

**SOUTHEAST CORRIDOR
LIGHT RAIL TRANSIT
IN DALLAS COUNTY, TEXAS**

**FINAL ENVIRONMENTAL IMPACT STATEMENT
and
SECTION 4(f) STATEMENT**

prepared by

**U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION**


and

DALLAS AREA RAPID TRANSIT

Pursuant to:

National Environmental Policy Act of 1969, Section 102(2)(c), 42 U.S.C. 4332 (2)(c); National Historic Preservation Act of 1966, Section 106, 16 U.S.C. 470. et seq; Executive Order 11990 (Protection of Wetlands); Executive Order 12898 (Environmental Justice for Low-Income and Minority Populations); Federal Transit Act, 53 U.S.C. Section 5323(b), Section 5309(e)(2) – (7), 5301(e), and 5324(b)(1) – (3); Title 49 U.S.C. Section 303, formerly Department of Transportation Act of 1966, Section 4(f).

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Cover Sheet

Abstract

This Final Environmental Impact Statement (FEIS) describes the transportation and environmental impacts associated with the construction and operation of Light Rail Transit (LRT) project to improve transit service in the Southeast Corridor of the Dallas Area Rapid Transit (DART) service area. An analysis of a No-Build Alternative is done to provide a baseline comparison for the LRT Alternative. The effects of the No-Build and LRT Alternative are evaluated and compared across a range of subject areas related to both natural and man-made environments. These include transportation systems, land use, neighborhoods, air quality, noise and vibration, ecosystems, water resources, floodplains, historic resources, parklands, regulated materials, and safety and security.

The No-Build Alternative includes the highway and transit facilities in the Southeast Corridor that already exist and assumes no major investments in transportation improvements within the existing corridor beyond those that have already been programmed and funded by the City of Dallas, Dallas County, DART, the Texas Department of Transportation (TxDOT), or Federal entities by the year 2025. No-Build improvements are included in the approved Metropolitan Transportation Plan (North Central Texas Council of Governments Mobility 2025 Plan Update, May 2001), Capital Improvement Plans for the City of Dallas, Dallas County, and the *2002 State Transportation Improvement Program (STIP)*. The LRT Alternative consists of an approximate 10.2 mile extension of LRT service connecting downtown Dallas with the communities of Deep Ellum, Baylor, South Dallas, Fair Park, and Pleasant Grove. Connections to other elements of the DART Transit System Plan are also included in the project. The LRT Alternative will provide a reliable travel time for transit patrons in the Southeast Corridor and provide an alternative to the single occupant vehicle. Additionally, the LRT Alternative would contribute to an improvement in the region's air quality, and would provide dependable access to employment opportunities in the corridor.

Public Comments

A 45-day public review period was provided for the Draft EIS. During that time, three public hearings were held in the corridor to facilitate public input on the Draft EIS. A summary of the comments received during the review period are presented along with responses in Chapter 6.0 of this Final EIS.

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FOREWORD

This Final Environmental Impact Statement (FEIS) for the Southeast Corridor LRT Extension has been prepared in accordance with regulations developed by the Council on Environmental Quality for the National Environmental Policy Act (NEPA), and the U.S. Department of Transportation's Federal Transit Administration (FTA) and Federal Highway Administration (FHWA). This document is consistent with guidance detailed in the October 28, 1993, Federal Register, 23 CFR part 450, Statewide Planning; Metropolitan Planning Rule for Major Investment Studies. The structure of this document is as follows:

Executive Summary: Provides a summary of the first six chapters of the document.

Chapter 1 – Purpose and Need: Presents a discussion of local and regional transportation goals. Specific transportation problems are presented along with a discussion of the purpose and need for transportation improvements in the Southeast Corridor of the Dallas Area Rapid Transit (DART) service area.

Chapter 2 – Alternatives Considered: Provides an overview of the screening process and a description of the alternatives that have been considered during the course of the Southeast Corridor Major Investment Study (MIS) leading up to the alternatives examined in this FEIS.

Chapter 3 – Affected Environment: Describes the existing social and natural environmental conditions in the study area. The discussion provides an understanding of the environment in which the project would take place and describes the significant resources in the study area.

Chapter 4 – Transportation Impacts: Presents both transit and highway impacts resulting from the No-Build and the Build Alternative.

Chapter 5 – Environmental Consequences: Discusses potential impacts of the alternatives being evaluated on the built and natural environments. Potential mitigation measures to address impacts are defined where appropriate.

Chapter 6 – Comments and Responses: Presents a summary of substantive comments received during the review period for the Southeast Corridor Draft EIS and Revised Section 4(f)

Statement. Responses to comments are also provided. This chapter represents a formal method of addressing issues raised by agencies and the public.

This document also contains eight appendices.

Appendix A provides a List of Recipients.

Appendix B is a List of Preparers.

Appendix C provides a discussion of public and agency coordination and consultation efforts.

Appendix D is a separately bound volume containing Plans and Profiles for the Light Rail Transit (LRT) alternative that is under consideration.

Appendix E provides a copy of the Section 4(f) Evaluation as set forth in Section 4(f) of the United States Department of Transportation (USDOT) Act of 1966 (Pub.L. 89-670) amended and revised, and as codified at Title 49 USC 303.

Appendix F contains a list of hazardous/regulated material databases researched for this project.

Appendix G contains the Memorandum of Agreement between the Federal Transit Administration and the Texas State Historic Preservation Officer regarding this project.

Appendix H provides a list of acronyms and abbreviations used in this document and their definitions.

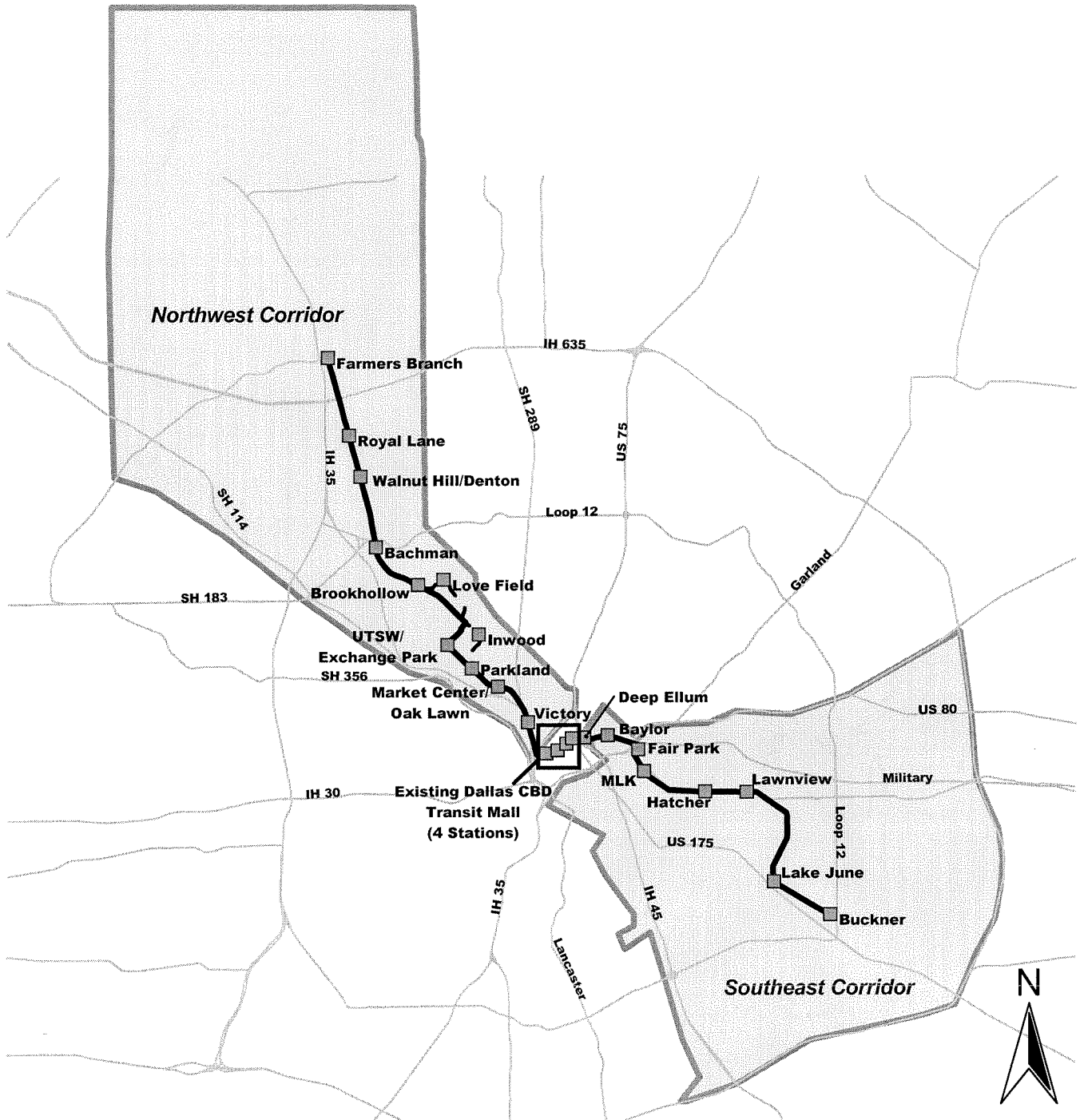
EXECUTIVE SUMMARY

The National Environmental Policy Act (NEPA) of 1969 requires Federal agencies to prepare an Environmental Impact Statement (EIS) for any major action they undertake that may have significant impacts on human health and the natural environment. Dallas Area Rapid Transit (DART) has prepared this EIS under its responsibilities as the local lead agency for the project to extend the Light Rail Transit (LRT) System in the Southeast Corridor. This document has been submitted in coordination with the Federal Transit Administration (FTA), which is the sponsoring or lead Federal agency.

