- Major Freeway

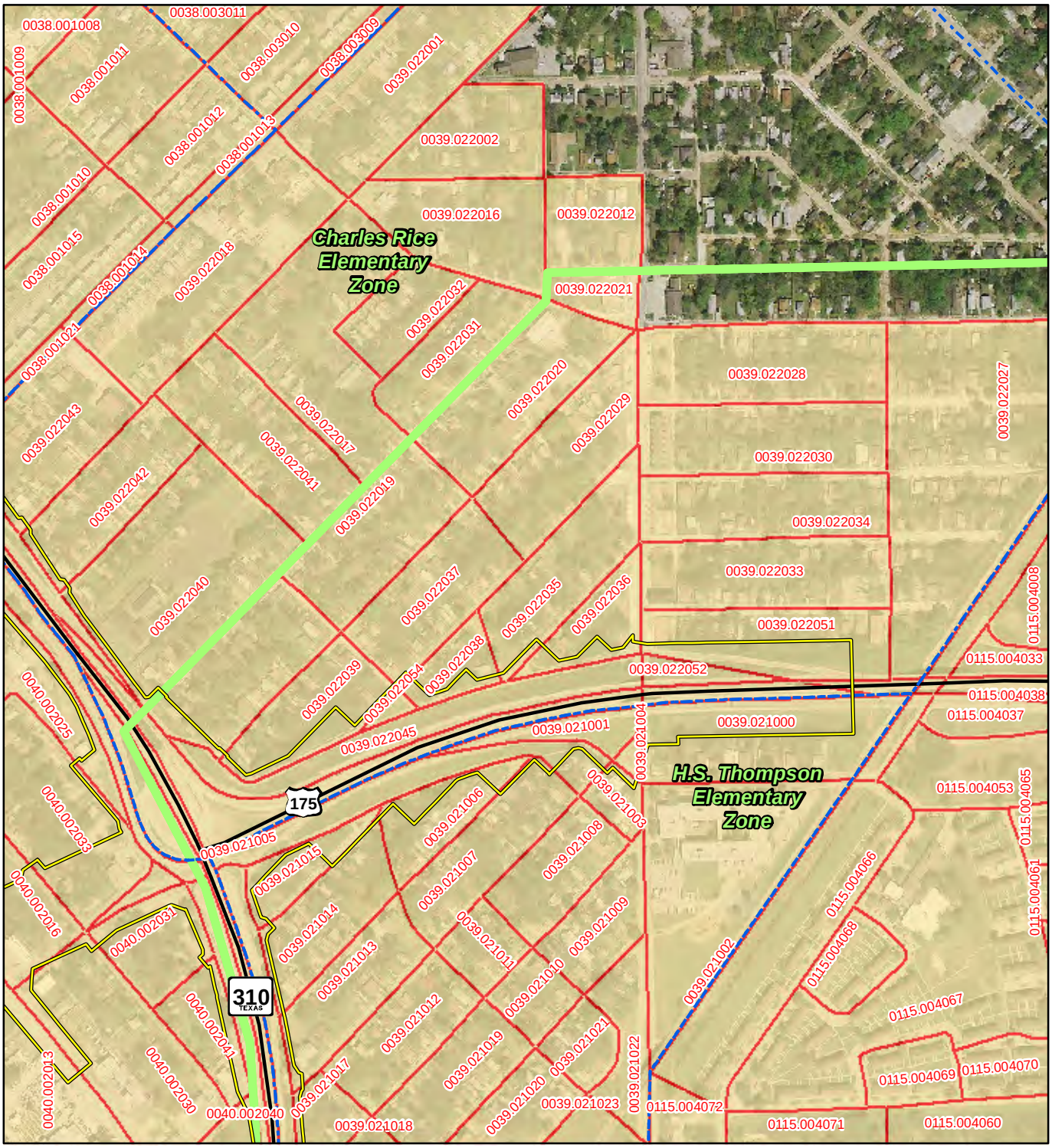
Census Geography Year: 2010

N W E S

Census Block Map with School Attendance Zones

SM Wright Project
Dallas, Texas

CSJs: 0092-01-052, 0197-02-108, & 0092-14-081



Source/Year: NCTCOG/2011

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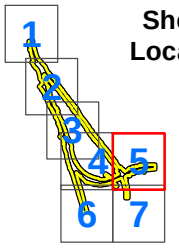


Legend

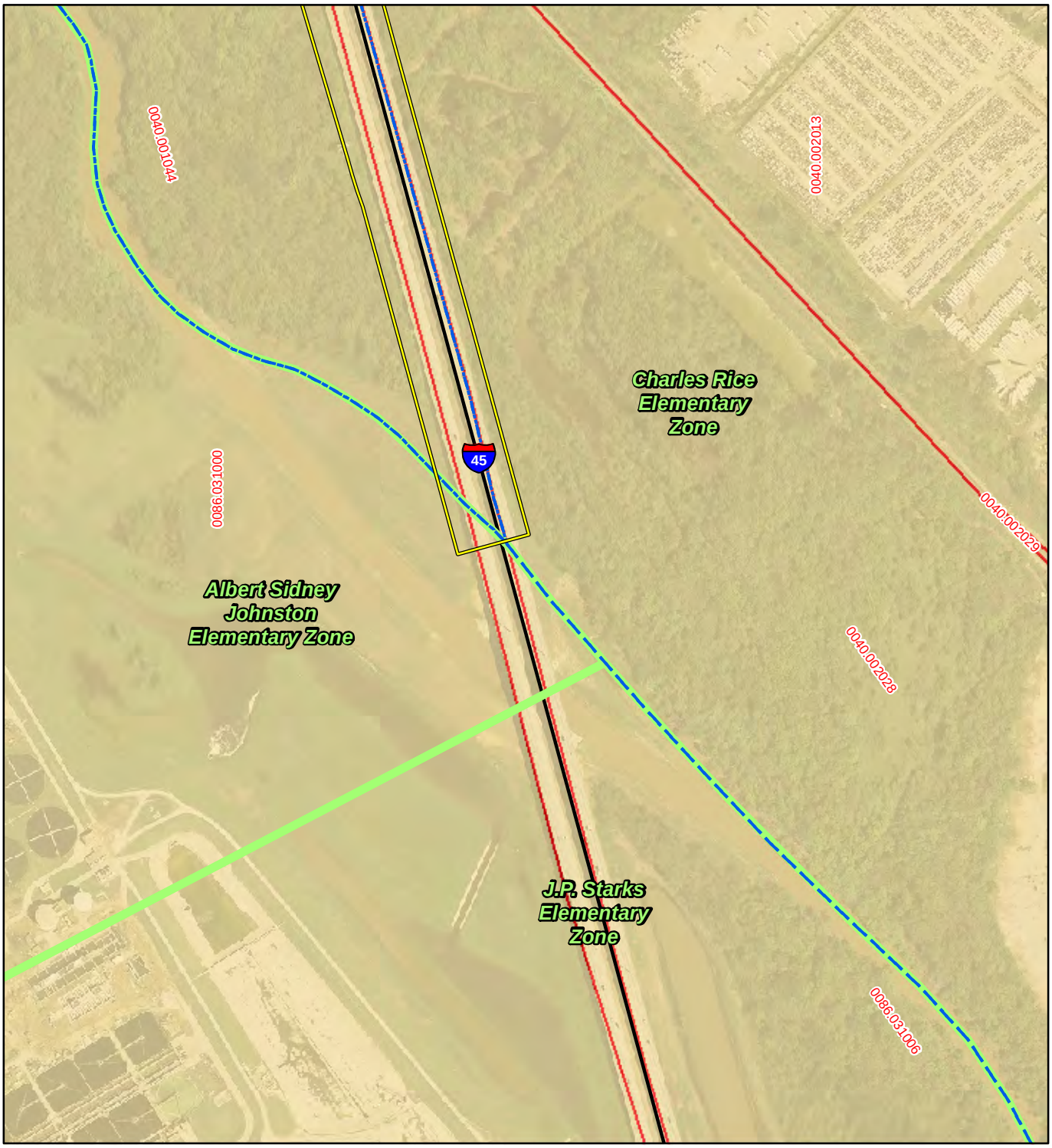
- Project Right of Way
- Census Block
- Census Block Group
- School Attendance Zones
- Major Freeway

Census Geography Year: 2010

N W E S

Census Block Map with School Attendance Zones

SM Wright Project
Dallas, Texas



Source/Year: NCTCOG/2011

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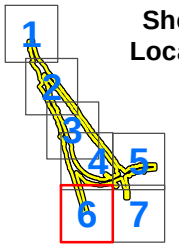


Legend

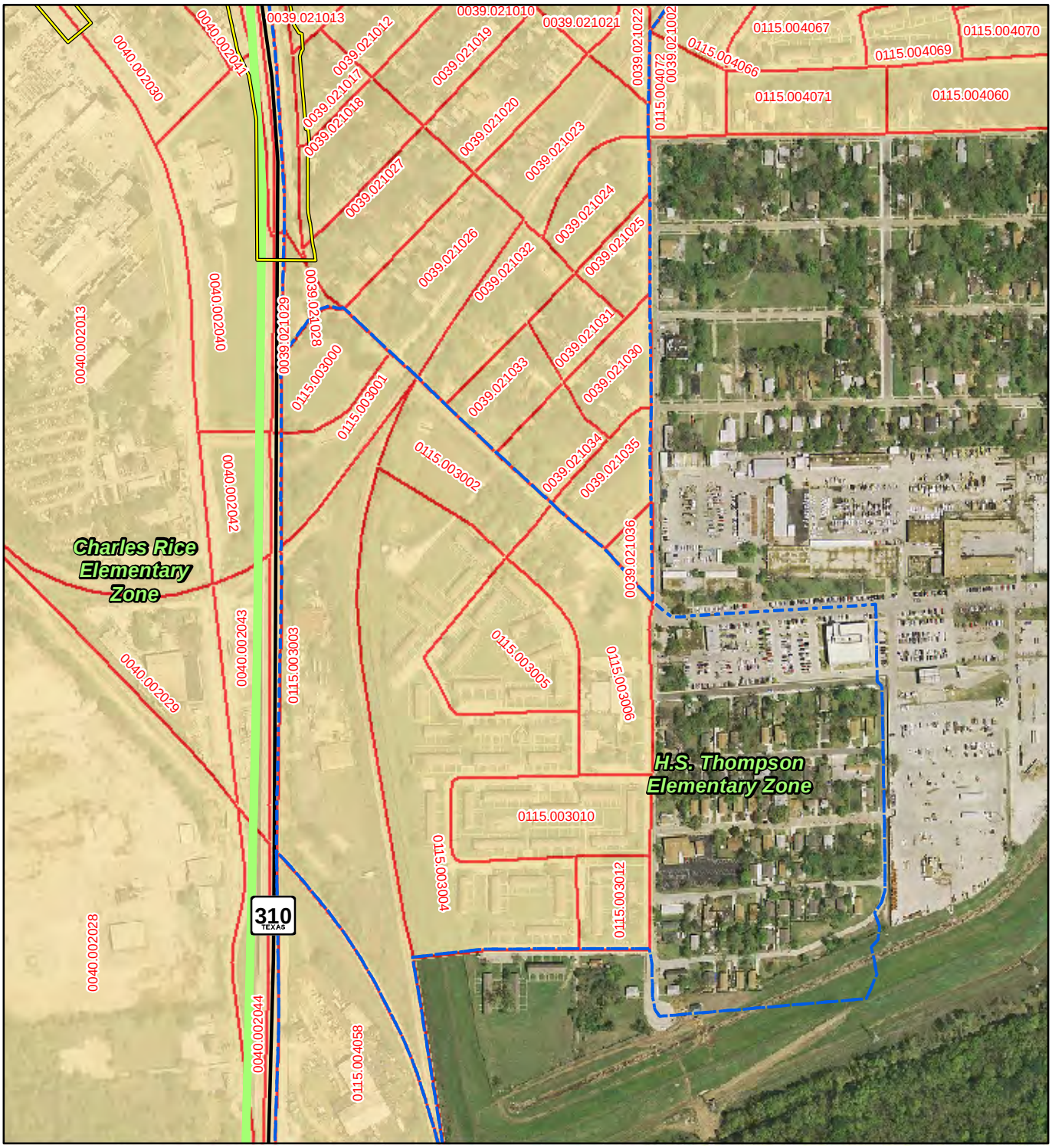
- Project Right of Way
- Census Block
- Census Block Group
- School Attendance Zones
- Major Freeway

Census Geography Year: 2010

N W E S

Census Block Map with School Attendance Zones

SM Wright Project
Dallas, Texas



Source/Year: NCTCOG/2011

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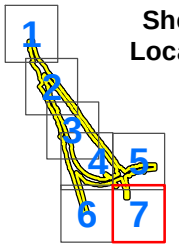
0 500 1,000 Feet

Sheet Locator



Legend

- Project Right of Way
- Census Block
- Census Block Group
- School Attendance Zones
- Major Freeway

Census Geography Year: 2010

N W E S

Census Block Map with School Attendance Zones

SM Wright Project
Dallas, Texas

APPENDIX C-5
RACE, ETHNICITY, AND LOW INCOME CHARACTERISTICS IN THE PROJECT AREA WITHIN THE CITY OF DALLAS, DALLAS COUNTY

Census Tract/ Block Group	Census Block	Total[1]	White Alone[1]	Black or African American Alone[1]	American Indian and Alaska Native Alone[1]	Asian Alone[1]	Native Hawaiian and Other Pacific Islander Alone[1]	Some Other Race Alone[1]	Population of Two or More Races[1]	Hispanic or Latino of Any Race[1]	Total Minority Population	Total Percent Minority	Median Household Income in the past 12 months (in 2010 inflation-adjusted dollars)[2]	Household Income in the past 12 Months Below Poverty Level[3]
34		1146	12%	72%	1%	0%	0%	0%	1%	14%	1006	88%	22,390	45%
34/ 1		562	3%	78%	0%	0%	0%	0%	1%	18%	546	97%	20,184	36%
	1000	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1001	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1002	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1003	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1004	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1005	12	0%	100%	0%	0%	0%	0%	0%	0%	12	100%	--	--
	1006	29	0%	59%	0%	0%	0%	0%	0%	41%	29	100%	--	--
	1007	6	17%	83%	0%	0%	0%	0%	0%	0%	5	83%	--	--
	1008	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1009	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1010	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1029	9	0%	44%	0%	0%	0%	0%	0%	56%	9	100%	--	--
	1030	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1036	9	0%	100%	0%	0%	0%	0%	0%	0%	9	100%	--	--
	1037	85	0%	78%	1%	0%	0%	0%	2%	19%	85	100%	--	--
	1038	33	0%	45%	0%	0%	0%	0%	0%	55%	33	100%	--	--
	1039	3	0%	100%	0%	0%	0%	0%	0%	0%	3	100%	--	--
	1040	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1041	8	0%	100%	0%	0%	0%	0%	0%	0%	8	100%	--	--
	1042	32	0%	94%	0%	0%	0%	0%	3%	3%	32	100%	--	--
	1043	41	10%	56%	0%	0%	0%	0%	0%	34%	37	90%	--	--
	1044	34	0%	100%	0%	0%	0%	0%	0%	0%	34	100%	--	--
	1045	6	0%	50%	0%	0%	0%	0%	0%	50%	6	100%	--	--
	1046	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1047	1	0%	100%	0%	0%	0%	0%	0%	0%	1	100%	--	--
	1048	15	0%	93%	0%	0%	0%	7%	0%	0%	15	100%	--	--
	1049	14	0%	100%	0%	0%	0%	0%	0%	0%	14	100%	--	--
	1050	18	0%	89%	0%	0%	0%	0%	0%	11%	18	100%	--	--

APPENDIX C-5
RACE, ETHNICITY, AND LOW INCOME CHARACTERISTICS IN THE PROJECT AREA WITHIN THE CITY OF DALLAS, DALLAS COUNTY

Census Tract/ Block Group	Census Block	Total[1]	White Alone[1]	Black or African American Alone[1]	American Indian and Alaska Native Alone[1]	Asian Alone[1]	Native Hawaiian and Other Pacific Islander Alone[1]	Some Other Race Alone[1]	Population of Two or More Races[1]	Hispanic or Latino of Any Race[1]	Total Minority Population	Total Percent Minority	Median Household Income in the past 12 months (in 2010 inflation-adjusted dollars)[2]	Household Income in the past 12 Months Below Poverty Level[3]
	1051	21	14%	48%	0%	0%	0%	0%	0%	38%	18	86%	--	--
	1052	51	2%	67%	0%	0%	0%	0%	2%	29%	50	98%	--	--
	1053	21	0%	81%	0%	0%	0%	0%	0%	19%	21	100%	--	--
	1054	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1055	3	0%	0%	0%	0%	0%	0%	0%	100%	3	100%	--	--
34/ 2		584	21%	66%	1%	0%	0%	0%	1%	11%	460	79%	30,682	30%
	2000	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2001	37	68%	22%	0%	0%	0%	0%	3%	8%	12	32%	--	--
	2002	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2003	85	61%	20%	1%	0%	0%	0%	5%	13%	33	39%	--	--
	2004	12	33%	8%	0%	0%	0%	0%	0%	58%	8	67%	--	--
	2005	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2006	1	0%	100%	0%	0%	0%	0%	0%	0%	1	100%	--	--
	2007	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2008	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2009	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2010	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2011	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2012	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2013	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2014	55	2%	98%	0%	0%	0%	0%	0%	0%	54	98%	--	--
	2015	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2016	2	100%	0%	0%	0%	0%	0%	0%	0%	0	0%	--	--
	2017	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2018	19	79%	11%	0%	0%	0%	0%	0%	11%	4	21%	--	--
	2019	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2020	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2023	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2024	14	21%	79%	0%	0%	0%	0%	0%	0%	11	79%	--	--
	2025	0	0	0	0	0	0	0	0	0	0	0%	--	--

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RACE, ETHNICITY, AND LOW INCOME CHARACTERISTICS IN THE PROJECT AREA WITHIN THE CITY OF DALLAS, DALLAS COUNTY

Census Tract/ Block Group	Census Block	Total[1]	White Alone[1]	Black or African American Alone[1]	American Indian and Alaska Native Alone[1]	Asian Alone[1]	Native Hawaiian and Other Pacific Islander Alone[1]	Some Other Race Alone[1]	Population of Two or More Races[1]	Hispanic or Latino of Any Race[1]	Total Minority Population	Total Percent Minority	Median Household Income in the past 12 months (in 2010 inflation-adjusted dollars)[2]	Household Income in the past 12 Months Below Poverty Level[3]
	2026	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2027	52	13%	81%	6%	0%	0%	0%	0%	0%	45	87%	--	--
	2028	6	0%	50%	0%	0%	0%	0%	0%	50%	6	100%	--	--
	2029	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2030	88	6%	80%	0%	0%	0%	0%	0%	15%	83	94%	--	--
	2031	4	25%	75%	0%	0%	0%	0%	0%	0%	3	75%	--	--
	2032	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2033	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2034	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2035	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2036	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2037	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2038	28	0%	93%	0%	0%	0%	0%	0%	7%	28	100%	--	--
	2039	40	0%	75%	5%	0%	0%	0%	0%	20%	40	100%	--	--
	2040	5	0%	100%	0%	0%	0%	0%	0%	0%	5	100%	--	--
	2041	22	0%	100%	0%	0%	0%	0%	0%	0%	22	100%	--	--
	2042	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2043	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2044	9	11%	89%	0%	0%	0%	0%	0%	0%	8	89%	--	--
	2045	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2046	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2047	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2048	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2049	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2050	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2051	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2052	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2053	1	0%	100%	0%	0%	0%	0%	0%	0%	1	100%	--	--
	2054	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2055	0	0	0	0	0	0	0	0	0	0	0%	--	--

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RACE, ETHNICITY, AND LOW INCOME CHARACTERISTICS IN THE PROJECT AREA WITHIN THE CITY OF DALLAS, DALLAS COUNTY

Census Tract/ Block Group	Census Block	Total[1]	White Alone[1]	Black or African American Alone[1]	American Indian and Alaska Native Alone[1]	Asian Alone[1]	Native Hawaiian and Other Pacific Islander Alone[1]	Some Other Race Alone[1]	Population of Two or More Races[1]	Hispanic or Latino of Any Race[1]	Total Minority Population	Total Percent Minority	Median Household Income in the past 12 months (in 2010 inflation-adjusted dollars)[2]	Household Income in the past 12 Months Below Poverty Level[3]
	2056	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2057	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2058	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2059	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2060	23	0%	70%	0%	0%	0%	0%	0%	30%	23	100%	--	--
	2061	5	0%	80%	0%	20%	0%	0%	0%	0%	5	100%	--	--
	2062	44	0%	100%	0%	0%	0%	0%	0%	0%	44	100%	--	--
	2063	10	40%	50%	0%	0%	0%	0%	0%	10%	6	60%	--	--
	2064	12	8%	67%	0%	0%	0%	0%	0%	25%	11	92%	--	--
	2065	4	0%	25%	0%	0%	0%	0%	0%	75%	4	100%	--	--
	2066	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2067	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2068	0	0	0	0	0	0	0	0	0	0	0%	--	--
37		3048	1%	90%	0%	0%	0%	0%	1%	7%	3009	99%	21,233	34%
37/ 2		736	2%	93%	0%	0%	0%	0%	1%	5%	720	98%	17,745	38%
	2015	27	0%	100%	0%	0%	0%	0%	0%	0%	27	100%	--	--
	2018	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2019	33	6%	85%	0%	0%	0%	0%	6%	3%	31	94%	--	--
	2020	32	6%	81%	0%	0%	0%	0%	0%	13%	30	94%	--	--
	2021	79	3%	96%	0%	0%	0%	0%	1%	0%	77	97%	--	--
	2022	9	0%	100%	0%	0%	0%	0%	0%	0%	9	100%	--	--
	2023	19	5%	95%	0%	0%	0%	0%	0%	0%	18	95%	--	--
	2024	20	0%	80%	0%	0%	0%	0%	0%	20%	20	100%	--	--
	2025	14	0%	100%	0%	0%	0%	0%	0%	0%	14	100%	--	--
	2026	52	6%	92%	0%	0%	0%	0%	0%	2%	49	94%	--	--
	2027	1	0%	100%	0%	0%	0%	0%	0%	0%	1	100%	--	--
	2028	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2029	0	0	0	0	0	0	0	0	0	0	0%	--	--
37/ 3		840	2%	86%	1%	0%	0%	0%	1%	11%	827	98%	27,212	24%
	3014	24	0%	67%	0%	0%	0%	0%	4%	29%	24	100%	--	--

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	3015	26	0%	96%	0%	0%	0%	0%	4%	0%	26	100%	--	--
37/ 4		466	1%	92%	0%	0%	0%	0%	2%	6%	463	99%	17,782	49%
	4000	30	3%	93%	0%	0%	0%	0%	3%	0%	29	97%	--	--
	4001	64	0%	100%	0%	0%	0%	0%	0%	0%	64	100%	--	--
	4002	40	3%	98%	0%	0%	0%	0%	0%	0%	39	98%	--	--
	4003	36	0%	94%	0%	0%	0%	0%	0%	6%	36	100%	--	--
	4004	13	0%	100%	0%	0%	0%	0%	0%	0%	13	100%	--	--
	4005	97	1%	86%	0%	0%	0%	0%	0%	13%	96	99%	--	--
	4006	24	0%	100%	0%	0%	0%	0%	0%	0%	24	100%	--	--
	4007	0	0	0	0	0	0	0	0	0	0	0%	--	--
	4008	14	0%	93%	0%	0%	0%	0%	0%	7%	14	100%	--	--
	4009	0	0	0	0	0	0	0	0	0	0	0%	--	--
	4010	0	0	0	0	0	0	0	0	0	0	0%	--	--
	4011	0	0	0	0	0	0	0	0	0	0	0%	--	--
	4012	30	0%	93%	0%	0%	0%	0%	0%	7%	30	100%	--	--
	4013	21	0%	100%	0%	0%	0%	0%	0%	0%	21	100%	--	--
	4014	21	0%	100%	0%	0%	0%	0%	0%	0%	21	100%	--	--
	4015	17	0%	100%	0%	0%	0%	0%	0%	0%	17	100%	--	--
	4016	22	0%	100%	0%	0%	0%	0%	0%	0%	22	100%	--	--
	4017	37	0%	57%	0%	0%	0%	0%	16%	27%	37	100%	--	--
38		1956	1%	94%	0%	0%	0%	0%	1%	4%	1938	99%	18,344	35%
38/ 1		531	1%	96%	0%	0%	0%	0%	0%	2%	524	99%	16,821	36%
	1000	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1001	19	0%	100%	0%	0%	0%	0%	0%	0%	19	100%	--	--
	1002	39	0%	100%	0%	0%	0%	0%	0%	0%	39	100%	--	--
	1003	30	0%	100%	0%	0%	0%	0%	0%	0%	30	100%	--	--
	1004	18	0%	100%	0%	0%	0%	0%	0%	0%	18	100%	--	--
	1005	40	0%	100%	0%	0%	0%	0%	0%	0%	40	100%	--	--
	1006	38	0%	79%	0%	0%	0%	0%	0%	21%	38	100%	--	--
	1007	16	0%	100%	0%	0%	0%	0%	0%	0%	16	100%	--	--