For purposes of defining the “Federal Project” for a FTA Section 5309 New Starts submission, DART has combined the Southeast Corridor project and a majority of the Northwest Corridor. This federal project forms a single, federally funded, comprehensive, and cost-effective project to meet the wide range of mobility, community, and financial needs in both the Northwest and Southeast Corridors. A separate EIS is being done for each of the corridors. The 22-mile Minimum Operable Segment (MOS) reflects an LRT line from Farmers Branch (Northwest Corridor) through the Dallas Central Business District (CBD) to Buckner Boulevard (Southeast Corridor) and is shown in Figure S.1. This federal project will link key activity and employment centers in the MOS corridor, including Dallas Love Field Airport, Medical Center District (Parkland, Children’s, Zale Lipshy, St. Paul and University of Texas Southwestern Medical Center), Market Center, Victory American Airlines Center, the Dallas CBD, Baylor Health Care System (HCS), Deep Ellum, and Fair Park with the rest of the regional rail system. If approved, the project is scheduled to be completed and opened for revenue service in staged line segments during the years 2007 and 2008 (working schedule, subject to change). DART’s dedicated local sales tax, as well as long term bond financing, will fund the remainder of the Northwest Corridor LRT line from Farmers Branch to Frankford, also planned to be open for revenue service in 2008 (subject to change).

Given the definition of the Federal Project and the similar revenue service dates for the Northwest and Southeast Corridors, the ridership forecasts and operating plans in each project’s EIS document assume both corridors are in place for the Build Alternatives. Each No-Build Alternative assumes neither corridor is in place. This ensures an accurate portrayal of future ridership and operating plans, while addressing the effects of each corridor in separate EIS documents.

Figure S.1 Northwest/Southeast Light Rail MOS



Legend					
	NW/SE MOS Line		NW Corridor Design Options		Roads
	NW/SE MOS Stations		NW/SE Study Area		



The primary purpose of this EIS is to assess the potential environmental effects of the implementation of the No-Build and Build Alternative. The EIS will also serve as the primary document to facilitate review of the No-Build and Build Alternative by federal, state, and local agencies, decision-makers, and the public. The EIS will document the purpose and need for the project and present a discussion of the alternatives considered. It will address in detail the anticipated transportation and environmental impacts of the project and provide definition for appropriate mitigation measures.

This Executive Summary highlights the most significant findings of this Final EIS under the following headings: Purpose and Need; Alternatives Considered; Affected Environment; Transportation Impacts; Environmental Consequences; Comment and Responses, and the Next Steps.

S 1.0 PURPOSE AND NEED

The Southeast Corridor is identified in both the North Central Texas Council of Government's (NCTCOG) *Mobility 2025 Plan Update (May 2001)* and the DART *Transit System Plan (January 1995, updated December 1997)* as a priority for a transportation investment. The *Transit System Plan* and *Mobility 2025 Plan Update* both recommended a light rail line as the appropriate technology in the Southeast Corridor.

DART conducted a *Needs Assessment* study for the Southeast Corridor in April 1998. This study analyzed travel patterns in the southeast portion of the DART Service Area, identified transportation issues and deficiencies, prepared a preliminary statement of purpose and need, and identified the initial alternatives for a Major Investment Study (MIS). A MIS was completed for the Southeast Corridor in May of 2000 and approved by the DART Board on May 9, 2000. The recommended Locally Preferred Investment Strategy (LPIS) was composed of several projects designed to create a strategy to improve mobility in the corridor. The main component of the LPIS was a new light rail transit (LRT) line that connects the existing DART LRT system from the Dallas CBD with the communities of Deep Ellum, Baylor, Fair Park, South Dallas, Buckner Terrace, and Pleasant Grove. This EIS focuses on the LRT component of the LPIS.

S 1.1 OVERVIEW OF THE STUDY AREA AND CORRIDOR

The study area includes the southeast quadrant of Dallas County and is generally bounded by Interstate Highway (IH) 30 on the north, IH 635/IH 20 to the east and south, and IH 45 to the

west with a small area north of IH 30 (Figure S.2). The study area has three distinct subareas: Baylor/Deep Ellum/Bryan Place, South Dallas/Fair Park, and Pleasant Grove/Buckner Terrace. The City of Dallas is the only jurisdiction in the study area that is a member of the DART Service Area. The City of Dallas also comprises the majority of the study area with small portions under the jurisdiction of Dallas County, Mesquite, Hutchins, and Balch Springs. The study corridor includes the area within one mile of the Build Alternative (LRT) recommended during the MIS.

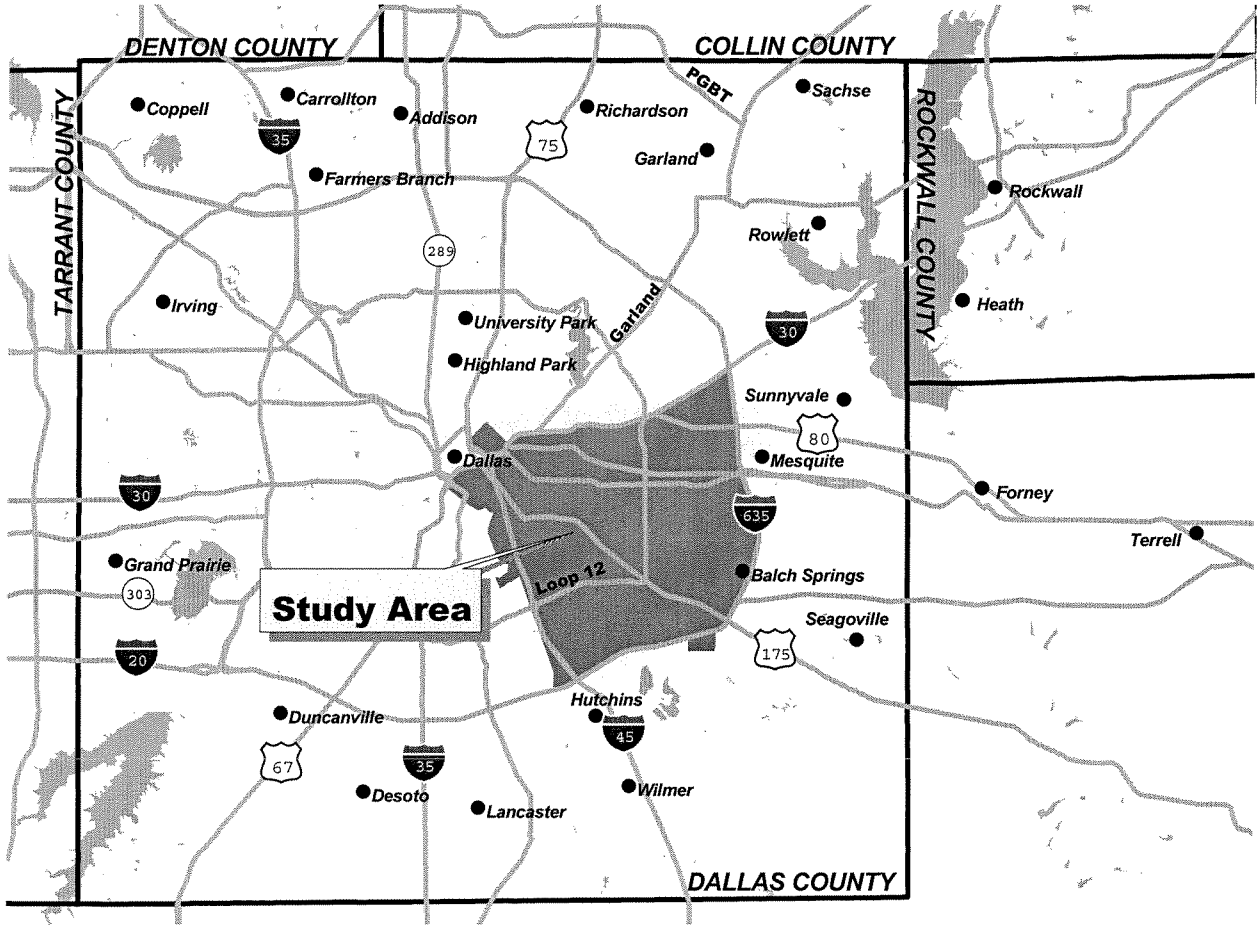
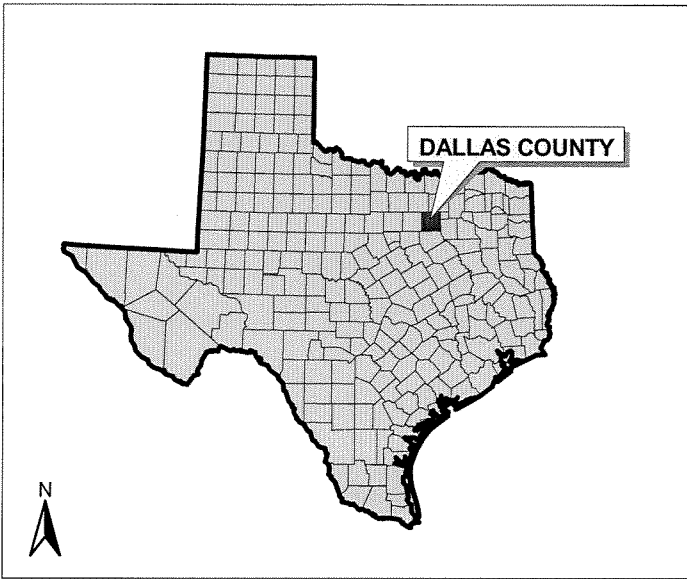
S 1.2 EXISTING TRANSPORTATION CONDITIONS

The transportation system that serves the study area includes roadways, freeways, freight railroads, and bus transit. The primary means of travel to work in the region is by single-occupant vehicles. However, the percentage of people carpooling and using public transportation is higher in the study area than the average for Dallas County.

The transportation system consists of major arterials and local streets supported by the freeway system (Figure S.3). Some arterial streets carry high volumes of traffic and experience recurring congestion. The highest traffic volumes currently occur on South Central Expressway, Martin Luther King Boulevard (MLK), and Robert B. (R.B.) Cullum Boulevard. Congestion is expected to increase in the future along these arterials as well as Military Parkway, Sam Houston Road, Loop 12/Buckner Boulevard, and Prairie Creek Road.

There are two major railroad lines within the study area. The east-west Union Pacific Railroad (UP RR), which is part of Union Pacific's transcontinental route, provides national coast-to-coast service. This line is a main line, carrying approximately 30 freight train movements per day. The former Southern Pacific Railroad (SP RR) was acquired by DART in April 1988. There was also a former east-west UP RR line from Good-Latimer Expressway to the UP RR. As with the former SP RR, this corridor was acquired by DART in September 1990 and upon acquisition by DART, freight traffic was abandoned in this segment and the tracks removed from Good-Latimer to Parry Avenue.

Figure S.2 Regional Study Area



Source: NCTCOG

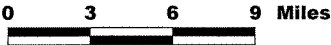
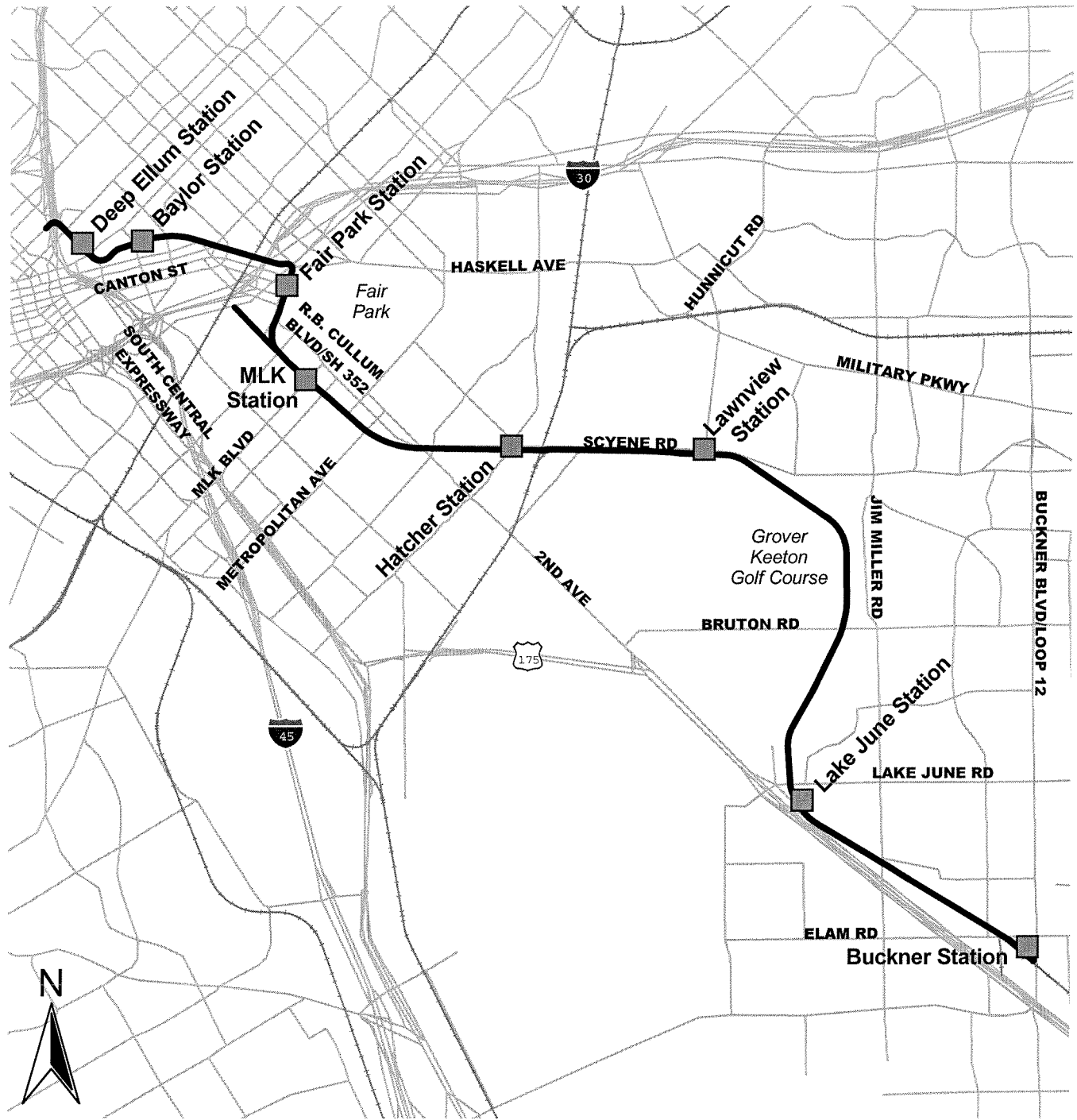


Figure S.3 Build Alternative (LRT)



Legend



Transit Center/LRT Station



Build Alternative (LRT)



Existing Rail



The study area is served by a network of more than 18 bus routes which include local, radial, and crosstown bus routes. The strongest ridership is on local routes originating from within the Pleasant Grove and South Dallas neighborhoods that are destined for downtown Dallas and the Northwest Corridor. According to the 1990 Census, 7.6 percent of residents in the study area use public transportation compared to 4.3 percent for the entire county. While the study area comprises ten percent of the DART Service Area, transit bus ridership in the study area accounts for approximately 20 percent of total bus ridership in the entire DART Service Area. DART also offers paratransit services to provide curb-to-curb public transportation to people with disabilities who are unable to use fixed route DART bus or train service.

S 1.3 THE NEED FOR THE ACTION

The problems and issues identified within the Southeast Corridor included:

- Residential growth in the eastern suburban communities (Pleasant Grove, Mesquite and Balch Springs) has resulted in increasing travel demand along corridor major roadways, particularly US 175, IH 45, IH 30 and major arterials such as State Highway (SH) 352 and Loop 12;
- Sustained employment growth in the Dallas CBD, as well as in the Northwest and North Central corridors, is attracting commuter trips from and beyond the study area, particularly from growing residential areas in the southeastern portion of the study area and outside IH 635 and IH 30;
- The study area will continue to be a major exporter of employees. By the Year 2025, residents are expected to outnumber employees over three to one. Access to the employment centers outside of the study area will be difficult because of traffic congestion and limited transit service;
- Persons traveling to employment areas in the Northwest and North Central corridors must pass through or near the congested Dallas CBD;
- Existing and committed roadway improvements have not kept pace with traffic volume increases on the major radial roadways in the study area, resulting in steadily increasing congestion;
- Traffic congestion and incidents affect schedule adherence for bus routes, resulting in inconsistent or unreliable transit service;
- Facilities for non-motorized travel, including pedestrian and bicycle, are limited;

- Some major roadways in the study area, such as US 175, are characterized by operational and safety problems due to substandard design for merging and weaving maneuvers;
- Visitors to the major attractions within the study area such as Fair Park, Deep Ellum, and the entertainment venues in and near the Dallas CBD have few travel choices; and
- The Trinity River and White Rock Creek floodplains act as natural barriers, limiting direct southeast to northwest travel and options for new roadways or guideways.

The transportation needs identified within the Southeast Corridor include:

- Residential areas in southeast Dallas need to have faster, more direct access and additional travel options to major employment centers including the Dallas CBD, Medical/Market Center, and growing employment areas in the North Central and Northwest corridors;
- Additional transportation capacity is needed for travel in the southeast-northwest radial direction in the study area;
- Improved internal circulation is required within the study area, particularly within and between the South Dallas/Fair Park, Buckner Terrace, and Pleasant Grove communities;
- More frequent and expanded service hours for transit service, particularly on crosstown routes, to improve mobility for the transit dependent population and attract new riders;
- The major radial roadways need operational and safety improvements;
- Transportation options are needed that bypass congestion in the Dallas CBD to access employment areas to the north or northwest of the CBD; and
- Improved access to transit service should be provided by all potential access modes, including pedestrian, bicycle, and automobile.