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	1008	28	4%	93%	0%	0%	0%	0%	0%	4%	27	96%	--	--
	1009	28	0%	96%	4%	0%	0%	0%	0%	0%	28	100%	--	--
	1010	38	0%	97%	3%	0%	0%	0%	0%	0%	38	100%	--	--
	1011	38	0%	100%	0%	0%	0%	0%	0%	0%	38	100%	--	--
	1012	32	0%	100%	0%	0%	0%	0%	0%	0%	32	100%	--	--
	1013	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1014	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1015	107	3%	93%	0%	0%	1%	0%	1%	3%	104	97%	--	--
	1016	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1017	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1018	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1019	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1020	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1021	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1022	42	7%	93%	0%	0%	0%	0%	0%	0%	39	93%	--	--
	1023	18	0%	100%	0%	0%	0%	0%	0%	0%	18	100%	--	--
38/ 3	--	593	1%	94%	0%	0%	0%	0%	2%	4%	590	99%	11,406	44%
	3002	91	0%	91%	0%	1%	0%	0%	2%	5%	91	100%	--	--
	3009	4	0%	75%	0%	0%	0%	0%	25%	0%	4	100%	--	--
	3010	46	0%	89%	0%	0%	0%	0%	4%	7%	46	100%	--	--
	3011	56	0%	91%	0%	0%	0%	0%	0%	9%	56	100%	--	--
	3012	94	0%	100%	0%	0%	0%	0%	0%	0%	94	100%	--	--
	3013	83	0%	92%	0%	0%	0%	0%	2%	6%	83	100%	--	--
	3014	63	0%	97%	0%	0%	0%	0%	0%	3%	63	100%	--	--
39.02		1860	1%	73%	0%	0%	0%	0%	1%	24%	1838	99%	21,536	38%
39.02/ 1		452	2%	62%	0%	0%	0%	0%	2%	35%	445	98%	17,464	29%
	1000	22	0%	68%	0%	0%	0%	0%	0%	32%	22	100%	--	--
	1001	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1002	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1003	2	0%	100%	0%	0%	0%	0%	0%	0%	2	100%	--	--

APPENDIX C-5
RACE, ETHNICITY, AND LOW INCOME CHARACTERISTICS IN THE PROJECT AREA WITHIN THE CITY OF DALLAS, DALLAS COUNTY

Census Tract/ Block Group	Census Block	Total[1]	White Alone[1]	Black or African American Alone[1]	American Indian and Alaska Native Alone[1]	Asian Alone[1]	Native Hawaiian and Other Pacific Islander Alone[1]	Some Other Race Alone[1]	Population of Two or More Races[1]	Hispanic or Latino of Any Race[1]	Total Minority Population	Total Percent Minority	Median Household Income in the past 12 months (in 2010 inflation-adjusted dollars)[2]	Household Income in the past 12 Months Below Poverty Level[3]
	1004	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1005	2	0%	100%	0%	0%	0%	0%	0%	0%	2	100%	--	--
	1006	45	0%	4%	0%	0%	0%	0%	0%	96%	45	100%	--	--
	1007	41	0%	85%	0%	0%	0%	0%	0%	15%	41	100%	--	--
	1008	17	0%	100%	0%	0%	0%	0%	0%	0%	17	100%	--	--
	1009	20	0%	100%	0%	0%	0%	0%	0%	0%	20	100%	--	--
	1010	11	0%	73%	0%	0%	0%	0%	0%	27%	11	100%	--	--
	1011	9	11%	67%	0%	0%	0%	0%	0%	22%	8	89%	--	--
	1012	36	0%	78%	0%	0%	0%	0%	0%	22%	36	100%	--	--
	1013	28	0%	75%	0%	0%	0%	0%	0%	25%	28	100%	--	--
	1014	31	0%	77%	0%	0%	0%	0%	0%	23%	31	100%	--	--
	1015	7	0%	0%	0%	0%	0%	0%	0%	100%	7	100%	--	--
	1016	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1017	6	0%	50%	0%	0%	0%	0%	0%	50%	6	100%	--	--
	1018	25	0%	52%	0%	0%	0%	0%	24%	24%	25	100%	--	--
	1019	26	0%	31%	0%	0%	0%	0%	0%	69%	26	100%	--	--
	1020	26	0%	92%	0%	0%	0%	0%	0%	8%	26	100%	--	--
	1021	12	8%	42%	0%	0%	0%	0%	0%	50%	11	92%	--	--
	1022	1	100%	0%	0%	0%	0%	0%	0%	0%	0	0%	--	--
	1023	9	0%	22%	0%	0%	0%	0%	0%	78%	9	100%	--	--
	1024	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1025	1	0%	100%	0%	0%	0%	0%	0%	0%	1	100%	--	--
	1026	21	0%	29%	0%	0%	0%	0%	5%	67%	21	100%	--	--
	1027	12	0%	100%	0%	0%	0%	0%	0%	0%	12	100%	--	--
	1028	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1029	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1030	4	0%	100%	0%	0%	0%	0%	0%	0%	4	100%	--	--
	1031	22	18%	36%	0%	0%	0%	0%	0%	45%	18	82%	--	--
	1032	9	0%	67%	0%	0%	0%	0%	0%	33%	9	100%	--	--
	1033	7	0%	100%	0%	0%	0%	0%	0%	0%	7	100%	--	--

APPENDIX C-5
RACE, ETHNICITY, AND LOW INCOME CHARACTERISTICS IN THE PROJECT AREA WITHIN THE CITY OF DALLAS, DALLAS COUNTY

Census Tract/ Block Group	Census Block	Total[1]	White Alone[1]	Black or African American Alone[1]	American Indian and Alaska Native Alone[1]	Asian Alone[1]	Native Hawaiian and Other Pacific Islander Alone[1]	Some Other Race Alone[1]	Population of Two or More Races[1]	Hispanic or Latino of Any Race[1]	Total Minority Population	Total Percent Minority	Median Household Income in the past 12 months (in 2010 inflation-adjusted dollars)[2]	Household Income in the past 12 Months Below Poverty Level[3]
	1034	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1035	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1036	0	0	0	0	0	0	0	0	0	0	0%	--	--
39.02/ 2		1408	1%	77%	0%	0%	0%	0%	1%	21%	1393	99%	21,942	31%
	2001	92	0%	99%	0%	0%	0%	0%	0%	1%	92	100%	--	--
	2002	7	0%	100%	0%	0%	0%	0%	0%	0%	7	100%	--	--
	2012	13	0%	100%	0%	0%	0%	0%	0%	0%	13	100%	--	--
	2016	29	0%	79%	0%	0%	0%	0%	0%	21%	29	100%	--	--
	2017	22	0%	100%	0%	0%	0%	0%	0%	0%	22	100%	--	--
	2018	46	0%	100%	0%	0%	0%	0%	0%	0%	46	100%	--	--
	2019	67	0%	73%	0%	0%	0%	0%	0%	27%	67	100%	--	--
	2020	29	0%	79%	0%	0%	0%	0%	0%	21%	29	100%	--	--
	2021	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2027	113	2%	85%	1%	0%	0%	2%	1%	10%	111	98%	--	--
	2028	43	0%	91%	0%	0%	0%	0%	0%	9%	43	100%	--	--
	2029	20	0%	60%	0%	0%	0%	0%	0%	40%	20	100%	--	--
	2030	65	0%	77%	0%	0%	0%	0%	0%	23%	65	100%	--	--
	2031	40	0%	63%	0%	0%	0%	0%	3%	35%	40	100%	--	--
	2032	8	0%	38%	0%	0%	0%	0%	0%	63%	8	100%	--	--
	2033	19	5%	95%	0%	0%	0%	0%	0%	0%	18	95%	--	--
	2034	39	0%	51%	0%	0%	0%	0%	0%	49%	39	100%	--	--
	2035	15	0%	100%	0%	0%	0%	0%	0%	0%	15	100%	--	--
	2036	2	0%	100%	0%	0%	0%	0%	0%	0%	2	100%	--	--
	2037	43	0%	53%	0%	0%	0%	0%	0%	47%	43	100%	--	--
	2038	5	0%	80%	0%	0%	0%	0%	20%	0%	5	100%	--	--
	2039	16	19%	75%	0%	0%	0%	0%	0%	6%	13	81%	--	--
	2040	83	2%	64%	0%	0%	0%	0%	0%	34%	81	98%	--	--
	2041	45	2%	89%	0%	0%	0%	0%	0%	9%	44	98%	--	--
	2042	51	4%	73%	0%	0%	0%	0%	2%	22%	49	96%	--	--
	2043	29	0%	93%	0%	0%	0%	0%	0%	7%	29	100%	--	--

APPENDIX C-5
RACE, ETHNICITY, AND LOW INCOME CHARACTERISTICS IN THE PROJECT AREA WITHIN THE CITY OF DALLAS, DALLAS COUNTY

Census Tract/ Block Group	Census Block	Total[1]	White Alone[1]	Black or African American Alone[1]	American Indian and Alaska Native Alone[1]	Asian Alone[1]	Native Hawaiian and Other Pacific Islander Alone[1]	Some Other Race Alone[1]	Population of Two or More Races[1]	Hispanic or Latino of Any Race[1]	Total Minority Population	Total Percent Minority	Median Household Income in the past 12 months (in 2010 inflation-adjusted dollars)[2]	Household Income in the past 12 Months Below Poverty Level[3]
	2044	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2045	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2046	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2047	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2048	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2049	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2050	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2051	27	0%	100%	0%	0%	0%	0%	0%	0%	27	100%	--	--
	2052	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2053	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2054	0	0	0	0	0	0	0	0	0	0	0%	--	--
40		1082	1%	87%	0%	0%	0%	0%	1%	11%	1075	99%	22,102	27%
40/ 1		636	1%	92%	0%	0%	0%	0%	0%	8%	631	99%	19,542	30%
	1000	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1001	4	0%	100%	0%	0%	0%	0%	0%	0%	4	100%	--	--
	1002	16	0%	69%	0%	0%	0%	0%	0%	31%	16	100%	--	--
	1003	45	0%	96%	0%	0%	0%	0%	0%	4%	45	100%	--	--
	1004	38	0%	97%	0%	0%	0%	0%	0%	3%	38	100%	--	--
	1005	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1006	17	0%	100%	0%	0%	0%	0%	0%	0%	17	100%	--	--
	1007	27	4%	74%	0%	0%	0%	0%	0%	22%	26	96%	--	--
	1008	29	0%	100%	0%	0%	0%	0%	0%	0%	29	100%	--	--
	1009	27	0%	100%	0%	0%	0%	0%	0%	0%	27	100%	--	--
	1010	19	0%	89%	0%	0%	0%	0%	0%	11%	19	100%	--	--
	1011	68	3%	96%	0%	0%	0%	0%	0%	1%	66	97%	--	--
	1012	35	0%	89%	0%	0%	0%	0%	0%	11%	35	100%	--	--
	1013	59	0%	97%	0%	0%	0%	0%	0%	3%	59	100%	--	--
	1014	25	4%	96%	0%	0%	0%	0%	0%	0%	24	96%	--	--
	1015	15	0%	87%	0%	0%	0%	0%	0%	13%	15	100%	--	--
	1016	0	0	0	0	0	0	0	0	0	0	0%	--	--

APPENDIX C-5
RACE, ETHNICITY, AND LOW INCOME CHARACTERISTICS IN THE PROJECT AREA WITHIN THE CITY OF DALLAS, DALLAS COUNTY

Census Tract/ Block Group	Census Block	Total[1]	White Alone[1]	Black or African American Alone[1]	American Indian and Alaska Native Alone[1]	Asian Alone[1]	Native Hawaiian and Other Pacific Islander Alone[1]	Some Other Race Alone[1]	Population of Two or More Races[1]	Hispanic or Latino of Any Race[1]	Total Minority Population	Total Percent Minority	Median Household Income in the past 12 months (in 2010 inflation-adjusted dollars)[2]	Household Income in the past 12 Months Below Poverty Level[3]
	1017	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1018	33	0%	100%	0%	0%	0%	0%	0%	0%	33	100%	--	--
	1019	22	0%	100%	0%	0%	0%	0%	0%	0%	22	100%	--	--
	1020	12	0%	100%	0%	0%	0%	0%	0%	0%	12	100%	--	--
	1021	39	3%	82%	0%	0%	0%	0%	0%	15%	38	97%	--	--
	1022	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1023	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1024	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1025	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1026	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1027	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1028	9	0%	100%	0%	0%	0%	0%	0%	0%	9	100%	--	--
	1029	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1030	4	0%	100%	0%	0%	0%	0%	0%	0%	4	100%	--	--
	1031	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1032	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1033	13	0%	85%	0%	0%	0%	0%	0%	15%	13	100%	--	--
	1034	62	0%	77%	0%	0%	0%	0%	0%	23%	62	100%	--	--
	1035	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1036	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1037	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1038	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1039	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1040	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1041	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1042	4	0%	100%	0%	0%	0%	0%	0%	0%	4	100%	--	--
	1043	14	0%	86%	0%	0%	0%	0%	0%	14%	14	100%	--	--
	1044	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1045	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1046	0	0	0	0	0	0	0	0	0	0	0%	--	--

APPENDIX C-5
RACE, ETHNICITY, AND LOW INCOME CHARACTERISTICS IN THE PROJECT AREA WITHIN THE CITY OF DALLAS, DALLAS COUNTY

Census Tract/ Block Group	Census Block	Total[1]	White Alone[1]	Black or African American Alone[1]	American Indian and Alaska Native Alone[1]	Asian Alone[1]	Native Hawaiian and Other Pacific Islander Alone[1]	Some Other Race Alone[1]	Population of Two or More Races[1]	Hispanic or Latino of Any Race[1]	Total Minority Population	Total Percent Minority	Median Household Income in the past 12 months (in 2010 inflation-adjusted dollars)[2]	Household Income in the past 12 Months Below Poverty Level[3]
40/ 2	--	446	0%	80%	1%	0%	0%	0%	2%	16%	444	100%	38,542	10%
	2000	27	4%	59%	4%	0%	0%	0%	15%	19%	26	96%	--	--
	2001	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2002	21	0%	95%	0%	0%	0%	0%	0%	5%	21	100%	--	--
	2003	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2004	36	0%	86%	0%	0%	0%	0%	0%	14%	36	100%	--	--
	2005	32	0%	78%	0%	0%	0%	0%	0%	22%	32	100%	--	--
	2006	24	0%	100%	0%	0%	0%	0%	0%	0%	24	100%	--	--
	2007	38	0%	68%	3%	0%	0%	0%	3%	26%	38	100%	--	--
	2008	28	0%	93%	0%	0%	0%	0%	0%	7%	28	100%	--	--
	2009	34	0%	91%	0%	0%	0%	0%	0%	9%	34	100%	--	--
	2010	5	0%	0%	0%	0%	0%	0%	0%	100%	5	100%	--	--
	2011	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2012	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2013	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2014	20	0%	95%	0%	0%	0%	0%	0%	5%	20	100%	--	--
	2015	17	0%	100%	0%	0%	0%	0%	0%	0%	17	100%	--	--
	2016	6	0%	50%	0%	0%	0%	0%	50%	0%	6	100%	--	--
	2017	15	7%	87%	7%	0%	0%	0%	0%	0%	14	93%	--	--
	2018	25	0%	64%	0%	0%	0%	0%	0%	36%	25	100%	--	--
	2019	39	0%	77%	0%	0%	0%	3%	0%	21%	39	100%	--	--
	2020	21	0%	71%	0%	0%	0%	0%	0%	29%	21	100%	--	--
	2021	3	0%	100%	0%	0%	0%	0%	0%	0%	3	100%	--	--
	2022	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2023	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2024	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2025	1	0%	100%	0%	0%	0%	0%	0%	0%	1	100%	--	--
	2026	1	0%	0%	0%	0%	0%	0%	0%	100%	1	100%	--	--
	2027	14	0%	100%	0%	0%	0%	0%	0%	0%	14	100%	--	--
	2028	0	0	0	0	0	0	0	0	0	0	0%	--	--

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Census Tract/ Block Group	Census Block	Total[1]	White Alone[1]	Black or African American Alone[1]	American Indian and Alaska Native Alone[1]	Asian Alone[1]	Native Hawaiian and Other Pacific Islander Alone[1]	Some Other Race Alone[1]	Population of Two or More Races[1]	Hispanic or Latino of Any Race[1]	Total Minority Population	Total Percent Minority	Median Household Income in the past 12 months (in 2010 inflation-adjusted dollars)[2]	Household Income in the past 12 Months Below Poverty Level[3]
	2029	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2030	14	0%	64%	0%	0%	0%	0%	0%	36%	14	100%	--	--
	2031	3	0%	100%	0%	0%	0%	0%	0%	0%	3	100%	--	--
	2032	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2033	9	0%	33%	0%	0%	0%	0%	11%	56%	9	100%	--	--
	2034	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2035	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2036	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2037	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2038	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2039	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2040	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2041	2	0%	100%	0%	0%	0%	0%	0%	0%	2	100%	--	--
	2042	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2043	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2044	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2045	11	0%	100%	0%	0%	0%	0%	0%	0%	11	100%	--	--
86.03		1237	2%	60%	0%	0%	0%	0%	1%	36%	1214	98%	30,968	33%
86.03/ 1		764	2%	85%	0%	0%	0%	0%	2%	11%	752	98%	21,797	43%
	1000	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1005	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1006	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1007	2	0%	100%	0%	0%	0%	0%	0%	0%	2	100%	--	--
	1008	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1020	0	0	0	0	0	0	0	0	0	0	0%	--	--
115		3185	1%	31%	0%	0%	0%	0%	0%	67%	3155	99%	16,719	62%
115/ 3		262	1%	31%	0%	0%	0%	0%	0%	68%	260	99%	19,118	47%
	3000	0	0	0	0	0	0	0	0	0	0	0%	--	--
	3001	0	0	0	0	0	0	0	0	0	0	0%	--	--
	3002	0	0	0	0	0	0	0	0	0	0	0%	--	--

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RACE, ETHNICITY, AND LOW INCOME CHARACTERISTICS IN THE PROJECT AREA WITHIN THE CITY OF DALLAS, DALLAS COUNTY

Census Tract/ Block Group	Census Block	Total[1]	White Alone[1]	Black or African American Alone[1]	American Indian and Alaska Native Alone[1]	Asian Alone[1]	Native Hawaiian and Other Pacific Islander Alone[1]	Some Other Race Alone[1]	Population of Two or More Races[1]	Hispanic or Latino of Any Race[1]	Total Minority Population	Total Percent Minority	Median Household Income in the past 12 months (in 2010 inflation-adjusted dollars)[2]	Household Income in the past 12 Months Below Poverty Level[3]
	3003	0	0	0	0	0	0	0	0	0	0	0%	--	--
	3004	2	0%	100%	0%	0%	0%	0%	0%	0%	2	100%	--	--
	3005	0	0	0	0	0	0	0	0	0	0	0%	--	--
	3006	6	0%	0%	0%	0%	0%	0%	0%	100%	6	100%	--	--
	3010	0	0	0	0	0	0	0	0	0	0	0%	--	--
	3012	0	0	0	0	0	0	0	0	0	0	0%	--	--
115/ 4		827	1%	48%	0%	0%	0%	0%	1%	49%	820	99%	25,054	56%
	4008	0	0	0	0	0	0	0	0	0	0	0%	--	--
	4009	0	0	0	0	0	0	0	0	0	0	0%	--	--
	4032	0	0	0	0	0	0	0	0	0	0	0%	--	--
	4033	0	0	0	0	0	0	0	0	0	0	0%	--	--
	4035	0	0	0	0	0	0	0	0	0	0	0%	--	--
	4036	0	0	0	0	0	0	0	0	0	0	0%	--	--
	4037	0	0	0	0	0	0	0	0	0	0	0%	--	--
	4038	0	0	0	0	0	0	0	0	0	0	0%	--	--
	4053	23	0%	87%	0%	0%	0%	0%	0%	13%	23	100%	--	--
	4058	0	0	0	0	0	0	0	0	0	0	0%	--	--
	4059	0	0	0	0	0	0	0	0	0	0	0%	--	--
	4060	31	0%	45%	0%	0%	0%	0%	0%	55%	31	100%	--	--
	4061	0	0	0	0	0	0	0	0	0	0	0%	--	--
	4062	0	0	0	0	0	0	0	0	0	0	0%	--	--
	4064	0	0	0	0	0	0	0	0	0	0	0%	--	--
	4065	0	0	0	0	0	0	0	0	0	0	0%	--	--
	4066	0	0	0	0	0	0	0	0	0	0	0%	--	--
	4067	0	0	0	0	0	0	0	0	0	0	0%	--	--
	4068	0	0	0	0	0	0	0	0	0	0	0%	--	--
	4069	0	0	0	0	0	0	0	0	0	0	0%	--	--
	4070	0	0	0	0	0	0	0	0	0	0	0%	--	--
	4071	9	0%	100%	0%	0%	0%	0%	0%	0%	9	100%	--	--
	4072	0	0	0	0	0	0	0	0	0	0	0%	--	--

APPENDIX C-5
RACE, ETHNICITY, AND LOW INCOME CHARACTERISTICS IN THE PROJECT AREA WITHIN THE CITY OF DALLAS, DALLAS COUNTY

Census Tract/ Block Group	Census Block	Total[1]	White Alone[1]	Black or African American Alone[1]	American Indian and Alaska Native Alone[1]	Asian Alone[1]	Native Hawaiian and Other Pacific Islander Alone[1]	Some Other Race Alone[1]	Population of Two or More Races[1]	Hispanic or Latino of Any Race[1]	Total Minority Population	Total Percent Minority	Median Household Income in the past 12 months (in 2010 inflation-adjusted dollars)[2]	Household Income in the past 12 Months Below Poverty Level[3]
203		2568	6%	87%	0%	0%	0%	0%	1%	6%	2416	94%	14,060	52%
203/1		466	24%	60%	0%	0%	0%	0%	0%	15%	353	76%	19,554	31%
	1090	1	0%	100%	0%	0%	0%	0%	0%	0%	1	100%	--	--
	1091	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1103	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1104	5	0%	80%	0%	0%	0%	0%	0%	20%	5	100%	--	--
	1105	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1109	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1107	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1108	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1109	11	0%	100%	0%	0%	0%	0%	0%	0%	11	100%	--	--
	1110	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1111	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1112	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1113	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1114	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1118	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1119	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1120	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1121	2	0%	50%	0%	0%	0%	0%	0%	50%	2	100%	--	--
203/ 2		1314	2%	95%	0%	0%	0%	0%	1%	3%	1291	98%	13,511	49%
	2016	64	0%	100%	0%	0%	0%	0%	0%	0%	64	100%	--	--
	2017	67	0%	90%	0%	0%	0%	0%	1%	9%	67	100%	--	--
	2018	21	0%	100%	0%	0%	0%	0%	0%	0%	21	100%	--	--
	2020	8	0%	88%	13%	0%	0%	0%	0%	0%	8	100%	--	--
	2021	6	0%	83%	17%	0%	0%	0%	0%	0%	6	100%	--	--
	2022	1	0%	100%	0%	0%	0%	0%	0%	0%	1	100%	--	--
	2023	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2024	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2025	0	0	0	0	0	0	0	0	0	0	0%	--	--

APPENDIX C-5
RACE, ETHNICITY, AND LOW INCOME CHARACTERISTICS IN THE PROJECT AREA WITHIN THE CITY OF DALLAS, DALLAS COUNTY

Census Tract/ Block Group	Census Block	Total[1]	White Alone[1]	Black or African American Alone[1]	American Indian and Alaska Native Alone[1]	Asian Alone[1]	Native Hawaiian and Other Pacific Islander Alone[1]	Some Other Race Alone[1]	Population of Two or More Races[1]	Hispanic or Latino of Any Race[1]	Total Minority Population	Total Percent Minority	Median Household Income in the past 12 months (in 2010 inflation-adjusted dollars)[2]	Household Income in the past 12 Months Below Poverty Level[3]
	2026	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2027	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2028	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2029	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2030	0	0	0	0	0	0	0	0	0	0	0%	--	--
203/ 3		788	2%	90%	0%	0%	0%	0%	2%	5%	772	98%	13,169	53%
	3022	16	0%	100%	0%	0%	0%	0%	0%	0%	16	100%	--	--
	2023	21	0%	86%	0%	0%	0%	0%	0%	14%	21	100%	--	--
	3024	19	0%	100%	0%	0%	0%	0%	0%	0%	19	100%	--	--
	3025	21	5%	57%	0%	0%	0%	0%	0%	38%	20	95%	--	--
	3026	6	0%	67%	0%	0%	0%	0%	33%	0%	6	100%	--	--
	3027	221	6%	86%	0%	0%	0%	0%	1%	7%	208	94%	--	--
	3028	14	0%	100%	0%	0%	0%	0%	0%	0%	14	100%	--	--
	3029	0	0	0	0	0	0	0	0	0	0	0%	--	--
	3030	4	0%	0%	0%	0%	0%	0%	0%	100%	4	100%	--	--
	3031	0	0	0	0	0	0	0	0	0	0	0%	--	--
	3032	0	0	0	0	0	0	0	0	0	0	0%	--	--
204		5518	44%	29%	1%	3%	0%	0%	2%	22%	3090	56%	52,508	30%
204/ 2		2040	40%	22%	0%	4%	0%	0%	2%	32%	1224	60%	33,866	22%
	2107	12	0%	0%	0%	0%	0%	0%	0%	100%	12	100%	--	--
	2117	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2118	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2138	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2139	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2140	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2141	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2142	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2143	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2162	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2182	4	50%	50%	0%	0%	0%	0%	0%	0%	2	50%	--	--

APPENDIX C-5

RACE, ETHNICITY, AND LOW INCOME CHARACTERISTICS IN THE PROJECT AREA WITHIN THE CITY OF DALLAS, DALLAS COUNTY

Census Tract/ Block Group	Census Block	Total[1]	White Alone[1]	Black or African American Alone[1]	American Indian and Alaska Native Alone[1]	Asian Alone[1]	Native Hawaiian and Other Pacific Islander Alone[1]	Some Other Race Alone[1]	Population of Two or More Races[1]	Hispanic or Latino of Any Race[1]	Total Minority Population	Total Percent Minority	Median Household Income in the past 12 months (in 2010 inflation-adjusted dollars)[2]	Household Income in the past 12 Months Below Poverty Level[3]
	2183	2	50%	0%	0%	0%	0%	0%	0%	50%	1	50%	--	--
	2184	13	85%	15%	0%	0%	0%	0%	0%	0%	2	15%	--	--
	2185	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2186	0	0	0	0	0	0	0	0	0	0	0%	--	--

Sources:

1. *U.S. Census Bureau 2010, Summary File 1, Table P9*
2. *U.S. Census Bureau ACS 2006-2010 5-year estimates, Table B17017*
3. *U.S. Census Bureau ACS 2006-2010 5-year estimates, Table B19013*

Note:

The latest Census data has been utilized to obtain socioeconomic data. The 2010 Census data is used to obtain population counts and basic characteristics, while the Census Bureau's ACS 2006–2010 5-year estimate data is used to obtain demographic, social, economic and housing characteristics.

Texas Department of Transportation
DEWITT C. GREER STATE HIGHWAY BLDG. • 125 E. 11TH STREET • AUSTIN, TEXAS 78701-2483 • (512) 463-8585

January 18, 2012

SECTION 106: IDENTIFICATION OF HISTORIC PROPERTIES AND DETERMINATION OF EFFECTS (30% submittal)
Dallas County
CSJ# 0092-01-052; -054; 0197-02-921
SM Wright Project, Dallas, Texas:
IH 45 – US 175 to S. of Lamar Blvd.
US 175 – S. of Budd St. to IH 45
Direct Connection – IH 45 to US 175/SH 310

Ms. Adrienne Campbell
History Division
Texas Historical Commission
P.O. Box 12276
Austin, Texas 78711

Dear Ms. Campbell:

In accordance with 36 CFR 800 and the Programmatic Agreement (PA) between the Texas Department of Transportation (TxDOT), the Federal Highways Administration (FHWA), the Advisory Council on Historic Preservation, and the Texas Historical Commission (THC), this letter initiates Section 106 consultation for the above referenced project. We hereby present the results of a report on the eligibility and effects (30% submittal) of the proposed undertaking on properties listed and eligible to the National Register of Historic Places (NRHP).

Project Location:

The project is located in the south part of the City of Dallas, Dallas County, Texas. Land use is primarily residential, with some institutional, religious and commercial properties. The majority of the building stock is denoted by small-scale housing and its associated structures dating approximately from 1920 to 1955. Some portions lie within the Colonial Hill Historic District, and others extend into the South Boulevard-Park Row Historic District, both of which are listed in the NRHP.

Project Description:

The proposed improvements totaling a centerline length of 5 miles are divided into three segments within the project area:

SM Wright Freeway (US 175 from IH 45 interchange to SH 310):
The existing controlled access freeway will be converted to a low-speed, signalized, six-lane urban arterial roadway with a slightly meandering alignment and pedestrian amenities, including walking paths and landscaping.

CF Hawn Freeway (US 175 south and east of SH 310):
IH 45 and the Hawn Freeway portion of US 175 will be linked by the construction of two-lane direct connecting ramps on new location to carry northbound and southbound vehicular traffic. This would extend the Hawn Freeway west of the existing US 175/SH 310 interchange along with frontage roads to facilitate local access.

IH 45 (US 175 to S. of Lamar Blvd.):
The proposed direct connector ramps between CF Hawn and IH 45 would require the widening /re-striping of the latter facility from its existing six main lanes to eight main lanes between Lamar Street and SM Wright. These improvements would require design exceptions for lane and inside shoulder width.

Project Purpose:

With the proposed conversion of the SM Wright Freeway into an urban arterial with a pedestrian friendly environment, the project seeks to deter the continued decline in population and housing stock in the area. The project responds to local initiatives to improve community cohesion through the creation of a slow speed facility with a park-like setting and pedestrian amenities along SM Wright. Linking the IH 45 and CF Hawn freeways would improve neighborhood environment by removing commuter traffic from the residential areas adjacent to these high speed facilities. A substantial safety-related benefit of the project would be the removal of the accident-prone sharp curve that currently connects SM Wright to CF Hawn (see project maps).

Project Right-of-Way:

While the proposed improvements were originally envisioned to be constructed within a substantial amount of new right-of-way (ROW), traffic engineers have now limited new construction to the existing ROW through various design revisions. The only exception involves a 38-acre segment of new ROW at the southern end of the project necessary for the construction of the connectors linking IH 45 and the CF Hawn Freeway (see dashed red lines denoting new ROW in various project maps).

***Non-Archelogical Historic-Age Resource Reconnaissance Survey Report, SM Wright, Dallas County* (December 2011):**

The attached report presents the findings of a 2010 reconnaissance-level survey with a cut-off date of 1968 for the identification of standing historic-age structures. The survey was undertaken in a variable area of potential effects (APE), which extended to 150 ft. from the existing ROW along the SM Wright and IH 45 project segments, and to 300 ft. from the proposed ROW in the new location segment for the IH 45-CF Hawn direct connectors. The APE includes all parcels of land that fall completely or partially within its boundaries.

As a result of the 2010 survey efforts, 390 historic-age resources were identified on 290 sites in the APE. Since the project area also includes portions of the previously surveyed Trinity Parkway project APE, those properties were not re-surveyed, but are presented in a distinct section of the document with their original ID numbers and with their own color-code in the attached maps. With the 175 properties surveyed during the Trinity Parkway identification effort, the total number of resources presented in the attached SM Wright survey totals 585 buildings on 465 sites.

Appendix A includes a tabular inventory of all resources identified in the 2010 survey, each of which is keyed to location maps found in Appendix B. Individual inventory forms with photographs for these resources are found in Appendix C, while the tabular and inventory forms for the Trinity properties are included in Appendices D and E, respectively. A few missing entries in the inventory represent surveyed resources removed from the report due to demolition or corrected construction dates. So as not to alter the established numeration system since the survey's inception, the following map ID numbers were not removed: JS-21, 24; SM-25, 85, 189, 209 and 221.

The majority, or 88%, of surveyed properties are of the domestic type, with some commercial and light industrial resources. The properties were evaluated under a broad number of themes ranging from the advent of streetcar and suburbs in the late 19th and early 20th centuries to post-war suburbanization and freeway development in the mid-20th century. Because of the large number of surveyed resources, the project area has been divided into the following geographic regions:

Julius Schepps Zone (JS):
The zone extends along both sides of IH 45 from Corinth Street to the Trinity River with a mix of residential, industrial and commercial buildings. Residential properties are located in or near the NRHP-listed Colonial Hill Historic District.

SM Wright Zone (SM):
The zone covers properties along both sides of US 175 extending from the IH 45/US 175 interchange south to the US 175/SH 310 interchange ("Deadman's Curve"), and then east on US 175 to Railroad Avenue. A scattering of commercial properties along US 175 are present within the larger tally of residences, some of which are located within the NRHP-listed Colonial Hill and South Boulevard-Park Row historic districts.

Trinity Parkway Zone (IN, MK, WH, EH):
Four zones of the Trinity Parkway survey are found within the current APE of SM Wright. The zones include the primarily commercial Industrial Blvd. zone (IN); the primarily industrial Martin Luther King zone (MK); the mixed residential/commercial West Colonial Hill zone (WH); and the mainly residential East Colonial Hill zone (EH). The EH zone includes the largest number of resources from the Trinity survey. Please note that the current report relies on the eligibility determinations concurred with by THC in previous coordination with TxDOT regarding the 175 Trinity properties.

Survey Findings:

Prior to field work, qualified TxDOT staff checked the APE for the presence of previously recorded historic properties. The research did not indicate Recorded Texas Historical Landmarks, Official Texas Historical Markers, or State Archeological Landmarks to be present in the APE. As indicated in survey Table 1, two NRHP listed historic districts were found in the APE:

--Colonial Hill Historic District, **listed** 1995, under Criterion A, Community Development, and Criterion C, Architecture, both at the local level of significance illustrating a classic example of the streetcar suburb. Bounded by Central Expressway, Pennsylvania, IH 45, Holmes/Lamar and Hatcher streets, with 85 contributing properties in the APE (see survey Table 3), one of which is a commercial property (WH-99).

--South Boulevard-Park Row Historic District, **listed** 1979, under Criterion C, Architecture, at the local level of significance reflecting the work of local architects for prominent members of the Dallas Jewish community. Bounded by South Boulevard and Park Row from Central Avenue with 6 contributing properties in the APE (see survey Table 4).

Commercial Properties:

Commercial properties identified both in the current and Trinity surveys reveal them as having significant modifications to storefronts, in-filled windows, altered entrances or covered windows that render them as not eligible to the NRHP. Some properties are vacant or abandoned. Within this commercial grouping, the survey identified one structure as having integrity and significance:

-- Forest Theater (SM-12), 1920 Martin Luther King Blvd. (formerly Forest Ave.), constructed 1947, **eligible** under Criterion A, Entertainment and Ethnic Heritage, and under Criterion C, Architecture, both at the local level of significance.

Located about two blocks from the northern boundary of the Colonial Hill Historic District, the Art Deco/Streamline former theater is associated with the African-American community of South Dallas. Architecturally, it is a good example of its style despite minor modifications.

Residential Properties:

While some residential areas along the project share commonalities with the listed districts, the survey revealed that most domestic properties outside the districts form incongruous, discontinuous groupings lacking the cohesive qualities for eligibility as a district. No single property was deemed to have sufficient distinction for individual eligibility to the National Register. Many of the residences exhibit modifications that diminish their individual integrity, as well as their ability to contribute to the cohesiveness required for a district.

The field research did identify one project area to have sufficient integrity, cohesion and significance to qualify as an NRHP-eligible historic district in the SM zone:

--Central Park Historic District, **eligible** under Criterion C, Architecture, at the local level of significance. Located at Packard St. and the west side of Edgewood St., between Lenway and Cooper streets (see survey Table 5).

The small-scale residential district is composed of Tudor Revival homes dating 1928-1940. It is comprised of 10 contributing residential properties. Together with the NRHP-listed districts, Central Park was found to have better, more intact examples of resource types with higher levels of integrity than other surveyed areas.

Determination of Effects (30% submittal phase):

The Criteria of Effect were applied to the listed and eligible resources within the APE, and, at this 30% submittal phase, we determine the proposed undertaking will have **no adverse effect** on the historical associations, architectural features and integrity of the properties identified as historically significant. The proposed improvements would not impair any of the resources' aspects of integrity or their ability to convey their historical significance.

Historic resources along SM Wright have always been adjacent to a transportation corridor, either in the form of the H T & C Railroad, or its later transformation into the SM Wright Freeway (US 175). Conversion of the current high-speed SM Wright facility to a low-speed urban arterial can only be beneficial to the setting and longevity of historic properties and districts. Comments addressing effects to individual and historic district resources are provided below:

Former Forest Theater (SM-12):

The proposed project will have **no adverse effect** upon the eligible, historic streamlined theater. As there will be no new ROW required from the property, there will be no direct effects. In its vicinity, the existing SM Wright frontage road and MLK Blvd. Overpass would remain to provide access to the property.

Proposed visual elements to the new SM Wright urban arterial would not be immediately located next to the theater, or in front of its main elevation facing MLK Blvd. One of the two 50 ft.-tall "corridor entry monuments" flanking the new roadway would be located 65 ft. from the side elevation of the theater. Proposed trees would be added near the side of the theater in a landscaped area located between the frontage road and the main-lane segment of the roadway (see survey Figure 6, page 53).

Listed and Eligible Historic Districts:

Assessment of potential effects to the two NRHP-listed and the one eligible historic district in the project area are included in the attached survey (pages 54-60). The proposed work will not compromise the historical integrity or historical significance of these districts and, as a result, we determine the project will have **no adverse effect** upon them.

Central Park Historic District --

Located opposite to Colonial Hill, on the east side of the SM Wright facility, no new ROW would be taken from this the **eligible** historic district. Its adjacent frontage road would be converted into a 12-ft.-wide walking path that would buffer the district from the new arterial's main lanes. Existing trees to be preserved, as well as those to be added, will further screen the district from the roadway. Proposed corridor monuments are a full two blocks away along Metropolitan Ave. (see survey map Figure 7, page 55). Since no significant visual elements are being introduced in the district's proximity, the proposed work will have **no adverse effect** upon the 10 contributing properties.

South Boulevard-Park Row Historic District --

Also located to the east side of SM Wright, but to the north of Central Park, the South Boulevard-Park Row Historic District is **listed** as a residential area comprised of architect-designed properties for prominent members of Dallas' Jewish community. No new ROW is required from any contributing resource in the district. The closest proposed improvements are those near the Forest Theater at a distance of 425 ft. *away* from the southern district boundaries (see survey Figure 11, page 59). As such, the proposed work will have **no adverse effect** upon this listed resource.

Colonial Hill Historic District --

The residential district is a large resource listed for its significance as a fine example of a streetcar suburb in Dallas. While the district covers an extensive area along the west side of SM Wright, no new ROW would be required by the proposed project in this segment. Planned improvements to be located approximately 50-100 ft. from the district boundaries along the new arterial's ROW include enhanced intersections with paving; wide landscaped medians with trees, walking paths, and water features; and four monument types in varying heights denoting different portions of the new SM Wright's contextual surroundings (see survey Figures 8, 9, 10).

The introduction of new visual elements in the district's vicinity will have **no adverse effect**, as the features will not be overtly visible from its boundaries, since existing and proposed vegetation will screen the contributing properties at the district's edges. The conversion of SM Wright to an urban arterial will not impact the integrity of the historic district, as that high-speed facility is a detracting factor in the districts' setting. The new low-speed roadway, on the other hand, will lessen traffic noise along the district's perimeter, and, with its pedestrian friendly environment, it will be more compatible with the neighborhood's historic setting that was lost due to the SM Wright Freeway construction. Part of the land that was used as ROW for the freeway will now be reclaimed for pedestrian use, as the vehicular portion of the current thoroughfare will be reduced with this project.

In regard to the IH 45 and CF Hawn Freeway direct connectors on new ROW, their construction five blocks *away* from the district's southern boundary will not be visually intrusive upon the listed resource. The proposed widening/re-striping of the southern segment of IH 45 between Lamar and SM Wright will take place on existing ROW where that facility is two or more blocks *away* from the district's boundaries. As such, all of the proposed improvements will have **no adverse effect** upon the district.

Indirect Effects/Cumulative Impacts:

No indirect or cumulative impacts are expected from SM Wright project activities. Any project induced development will not adversely impact the physical appearance or surroundings of the listed or eligible properties and districts.

Proposed amenities will enhance the historic residential/pedestrian qualities of the area, which were impaired by the original construction of the SM Wright freeway. The restoration of connecting streets across SM Wright that were severed by the freeway construction will increase community cohesion, and reinstate some of the east-west vehicular and pedestrian linkages that historically existed in what was once a large interconnected residential area in southern Dallas. By complementing the historic pedestrian-oriented development patterns of area neighborhoods, and lessening commuter traffic and its associated noise, the SM Wright conversion project would improve the health of surrounding historic resources.

There is no planned or specific reasonably foreseeable development adjacent to the eligible and listed historic properties. While "forwardDallas!," the city-council-approved comprehensive plan includes a development analysis of this area, the document encourages commercial activity at major intersections beyond SM Wright, especially at Malcolm X. Boulevard, which is ten blocks *away* from the eastern edge of the proposed pedestrian-oriented arterial.

One reasonably and foreseeable transportation development action in the area would be the proposed Trinity Parkway. The southern end of its varied alternatives (2A, 2B, 3C, 4B) would have the main lanes cross under IH 45, and then continue between the proposed IH 45-CH Hawn direct connectors to establish a link to US 175. The construction of this southern segment of the Trinity Parkway would divert commuter traffic *away* from the IH 45 and SM Wright segments adjacent to the Colonial Hill Historic District, thereby enhancing the residential context and lessening noise levels.

Conclusion:

There will be **no adverse effect** to any aspects of integrity of the listed or eligible properties in the APE, or to their ability to convey their significance at this 30% submittal phase of the project. We request your written concurrence with these determinations of eligibility and effects within 20 days of receiving this letter. If you have any questions or comments, please call me at 416-2770.

Sincerely,

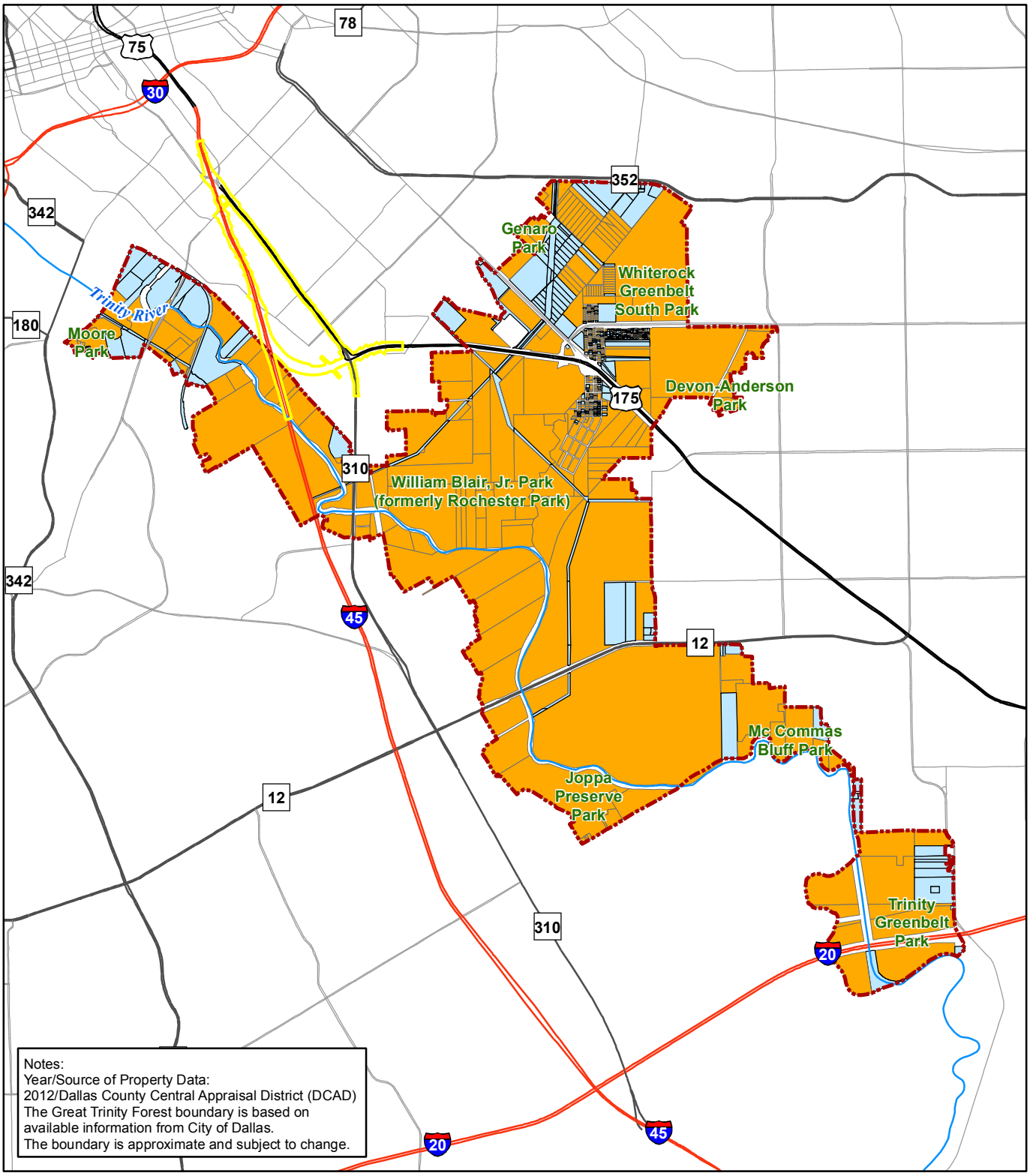
Mario L. Sanchez, R.A., Ph.D.
Historical Architect
Environmental Affairs Division

Attachments

CONCUR
SM Wright Project (CSJs -- 0092-01-052; -054; 0197-02-921)
■ **DETERMINATIONS OF ELIGIBLITY TO THE NRHP**
■ **NO ADVERSE EFFECT TO HISTORIC PROPERTIES/DISTRICTS**
(30% approval phase)

Name: _____ Date: 2-7-12
For State Historic Preservation Officer

cc. City of Dallas Historic Preservation Officer, Mark Doty
Preservation Dallas, Katherine Seale
Dallas Co. Historical Commission, Ann Spillman
Halff Associates, Jason Diamond
Ecomm Corp., Kurt Korfmacher; Tom Eisenhour



Legend

- Project Right of Way
- Great Trinity Forest Boundary
- Public Owned Property
- Private Owned Property