S 1.4 PURPOSES OF THE PROPOSED ACTION

Based on the *Needs Assessment* and the MIS, the purposes for implementing a LRT line in the Southeast Corridor are:

Improving Mobility and System Linkages

- Enhancing the quality and reliability of transit service for existing and potential riders by decreasing delay and improving transit facilities and service;
- Providing more travel choices, especially for southeast-northwest radial travel from residential areas to major destinations in central Dallas and beyond;

- Enhancing travel to major employment centers such as Baylor HCS, downtown Dallas, and the Medical/Market Center; and
- Improving interregional connections to the existing and proposed LRT and commuter rail systems.

Increasing Capacity of the Transportation System

- Providing additional transit capacity in heavily traveled corridors;
- Changing modes of travel and reducing the existing dependence on the automobile thereby helping improve air quality; and
- Reducing travel delay thereby helping improve air quality.

Increasing Economic Development Opportunities

- Creating new opportunities through transit-oriented development; and
- Enhancing travel and accessibility to major entertainment and cultural facilities such as Fair Park, the Latino Cultural Arts Center, and Deep Ellum.

S 1.5 GOALS AND OBJECTIVES

The goals and objectives for the project respond to underlying transportation needs. These goals include the building and operation of an efficient and effective transportation system within the DART Service Area that would provide mobility, improve the quality of life, and stimulate economic development through the implementation of the DART Service Plan.

S 2.0 ALTERNATIVES CONSIDERED

During the MIS, an evaluation process provided the technical framework through which potential transportation improvement alternatives and alignments were comparatively analyzed. The evaluation analysis determined how well each alternative addressed the identified travel needs, goals, and objectives. The comparative evaluation of the alternatives was conducted in two phases.

The build alternatives developed and analyzed during the Phase 1 Conceptual Evaluation phase represented a wide range of alignments and modes to try to meet the mobility needs of the corridor. These included Transportation System Management/Congestion Management System (TSM/CMS), Bus Rapid Transit (BRT), High Occupancy Vehicle (HOV) lanes, and 54 LRT alignment options. During both the Phase 1 and Phase 2 Detailed Evaluation, an extensive list

of evaluation criteria and measures were applied for a comparative rating of the alternatives, which provided information for the recommendation of the preferred investment strategy decision. All alternatives were compared to each other with the No-Build as a baseline alternative. The alternatives evaluated recommended from Phase 1 and evaluated in Phase 2 were the No-Build Alternative, the TSM/CMS Alternative, and eight selected LRT Alternatives.

The alternative, which rated the highest, was the LRT - Alternative #4, which is a combination of the UP RR, Parry Avenue, and the SP RR. It had the best combination of cost, ridership, and public and agency support. It also had minimal environmental and community impacts because the majority of the alignment uses existing railroad right-of-way. It also provided the best access and had the most economic development potential for both the South Dallas community and Fair Park.

Based on the MIS, the alternatives being considered and evaluated in this DEIS are the No-Build Alternative and the Build Alternative (LRT) (originally Alternative #4 UP/Parry/SP LRT).

No-Build Alternative

The No-Build Alternative assumed no major investments in transportation improvements in the study area beyond those already programmed and funded by the City of Dallas, Dallas County, DART, Texas Department of Transportation (TxDOT), or Federal entities by the Year 2020. No-Build improvements are those projects included in the approved Metropolitan Transportation Plan (MTP) (NCTCOG *Mobility 2025 Plan Update*, Capital Improvement Plans for the City of Dallas, Dallas County, and the *2002-2004 State Transportation Improvement Program* (STIP). The No-Build Alternative included a range of strategies and projects such as the regional CMS which includes 40 intersection and 185 signal improvements.

Build Alternative (LRT)

As shown in Figure S.3, the proposed alignment for the Build Alternative (LRT) follows Bryan Street east from the Pearl Street Station under North Central Expressway to Good-Latimer Expressway. At Good-Latimer, the alignment turns and follows the roadway until just south of Gaston Avenue. It then turns eastward and follow the former UP RR right-of-way to Haskell Avenue where it turns southwest and parallel to Parry Avenue along the west side of Fair Park, passing by the National Women's Museum and the Music Hall. The alignment then turns southeast to the former SP RR right-of-way parallel to Trunk Avenue until Second Avenue. The

alignment will be within the former SP RR right-of-way to just west of Second Avenue. The alignment uses the former SP RR right-of-way, which parallels Scyene Road, then turns south through the Grover Keeton Golf Course. The alignment crosses Lake June Road and turns southeast roughly parallel to US 175 to Elam Road at Buckner Boulevard.

Good-Latimer Area

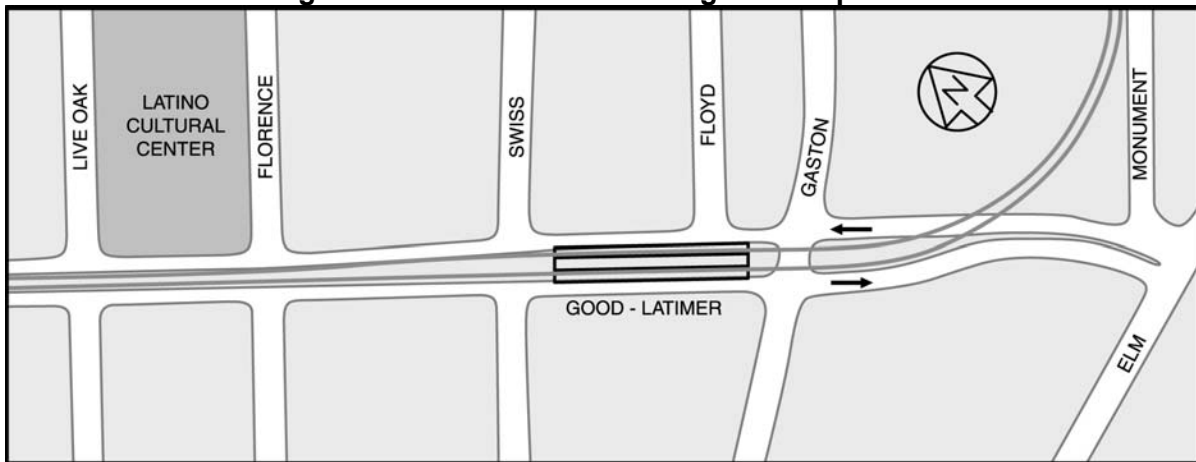
Along Good-Latimer Expressway, three options for the LRT alignment have been developed. Currently, Good-Latimer Expressway goes under Gaston Avenue via a 300-foot long tunnel. The tunnel was originally built to accommodate the SP rail yard. As described previously, the proposed LRT alignment would follow Good-Latimer and then would turn onto the former UP RR. Because of the potential engineering issues and social impacts in the area, two options have been developed to transition from Good-Latimer to the former UP RR. Both were analyzed to determine the affects of each. The options are designated Good-Latimer Option A and Good-Latimer Option B. A third alternative in the Good-Latimer area (Option C) is discussed in the Section 4(f) statement in Appendix E of this document as an avoidance option for the Good-Latimer Tunnel. It would have the greatest impacts to the community; therefore, it was not considered a feasible option and not included in the EIS.

The Section 4(f) Statement in Appendix E demonstrates that there is no prudent and feasible alternative to Option A. Option B is included in this EIS to document the comparison of the two alternatives.

Good-Latimer Alignment Option A

This LRT alignment option follows the median of Good-Latimer and then would cross the northbound lanes of Good-Latimer (Figure S.4). It will require removing the tunnel and filling in the area to bring the travel lanes of Good-Latimer to the same level as Gaston Avenue and the surrounding properties.

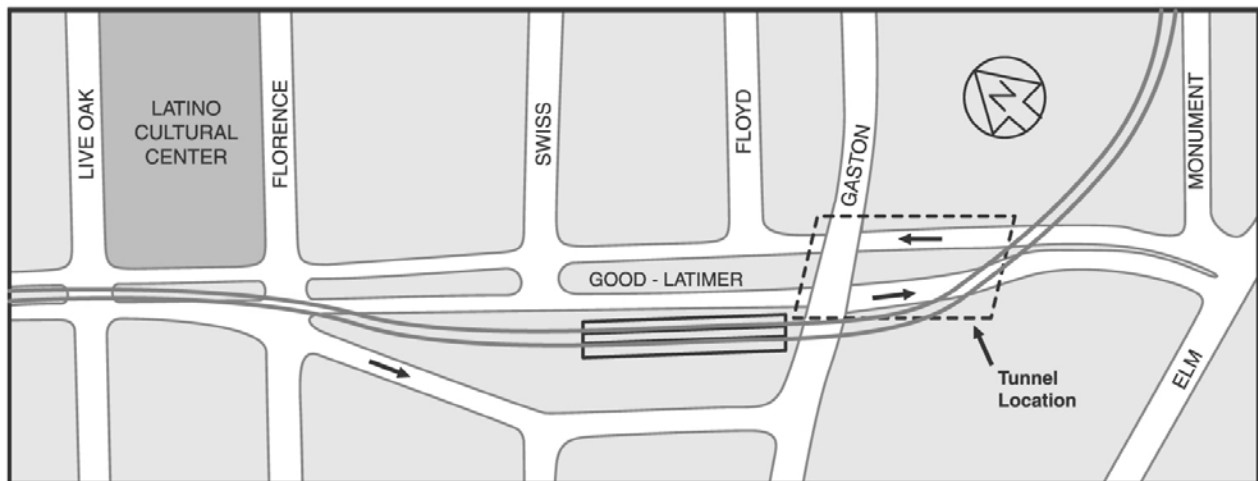
Figure S.4 Good-Latimer Alignment Option A



Good-Latimer Alignment Option B

This option would allow the existing tunnel to stay in place by shifting the LRT alignment to the west (Figure S.5). This alignment option would also require the construction of a new one-way street west of the LRT to allow access to adjacent properties and the closing of Swiss Avenue between Good-Latimer and the new one-way street.