N
W E
S

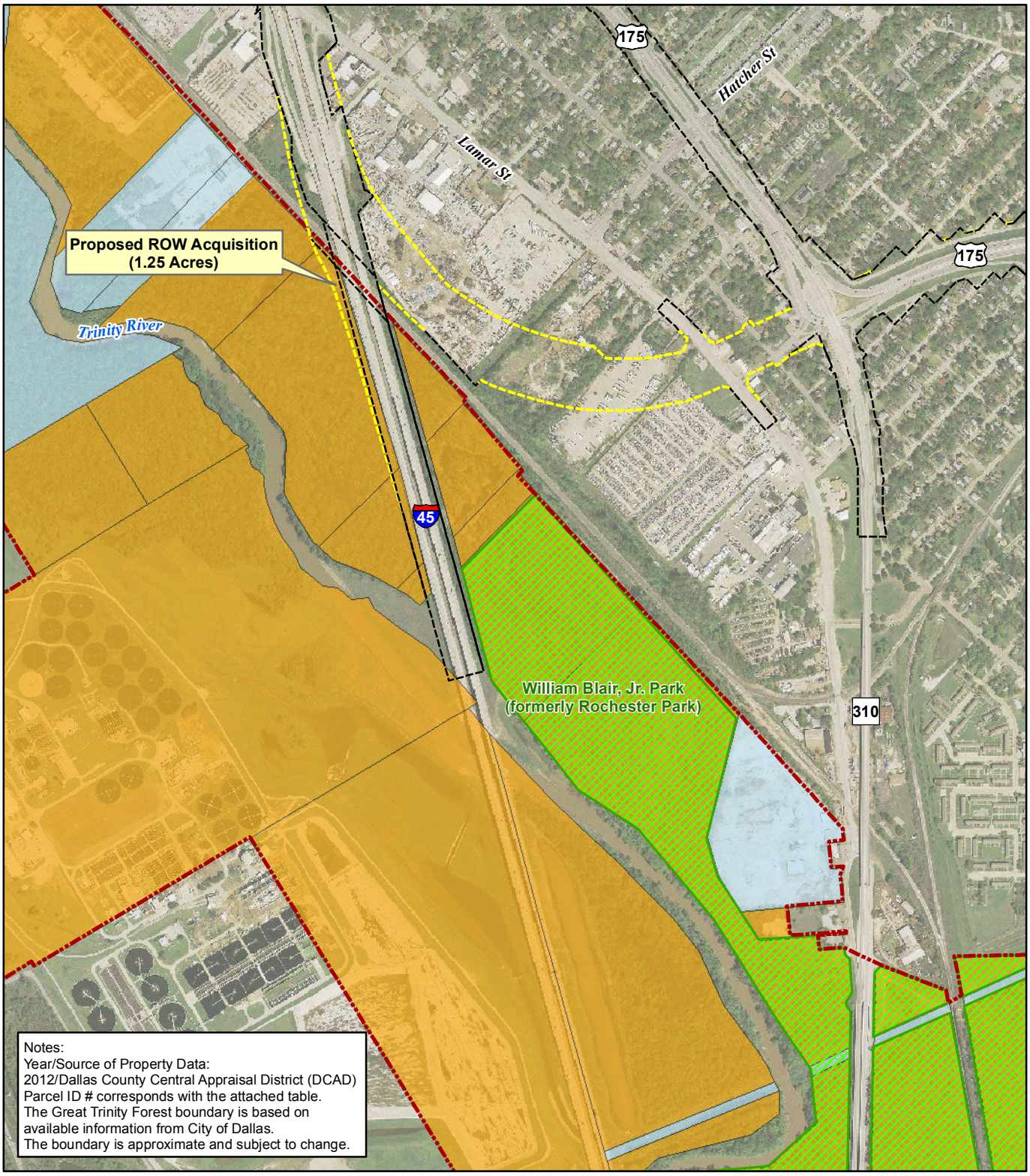
0 3,000 6,000

Feet

Great Trinity Forest Overview Map

SM Wright Project
Dallas, Texas

CSJs: 0092-01-052, 0197-02-108, & 0092-14-081



Legend

- Existing Right of Way
- Proposed Right of Way
- Great Trinity Forest Boundary
- Park
- Public Owned Property
- Private Owned Property

N
W E
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0 500 1,000
Feet

Property Ownership - SM Wright Project & Great Trinity Forest

SM Wright Project
Dallas, Texas

CSJs: 0092-01-052, 0197-02-108, & 0092-14-081

HALFF

1201 North Bowser Road
Richardson, Texas 75081
(214) 346-6200
Fax (214) 739-0095

MEETING MINUTES

To: All Attendees

From: Ashley Oliver, Halff

Subject: SM Wright Project/Trinity Phase I, Dallas County (CSJ: 0197-02-108, 0092-14-081, 0092-1-052) – Section 4(f) Teleconference

Meeting Date: March 29, 2012

Location: Teleconference

Minutes Date: March 30, 2012

AVO No.: 24149 / WA04B

Attendees:

FHWA
Anita Wilson, Barbara Maley, Theresa Claxton, Greg Wood

TxDOT ENV
Lindsey Kimmit

TxDOT DAL
Robert Hall

Halff
Rick Thomas, Jason Diamond, Ashley Oliver

Halff is preparing the SM Wright Project Draft Environmental Assessment (EA). The proposed project would require 1.25 acres of ROW adjacent to the west side of IH 45 from three parcels of land owned by the City of Dallas. The parcels are located within the Great Trinity Forest and are not currently designated as park land. TxDOT is coordinating with the City of Dallas on anticipated impacts associated with the parcels. The objective of this meeting was to discuss questions from the TxDOT Dallas District and the City of Dallas regarding these anticipated impacts.

Per FHWA (Anita Wilson and Theresa Claxton), Section 4(f) regulations would not apply to the transportation use of the 1.25 acres. FHWA referenced the July 16, 2010 letter (addressed to Lisa Hart), which states that lands within the Great Trinity Forest are subject to Section 4(f) regulations and analysis on a case-by-case basis as the Forest is a multi-use property. As the three parcels to be converted to transportation use are not currently designated as parkland or other uses subject to Section 4(f) regulations, Section 4(f) would not apply to these areas.

FHWA (Anita Wilson) stated that the EA document should make reference to the previous Section 4(f) determination for the Great Trinity Forest in the July 16, 2010 FHWA letter.

FHWA (Theresa Claxton) further advised the following:

Because TxDOT intends to acquire the property and would be the owner, the City of Dallas would need to obtain an agreement with TxDOT for any future uses (easement, shared use, etc.). Any future deed and agreement with the City of Dallas should assert that the transportation use has primacy. In addition, the deed should specify that any future recreational uses of the property would be considered transient and/or incidental (See FHWA's March 2005 Section 4(f) policy paper regarding "18. Temporary Recreational Occupancy or Uses of Highway Rights-of-way." This policy paper states that *in situations where land which is owned by a State DOT or other Applicant and designated for future transportation purposes (including highway rights-of-way) is temporarily occupied or being used for either authorized or unauthorized recreational purposes such as for a playground or a trail (bike, snowmobile, hiking, etc.) on property purchased as right-of-way, Section 4(f) does not apply. For authorized temporary occupancy of highway rights-of-way for park or recreation, it is advisable to make clear in a limited occupancy permit, with a reversionary clause that no long-term right is created and the park or recreational activity is a temporary one pending completion of the highway or transportation project.*).

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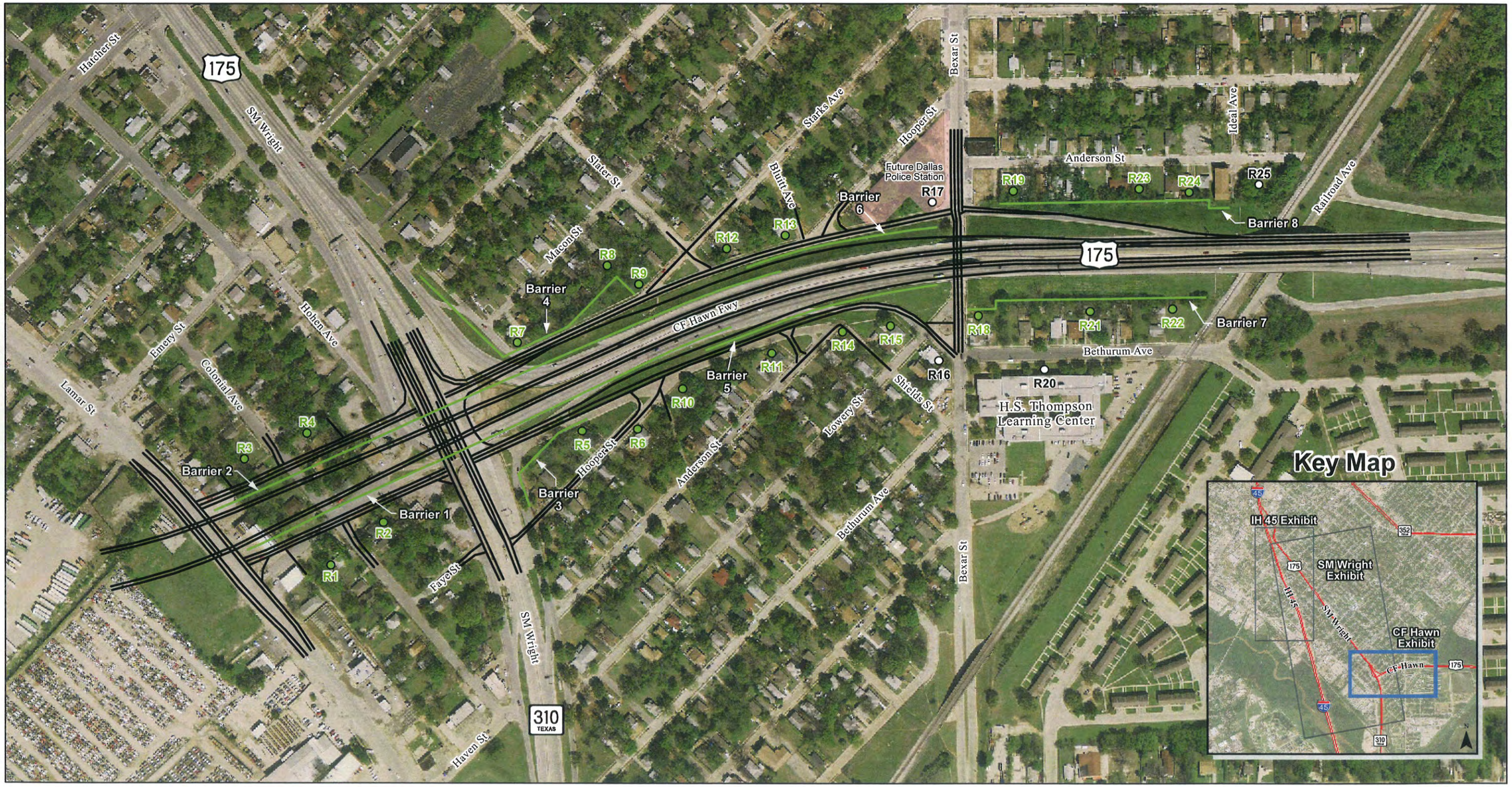
Action Items

- Halff Associates to finalize the Draft EA for submittal to the TxDOT Dallas District and ENV based on the direction from FHWA that Section 4(f) requirements do not apply for the proposed acquisition of 1.25 acres of City-owned property within the Great Trinity Forest. The Draft EA will clearly identify the land use of the property to be acquired and present the rationale for why Section 4(f) does not apply to its use.

This concludes the Meeting Minutes. Our goal is to provide a complete and accurate summary of the proceedings of the subject meeting in these minutes. If you feel that any of the items listed above are not correct, or that any information is missing or incomplete, please contact Halff Associates so that the matter can be resolved, and a correction issued if necessary. These minutes will be assumed to be correct and accepted if we do not hear from you within ten (10) calendar days from your receipt.

CSJs: 0092-01-052, 0197-02-108, & 0092-14-081



0 150 300 600
Feet

N
W E
S

Source/Year of Aerial: Landiscor/2009

Legend

- Receiver Not Impacted
- Receiver Impacted / Benefited by Barrier
- Receiver Impacted / Not Benefited by Barrier
- 8', 10', 12', 14' and 16' Traffic Noise Barrier
- Future Roadway

NOTE: Locations are approximate.

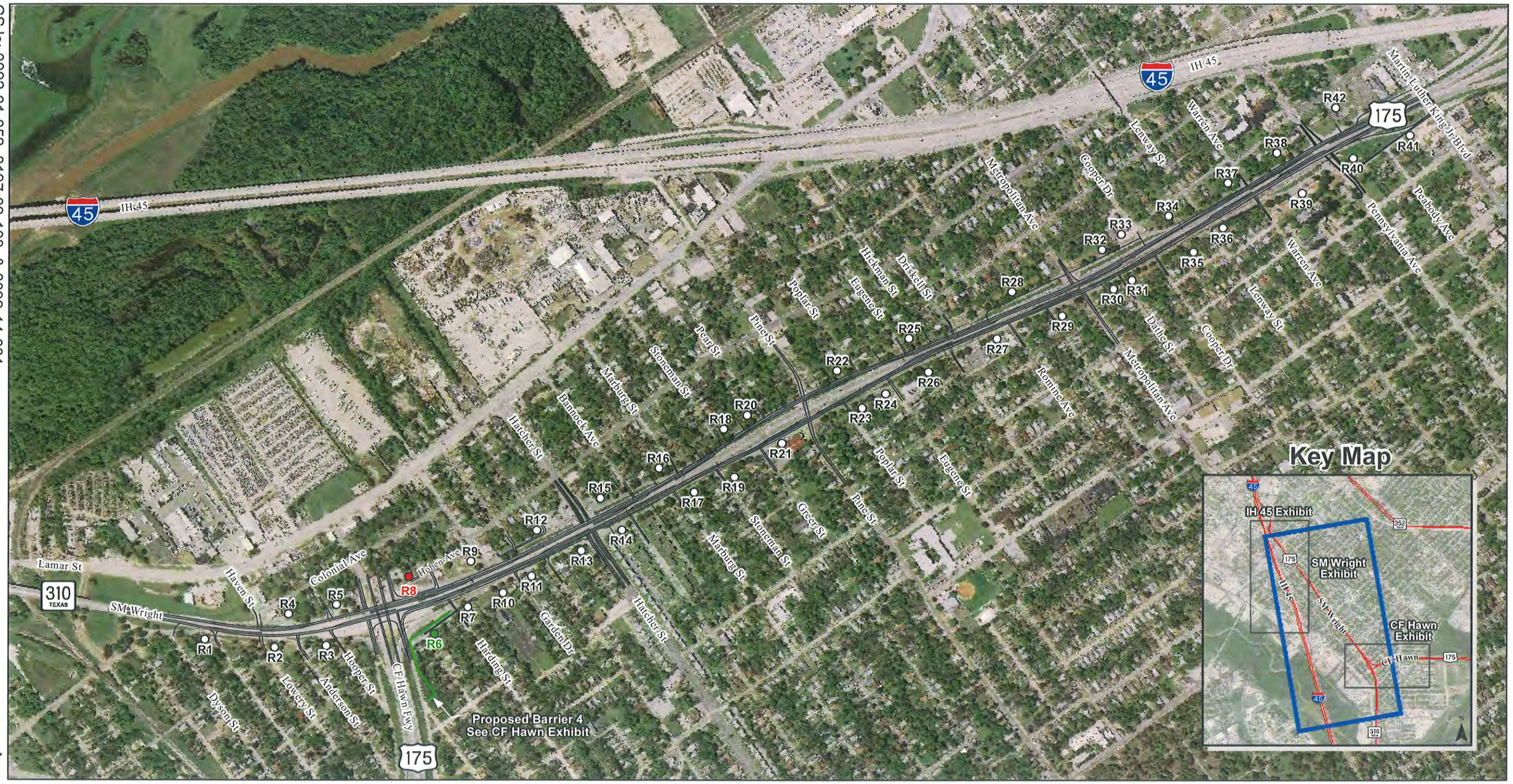
Noise Analysis CF Hawn (US 175)

Dallas, Texas

Appendix C-10, Page 1

Appendix C-10, Page 1

CSJs: 0092-01-052, 0197-02-108, & 0092-14-081



Key Map

0 350 700 1,400
Feet

Source/Year of Aerial: Landiscor/2009

Legend

- Receiver Not Impacted
- Receiver Impacted / Benefited by Barrier
- Receiver Impacted / Not Benefited by Barrier
- 12' Traffic Noise Barrier
- Future Roadway

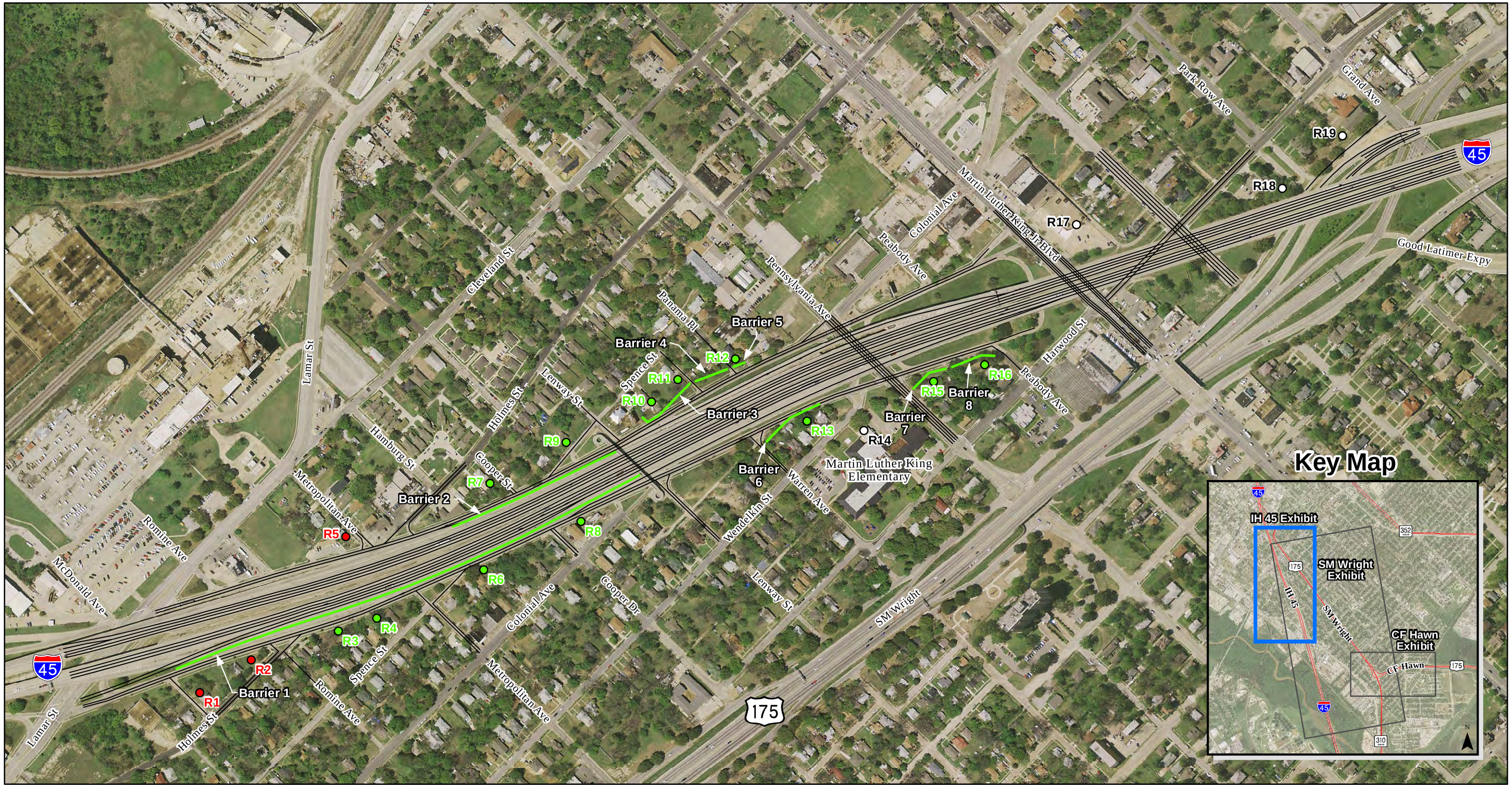
NOTE: Locations are approximate.

Noise Analysis SM Wright (US 175)

Dallas, Texas

Appendix C-10, Page 2

CSJs: 0092-01-052, 0197-02-108, & 0092-14-081



0 200 400 800
Feet

W S N E

Source/Year of Aerial: Landiscor/2009

Legend

- Receiver Not Impacted
- Receiver Impacted / Benefited by Barrier
- Receiver Impacted / Not Benefited by Barrier
- 6', 8', 10', 12' and 14' Traffic Noise Barrier
- Future Roadway

NOTE: Locations are approximate.

Noise Analysis IH 45

Dallas, Texas

Appendix C-10, Page 3

APPENDIX C-11

EARLY ACQUISITION DOCUMENTATION

The City of Dallas has early acquired 19 parcels within the required right-of-way of the proposed SM Wright Freeway / United States Highway (US) 175 project ('SM Wright project'). Both the United States and Texas Constitutions provide that no private land may be taken for public purposes without adequate compensation. To be eligible for Federal funding, land acquired by local municipalities and the Texas Department of Transportation (TxDOT) must be acquired in accordance with Title II and Title III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended ('Uniform Act'). All 19 of the early acquisition parcels were acquired in their entirety by the City of Dallas. The City of Dallas compensated each landowner/displacee for the purchase of their property in accordance with the Uniform Act, as described in TxDOT's Real Estate Acquisition Guide for Local Agencies.

The right-of-way required for construction of the proposed SM Wright project, as shown in **Attachment 1**, would completely encompass fourteen of the 19 early acquisition parcels; and only portions of the remaining five early acquisition parcels would be required as part of the SM Wright project right-of-way.

Table 1 provides detailed information relating to each of the early acquired parcels, including the parcel location, land use type, property description (including if structures are present), parcel acreage, and date the parcel was acquired by the City of Dallas. **Table 1** also summarizes the presence of environmental justice populations (EJ) within the associated Census block groups and blocks encompassing each of the 19 early acquired parcels. **Table 2** then provides a break-down of the race, ethnicity, and low-income characteristics associated within each of these Census geographies.

In summary, the 19 early acquisition parcels are made up of the following:

- Seven vacant parcels of commercial land use;
- One vacant parcel of commercial land use with two billboards;
- Two parcels of commercial land use with business structures;
- Four vacant parcels of single-family residential land use;
- Four parcels of single-family residential land use with residential structures; and
- One parcel of multi-family residential land use with a residential structure (i.e., duplex).

Five of the 19 early acquisition parcels contained residential structures (**Table 1**: Map IDs 503, 520, 523, 528, and 541); and two contained business structures (**Table 1**: Map IDs 532 and 546). Of the remaining twelve parcels, 11 were vacant (residential or commercial land use) and one was a vacant commercial property housing two billboards.

TABLE 1. EARLY ACQUISITION PROPERTIES FOR THE SM WRIGHT PROJECT

#	Map ID [1]	Parcel Location	Land Use	Property Description	Acres	Date Acquired	Relocation Address	EJ Population Present [2]	Census Tract / Block Group – Block [3]
1	501	4235 S Lamar Street	Commercial	Vacant Plotted Lots/Tracts	0.43	3/4/2010	n/a	No	40 / 1 – 39 [4]
2	503	1300 Mooney Street	Commercial	Vacant Plotted Lots/Tracts	16.84	6/9/2010	n/a	No	40 / 1 – 44 [4]
3	516	5106 Colonial Avenue	Single-family Residential	One Residential Structure	0.16	9/22/2010	n/a - unoccupied	Yes	40 / 2 – 33
4	520	5108 Colonial Avenue	Multi-family Residential	Duplexes Vacant – One Residential Structure	0.16	7/1/2010	n/a - unoccupied	Yes	40 / 2 – 33
5	521	5131 Hohen Avenue	Commercial	Vacant Plotted Lots/Tracts with Two Billboards	0.06	4/13/2011	903 Betterton Dallas, Texas	Yes	40 / 2 – 33
6	523	5114 Colonial Avenue	Single-family Residential	One Residential Structure and Two Garages	0.16	8/21/2009	Benefits Denied	Yes	40 / 2 – 33
7	525	5103 Colonial Avenue	Single-family Residential	Vacant Lots/Tracts	0.16	2/9/2010	n/a	Yes	40 / 2 – 16
8	527	5118 Colonial Avenue	Single-family Residential	Vacant Plotted Lots/Tracts	0.17	1/19/2010	n/a	Yes	40 / 2 – 33
9	528	5105 Colonial Avenue	Single-family Residential	One Residential Structure and One Garage	0.16	9/9/2011	In Process	Yes	40 / 2 – 16
10	531	5109 Colonial Avenue	Single-family Residential	Vacant Plotted Lots/Tracts	0.16	5/12/2011	n/a	Yes	40 / 2 – 16
11	532	5102 Lamar Street	Commercial	One Commercial Building: El Resbalon Club	0.11	3/3/2011	n/a - went out of business [5]	Yes	40 / 2 – 16
12	536	5106 S Lamar Street	Commercial	Vacant Plotted Lots/Tracts (El Resbalon Club)	0.11	3/3/2011	n/a - went out of business [5]	Yes	40 / 2 – 16
13	540	5110 S Lamar Street	Commercial	Vacant Plotted Lots/Tracts	0.11	3/10/2010	n/a	Yes	40 / 2 – 16
14	541	5206 Colonial Avenue	Single-family Residential	One Residential Structure	0.14	6/22/2009	n/a - unoccupied	Yes	40 / 2 – 31
15	543	5123 Colonial Avenue	Single-family Residential	Vacant Plotted Lots/Tracts	0.16	1/27/2010	n/a	Yes	40 / 2 – 16
16	546	5114 S Lamar Street	Commercial	One Commercial Building: 3 J's Auto Body (former Morris Garage)	0.33	3/10/2010	4102 S. Lancaster Road Dallas, Texas	No	40 / 2 – 16
17	551	5029 S Lamar Street	Commercial	Vacant Plotted Lots/Tracts with personal property (i.e., truck trailer)	2.14	6/24/2010	5022 S. Lamar Street Dallas, Texas	No	40 / 2 – 13 [4]
18	555	4601 S Lamar Street	Commercial	Vacant Plotted Lots/Tracts	29.37	7/2/2009	n/a	No	40 / 2 – 44 [4]
19	2031	4702 S Lamar Street	Commercial	Vacant Plotted Lots/Tracts	7.09	4/27/2010	n/a	No	40 / 2 – 44 [4]

Notes:

1. See **Attachment 1** for Map ID number locations.
2. Within the Census block groups (low-income) or Census blocks (minority).
3. Refer to **Table 2** for race, ethnicity, and low income characteristics.
4. Census blocks contain zero population.
5. Benefits were paid in accordance with the Uniform Act. The displaced business owner received direct loss payment for going out of business.

TABLE 2. RACE, ETHNICITY, AND LOW INCOME CHARACTERISTICS FOR CENSUS BLOCK GROUPS AND BLOCKS CONTAINING EARLY ACQUIRED PROPERTIES [1]

Geography		Race and Ethnicity [2]											Low Income	
Census Tract / Block Group	Census Block	Total	White Alone	Black or African American Alone	American Indian and Alaska Native Alone	Asian Alone	Native Hawaiian and Other Pacific Islander Alone	Some Other Race Alone	Population of Two or More Races	Hispanic or Latino of Any Race	Total Minority Population	Total Percent Minority	Median Household Income in the past 12 months [4,5]	Household Income in the past 12 Months Below Poverty Level [6]
40		1082	1%	87%	0%	0%	0%	0%	1%	11%	1075	99%	22,102	27%
40 / 1 [3]		636	1%	92%	0%	0%	0%	0%	0%	8%	631	99%	19,542	30%
	1039	0	0	0	0	0	0	0	0	0	0	0%	--	--
	1044	0	0	0	0	0	0	0	0	0	0	0%	--	--
40 / 2	--	446	0%	80%	1%	0%	0%	0%	2%	16%	444	100%	38,542	10%
	2013	0	0	0	0	0	0	0	0	0	0	0%	--	--
	2016	6	0%	50%	0%	0%	0%	0%	50%	0%	6	100%	--	--
	2031	3	0%	100%	0%	0%	0%	0%	0%	0%	3	100%	--	--
	2033	9	0%	33%	0%	0%	0%	0%	11%	56%	9	100%	--	--
	2044	0	0	0	0	0	0	0	0	0	0	0%	--	--

Notes:

1. The latest Census data has been utilized to obtain socioeconomic data. The 2010 Census data was used to obtain population counts and basic characteristics, while the Census Bureau's American Community Survey (ACS) 2006–2010 5-year estimate data was used to obtain demographic, social, economic, and housing characteristics.
2. Source: U.S. Census Bureau 2010, Summary File 1, Table P9.
3. Census block group contains only vacant early acquired parcels (i.e., no early acquired parcels with either residential or commercial structures)
4. In 2010 inflation adjusted dollars
5. Source: U.S. Census Bureau ACS 2006-2010 5-year estimates, Table B17017
6. Source: U.S. Census Bureau ACS 2006-2010 5-year estimates, Table B19013

Residents of the displaced residential structures were relocated and offered decent, safe, and sanitary (DS&S) housing within their financial means according to the Uniform Act. The two displaced businesses included the El Resbalon Club (Map ID 532) and 3 J's Auto Body (Map ID 546). The owner of El Resbalon Club received benefits in accordance with the Uniform Act and elected to receive a direct loss payment for going out of business. 3 J's Auto Body was relocated to a new location approximately 6 miles away within the southern Dallas area. There appear to be other businesses nearby the proposed SM Wright project that provide similar services as to accommodate for the removal of these two establishments. For example, within approximately 1.5 miles of these displaced businesses, there are no fewer than six bar/night clubs and seven auto repair oriented businesses. Based on the availability of similar services within the project area, the removal of these two service-oriented businesses would not hinder the needs and interests of the overall community.

One Census tract, two block groups, and seven blocks encompass the 19 parcels early acquired by the City of Dallas (listed in **Table 2**). Of these, only Census block group 40 / 2 encompasses early acquisition parcels containing either residential or commercial structures; and only three Census blocks reported a population greater than zero in the 2010 Census (blocks 2016, 2031, and 2033 of Census block group 40 / 2). As such, demographic data is presented below for only these populated Census geographies.

As shown in **Table 1** and further detailed in **Table 2**, EJ populations are present within the three populated Census blocks (blocks 2016, 2031, and 2033 of Census block group 40 / 2), each reporting a total percent minority population of 100 percent. In relation to low-income, Census block group 40 / 2 reported a median household income of $38,542, which is above the United States Department of Health and Human Services (HHS) 2012 poverty guideline of $23,050. In addition, 10 percent of household incomes in the past 12 months were reported below the poverty level.

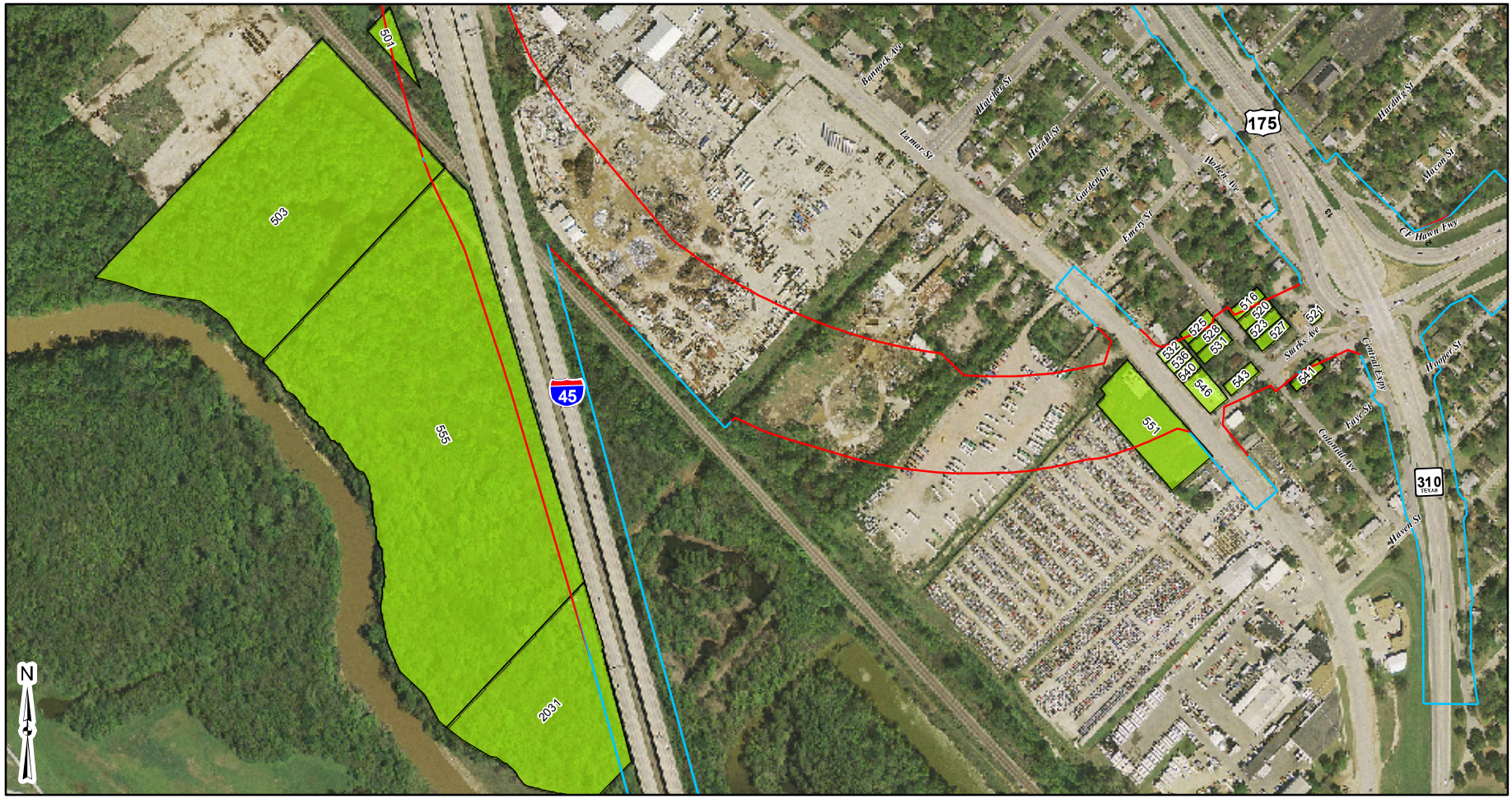
The area encompassing the early acquisitions is broadly composed of EJ populations, as is the overall SM Wright project area, as described in **Section 5.2.9** of the SM Wright project Environmental Assessment (EA). Given that the composition of non-EJ populations within the SM Wright project area is limited, impacts resulting from early acquisitions would not be greater or more severe on EJ populations compared to non-EJ populations. In addition, the displacement of one bar/night club and one automotive repair garage within an area where other similar-service businesses are present would not hinder the needs and interests of any special populations such as the disabled, elderly, minority, or low-income persons present within and nearby the project area. Any potential adverse impacts on EJ populations would be offset in part by project-related benefits of the SM Wright project, such as safety improvements to the existing freeway design deficiencies, increased roadway capacity, reduced traffic congestion, and improved mobility. Given the above, disproportionate impacts to EJ populations are not anticipated.

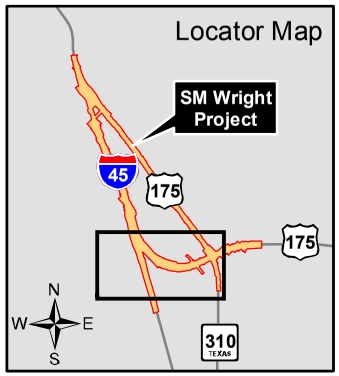
The early acquisition of parcels will not limit the evaluation of alternatives (no-build or build) for the proposed SM Wright project as required under the National Environmental Policy Act (NEPA) process. Any project development subsequent to the proposed early acquisition, including any future improvements to SM Wright, would continue to be subject to the NEPA process and would require environmental clearance from the Federal Highway Administration (FHWA). In addition, the early acquired parcels to the west of IH 45 (see **Attachment 1**: Map IDs 501, 503, 555, and 2031) are needed for implementation of the Dallas Floodway Extension (DFE) project, which received a Record of Decision (ROD) on the Environmental Impact Statement (EIS) in December 1999[1]. It is understood by the City of Dallas that the 19 early acquisitions are considered "at risk" such that the early acquired parcels might not be incorporated into the Federally funded project in the event the no-build alternative is selected from the environmental process.

In conclusion, all of the early acquisitions listed in **Table 1** were acquired by the City of Dallas in accordance with the Uniform Act. The City of Dallas worked closely with landowners/displacees to ensure that the negotiation, acquisition, and/or relocation process was conducted in a satisfactory and timely manner, and in accordance with the Uniform Act. All required records and complete documentation regarding the acquired parcels and relocations are located at the City of Dallas and available for inspection by FHWA.

[1] The United States Army Corps of Engineers (USACE) produced a Final Supplement No. 1 to the EIS for the DFE project in 2003 and concluded that nothing in the analysis indicated the recommended plan should be changed from the plan identified in the 1999 ROD.

CSJ: 0092-01-052, 0197-02-108, & 0092-14-081





Legend

- Proposed Right of Way
- Existing Right of Way
- Early Acquisition Property

Source/Year of Aerial Photograph: Landiscor/2009

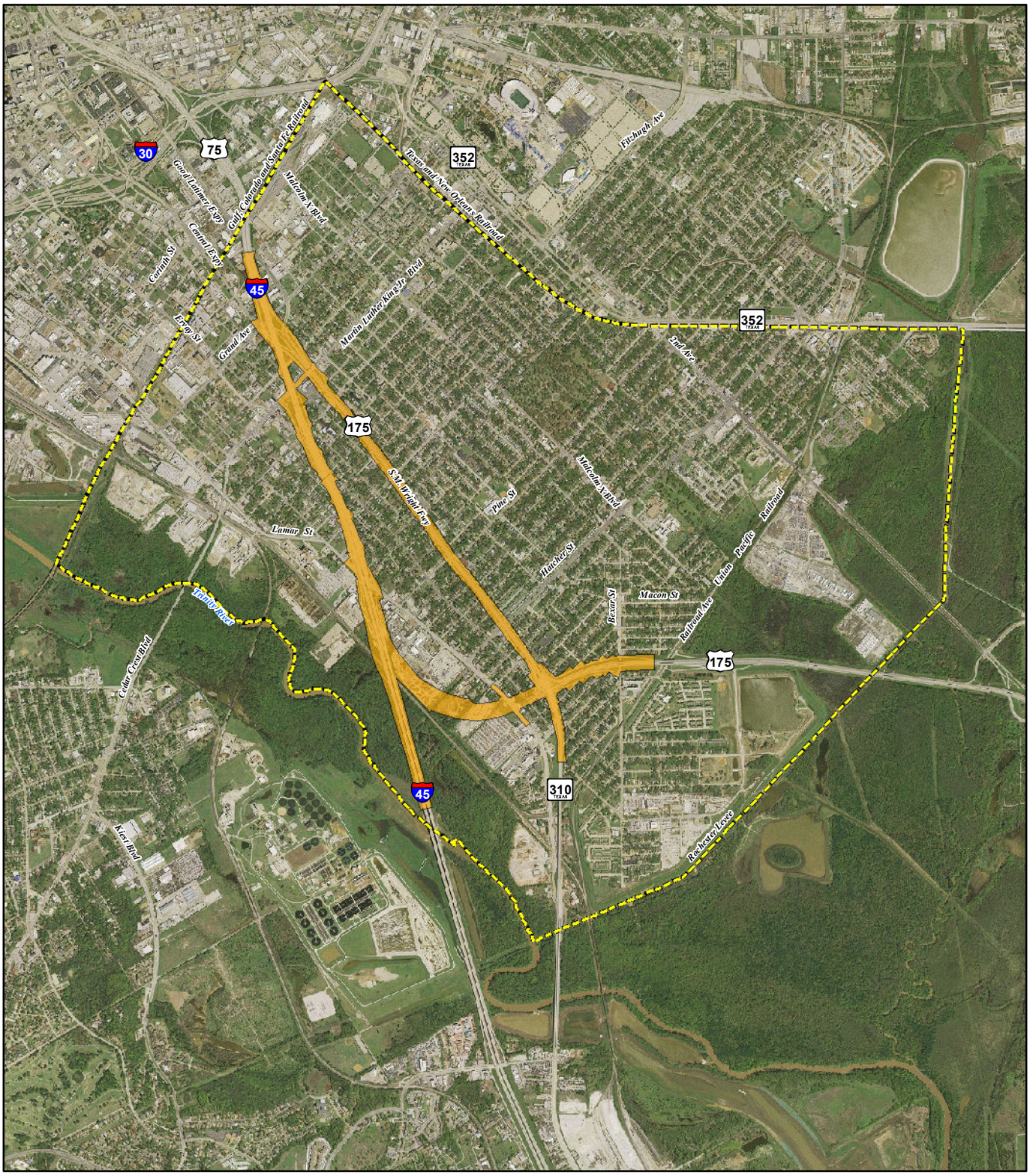
0 600 1,200 Feet

Early Acquisition Properties

SM Wright Project
Dallas, TX

Appendix C-11
Attachment 1

APPENDIX D
INDIRECT IMPACTS



Legend

Indirect Impacts Area of Influence (AOI)

Project Right of Way

0 1,500 3,000

Feet

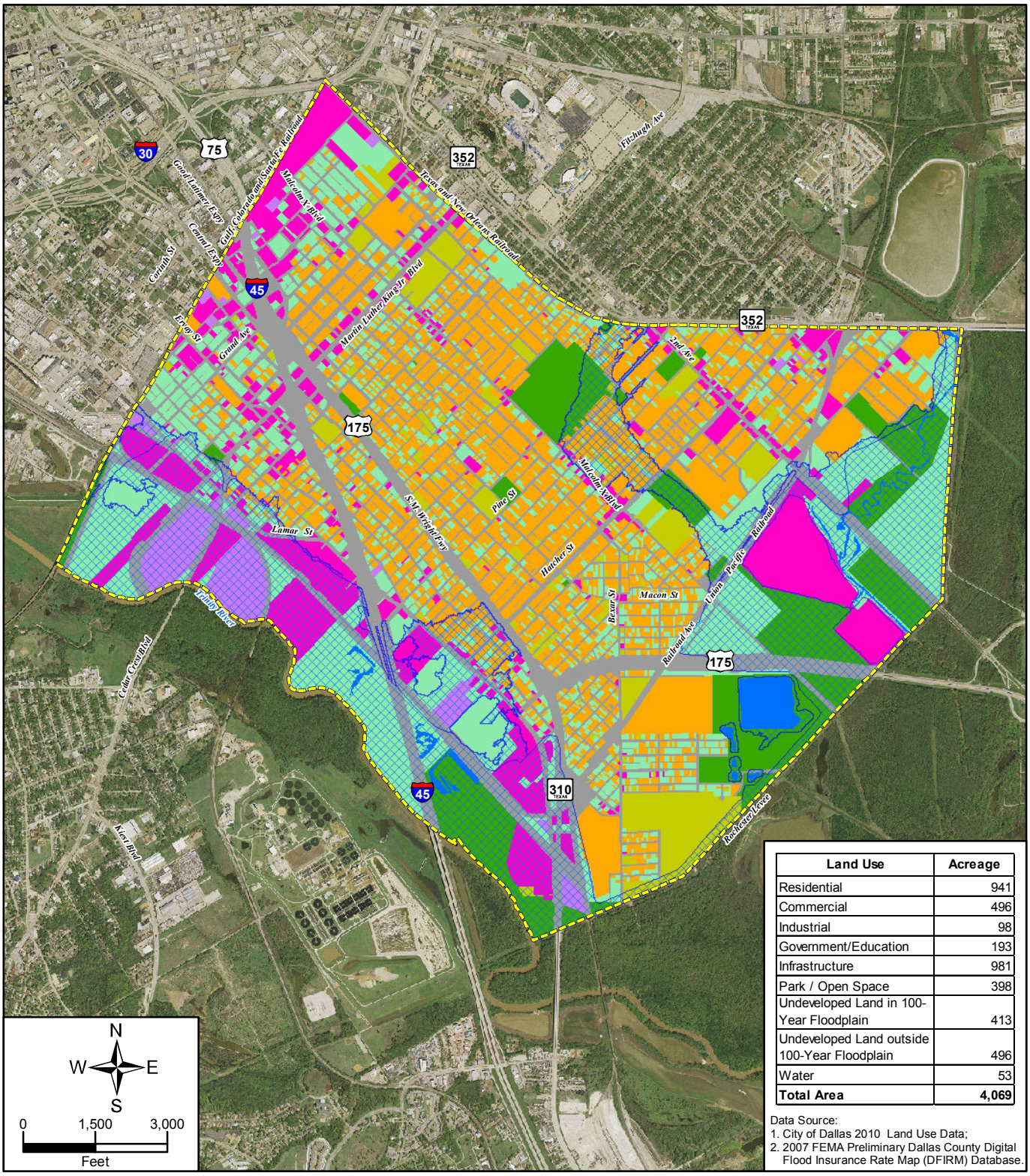
N W E S

Source / Year of Aerial Photograph: Landiscor / 2009

Indirect Impacts Area of Influence (AOI)

SM Wright Project
Dallas, Texas

CSJs: 0092-01-052, 0197-02-108, & 0092-14-081



Land Use	Acreage
Residential	941
Commercial	496
Industrial	98
Government/Education	193
Infrastructure	981
Park / Open Space	398
Undeveloped Land in 100-Year Floodplain	413
Undeveloped Land outside 100-Year Floodplain	496
Water	53
Total Area	**4,069**

Data Source:
1. City of Dallas 2010 Land Use Data;
2. 2007 FEMA Preliminary Dallas County Digital Flood Insurance Rate Map (DFIRM) Database.