Figure S.5 Good-Latimer Alignment Option B



Stations

The Build Alternative (LRT) will include eight stations at Deep Ellum, Baylor, Fair Park, MLK, Hatcher, Lawnview, Lake June, and Buckner. The stations are identified by their relative location within the study area. Stations generally consist of a 300' low-level platform and include canopies for weather protection and will be either center or side loading.

Maintenance and Storage Facility Requirements

Any additional bus vehicles and equipment can be accommodated at existing DART maintenance and storage facilities. The East Dallas Maintenance and Storage Facility will be able to handle the required additional buses. Additional light rail vehicles and equipment can be accommodated at the existing DART LRT Service and Inspection (S&I) Facility along a portion of the former SP RR right-of-way from Grand Avenue. A non-revenue service connection from the Build Alternative (LRT) to the S&I facility will be built as part of the implementation of the project.

Capital Cost

Capital costs were estimated for the service to be provided within the definition of the Build Alternative (LRT). The estimated cost for the Build Alternative (LRT) is approximately \$450 million in Year 2002 dollars. This estimate includes expenses for the development of civil/structural elements, accommodation of known site conditions, purchase and installation of system control components, vehicle acquisition, and LRT stations.

Operations Description

Implementation of the Build Alternative (LRT) will involve operating both bus transit services and an LRT system in the study corridor. Implementation of the Build Alternative (LRT) will require changes to existing bus operations. Some existing bus routes will be restructured or relocated to service and feed the LRT stations and transit centers and three new bus routes would be added. The changes to the existing local bus system will include adding connecting bus service to the CBD East Transit Center and providing connecting bus service at or in the immediate vicinity of all new LRT Stations. The proposed operations of the LRT for the study area will be similar to current DART operations for a double track line.

S 3.0 AFFECTED ENVIRONMENT

This section describes the existing natural and built environmental conditions in the study corridor that will potentially be affected by the alternatives considered. This information discussed in this section provides a baseline against which each alternative is compared for environmental changes and/or effect.

S 3.1 LAND USE

The land uses along the study corridor vary considerably, from industrial, retail, and commercial, to single- and multi-family residential, and floodplain. The land use patterns of the corridor reflect the physical constraints imposed by three creeks and their associated floodplains. Land use patterns within the study corridor are also influenced by the transportation infrastructure, including IH 45, IH 30, and US 175, as well as arterial roadways, local streets, and rail facilities. Major office, commercial, retail, and light industrial land uses are located to take advantage of accessibility provided by IH 45, IH 30, and US 175. Numerous parks and recreational areas have been developed in the study corridor as well.

S 3.2 SOCIAL CHARACTERISTICS AND NEIGHBORHOODS

According to the NCTCOG, the population in the study corridor is expected to increase 36 percent or 27,075 persons by the year 2025. Minority populations comprise approximately 76 percent of the population in the study corridor. The ethnic composition of the study corridor is 52 percent Black, 0.3 percent Native American, two percent Asian, and 0.2 percent Other. Persons of Hispanic Origin account for about 22 percent of the population in the study corridor. The median age of residents within the study corridor is 32 years old with approximately 31 percent of the population under 18 years and eight percent over 64 years. These age groups typically have a greater dependency on transit services. According to the 1990 Census, the median household income in the study corridor was \$15,832, with approximately 35 percent of households under the poverty level. The median income in the study corridor is approximately 50 percent less than Dallas County's median household income of \$31,605 in 1990. Approximately 16 percent of households within the study corridor do not have access to an automobile, compared to eight percent for Dallas County.

S 3.3 EMPLOYMENT

Within the study corridor, there are currently 30 companies with more than 100 employees. Employment growth within the study corridor is forecasted to increase at a lower rate than Dallas

County. Between the years of 1990 and 2025 employment in the City of Dallas is forecasted to increase by approximately 48 percent, Dallas County by 62 percent, and the study corridor by 39 percent.

S 3.4 TRANSPORTATION

The existing transportation network and services in the study area includes transit, streets, highways, railroads, parking, freight, bicycle, and pedestrians.

Streets and Highways

A system of major arterials and local streets support the freeway system in the study area. The Pleasant Grove area contains a comprehensive roadway grid system but the Trinity River and White Rock Creek floodplains act as natural barriers to travel from the southeast portion of Dallas County to other parts of the region. The study area is bounded by several access-controlled roadways: IH 45, US 75, IH 30, and US 175.

Existing Transit Infrastructure, Operations, and Ridership

The study corridor is served by a network of 18 DART bus routes. There are 12 local-radial, three limited-express, and three cross-town routes. There are no circulator routes; the bus network in the study area is generally oriented in the north-south direction, radiating from the CBD. DART also offers paratransit services within the study area to provide curb-to-curb public transportation to people with disabilities who are unable to use fixed route DART bus or train services. Headways for the routes which service the study corridor range between ten to 35 minutes during peak periods and 20 to 120 minutes during off-peak periods. The strongest ridership is on local routes destined for downtown Dallas and northwest Dallas County that originate within the Pleasant Grove and South Dallas neighborhoods.

Existing Railroads and Operations

There are two major railroad corridors within the study area. The UP RR is located approximately 1.25 miles south of IH 30 and generally parallels the freeway alignment. It extends beyond Mesquite to the east and continues through the mid-cities to Fort Worth to the west. The UP RR also owns and operates the north-south railroad through the corridor, west of White Rock Creek and Parkdale Lake, which links the UP RR and SP RR (DART) corridors.

The UP RR and the Dallas, Garland and Northeastern Railroad (DGNO) currently operate trains in both the UP RR and SP RR (DART) corridors. The UP RR main track carries over 30 freight trains a day. The section of the former UP RR corridor, now owned by DART, serves customers north of Haskell Avenue and special events to the Age of Steam Train Museum at Fair Park. Until recently the UP RR provided local freight service to one industry along the SPRR (DART) corridor between Elam Road and Buckner Boulevard. The DGNO took this service in September 2002. This industry generally receives three deliveries a week. Currently, Amtrak passenger service, the Texas Eagle, operates through Dallas on the existing UP RR mainline tracks in the corridor. Amtrak operates one train in each direction daily over this line.

Parking

The study corridor is currently served by one park-and-ride facility, the Lake June Transit Center which is located at Lake June Road and the Build Alternative (LRT). Local bus route 161 operates to downtown Dallas from this facility. One future transit center is planned in the study corridor. The MLK Transit Center is in the design stages and should begin construction in early 2003. The Lake June facility is adjacent to the LRT alignment and will also function as an LRT station.

Bicycle and Pedestrian Facilities

The City of Dallas has an official bicycle thoroughfare plan called the City of Dallas Bike Plan Map. There are nine signed bicycle routes in the study corridor. Routes 89, 170, and 190 are within a block of the proposed transit centers in this corridor. According to the 1990 Census, 0.16 percent of residents in the study area bicycle to work and 2.28 percent walk to work.

S 3.5 AIR QUALITY

The Dallas-Fort Worth area is currently in attainment of all major pollutants, except ozone. The Environmental Protection Agency (EPA) has classified Collin, Dallas, Denton, and Tarrant counties as serious nonattainment areas for one-hour ozone. In the Dallas-Fort Worth area, on-road transportation related mobile sources contribute 34 percent of hydrocarbons and volatile organic compounds, 53 percent of nitrogen oxides, and 62 percent of carbon monoxide to air pollution levels. The *Mobility 2025 Plan Update* and *2002-2004 Transportation Improvement Program*, both meet the conformity-related requirements of the State Implementation Plan (SIP), the Clean Air Act, and the final conformity rule.

S 3.6 NOISE AND VIBRATION

Noise impact criteria and descriptors for human annoyance were identified based on land use and were designated as one of three categories specified by the FTA guidance criteria. Category 1 includes tracts of land where quiet is an essential element in their intended purpose, such as outdoor concert pavilions or National Historic Landmarks. Category 2 includes residences and buildings where people sleep. Category 3 includes institutional land uses with daytime and evening use. Noise-sensitive land uses along the project corridor were identified based on preliminary alignment drawings, aerial photographs, visual surveys, and land use information. Existing ambient noise levels were measured at selected sites to help determine the thresholds for noise impact.

There are no significant sources of existing ground-borne vibration within the study corridor. Vibration measurements focused on characterizing the vibration propagation characteristics of the soil at representative locations. Ground-borne vibration propagation tests were also conducted. The resulting information can be combined with the known characteristics of the DART light rail vehicle to predict future vibration levels at locations along the project corridor.

S 3.7 VISUAL AND AESTHETIC RESOURCES

Visual and aesthetic resources within the study corridor were identified through a review of planning reports and a field study. Generally, significant visual and aesthetic resources within the study corridor include historic structures, parklands, and undeveloped open space/natural areas. In addition, sensitive visual areas or users affected by changes in the visual and aesthetic character of the study corridor were identified. The sensitive receptors of primary concern are residential areas adjacent to the proposed Build Alternative (LRT) alignment and the users of the adjacent parks and golf course.