Legend

- Indirect Impacts Area of Influence (AOI)
- 100-Year Floodplain

Land Use

- Residential
- Commercial
- Industrial
- Government/Education
- Infrastructure
- Park / Open Space
- Undeveloped
- Water

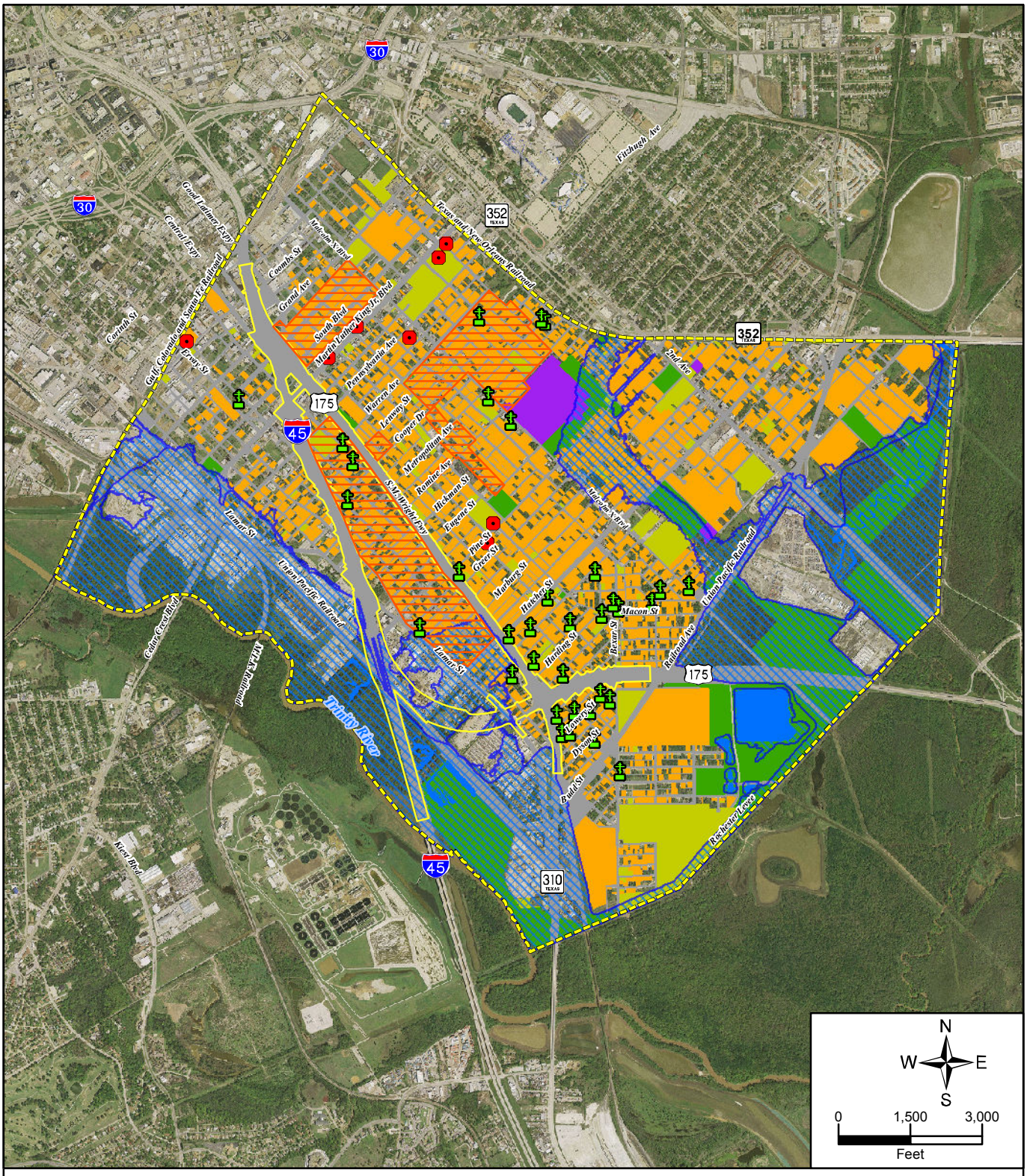
Source/Year of Aerial Photograph: Landiscor / 2009

Existing Land Use within the Indirect Impacts AOI

SM Wright Project
Dallas, Texas

CSJs: 0092-01-052, 0197-02-108, & 0092-14-081

Appendix D-2



Legend

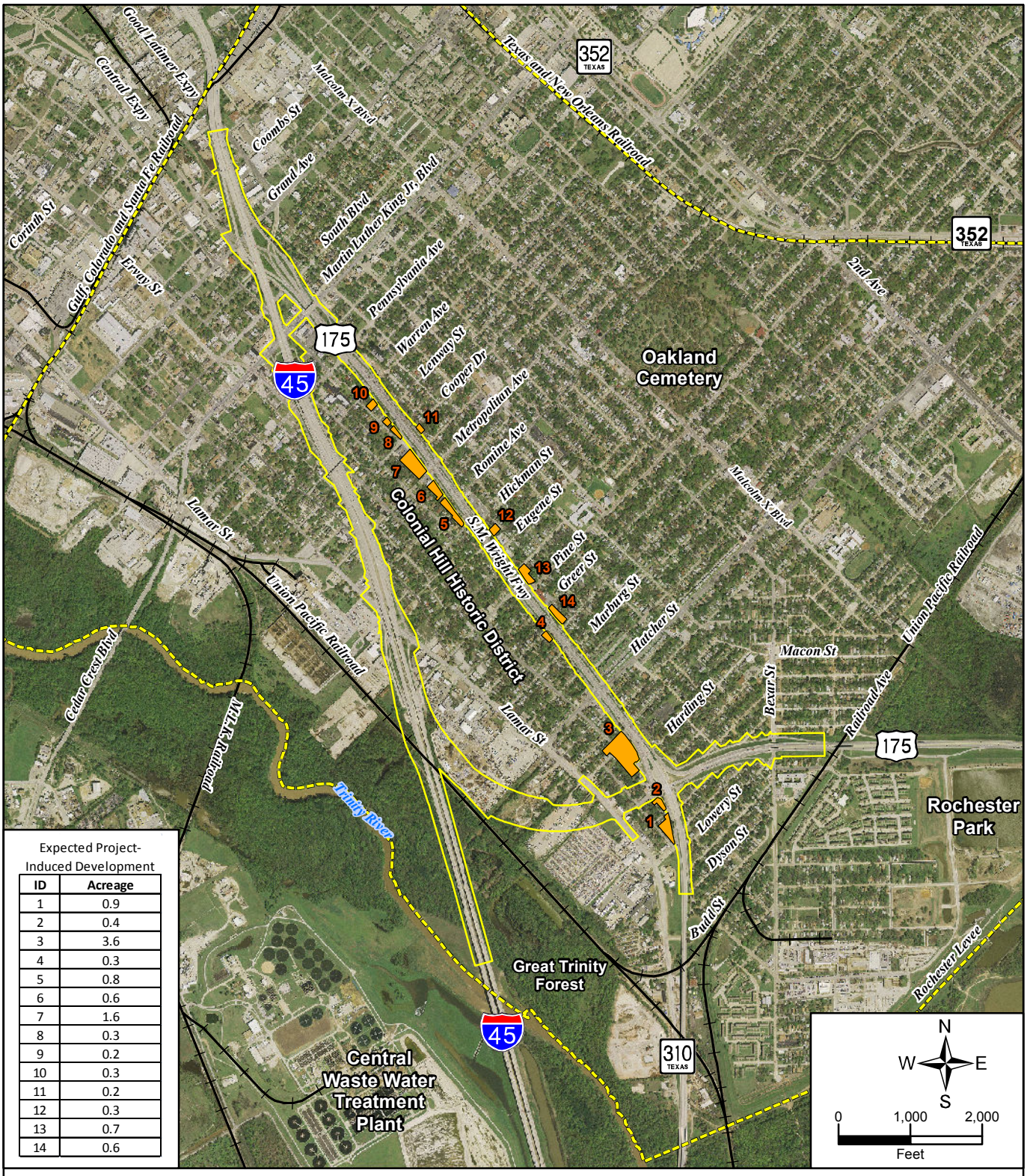
- Church
- Residential
- Government/Education
- Infrastructure
- Water
- Park
- Cemetery
- NRHP Site
- Listed / Proposed Historic District
- 100-Year Floodplain
- Project Right of Way
- Indirect Impacts AOI

Source/Year of Aerial Photograph: Landiscor/2009

Constraints to Development within the Indirect Impacts AOI

SM Wright Project
Dallas, Texas

CSJs: 0092-01-052, 0197-02-108, & 0092-14-081



Expected Project-Induced Development

ID	Acreage
1	0.9
2	0.4
3	3.6
4	0.3
5	0.8
6	0.6
7	1.6
8	0.3
9	0.2
10	0.3
11	0.2
12	0.3
13	0.7
14	0.6

Legend

- Project-Induced Land Change
- Project Right of Way
- Indirect Impacts Area of Influence (AOI)

Source/Year of Aerial Photograph: Landiscor/2009

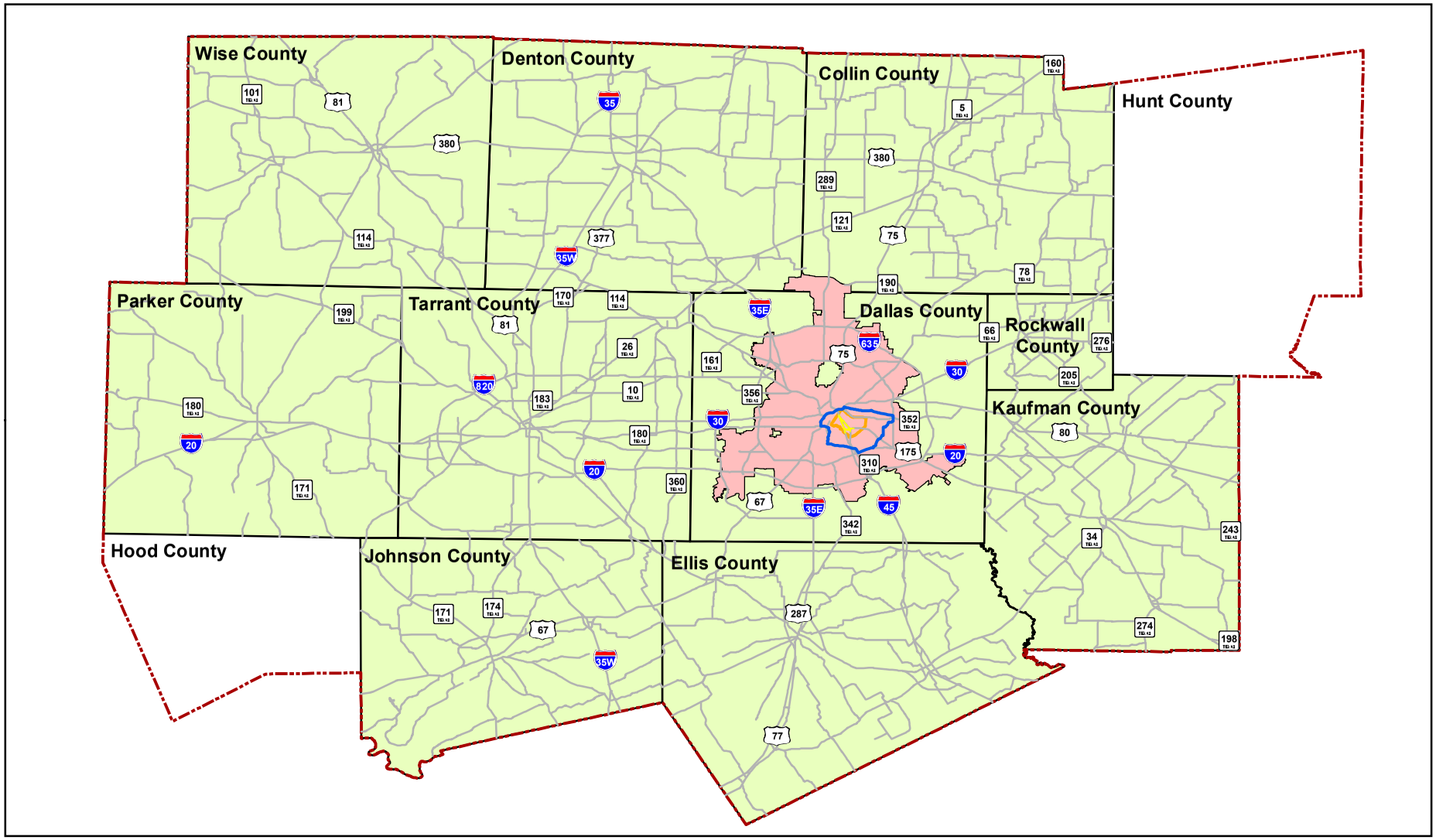
Expected Project-Induced Changes in Land Use

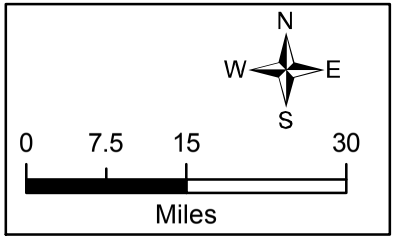
SM Wright Project
Dallas, Texas

CSJs: 0092-01-052, 0197-02-108, & 0092-14-081

APPENDIX E
CUMULATIVE IMPACTS

CSJs: 0092-01-052, 0197-02-108, & 0092-14-081





Legend

- Biological RSA
- Land Use RSA
- Community RSA
- CO RSA
- 8-Hour Ozone RSA
- MSATs RSA

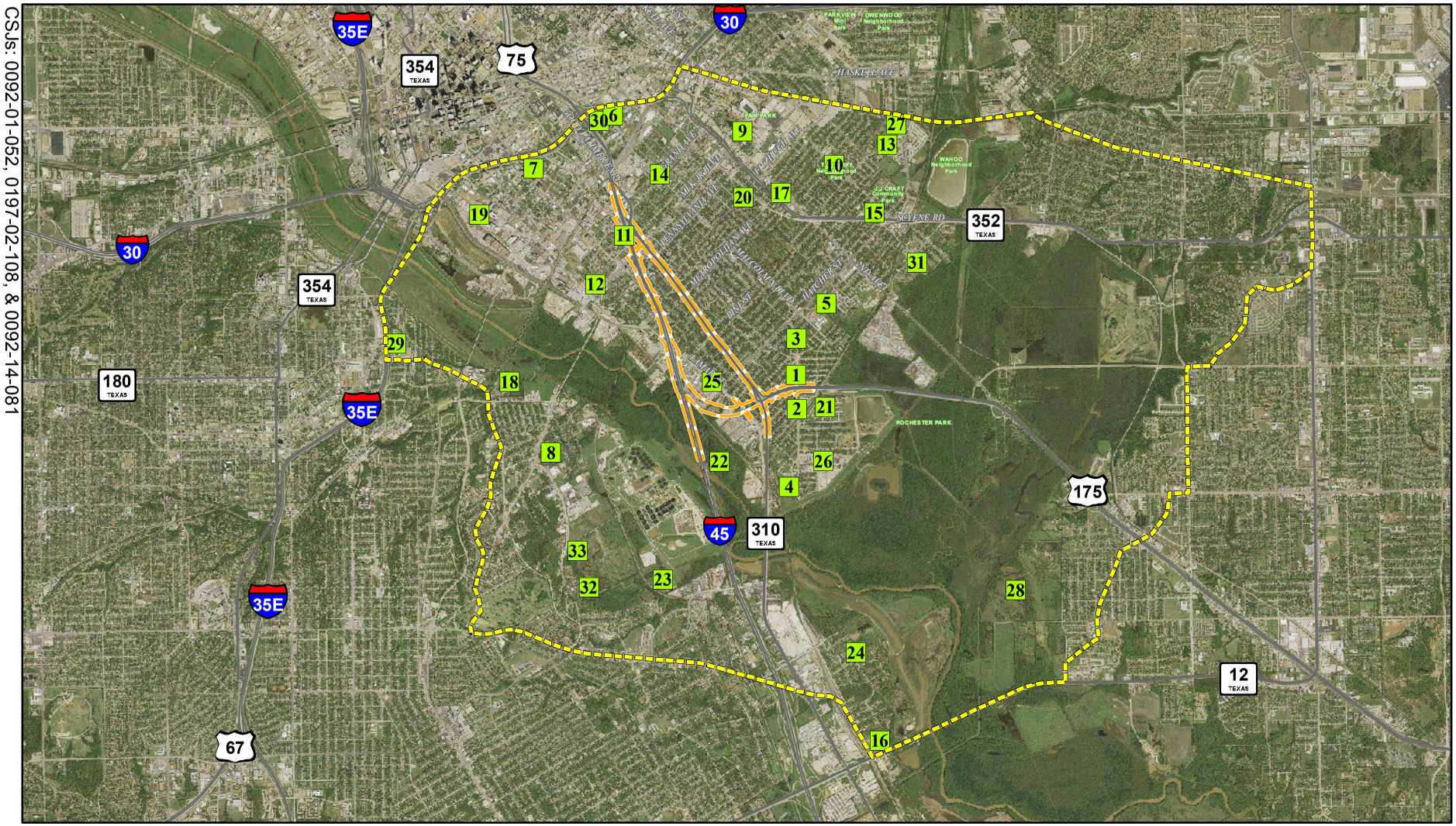
Data Source of Counties and Highways: NCTCOG

Resource Study Areas (RSA) for the Cumulative Impacts Analysis

SM Wright Project
Dallas, Texas

Appendix E-1

CSJs: 0092-01-052, 0197-02-108, & 0092-14-081



Appendix E-2

0 0.5 1
Miles

N
W E
S

Source/Year of Data:
City of Dallas/2010 & NCTCOG/2010

Legend

10 Reasonably Foreseeable Development Project

Project Corridor

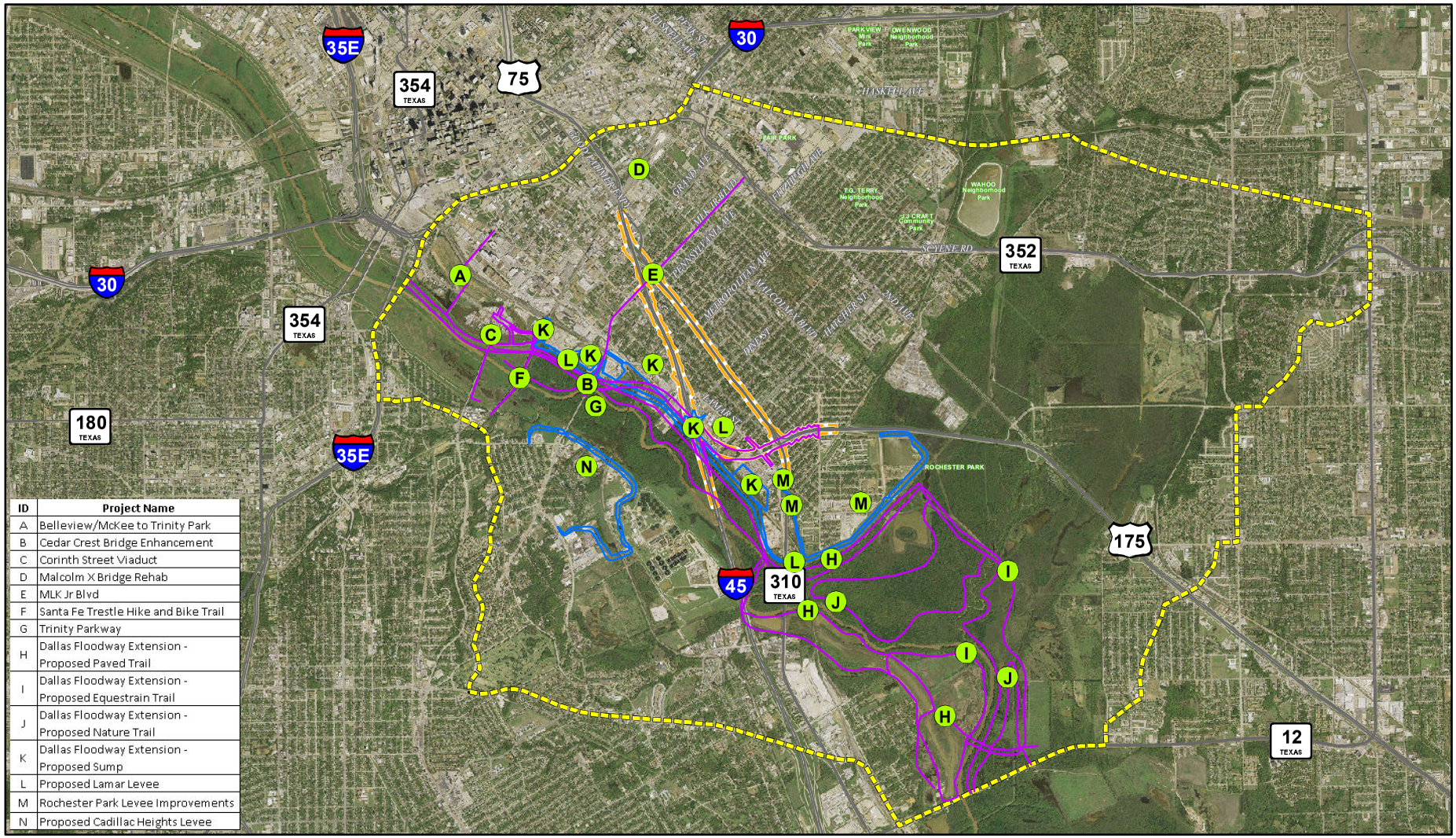
Study Area for Biological Resources

NOTE: Locations are approximate

Reasonably Foreseeable Development Projects

SM Wright Project
Dallas, Texas

CSJs: 0092-01-052, 0197-02-108, & 0092-14-081



ID	Project Name
A	Belleview/McKee to Trinity Park
B	Cedar Crest Bridge Enhancement
C	Corinth Street Viaduct
D	Malcolm X Bridge Rehab
E	MLK Jr Blvd
F	Santa Fe Trestle Hike and Bike Trail
G	Trinity Parkway
H	Dallas Floodway Extension - Proposed Paved Trail
I	Dallas Floodway Extension - Proposed Equestrain Trail
J	Dallas Floodway Extension - Proposed Nature Trail
K	Dallas Floodway Extension - Proposed Sump
L	Proposed Lamar Levee
M	Rochester Park Levee Improvements
N	Proposed Cadillac Heights Levee

0 0.5 1 Miles

N W E S

Source/Year of Data:
City of Dallas/2010 & NCTCOG/2010

Legend

- A — Reasonably Foreseeable Project
- Reasonably Foreseeable Flood Control Project
- Reasonably Foreseeable Transportation Project
- Project Corridor
- Study Area for Biological Resources

NOTE: Locations are approximate.

Reasonably Foreseeable Transportation and Flood Control Projects

SM Wright Project
Dallas, Texas

Appendix E-3

Habitat Impacts for Reasonably Foreseeable Projects
within the Biological Resources Study Area

SM Wright Project
Dallas, Texas

Map ID	Project Name	Project Size (acres)	Forest Impacts (acres)	
			Riparian Forest	Upland Forest
DEVELOPMENT PROJECTS (SEE APP. E-2 MAP)				
1	Bexar Street Phase I	2.4	--	--
2	Bexar Street Phase II	6.4	--	--
3	Bexar Street Phase III	1.0	--	--
4	Buckeye Trail Commons - Turner Courts	26.4	--	--
5	Butler-Nelson Cemetery	14.2	--	--
6	Center of Hope Development Project	3.6	--	--
7	Dallas Heritage Village (Old City Park)	11.0	--	--
8	Dallas Police Academy (Cadillac Heights)	22.8	--	--
9	Fair Park Renovations	253.2	--	--
10	Fire Station #44 Replacement	0.4	--	--
11	Fire Station #6 Replacement	0.6	--	--
12	Forest Park	2.4	--	--
13	Frazier Courtyards Single Family Development	6.3	--	--
14	Hall Phase I (J.B. Jackson TOD)	0.5	--	--
15	Hatcher Square TOD Mixed Use	7.8	--	--
16	Joppa Rodeo and Community Park	19.2	--	--
17	Mill City Renaissance Plan	36.1	--	--
18	Moore Gateway Park Master Plan	23.6	--	--
19	Nylo Hotel	1.3	--	--
20	Pittman / Meadow	3.2	--	--
21	Rhodes Terrace	42.0	--	--
22	Rochester Park (West)	84.8	--	--
23	Sargent Park	15.6	--	--
24	South Central / Joppa Gateway	3.7	--	--
25	South Lamar Street Redevelopment	6.5	--	--
26	Southeast Service Center Expansion	46.4	--	--
27	Spring Avenue Redevelopment	12.5	--	--
28	Texas Horse Park at the Trinity	231.6	--	--
29	The Bottom Land Use Plan	119.2	--	--
30	The Cottages at Hickory Crossing	4.4	--	--
31	Willie Mae Butler Park (spray ground)	7.7	--	--
32	Wonderview Park	6.1	--	--
33	Wonderview Project	141.3	17.8	0.2
TRANSPORTATION/FLOOD CONTROL PROJECTS (SEE APP. E-3 MAP)				
A	Belleview/McKee to Trinity Park	2.1	--	--
B	Cedar Crest Bridge Enhancement	0.9	--	--
C	Corinth Street Viaduct	0.8	--	--
D	Malcolm X Bridge Rehabilitation	0.8	--	--
E	MLK Jr. Boulevard Improvements	28.9	--	--
F	Santa Fe Trestle Hike and Bike Trail	1.7	--	--
G	Trinity Parkway	136.5	25.7	0.4
H	Dallas Floodway Extension - Proposed Paved Trail	30.2	17.0	--
I	Dallas Floodway Extension - Proposed Equestrian Trail	25.6	14.9	0.1
J	Dallas Floodway Extension - Proposed Nature Trail	8.8	7.5	--
K	Dallas Floodway Extension - Proposed Sump	71.4	21.0	0.2
L	Proposed Lamar Levee	61.5	33.8	0.2
M	Rochester Park Levee Improvements	35.8	--	--
N	Proposed Cadillac Heights Levee	39.0	1.6	0.1
TOTAL ACRES		**1,608.2**	**139.3**	**1.2**

Reasonably Foreseeable Projects within the Community Resources Study Area

SM Wright Project
Dallas, Texas

Map ID	Project Name	Project Size (acres)
DEVELOPMENT PROJECTS (SEE APP. E-2 MAP)		
1	Bexar Street Phase I	2.4
2	Bexar Street Phase II	6.4
3	Bexar Street Phase III	1.0
4	Buckeye Trail Commons - Turner Courts	26.4
5	Butler-Nelson Cemetery	14.2
11	Fire Station #6 Replacement	0.6
12	Forest Park	2.4
14	Hall Phase I (J.B. Jackson TOD)	0.5
20	Pittman / Meadow	3.2
21	Rhodes Terrace	42.0
22	Rochester Park (West)	84.8
25	South Lamar Street Redevelopment	6.5
26	Southeast Service Center Expansion	46.4
31	Willie Mae Butler Park (spray ground)	7.7
Subtotal for Development Projects		**244.5**
TRANSPORTATION/FLOOD CONTROL PROJECTS (SEE APP. E-3 MAP)		
B	Cedar Crest Bridge Enhancement	0.9
D	Malcolm X Bridge Rehabilitation	0.8
G	Trinity Parkway	136.5
K	Dallas Floodway Extension - Proposed Sump	71.4
L	Proposed Lamar Levee	61.5
M	William Blair, Jr. Park (formerly Rochester Park) Levee Improvements	35.8
Subtotal for Transportation Projects		**306.9**
TOTAL ACREAGE FOR ALL PROJECTS		**551.4**

APPENDIX F
SUPPLEMENTAL DATA

Roadway Corridor Fact Sheet 11
Trinity Parkway/S.M. Wright Parkway

Project Description

The Trinity Parkway is a planned new-location toll road in Dallas extending from the interchange of SH 183 and IH 35E southeast to IH 45. This tollway will create a reliever route to the IH 35E Stemmons Freeway corridor and the downtown Mixmaster. Additionally, a non-tolled connection between IH 45 and SH 310 in southeast Dallas will allow for the removal of the S.M. Wright Freeway (US 175) and its reconstruction as a planned parkway or boulevard.

Corridor Information

ROUTE	LIMITS	COST
S.M. Wright Parkway	IH 45 to US 175/SH 310	$47,730,000
Trinity Parkway	IH 35E/SH 183 to SH 310	$1,801,891,000

Demographic Information Within One Mile of Corridor

POPULATION PROFILE	
Population	48,664
Number of Households	13,779
Population Below Poverty	39.6%
Population over 65	8.6%
African American	51.9%
Hispanic	32.7%
Asian/Pacific Islander	0.5%
American Indian/Native Alaskan	0.4%
Total Minority	86.0%

Source: Census 2000

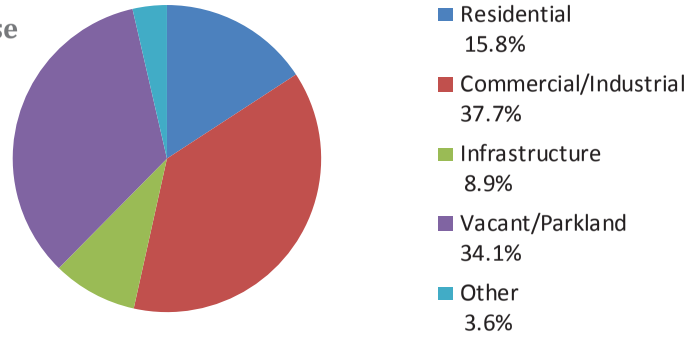
MAJOR EMPLOYERS	
Parkland Health & Hospital System	9,178
Children's Medical Center Dallas	5,199
Bank of America	4,090
Dallas County Sheriff's Office	3,000
USPS	2,500
Methodist Medical Center Dallas	2,054
Dallas Morning News	1,700
Conwell Corp.	1,507

Source: NCTCOG Employment Database, 2010

Legislative Districts Within One Mile of Corridor

TEXAS SENATE	TEXAS HOUSE OF REPRESENTATIVES	UNITED STATES CONGRESS
John J. Carona-16	Eric Johnson-100	Eddie Bernice Johnson-30
Royce West-23	Rafael Anchia-103	Pete Sessions-32
	Roberto Alonzo-104	
	Dan Branch-108	
	Barbara Mallory Caraway-110	

Land Use

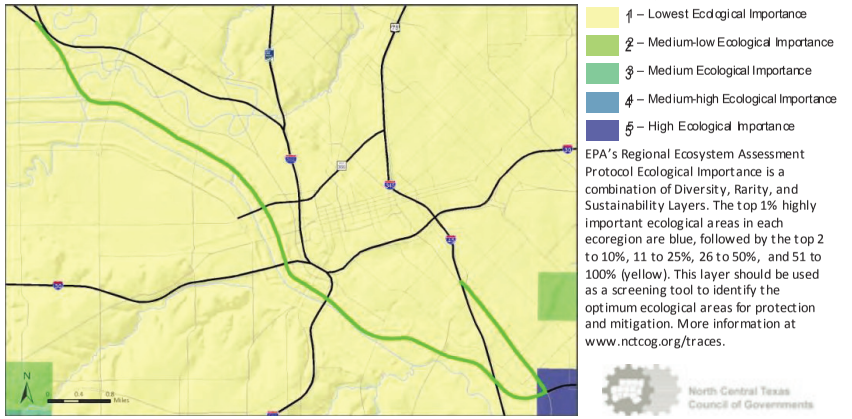


NCTCOG Regional Ecosystem Framework Score* (Range: 14 - 37)

SUBWATERSHED NAME	REF COMPOSITE SCORE
Headwaters Turtle Creek	16
Turtle Creek-Trinity River	22
City of Dallas-White Rock Creek	24
Five Mile Creek-Trinity River	32

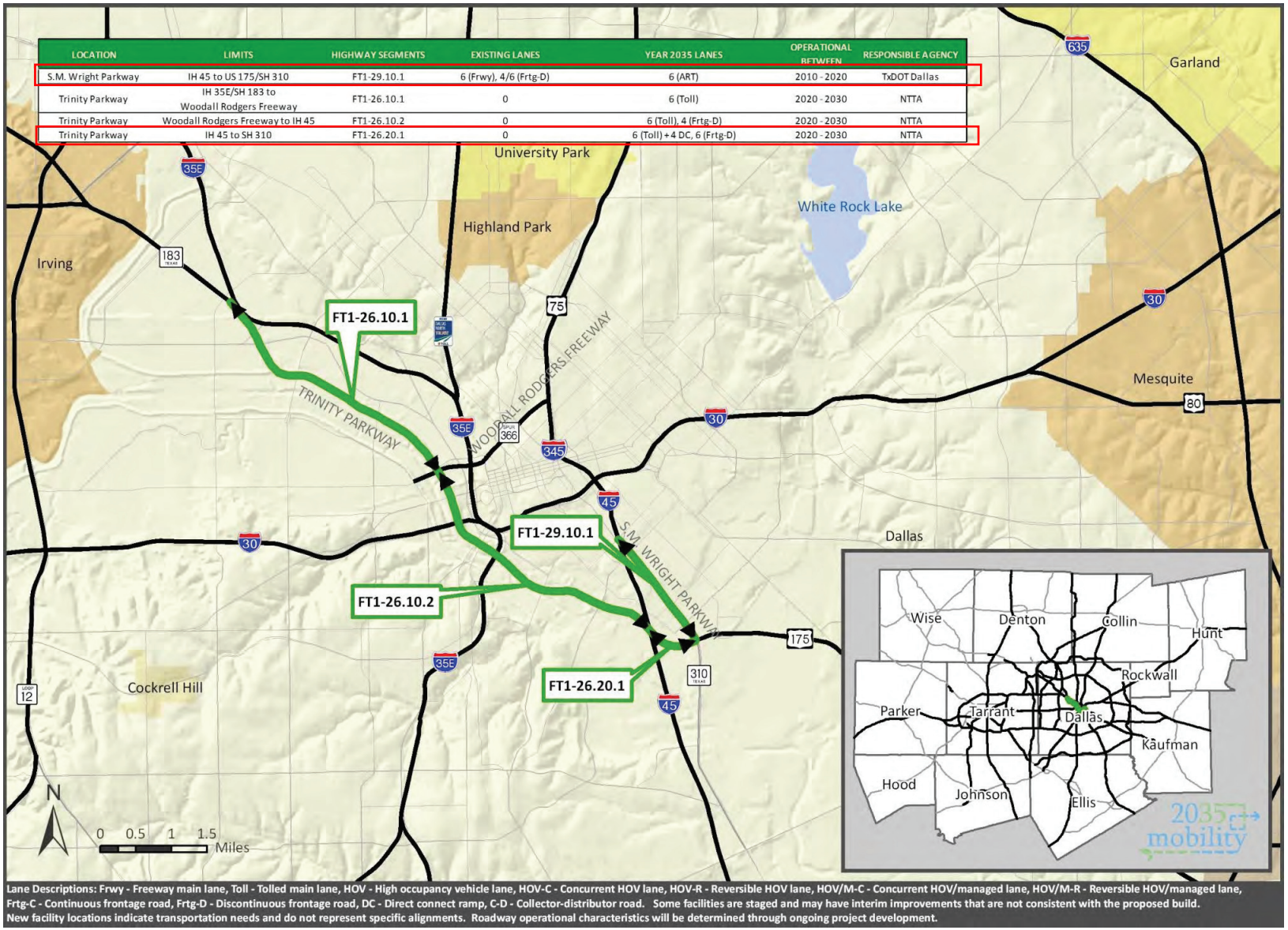
*Lower REF score indicates less resource vulnerability, higher score indicates more resource vulnerability.

Ecological Importance in Corridor



Trinity Parkway/S.M. Wright Parkway

LOCATION	LIMITS	HIGHWAY SEGMENTS	EXISTING LANES	YEAR 2035 LANES	OPERATIONAL BETWEEN	RESPONSIBLE AGENCY
S.M. Wright Parkway	IH 45 to US 175/SH 310	FT1-29.10.1	6 (Frwy), 4/6 (Frtg-D)	6 (ART)	2010 - 2020	TxDOT Dallas
Trinity Parkway	IH 35E/SH 183 to Woodall Rodgers Freeway	FT1-26.10.1	0	6 (Toll)	2020 - 2030	NTTA
Trinity Parkway	Woodall Rodgers Freeway to IH 45	FT1-26.10.2	0	6 (Toll), 4 (Frtg-D)	2020 - 2030	NTTA
Trinity Parkway	IH 45 to SH 310	FT1-26.20.1	0	6 (Toll) + 4 DC, 6 (Frtg-D)	2020 - 2030	NTTA



Lane Descriptions: Frwy - Freeway main lane, Toll - Tolled main lane, HOV - High occupancy vehicle lane, HOV-C - Concurrent HOV lane, HOV-R - Reversible HOV lane, HOV/M-C - Concurrent HOV/managed lane, HOV/M-R - Reversible HOV/managed lane, Frtg-C - Continuous frontage road, Frtg-D - Discontinuous frontage road, DC - Direct connect ramp, C-D - Collector-distributor road. Some facilities are staged and may have interim improvements that are not consistent with the proposed build. New facility locations indicate transportation needs and do not represent specific alignments. Roadway operational characteristics will be determined through ongoing project development.

Fact Sheet ID	Project Corridor	Location	Limits	MTP ID	Lane Summary *		Year Operational Between **	Responsible Agency ***	YOE Total Project Cost
					Existing	2035			
9	**SH 114/SH 121 DFW Connector**	SH 121	FM 2499 to IH 635	FT1-11.50.3	4 (Frwy), 4/6 (Frtg-C)	8 (Frwy) + 7 CD, 4/6 (Frtg-C)	2010 - 2020	TxDOT Fort Worth (CDA)	$195,566,000
9	**SH 114/SH 121 DFW Connector**	SH 121	IH 635 to SH 114	FT1-11.60.1	8 (Frwy)	10 (Frwy) + 9 CD, 6 (Frtg-D)	2010 - 2020	TxDOT Fort Worth (CDA)	cost included above
9	**SH 114/SH 121 DFW Connector**	SH 121	SH 114 to SH 360	FT1-11.70.1	4 (Frwy), 4 (Frtg-D)	6 (Frwy) + 7 CD, 4/6 (Frtg-D)	2010 - 2020	TxDOT Fort Worth (CDA)	$75,518,000
9	**SH 114/SH 121 DFW Connector**	SH 360	SH 121 to Stone Myers Parkway	FT1-9.10.1	4 (Frwy)	5 (Frwy)	2010 - 2020	TxDOT Fort Worth (CDA)	cost included above
10	**SH 121 Southwest Parkway/Chisholm Trail**	IH 30	SH 121 to Henderson Street	FT1-28.20.3	6 (Frwy), 4 (Frtg-C)	8 (Frwy), 4 (Frtg-C)	2010 - 2020	TxDOT Fort Worth	$24,644,000
10	**SH 121 Southwest Parkway/Chisholm Trail**	IH 30	Henderson Street to IH 35W	FT1-28.20.4	10 (Frwy)	10 (Reconstruct)	2010 - 2020	TxDOT Fort Worth	cost included above
10	**SH 121 Southwest Parkway/Chisholm Trail**	Southwest Parkway	IH 30 to IH 20	FT1-31.10.1	0	6 (Toll),4/6 (Frtg-D)	2010 - 2020	NTTA	$1,485,472,000
10	**SH 121 Southwest Parkway/Chisholm Trail**	Southwest Parkway	IH 20 to Altamesa Blvd.	FT1-31.20.1	0	6 (Toll), 4/6 (Frtg-D)	2010 - 2020	NTTA	cost included above
10	**SH 121 Southwest Parkway/Chisholm Trail**	Southwest Parkway	Altamesa Blvd. to FM 1187	FT1-31.20.2	0	4 (Toll)	2010 - 2020	NTTA	cost included above
10	**SH 121 Southwest Parkway/Chisholm Trail**	Chisholm Trail Parkway	FM 1187 to US 67	FT1-31.20.3	0	4 (Toll)	2030 - 2035 **	NTTA	cost included above
11	**Trinity Parkway**	S.M. Wright Parkway	IH 45 to US 175/SH 310	FT1-29.10.1	6 (Frwy), 4/6 (Frtg-D)	6 (ART)	2010 - 2020	TxDOT Dallas	$47,730,000
11	**Trinity Parkway**	Trinity Parkway	IH 35E/SH 183 to Woodall Rodgers Freeway	FT1-26.10.1	0	6 (Toll)	2020 - 2030	NTTA	$1,801,891,000
11	**Trinity Parkway**	Trinity Parkway	Woodall Rodgers Freeway to IH 45	FT1-26.10.2	0	6 (Toll), 4 (Frtg-D)	2020 - 2030	NTTA	cost included above
11	**Trinity Parkway**	Trinity Parkway	IH 45 to SH 310	FT1-26.20.1	0	6 (Toll) + 4 DC, 6 (Frtg-D)	2020 - 2030 **	NTTA	cost included above
12		Collin County Loop	Dallas North Tollway to US 75	FT1-110.20.1	0	6 (Toll), 4/6 (Frtg-C)	2020 - 2030 **	NTTA	$1,110,500,000
12		Collin County Loop	US 75 to SH 121	FT1-110.30.1	0	6 (Toll), 4/6 (Frtg-C)	2020 - 2030 **	NTTA	$403,000,010
13		Dallas North Tollway	FM 121 to FM 428	FT1-21.10.1	0	6 (Toll), 6 (Frtg-D)	2020 – 2030	NTTA	$561,000,000
13		Dallas North Tollway	FM 428 to US 380	FT1-21.10.2	0	6 (Toll), 6/8 (Frtg-C)	2010 – 2020	NTTA	$433,000,000
14		Dallas North Tollway	Sam Rayburn Tollway *(SH 121)* to Parker Road	FT1-21.20.1	6 (Toll), 4/6 (Frtg-C)	8 (Toll), 4/6 (Frtg-C)	2010 – 2020	NTTA	$211,000,000
14		Dallas North Tollway	Parker Road to President George Bush Turnpike	FT1-21.20.2	6 (Toll), 4/6 (Frtg-C)	8 (Toll), 4/8 (Frtg-C)	2010 – 2020	NTTA	$186,200,000
14		Dallas North Tollway	President George Bush Turnpike to Royal Lane	FT1-21.20.3	6 (Toll), 4/10 (Frtg-D)	8 (Toll), 4/10 (Frtg-D)	2030 – 2035	NTTA	cost included above
15		IH 30 - Tarrant County	Ballpark Way to President George Bush Turnpike - Western Extension *(SH 161)*	FT1-28.40.4	6 (Frwy) + 1 (HOV-R)	6 (Frwy) + 2 (HOV/M-R), 4/6 (Frtg-D)	2010 – 2020	TxDOT Fort Worth	$5,000,000
16		IH 30 - Dallas County	President George Bush Turnpike - Western Extension *(SH 161)* to Belt Line Road	FT1-28.50.1	6 (Frwy) + 2 (HOV-R)	8 (Frwy) + 2 (HOV/M-R), 6 (Frtg-C)	2010 – 2020	TxDOT Dallas	$71,169,000
16		IH 30 - Dallas County	Belt Line Road to Loop 12	FT1-28.50.2	6 (Frwy) + 2 (HOV-R), 4/6 (FRTG-D)	8 (Frwy) + 2/3 (HOV/M-R), 4/6 (Frtg-D)	2010 – 2020	TxDOT Dallas	cost included above
16		IH 30 - Dallas County	Loop 12 to Cockrell Hill Road	FT1-28.50.3	6 (Frwy) + 1 (HOV-EB), 6 (Frtg-D)	8 (Frwy) + 2/3 (HOV/M-R), 6 (Frtg-D)	2010 – 2020	TxDOT Dallas	cost included above

MTP ID	County	Street Name	From Street Name	To Street Name	2012 Lanes	2035 Lanes	Operational Between	CSJ_1	CSJ_2	COG_1	COG_2	YOE Estimated Cost
RSA1-61.45	Dallas	Riverfront Blvd.	Park Road	Trinity Parkway	0	4	2012-2020					$371,280
RSA1-61.05	Dallas	Riverfront Blvd.	Irving Blvd.	Continental Blvd.	6	8	2020-2030					$5,241,600
RSA1-83.1	Dallas	Rowlett Road	Roan Road	Miller Road	6	6	2010-2012	0918-45-227		1492.00	83032.00	
RSA1-83.0	Dallas	Rowlett Road	Belt Line Road/Broadway	Roan Road	4	6	2012-2020	0918-45-227		1492.00	83032.00	$3,712,800
RSA1-83.2	Dallas	Rowlett Road	Miller Road	Century Drive	4	6	2012-2020	0918-45-807				$1,113,840
RSA1-57.0	Dallas	Royal Lane	Riverside Drive	Luna Road	4	6	2012-2020					$2,489,760
RSA1-84.3	Dallas	S.M. Wright Parkway	Grand Avenue	US 175	N/A	6	2012-2020					$3,385,200
RSA1-84.4	Dallas	S.M. Wright Parkway	US 175	Budd Street	4	6	2012-2020	0092-01-052				$764,400
RSA1-39.05	Dallas	SH 289/Preston Road	Northwest Highway/Loop 12	Lovers Lane	4	6	2012-2020					$2,184,000
RSA1-58.2	Dallas	SH 342	Pleasant Run Road	8th Street	6	6	2010-2012					
RSA1-58.1	Dallas	SH 342	8th Street	Loop 9	2	4	2020-2030					$31,799,040
RSA1-62.1	Dallas	SH 356	Wildwood Drive	Regal Row ramps	4	6	2012-2020					$1,703,520
RSA1-63.4	Dallas	SH 356	Nursery Road	Irving Blvd. E/6th Street	4	6	2012-2020					$1,266,720
RSA1-63.05	Dallas	SH 356/Irving Blvd.	West end of couplet	Schulze Drive	4	6	2012-2020					$305,760
RSA1-63.1	Dallas	SH 365/Irving Blvd.	Schulze Drive	O'Connor Road	5	6	2012-2020					$305,760
RSA1-44.2	Dallas	SH 78	0.2 miles NE of Williford Road (Collin County line)	Firewheel Parkway	4	6	2012-2020	0281-03-043		2920.00		$5,612,880
RSA1-43.2	Dallas	Shiloh Road	McCree Road	IH 635 frontage NB	6	6	2010-2012			82469.00		
RSA1-43.3	Dallas	Shiloh Road	Kingsley Road	McCree Road	6	6	2010-2012			82469.00		
RSA1-43.0	Dallas	Shiloh Road	PGBT East Branch (SH 190) frontage EB	Kingsley Road	4	6	2012-2020					$15,353,520
RSA1-26.0	Dallas	Spur 348	SH 114	Riverside (Elm Fork Trinity River)	4	6	2012-2020	0353-04-068				$1,375,920
RSA1-26.1	Dallas	Spur 348	Riverside (Elm Fork Trinity River)	Luna Road	4	6	2020-2030					$5,940,480
RSA1-74.2	Dallas	Tom Braniff Drive	0.3 miles N of SH 114	SH 114	2	4	2012-2020					$786,240
RSA1-80.5	Dallas	Valley View Lane	Alpha Road	IH 635 Midway ramps	4	4	2010-2012					
RSA1-74.2	Dallas	Wildwood Drive	California Crossing	0.3 miles N of SH 114	2	4	2020-2030					$7,250,880
RSA1-375.2	Denton	Eldorado Parkway	E end of Lake Bridge	French Settlement Rd.	2	4	2030-2035					$26,142,480
RSA1-375.25	Denton	Eldorado Parkway	French Settlement Rd.	FM 720	2	6	2030-2035 *					$7,676,760
RSA1-369.0	Denton	Elm Street	Eagle Drive	Carroll Blvd.	4	6	2020-2030					$1,572,480
RSA1-378.1	Denton	Elm Street/Locust Street couplet	US 380/University Drive	Congress Street	4	4	2010-2012					
RSA1-378.2	Denton	Elm Street/Locust Street couplet	Congress Street	Hickory Street	4	4	2010-2012					
RSA1-369.1	Denton	Elm Street/Locust Street couplet	Hickory Street	Eagle Drive	2/3	3/3	2020-2030					$4,892,160

CSJs: 0092-01-052, 0197-02-108, & 0092-14-081

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MTP ID	Facility	Connection	Staging	Description	Operational Between	Study Reference
IN1-7.6.1	Loop 9	IH 35E		New Interchange	2020 - 2030	
IN1-27.6.1	Loop 9	IH 45		New Interchange	2020 - 2030	
IN1-1.6.1	Loop 9	US 287		New Interchange	2020 - 2030	
IN1-6.38.1	Loop 9	US 67		New Interchange	2020 - 2030	
IN1-12.529.1	SH 114	FM 156		Reconstruct	2012 - 2020	
IN1-10.12.1	SH 114	SH 170		Reconstruct	2012 - 2020	
IN1-11.512.1	SH 121	SH 5		Reconstruct	2012 - 2020	
IN1-11.23.2	SH 121 (South)	US 75		Reconstruct	2012 - 2020	SH 121 Collin County Toll Road (0364-04-040)
IN1-15.30.1	SH 161	IH 20	Phase I	New Interchange	2012 - 2020	(2374-04-054)
IN1-15.30.1	SH 161	IH 20	Phase II	New Interchange	2012 - 2020	
IN1-17.22.1	SH 183	Loop 12		Reconstruct	2012 - 2020	(0094-03-101, 0581-02-124)
IN1-6.30.1	East Branch (SH 190)	IH 20		New Interchange	2020 - 2030	
IN1-28.121.1	East Branch (SH 190)	President George Bush Turnpike/SH 190	Phase II (Full Interchange)	Reconstruct	2020 - 2030	
IN1-18.32.1	East Branch (SH 190)	US 80		New Interchange	2020 - 2030	
IN1-9.1.1	SH 360	US 287		New Interchange	2012 - 2020	
IN1-12.42.1 IN1-22.42.1	Spur 482	SH 114 & SH 183		Reconstruct	2012 - 2020	(0094-03-060)
IN1-34.575.1	Spur 557	CR 305		New Interchange	2020 - 2030	
IN1-7.26.1	Trinity Parkway	IH 35E		New Interchange	2020 - 2030	
IN1-27.26.1	Trinity Parkway	IH 45	Phase II	New Interchange	2012 - 2020	
IN1-22.26.1	Trinity Parkway	SH 183		New Interchange		
IN1-26.36.1	Trinity Parkway	US 175/S.M. Wright/IH 45	Phase I	New Interchange	2012 - 2020	
IN1-1.505.1	US 287	BU 287/Ennis Parkway		Reconstruct	2012 - 2020	
IN1-1.560.1	US 287	Ensign Road		Grade Separation	2012 - 2020	
IN1-1.561.1	US 287	FM 1183/Oak Grove Road		New Interchange	2020 - 2030	
IN1-1.562.1	US 287	Rudd Road		New Interchange	2020 - 2030	
IN1-1.33.1	US 287	SH 34		Reconstruct	2020 - 2030	
IN1-2.526.1	US 380	SH 289 (Preston Road)		Reconstruct	2012 - 2020	
IN1-23.583.1	US 75	Eldorado Parkway		Reconstruct SPUI	2012 - 2020	
IN1-23.120.1	US 75	President George Bush Turnpike		Reconstruct	2012 - 2020	(0047-06-133)
IN1-23.120.1 IN1-23.130.1	US 75	President George Bush Turnpike to IH 635		Various Managed Lane Connections	2012 - 2020	