S 3.8 CULTURAL RESOURCES

Cultural resources may include archeological, historical, architectural sites, and places of particular significance to traditional cultures. The Area of Potential Effects (APE) for architectural and historical resources includes the parcels adjacent to the Build Alternative (LRT). Properties were identified through records research, consultation with interest groups, and a field survey. The results identified five properties listed in the National Register of Historic Places (NRHP) and 13 properties were found eligible for listing in the NRHP. Historic properties

include the Good-Latimer tunnel, the Fair Park National Historic Landmark District, and the Comanche Storytelling Place.

S 3.9 PARKLANDS

Fourteen public parks, school grounds, and recreation lands and one proposed park were identified within the study corridor. No wildlife or waterfowl refuges that are protected under the regulating legislation were identified in the study corridor.

One of the largest parks in the study area is Fair Park. Fair Park is not only a park, but is listed as a National Historic Register District, National Register Landmark, and local landmark. There are four neighborhood parks, two community parks, two regional parks, one municipal golf course, and a designated open space/greenbelt in the study corridor. The parks provide a variety of recreational facilities including baseball, soccer, tennis courts, football fields, playground equipment, and open space. In addition, the State of Texas is in the process of developing the proposed Great Trinity Forest Park which would extend south from Scyene Road along the west side of the Grover Keeton Golf Course and would continue south of the city along the Trinity River.

S 3.10 ECOSYSTEMS

Fourteen jurisdictional waters, White Rock Creek, Elam Creek, and 12 unnamed tributaries were observed along the proposed Build Alternative (LRT) alignment during surveys conducted by biologists. A site investigation was conducted to determine the type and composition of plant communities. The site investigation was also conducted to survey the corridor for the presence or absence of rare plants. No rare plant species or plant communities were observed within the corridor. Existing vegetation within the corridor varied from mowed urban grasses to wooded areas. In the areas just outside of the SP RR (DART) right-of-way near Grover Keeton Park and Gateway Park, there are areas of large mature trees and the Great Trinity Forest covers much of the floodplain area south of the SP RR (DART). During site investigations by biologists, no listed animal (or plant) species were identified along the corridor. Most of the wildlife habitat along the corridor is within or near Grover Keeton and Gateway parks. The Audubon Society has recognized Grover Keeton as a cooperative bird sanctuary.

S 3.11 HYDROLOGY/WATER QUALITY

Surface water resources consist primarily of the streams located in Segment 0820 (Lake Ray Hubbard) of the Trinity River Basin. These water bodies are classified as “Water Quality Limited” and designated water uses include: contact recreation, high aquatic life, and public water supply. The primary source of groundwater for the upper Trinity River Basin is supplied by the Trinity Group, a major aquifer composed of several formations. The water quality of the Trinity Group is acceptable for most municipal and industrial purposes. Generally, water supplied to the area comes from surface reservoirs built in the Trinity River watershed. A minor aquifer, the Woodbine Aquifer, is also present within the study corridor.

The Federal Emergency Management Agency (FEMA) regulates alterations to, or development within, floodplains as mapped on FEMA Flood Insurance Rate Maps (FIRM). In addition, the City of Dallas has its own floodplain ordinance. Four mapped floodplain areas occur within the study corridor.

S 3.12 GEOLOGY

According to the *Geologic Atlas of Texas*, the study corridor is underlain by Alluvium, Fluvial terrace deposits, and Austin Chalk formations. There are 11 soil types in the project corridor.

S 3.13 HAZARDOUS/REGULATED MATERIALS

A database of hazardous/regulating materials was obtained through coordination with the EPA and the Texas Commission on Environmental Quality (TCEQ) (formerly known as the Texas Natural Resource Conservation Commission/TNRCC), as well as information obtained from current and historical aerial photographs. The database search identified 201 sites in the project area.

S 4.0 TRANSPORTATION IMPACTS

This section describes the anticipated transportation impacts of the No-Build and Build Alternative (LRT). The alternatives are evaluated based upon the anticipated travel demand, transportation capacity, transportation performance measures, and impacts to the road network, parking, and freight delivery.

S 4.1 IMPACTS OF TRANSIT SERVICE AND RIDERSHIP

It was determined that the Build Alternative (LRT) will increase the reliability of transit service, particularly for commuters to the Dallas CBD and Medical/Market Center. The Build Alternative

(LRT) will provide an exclusive guideway that would connect to the existing DART LRT system to provide increased mobility to origins and destinations throughout the DART service area. The DART transit system will experience increased ridership, increased passenger miles, and increased passenger hours with the Build Alternative (LRT) compared to the No-Build Alternative.

Hours and Frequency of Service

The Build Alternative (LRT) will have a peak-hour headway of ten minutes and an off-peak headway of 20 minutes. The LRT vehicles will be capable of a maximum operating speed of 65 miles per hour; however, average speeds will be much lower. The operating hours for the Build Alternative (LRT) will be from 5:30 a.m. until 12:30 a.m., seven days a week. Peak hour service will be provided between 6:00 a.m. and 9:00 a.m. Monday through Friday, and afternoon peak hour service will be from 3:00 p.m. to 6:00 p.m. This schedule is the same as DART's LRT services in other corridors.

The fare structure for service provided within the definition of the Build Alternative (LRT) will follow the adopted DART policy of matching LRT fares to local bus fares. On November 26, 2002 the DART Board voted to increase transit fares by 25 percent. This fare increase will go into effect on March 1, 2003. Regular one-way bus and train fares will be \$1.25 and transfers to a second bus or rail route will require a \$2.50 Day Pass. Station parking will be free and no fare zone boundary will be in effect within the Southeast Corridor. A variety of options including monthly passes, multiple ride tickets, and day passes are available for use on the DART LRT system, DART and Fort Worth Transportation Authority buses, and the Trinity Railway Express.

Special Event Operations

Fair Park hosts numerous cultural, entertainment, and athletic events. The total estimated attendance at Fair Park in 2000 was 7.4 million people. According to the Master Plan for Fair Park, annual visitation should exceed eight million in the future. Persons attending events at Fair Park could use LRT to arrive at the Fair Park or MLK stations. Changes to the LRT and bus schedules will be made to accommodate major special events; feeder buses and extended LRT schedules will be made available.

Travel Times

The Build Alternative (LRT) will provide reduced travel times along the study corridor to the Dallas CBD. For transit riders destined to or from the Dallas CBD, the Build Alternative (LRT) will save 8.73 minutes from the MLK Station, 16.59 minutes from the Lawnview Station, and 18.7 minutes from the Buckner Station over the No-Build Alternative. The Build Alternative (LRT) will account for 1,793,549 hours annually in travel time savings.

Transfers

The No-Build and Build Alternative (LRT) both will use the DART bus network to transfer riders to and from the LRT system. With the No-Build Alternative, transit patrons will use the DART bus system for trips within the corridor. For trips outside the corridor, patrons will transfer to other DART bus routes at the Lake June, MLK, downtown transit centers or transfer to LRT at the downtown transit mall, Ledbetter Station (Blue Line), or to the Trinity Railway Express at Union Station. With the Build Alternative (LRT), many transit riders will use the feeder bus network to the eight proposed LRT stations. For the Build Alternative (LRT), there will be a slight increase in transfers over the No-Build Alternative because the feeder bus network will supply a large number of the transit riders to the expanded LRT system. Many of those riders may also transfer between LRT lines to reach other destinations.

Reliability and Comfort

The No-Build Alternative will use the DART bus transit system on the existing corridor roadways under mixed-traffic travel conditions. Therefore, the bus system in the No-Build Alternative will be subjected to similar travel speeds and delays resulting from peak hour congestion on the roadways in the study area. The Build Alternative (LRT) will operate on an exclusive guideway and will not be subjected to traffic and signal delays. The LRT vehicles will be coordinated with the traffic signals at all grade crossings to ensure few, if any, delays. The Build Alternative (LRT) will provide transit riders with a significantly more reliable transit service than the No-Build Alternative.

The proposed Build Alternative (LRT) will also provide enhanced comfort and convenience for transit riders on the DART system as compared to the No-Build Alternative. The LRT system will provide transit service to passengers with conveniently located stations and air-conditioned light rail vehicles. The Build Alternative (LRT) will be fully accessible for mobility-impaired patrons and will enhance regional mobility for transit-dependent populations. Additionally, the Build

Alternative (LRT) will operate within an exclusive guideway on continuously welded rail with fewer of the stop-and-go movements associated with conventional bus transit service.

Total Transit Riders and Ridership

To determine the total system-wide transit ridership for each alternative, the forecast of unlinked transit trips in 2025 was developed using the NCTCOG travel demand model. An unlinked passenger trip is defined as the number of passengers who board public transportation vehicles. A passenger is counted each time he/she boards a vehicle even though he/she may be on the same journey from origin to destination. The total daily unlinked transit trips ranges from 290,900 for the No-Build Alternative to 323,800 for the Build Alternative (LRT). This represents an increase of 32,900 unlinked transit trips system-wide by 2025 from the Build Alternative (LRT). The forecast of ridership for the Build Alternative (LRT) includes passengers who will access the LRT system at stations from automobiles, walking, and from bus transfers. The resulting ridership forecast for 2025 linked trips indicates that the system-wide LRT ridership will increase from 187,900 with the No-Build Alternative to 198,900 for the Build Alternative (LRT). This shows that approximately 11,000 new daily passengers will use DART due to the implementation of the Southeast Corridor LRT system in 2025.