MTP ID	Facility	From	To	Avg Daily Vol	Avg Peak Vol/Lane	Avg Peak Cap/Lane	Pk Hr LOS	Lanes*	Lanes Warranted
SH 190									
39.10.1	SH 190	IH 30/PGBT	IH 20	26,500	571	2,460	C+	4 / 6	2
SH 360 Toll									
9.40.4	SH 360 Toll	Lone Star Road	US 287	20,800	345	2,057	C+	6 / 8	2
9.50.1	SH 360 Toll	US 287	US 67	10,600	176	2,157	C+	6 / 8	2
Spur 366									
44.10.1	Spur 366	US 75	IH 35E	194,500	2,738	2,113	F	4 / 10	12
44.10.2	Spur 366	IH 35E	Beckley Avenue	83,100	1,607	2,133	D	4 / 6	6
Spur 408									
19.10.2	Spur 408	Spur 303/Kiest Blvd.	IH 20	130,400	2,321	2,157	F	6 / 8	8
Spur 482									
42.10.1	Spur 482	SH 183	IH 35E	43,000	1,159	2,600	C+	4 / 6	2
Spur 557									
34.10.1	Spur 557	US 80	IH 20	40,600	1,342	2,300	C+	4	4
Trinity Parkway									
26.10.1	Trinity Parkway	SH 183/IH 35E	Woodall Rodgers Freeway (Spur 366)	121,100	1,756	2,188	E	6 / 10	8
26.10.2	Trinity Parkway	Woodall Rodgers Freeway (Spur 366)	IH 45/US 175	107,300	1,778	2,100	E	6 / 8	6
26.20.1	Trinity Parkway	IH 45/US 175	SH 310	114,800	2,063	2,500	E	6 / 8	6
US 175									
36.10.1	US 175	SH 310	IH 20	139,200	2,168	2,275	E	6 / 8	8
36.20.1	US 175	IH 20	Belt Line Road	105,100	3,274	2,550	F	4 / 6	6
36.20.2	US 175	Belt Line Road	Loop 9 (Kaufman County Line)	85,300	2,657	2,300	F	4	6
36.30.1	US 175	Loop 9 (Dallas County Line)	FM 148	71,800	2,237	2,300	E	4	4
36.30.2	US 175	FM 148	CR 4106	64,500	2,009	2,300	E	4	4
36.30.3	US 175	CR 4106	FM 1390	56,000	1,744	2,300	D	4	4
36.30.4	US 175	FM 1390	SH 34	51,000	1,589	2,300	D	4	4
36.30.5	US 175	SH 34	FM 2880	46,900	1,461	2,300	C+	4	4
US 287									
1.100.1	US 287	Old Fort Worth Road/US 67	Midlothian Parkway	45,000	1,303	2,475	C+	4 / 6	4
1.100.3	US 287	BU 287 (W of Waxahachie)	IH 35E	39,000	1,375	2,300	C+	4	4
1.110.1	US 287	IH 35E	FM 878/Wyatt Street	39,700	1,399	2,300	C+	4	4

MTP ID	Facility	From	To	Avg Daily Vol	Avg Peak Vol/Lane	Avg Peak Cap/Lane	Pk Hr LOS	Lanes*	Lanes Warranted
5.20.1	IH 35W	SH 114	Eagle Parkway	99,300	3,282	2,300	F	4	6
IH 45									
27.10.1	IH 45	IH 30/IH 345	S.M. Wright Parkway	203,500	2,536	2,160	F	10	12
27.10.2	IH 45	SM Wright Parkway	Trinity Parkway/US 175	147,300	3,059	2,500	F	6 / 8	8
27.20.1	IH 45	Trinity Parkway/US 175	IH 20	117,400	2,438	2,300	F	6	8
27.30.1	IH 45	IH 20	Pleasant Run Road	120,800	2,839	2,300	F	6	8
27.30.2	IH 45	Pleasant Run Road	Loop 9	105,100	2,470	2,300	F	6	8
27.40.1	IH 45	Loop 9	1.1 miles S of Malloy Bridge Road (Ellis County Line)	100,700	2,373	2,300	F	6	8
27.40.2	IH 45	1.1 miles S of Malloy Bridge Road (Dallas County Line)	BU 45	87,400	2,060	2,300	E	6	6
27.40.3	IH 45	BU 45	SH 34	79,700	1,878	2,317	E	6 / 8	6
27.40.4	IH 45	SH 34	US 287	72,600	1,711	2,350	D	6 / 8	6
27.40.5	IH 45	US 287	.375 miles S of FM 1182 (Navarro County Line)	97,900	2,307	2,233	F	4 / 6	8
IH 635 (East)									
131.10.1	IH 635 (East)	US 75	Royal Lane/Miller Road	212,600	2,865	2,325	F	6 / 10	10
131.10.2	IH 635 (East)	Royal Lane/Miller Road	SH 78	208,200	2,805	2,313	F	8 / 10	10
131.10.3	IH 635 (East)	SH 78	IH 30	210,700	2,524	2,167	F	8 / 12	10
131.20.1	IH 635 (East)	IH 30	US 80	194,200	2,253	2,130	F	8 / 12	12
131.20.2	IH 635 (East)	US 80	IH 20	153,400	2,224	2,188	F	6 / 10	10
IH 635 (North)									
130.10.1	IH 635 (North)	SH 121	Royal Lane	141,400	1,640	2,370	D	10 / 12	8
130.10.2	IH 635 (North)	Royal Lane	Belt Line Road	135,100	2,612	2,433	F	6 / 8	8
130.10.3	IH 635 (North)	Belt Line Road	PGBT	131,000	2,533	2,333	F	6 / 8	8
130.20.1	IH 635 (North)	PGBT	Luna Road	257,100	2,445	2,227	F	10 / 12	12
130.20.2	IH 635 (North)	Luna Road	IH 35E	225,100	2,140	2,127	F	10 / 12	12
130.30.1	IH 635 (North)	IH 35E	Webb Chapel Road	208,300	2,495	2,144	F	8 / 12	10
130.30.2	IH 635 (North)	Webb Chapel Road	Hillcrest Road	258,700	3,007	2,356	F	6 / 12	14
Loop 9									
6.10.1	Loop 9	US 287	IH 20	12,100	284	2,167	C+	4 / 6	2
PGBT (East)									
121.10.1	PGBT (East)	US 75	SH 78	106,900	1,378	2,078	D	6 / 10	6

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST
DALLAS	DALLAS	0092-01-052	US 175	E,R	DALLAS	TXDOT-DALLAS	**$5,900,000**

LIMITS FROM: ON SM WRIGHT PHASE 2 (EXISTING SM WRIGHT RECONSTRUCTION FROM US 175/ SH 310
LIMITS TO: IH 45
TIP DESCRIPTION: RECONSTRUCT FREEWAY TO 6 LANE ARTERIAL WITH TRANSITIONS TO SH 310 (NORTH OF BUDD ST.)
REMARKS: R PHASE IS REALLY UTILITY FUNDING; CONSTRUCTION FUNDING INCLUDES $3.088 M OF CE; RTR 121-DA2 FUNDS

REV DATE: 07/2012
MPO PROJECT ID: 20062
FUNDING CATEGORY: 3P12
MTP REFERENCE: FT1-29.10.1, RSA1-84.3, RSA1-84.4

Project History:

Total Project Cost Information:

Preliminary Engineering:	$1,000,000
Right Of Way:	$4,900,000
Construction:	$37,400,000
Construction Engineering	$2,395,330
Contingencies:	$0
Indirects:	$0
Bond Financing:	$0
Total Project Cost:	**$45,695,330**

Cost of Approved Phases: **$5,900,000**

Authorized Funding by Category/Share:

	Federal	State	Regional	Local	Local Contribution	Funding By Category
3P12:	$0	$5,900,000	$0	$0	$0	$5,900,000
Funding by Share:	$0	$5,900,000	$0	$0	$0	**$5,900,000**

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST
DALLAS	DALLAS	0092-14-081	IH 45	C,E,R	DALLAS	TXDOT-DALLAS	**$22,896,000**

LIMITS FROM: PROPOSED US 175
LIMITS TO: PROPOSED SM WRIGHT PARKWAY
TIP DESCRIPTION: PAVEMENT WIDENING, RESTRIPING, AND RAMP MODIFICATIONS TO ACCOMMODATE INTERCHANGE WITH US 175
REMARKS: R ALSO = UTILITIES FUNDING; PE = CE FUNDING; RTR 121 - DA2 & RTR 121 - DA1 FUNDS

REV DATE: 07/2012
MPO PROJECT ID: 11266
FUNDING CATEGORY: 2M,3RTR121,3P12
MTP REFERENCE: FT1-26.20.1, IN1-26.36.1

Project History:

Total Project Cost Information:

Preliminary Engineering:	$1,536,000
Right Of Way:	$5,460,000
Construction:	$15,900,000
Construction Engineering	$966,036
Contingencies:	$0
Indirects:	$0
Bond Financing:	$0
Total Project Cost:	**$23,862,036**

Cost of Approved Phases: **$22,896,000**

Authorized Funding by Category/Share:

	Federal	State	Regional	Local	Local Contribution	Funding By Category
2M:	$13,948,800	$3,487,200	$0	$0	$0	$17,436,000
3RTR121:	$0	$0	$3,300,000	$0	$0	$3,300,000
3P12:	$0	$2,160,000	$0	$0	$0	$2,160,000
Funding by Share:	$13,948,800	$5,647,200	$3,300,000	$0	$0	**$22,896,000**

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST
DALLAS	DALLAS	0094-03-065	SH 183	E,R	IRVING	TXDOT-DALLAS	**$73,620,000**

LIMITS FROM: WEST OF SH 161
LIMITS TO: 0.66 MILE WEST OF LOOP 12
TIP DESCRIPTION: WIDEN EXISTING FACILITY FROM 6 TO 8 LANES, ADD 4 CONCURRENT HOV/MANAGED LANES AND 4/6 LANES FRONTAGE ROADS
REMARKS: DFW RTR-DE2 & DA2 FUNDS

REV DATE: 07/2012
MPO PROJECT ID: 20210
FUNDING CATEGORY: 3RTR121,2M
MTP REFERENCE: FT1-22.30.1

Project History:

Total Project Cost Information:

Preliminary Engineering:	$1,000,000
Right Of Way:	$72,620,000
Construction:	$721,333,358
Construction Engineering	$32,460,001
Contingencies:	$50,493,335
Indirects:	$35,273,201
Bond Financing:	$0
Total Project Cost:	**$913,179,896**

Cost of Approved Phases: **$73,620,000**

Authorized Funding by Category/Share:

	Federal	State	Regional	Local	Local Contribution	Funding By Category
3RTR121:	$0	$0	$30,120,000	$0	$0	$30,120,000
2M:	$34,800,000	$8,700,000	$0	$0	$0	$43,500,000
Funding by Share:	$34,800,000	$8,700,000	$30,120,000	$0	$0	**$73,620,000**

CSJs: 0092-01-052, 0197-02-108, 0092-14-081

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR	YOE COST
DALLAS	DALLAS	0197-02-108	US 175	C,E,R	DALLAS	TXDOT-DALLAS	**$78,244,000**

LIMITS FROM: ON SM WRIGHT PKWY PHASE 1/FORMERLY TRINITY PKWY PHASE 1/US 175 FROM IH 45
LIMITS TO: EAST OF BEXAR ST.
TIP DESCRIPTION: EXTEND US 175, RECONSTRUCT INTERCHANGE WITH SM WRIGHT/SH 310, 2 LANE DIRECT CONNECTORS IN EACH DIRECTION WEST OF THE INTERCHANGE; RECONSTRUCT MAINLANES EAST OF INTERCHANGE TO BEXAR ST.; 2/3 LANE FRONTAGE ON EACH SIDE BETWEEN LAMAR AND BEXAR ST.
REMARKS: PROP 12 (PE/ROW) FUNDS; CONTRUCTION FUNDING INCLUDES $4.944 OF CE

REV DATE: 07/2012
MPO PROJECT ID: 20209
FUNDING CATEGORY: 2M,3RTR121,3P12
MTP REFERENCE: FT1-26.20.1, IN1-26.36.1

Project History:

Total Project Cost Information:

Preliminary Engineering:	$4,994,000
Right Of Way:	$11,700,000
Construction:	$61,550,000
Construction Engineering	$8,428,410
Contingencies:	$13,110,860
Indirects:	$9,158,872
Bond Financing:	$0
Total Project Cost:	**$108,942,142**

Cost of Approved Phases: **$78,244,000**

Authorized Funding by Category/Share:

	Federal	State	Regional	Local	Local Contribution	Funding By Category
2M:	$15,795,200	$3,948,800	$0	$0	$0	$19,744,000
3RTR121:	$0	$0	$47,000,000	$0	$0	$47,000,000
3P12:	$0	$11,500,000	$0	$0	$0	$11,500,000
Funding by Share:	$15,795,200	$15,448,800	$47,000,000	$0	$0	**$78,244,000**

DALLAS	COLLIN	0281-02-039	SH 78	C,E,R	WYLIE	TXDOT-DALLAS	**$27,429,047**

LIMITS FROM: SPRING CREEK PKWY
LIMITS TO: SH 205
TIP DESCRIPTION: WIDEN 2 TO 6 LANE DIVIDED
REMARKS: DFW RTR-CC1 FUNDS; MINOR URBAN ARTERIAL; COLLIN COUNTY LOCAL CONTRIBUTION CREDIT PROJECT

REV DATE: 07/2012
MPO PROJECT ID: 20036
FUNDING CATEGORY: 3RTR121
MTP REFERENCE: RSA1-212.1

Project History:

Total Project Cost Information:

Preliminary Engineering:	$800,000
Right Of Way:	$5,000,000
Construction:	$21,629,047
Construction Engineering	$927,023
Contingencies:	$1,339,033
Indirects:	$1,007,365
Bond Financing:	$0
Total Project Cost:	**$30,702,468**

Cost of Approved Phases: **$27,429,047**

Authorized Funding by Category/Share:

	Federal	State	Regional	Local	Local Contribution	Funding By Category
3RTR121:	$0	$0	$27,429,047	$0	$0	$27,429,047
Funding by Share:	$0	$0	$27,429,047	$0	$0	**$27,429,047**

DALLAS	DALLAS	0353-02-053	SH 114	E,R	ROANOKE	TXDOT-DALLAS	**$250,000**

LIMITS FROM: AT UP RAILROAD UNDERPASS
LIMITS TO: IN ROANOKE DOT NO 795 342V
TIP DESCRIPTION: REPLACE RAILROAD UNDERPASS
REMARKS:

REV DATE: 07/2012
MPO PROJECT ID: 51060
FUNDING CATEGORY: SBPE,S102
MTP REFERENCE: MO3-002

Project History:

Total Project Cost Information:

Preliminary Engineering:	$150,000
Right Of Way:	$100,000
Construction:	$10,732,000
Construction Engineering	$141,791
Contingencies:	$0
Indirects:	$0
Bond Financing:	$0
Total Project Cost:	**$11,123,791**

Cost of Approved Phases: **$250,000**

Authorized Funding by Category/Share:

	Federal	State	Regional	Local	Local Contribution	Funding By Category
SBPE:	$0	$150,000	$0	$0	$0	$150,000
S102:	$80,000	$20,000	$0	$0	$0	$100,000
Funding by Share:	$80,000	$170,000	$0	$0	$0	**$250,000**

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR
DALLAS	DENTON	0081-04-038	US 377	E	OTHER	TXDOT-DALLAS

LIMITS FROM: NORTH OF HICKORY CREEK
LIMITS TO: FM 1830
TIP DESCRIPTION: RECONSTRUCT AND WIDEN 2 LANE RURAL HIGHWAY AS A 4 LANE DIVIDED URBAN
REMARKS: ADD TO TIP/STIP; PASS THRU FUNDED

REV DATE: 07/2012
MPO PROJECT ID: 55004
MTP REFERENCE: RSA1-368.2

Project History:

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR
DALLAS	COLLIN	0091-03-022	SH 289	E	OTHER	TXDOT-DALLAS

LIMITS FROM: N BUS 289C, NORTH OF CELINA
LIMITS TO: N CR 60/CR 107 (GRAYSON C/L)
TIP DESCRIPTION: RECONSTRUCT AND WIDEN 2 LN RURAL HIGHWAY TO 6 LNS
REMARKS:

REV DATE: 07/2012
MPO PROJECT ID: 54023
MTP REFERENCE: RSA1-202.1

Project History:

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR
DALLAS	DALLAS	0092-01-052	US 175	C	DALLAS	TXDOT-DALLAS

LIMITS FROM: ON SM WRIGHT PHASE 2 (EXISTING SM WRIGHT RECONSTRUCTION FROM US 175/ SH 310
LIMITS TO: IH 45
TIP DESCRIPTION: RECONSTRUCT FREEWAY TO 6 LANE ARTERIAL WITH TRANSITIONS TO SH 310 (NORTH OF BUDD ST.)
REMARKS: R PHASE IS REALLY UTILITY FUNDING; CONSTRUCTION FUNDING INCLUDES $3.088 M OF CE; RTR 121-DA2 FUNDS

REV DATE: 07/2012
MPO PROJECT ID: 20062
MTP REFERENCE: FT1-29.10.1, RSA1-84.3, RSA1-84.4

Project History:

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR
DALLAS	DALLAS	0092-14-080	IH 345	E	DALLAS	TXDOT-DALLAS

LIMITS FROM: EAST OF DOWNTOWN BETWEEN IH 30
LIMITS TO: AND SPUR 366 (WOODALL RODGERS FREEWAY)
TIP DESCRIPTION: ENGINEERING FOR BRIDGE RECONSTRUCTION
REMARKS:

REV DATE: 07/2012
MPO PROJECT ID: 20266
MTP REFERENCE: M03-002

Project History:

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR
DALLAS	DALLAS	0094-07-020	SH 183	E,R	DALLAS	TXDOT-DALLAS

LIMITS FROM: WEST END OF ELM FORK TRINITY RIVER BRIDGE
LIMITS TO: IH 35E
TIP DESCRIPTION: ADD 6 CONCURRENT HOV/MANAGED LANES TO EXISTING 8 MAINLANES AND 4/6 FRONTAGE LANES FROM SH 183 SOUTH OF SH 114 TO FUTURE TRINITY PKWY AND ADD 4 CONCURRENT HOV/MANAGED LANES TO EXISTING 6 MAINLANES AND 4/6 FRONTAGE LANES FROM TRINITY PKWY TO IH 35E
REMARKS: CONSTRUCTION PHASE IN APPENDIX D

REV DATE: 07/2012
MPO PROJECT ID: 54066
MTP REFERENCE: FT1-22.40.2, FT1-22.40.3

Project History:

DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR
DALLAS	DALLAS	0095-13-024	IH 20	E,R	MESQUITE	TXDOT-DALLAS

LIMITS FROM: IH 20 AT FALCON'S LAIR INTERCHANGE
LIMITS TO:
TIP DESCRIPTION: CONSTRUCT DIAMOND INTERCHANGE
REMARKS: CANCELLED THRU TIP DEVELOPMENT PER TXDOT

REV DATE: 07/2012
MPO PROJECT ID: 52370
MTP REFERENCE: IN1-30.547.1

Project History:

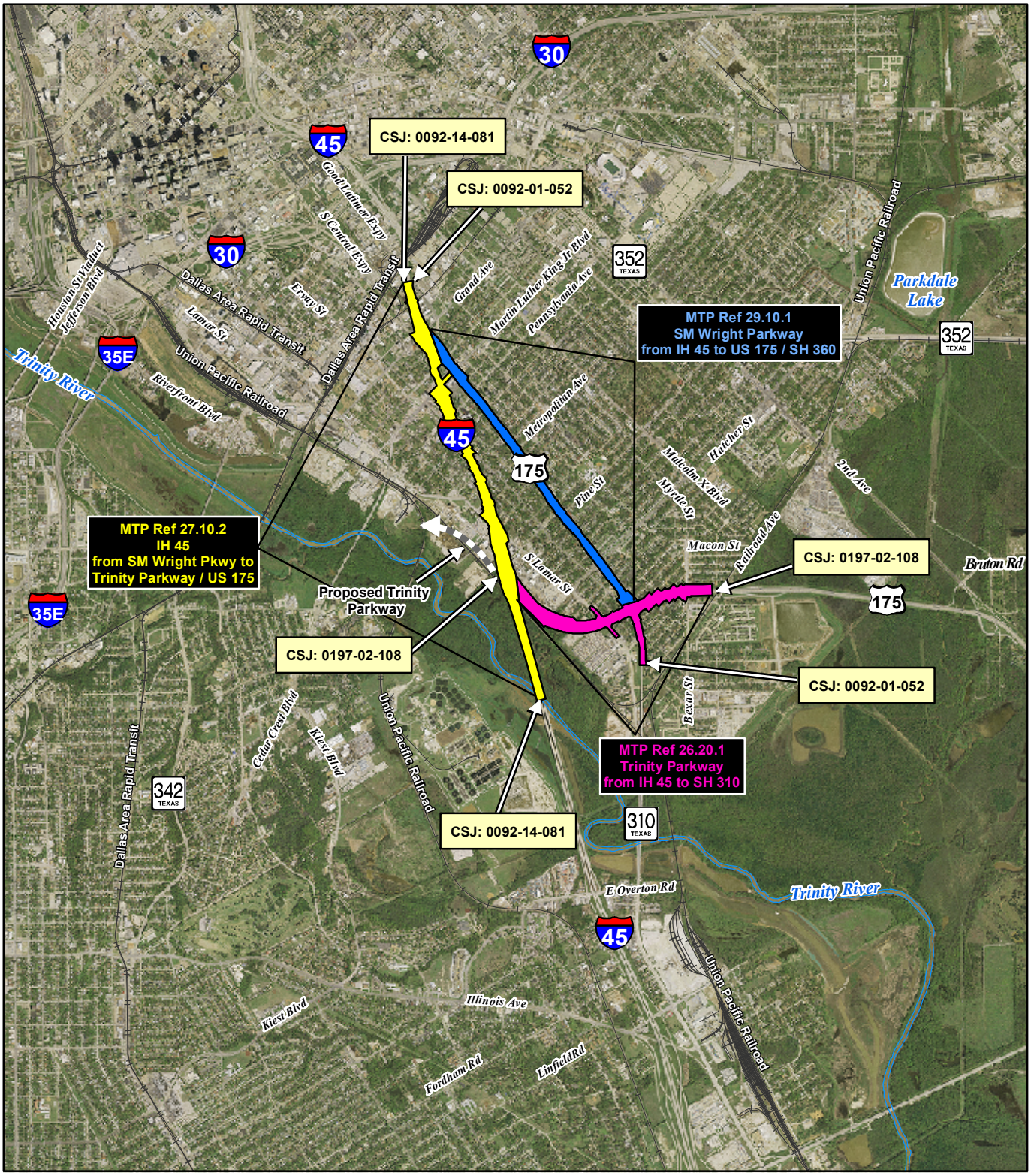
DISTRICT	COUNTY	CSJ	HWY	PHASE	CITY	PROJECT SPONSOR
DALLAS	ELLIS	0172-08-053	US 287	E	OTHER	TXDOT-DALLAS

LIMITS FROM: SOUTH OF SH 34
LIMITS TO: IH 45 SOUTH OF ENNIS
TIP DESCRIPTION: WIDEN 2-LANE UNDIVIDED HIGHWAY TO 4-LANE DIVIDED HIGHWAY WITH GRADE SEPARATED INTERCHANGES AND CONTROL OF ACCESS
REMARKS: ENNIS BYPASS; PH 2

REV DATE: 07/2012
MPO PROJECT ID: 53082
MTP REFERENCE: FT1-1.110.6, IN1-1.33.1, IN1-1.560.1, IN1-1.561.1, IN1-1.562.1, TSM2-001

Project History: PER 2013-2016 TIP DEVELOPMENT CONST. COST $70,460,035; C/O TO APPX D

CSJs: 0092-01-052, 0197-02-108, 0092-14-081



Legend

Railroad

River

N
W E
S

0 2,000 4,000

Feet

Source/Year of Aerial Photograph: Landiscor/2009

Project MTP Reference Limits with CSJ Limits and Locations

SM Wright Project
Dallas, Texas