Station Volumes

The stations proposed for the Build Alternative (LRT) were selected due to their proximity to population and employment centers, existing and planned major transportation facilities, and ease of access by bus, car, or by walking. The stations outside the Dallas CBD are anticipated to have the greatest passenger volumes are Lake June and Buckner. However, it is anticipated that several stations such as the Deep Ellum, Baylor, Fair Park, and MLK will experience significant passenger volumes that are not in the travel model because it does not attempt to capture sporadic or infrequent special generator trips. The addition of LRT service can change the nature of these special generators, changing infrequent trips into more frequent and regular activity-based trips to new economic markets.

S 4.2 HIGHWAY AND ROADWAY IMPACTS

The Build Alternative (LRT) is anticipated to have beneficial impacts to the regional transportation system by helping to reduce vehicle miles of travel (VMT), particularly compared to the No-Build Alternative. The Build Alternative (LRT) is anticipated to reduce VMT by

3,039,100 miles annually in 2025. Some localized areas may experience limited increases in traffic congestion because of the introduction of gates at LRT grade crossings. The gates will create brief interruptions to the flow of traffic to allow for the safe crossing of LRT vehicles.

The Build Alternative (LRT), park-and-ride lots, and feeder bus network would provide incentives for commuters to use transit and, therefore, decrease auto travel on US 175 to the Dallas CBD. Congestion delays can be expected on many of the arterials in the study corridor by 2025, even with the implementation of the Build Alternative (LRT). While the Build Alternative (LRT) will have minor benefits to arterial road average daily traffic (ADT), there will be no significant ADT increases on these arterials, some of which serve as primary access roads to the LRT stations and park-and-ride lots. The Build Alternative (LRT) will generally improve arterial traffic conditions in the study area compared to the No-Build Alternative.

At-Grade Crossings and Intersection Impacts

The Build Alternative (LRT) will use an existing railroad alignment and will cross several roadways in the corridor. IH 45, IH 30, Bruton Road, and Lake June Road are already grade separated with the railroad right-of-way. These roadways range in size from two-lane local streets to six-lane major arterials. The LRT will cross 53 roads at-grade. However, eighteen streets would be closed as a result of the Build Alternative (LRT): Walton Street, Race Street, East Side Avenue N., Willow Lane, Hill Avenue, Washington Avenue, Fourth Street, Gunter Avenue, Elihu Street, Trunk Street, South Boulevard, Peabody Street, Birmingham Avenue, Rutledge Street, Reed Lane, Carpenter Avenue, Bertrand Avenue and York Avenue. Bryan Street, Routh Street, Live Oak, Florence, Swiss, and Gaston will include traffic signals and lights only and will not be gated. The light rail vehicles will create delays at the at-grade crossings because the railroad crossing gates will interrupt traffic flow, particularly during peak traffic periods.

The analysis indicated the majority of crossings are not expected to experience operational difficulties with the Build Alternative (LRT) under 2025 traffic conditions at the majority of intersections. Intersection improvements are recommended at Hall, Parry, Second, Hatcher, and Dixon to eliminate operational problems that might occur. Live Oak, Florence, Swiss, Main, and Pennsylvania (p.m. only) will have a Level-of-Service (LOS) F in 2025 under the No-Build and Build Alternative (LRT). The Build Alternative (LRT) will not cause the poor LOS at the intersections. The LOS for Malcolm X, Hall, and Pennsylvania (a.m. only) are reduced by one

level during at least one of the peak periods. This is a result of the Build Alternative (LRT) due to the interruption of the flow of traffic by lowering of the crossing gates to permit the safe crossing of the LRT vehicles. While this is a drop in LOS, it was determined that there will be no safety hazard or queuing problems at these grade crossings and the nearby intersections.

Local and Residential Streets

Eighteen local or residential streets will require modification for the Build Alternative (LRT). Walton Street will be closed south of the Build Alternative. Race Street will be closed on the west and east sides adjacent to the track with metal beam guard fences as a barrier. East Side Avenue N. will be closed on the west side of the track with a metal beam guard fence. The east side of the track will be closed at Washington Avenue. Willow Lane will be closed on the west side of the track with a metal beam guard fence, and eastside at Washington Avenue.

Hill Avenue will be closed on the north side with a metal beam guard fence and south side will be closed at Parry Avenue. Washington Avenue will be closed on the east side of the Build Alternative. Fourth Street will be closed on the west and east side of the Build Alternative.

Gunter Street from 4th Street to the SP RR (DART) will be closed on the west side at Fourth Avenue, east side at Malta Street. At the end of Elihu Street, a cul-de-sac will be constructed. Trunk Street will be closed at Grand. At South Boulevard, a new roadway will be constructed to connect South Street to Trezevant on the west side of the tracks. Peabody Street will be closed at Trunk Avenue. Birmingham will be closed south of the Build Alternative. Rutledge Street will be closed on the west side at Trunk Avenue. Reed Lane will be closed on the west side with a metal beam guard fence. Carpenter Avenue will be closed on the west side with a metal beam guard fence. Bertrand Avenue will be closed on the west side with a metal beam guard fence. York Avenue currently terminates west of the LRT alignment and will be closed using a metal beam guard fence which will separate the street from the LRT right-of-way.

Transit Station/Park-and-Ride Lot Access

Several Build Alternative (LRT) stations will include park-and-ride facilities. These stations include the MLK Transit Center with 208 parking spaces, 356 spaces will be available at the Lawnview Station, 474 spaces at the Lake June Transit Center, and 536 spaces at the Buckner Station with the room to add 105 more spaces, if needed. In addition to generating automobile traffic related to park-and-ride facilities, most stations will have bus traffic resulting from feeder

bus service. The LRT stations and park-and-ride lots are not anticipated to have significant impacts to traffic flow on the roadways which will provide access for the feeder bus and automobile traffic to the Build Alternative (LRT).

Safety Impacts

The Build Alternative (LRT) will improve safety in the study corridor primarily by improving pedestrian access to transit. The high transit ridership in the corridor remains underserved by pedestrian infrastructure. Pedestrian enhancements at LRT stations will include signalized crosswalks, signage, lighting, and sidewalks. All new facilities will be accessible in accordance with the Americans with Disabilities Act of 1990 (ADA).

Parking Impacts

Existing parking on DART-owned railroad right-of-way will be removed. DART leases approximately 500 spaces to property to two adjacent property owners for parking. Additionally, any illegal parking on DART right-of-way will also be eliminated. Several other areas currently used for parking will be acquired for the alignment or a station. The majority of parking areas to be acquired are associated with a business or residence that will also be acquired for the project; thereby, eliminating the purpose of the parking. At Fair Park, the parking lot entrance near the National Women's Museum will be closed and relocated to Haskell Avenue.

Parking will be supplied at park-and-ride lots proposed at several transit stations. DART's policy of providing free parking should encourage transit patrons to use the DART park-and-ride lots rather than parking on local streets or utilizing nearby accessory use parking. The Build Alternative (LRT) will reduce the available parking in the study corridor near the Deep Ellum area and Dal-Tile. However, the majority of the parking being eliminated is within property owned by DART and leased to others for parking or persons illegally parking on DART owned property. The lease agreements DART established included language notifying the leasee of the use was temporary and the land could possibly be used for an LRT alignment.

S 4.3 IMPACTS ON MOVEMENT OF FREIGHT

The Build Alternative (LRT) will operate on an exclusive right-of-way, therefore, the impacts to freight movements will be minor. The existing DGNO shortline freight service to Dal-Tile will be maintained in the corridor. Trucking and delivery movements through the Southeast Corridor

would not be impacted by construction or operation of the Build Alternative (LRT). Several industries in the corridor receive large commodities by rail. Truck shipments generally access these industries from IH 30, IH 45, or US 175 and therefore, will not cross the LRT tracks.

S 4.4 IMPACTS ON NON-MOTORIZED CIRCULATION

The Build Alternative (LRT) will include provisions for perimeter sidewalks and internal walkways at each station, complimenting any existing sidewalks and providing direct pedestrian access to each station. Walkways will be provided within the DART LRT station sites. All of the bikeway crossings are associated with streets and will be given the same crossing warning devices as those streets. Where appropriate, DART will provide bicycle racks or lockers at LRT stations. To accommodate access between and into Grover Keeton and Gateway Park, three LRT crossings will be included to provide recreational and maintenance access.

S 5.0 ENVIRONMENTAL CONSEQUENCES

This section presents a summary of the potential environmental consequences of the transportation alternatives being considered for the Southeast Corridor. Only the area within one mile of the Build Alternative (LRT) has been defined as the study corridor for this evaluation. The extent to which each alternative enhances transportation availability, efficiency, and capacity would in part determine the type, nature, and magnitude of its land use impacts.

S 5.1 LAND USE

The No-Build Alternative will have no effect on regional land use and development. This alternative will not support policies for sustainable development developed by NCTCOG. Existing land development patterns, dominated by suburban development would continue. The Build Alternative (LRT) may shift some types of new development and redevelopment from outlying areas to transit station areas, but is not expected to have a major impact on regional development, as a whole. Several companies have located major corporate offices in Dallas, citing the availability of light rail as one of many factors influencing these decisions. Investment in real estate and property values around existing LRT stations have increased, indicating greater demand for transit-oriented development where transit facilities exist. Expansion of the light rail system should improve quality of life and mobility for residents, allowing the region to be attractive to companies considering locating within the region. The Build Alternative (LRT) supports the policies for sustainable development as outlined by NCTCOG.

Corridor-Level Land Use and Development Impacts

With the No-Build Alternative, current land use trends in the study area will most likely continue. This will mean limited opportunities for dense, urban development in the existing pattern of low-density suburban development that dominates the corridor. The No-Build Alternative will not include the transportation infrastructure needed to focus development into more transportation-efficient patterns that include high densities and mixed uses. The No-Build Alternative will not increase demand for in-fill development in the corridor. With the Build Alternative (LRT), the presence of a major and highly accessible transit service would have long-term impacts on the distribution and density of land uses in the area. The land use effects of the Build Alternative (LRT) will attract new development, employment, and residents into the corridor. This anticipated development might otherwise locate to a corridor where land development patterns do not support transit, resulting in increased traffic congestion in the region. The Build Alternative (LRT) will introduce facilities and services that will stimulate and attract development that depend on long-term, stable transportation services.

Consistency with Land Use Plans

The No-Build Alternative will not be consistent with the City of Dallas' *Growth Policy Plan* because it will not support the recommended increased development potential of the corridor. The Build Alternative (LRT) will be consistent with the City of Dallas' *Growth Policy Plan* because it will capitalize on the development potential stimulated by LRT stations. The *Growth Policy Plan* acknowledges that increased density and height is appropriate near many stations but may be inappropriate for others, such as those in residential areas. Areas of higher development intensity, or "growth nodes," include mid- and high-density residential and/or commercial and industrial development. DART encourages the development of transit supported land uses around LRT stations.

S 5.2 IMPACTS ON NEIGHBORHOOD INTEGRITY AND COMMUNITY COHESION

Transportation impacts on neighborhoods focus on the physical integrity of the neighborhood and community cohesion. The No-Build Alternative will impose no additional barriers to social interaction or community functions. However, the No-Build Alternative will not increase mobility or decrease traffic congestion, especially near Fair Park during major events, thereby reducing the quality of life of the nearby neighborhoods. The Build Alternative (LRT) will serve all of the neighborhoods to varying degrees. Because the alignment will use former railroad rights-of-way through residential areas, it will not introduce a new boundary between neighborhoods, but

reinforces an existing boundary that pre-dates the development of the adjacent neighborhoods. While the operational characteristics of the alignment will change with the introduction of LRT service, the alignment already forms a defined rail corridor separating adjacent neighborhoods.

Community Cohesion

Community cohesion generally refers to the perceived unity of an area, which often is based on the day-to-day interaction of the area's residents. The No-Build Alternative represents a "status quo" position with respect to the overall social, economic, and environmental setting of the neighborhoods in the study corridor. The Build Alternative (LRT) will concentrate travel along the alignment. The LRT stations will become focal points of transit travel in the study corridor. The increased accessibility of the station areas will introduce a new activity center to the surrounding communities, but it will not impede the existing day-to-day interactions of study area residents.

Station Vicinity Impacts on Land Use

The No-Build Alternative represents a "status quo" position in terms of land use; however, with the implementation of the Build Alternative (LRT), both direct and indirect effects to land use near the stations would occur. Direct effects will occur in relation to acquisitions and displacements resulting from the construction of LRT stations and related access facilities (i.e., bus bays, park-and-ride lots). Indirect effects will occur as land development or redevelopment actions take place in response to the presence and availability of LRT service. Direct effects on land use are readily identified with the station location. In most cases, the Build Alternative (LRT) will support the existing land use or land use changes currently going on or planned.

Title VI and Environmental Justice

Residents and households in the Southeast Corridor include higher proportions of minority and lower income households than found in the City of Dallas or Dallas County. Moreover, the Southeast Corridor includes fewer jobs per resident than found in the city or county and fewer households have automobiles available.

The No-Build Alternative will not significantly increase transit service. The major impact of the No-Build Alternative is to maintain the "status quo," with limited efficient access to employment opportunities and regional destinations for residents in the corridor. The No-Build Alternative will not result in any displacements. However, less investment in transportation in the Southeast

Corridor will disproportionately affect minority and low-income populations in the region. There are more minority and lower income households in this corridor than in others. Moreover, unemployment rates are higher and employment opportunities are fewer in this corridor than in most other DART corridors. Failure to invest major capital in transit infrastructure and transit service may therefore disproportionately impact residents of the Southeast Corridor, in comparison to other corridors in the DART service area. Furthermore, the No-Build Alternative will not provide the same type of transit service as other corridors. The Build Alternative (LRT) will add a major transit investment and implement new transit service in a corridor with higher percentages of transit dependent, minority population, and lower household incomes than found in the region, the county, or the city as a whole. The introduction of light rail will improve the means of transportation to many people who rely on public transportation. The Build Alternative (LRT) represents an opportunity for residents of the study corridor to improve their overall quality of life. The LRT will require acquisition and displacement of a limited number of vacant lots, residences, and businesses but will not disproportionately or adversely impact minority or low-income populations or businesses. Overall, the Build Alternative (LRT) will not adversely or disproportionately impact any minority or low-income populations, this alternative will benefit these populations.

Employment

The No-Build Alternative will not significantly increase access to employment opportunities or encourage the creation of jobs in the area. The positive impacts of the Build Alternative (LRT) include greater access to regional employment opportunities and other regional destinations. Lower household incomes in the corridor result in a greater percentage of household incomes spent on transportation. The Build Alternative (LRT) represents an opportunity for residents in the corridor to improve mobility with an affordable transportation option that gives residents an opportunity to reduce household transportation costs. The Build Alternative (LRT) represents an opportunity for residents of the study corridor to improve their overall quality of life. It will also provide the same type of transit service as other corridors served by DART.

Health and Safety Impacts to Children

In some areas, the Build Alternative (LRT) is adjacent to schools and parks which are prime locations for children. Appropriate safety measures will be taken in these areas. No disproportionate environmental health and safety impacts to children will be anticipated as a result of the implementation of the Build Alternative (LRT).

Accessible to Disadvantaged Persons

The entire DART system is accessible to the mobility-impaired, another group of transportation-disadvantaged persons. The Build Alternative (LRT) will extend their access alternatives through its interconnections with the balance of the DART system.

S 5.3 ACQUISITIONS AND DISPLACEMENT/RELOCATION IMPACTS

The Build Alternative (LRT) will minimize acquisition and displacement of homes and businesses by constructing LRT facilities primarily within the former railroad rights-of-way. However, the Build Alternative (LRT) will require acquisition and displacement of a number of vacant lots, residences, and businesses. The LRT alignment will require the purchase of 4.88 acres of land. For the eight station areas, a total of 21 parcels and 25.6 acres will be acquired and displace twelve businesses, three residences, and one cell tower. For the construction staging and noise mitigation areas, a total of three vacant parcels and seven residences will be acquired. For traction power substations, 4 additional parcels will be acquired.

Property owners will be paid fair market value for property acquired. Relocation procedures for displaced persons and businesses will be guided by the Uniform Relocation Assistance and Real Property Acquisitions Act of 1970 (49CFR Part 24), as amended. The addition of light rail service has been designed to minimize acquisition of occupied residences and businesses. Since the LRT will be operated largely within former railroad rights-of-way, construction and operation of LRT service will take place primarily within those rights-of-way.

S 5.4 ECONOMIC IMPACTS

The alternatives under consideration will have varying economic impacts in the study corridor. The No-Build Alternative will have little or no change to current economic conditions and trends. The Southeast Corridor is characterized by households with lower incomes and fewer automobiles available, fewer employment opportunities within the corridor, higher unemployment than the region, and larger minority populations than the other parts of the region. This is significant in that the No-Build Alternative will maintain these conditions, potentially depriving this community of convenient access to new jobs within the corridor and in the region. These factors combined and considering LRT investments in other corridors may result in a perception of unequal access to transit and economic opportunities in the Southeast Corridor.

The potential economic impacts of the Build Alternative (LRT) are related to the degree to which mobility and accessibility are enhanced and the degree to which new transit infrastructure within the corridor encourages new development. The Build Alternative (LRT) will provide residents of the study area greatly enhanced access to employment opportunities through DART's extensive LRT and commuter rail network that would be in place by 2010. In addition to the mobility enhancements, DART stations are generally viewed as community and neighborhood assets. Stations are attractive and include public art projects designed to complement individual neighborhoods. Direct economic impacts will also have a multiplier effect in the local economy.

DART staff develops and maintains long-range strategies to encourage and enhance economic development opportunities adjacent to and around DART transit facilities. DART will continue to work with the City of Dallas and the development community to facilitate the development of appropriate transit supportive projects.

S 5.5 TRANSPORTATION IMPACTS

The No-Build Alternative will not impact transit or traffic operations and thus travel conditions would not improve as a result of this alternative. The Build Alternative (LRT) will provide a seamless connection to the existing DART LRT system, providing increased mobility to residents in the corridor with service to origins and destinations throughout the DART service area. The LRT will allow Southeast Corridor transit riders to save 18.7 minutes traveling from Buckner to the Dallas CBD. This significant improvement in transit service will allow the DART transit system to capture 11,000 new weekday transit riders by the year 2025.

S 5.5.1 Rail Freight Impacts

The No-Build Alternative will maintain existing freight mobility in the corridor and no impacts to existing or future rail freight traffic are expected. The Build Alternative (LRT) will maintain existing rail freight mobility in the study corridor. A grade separation will be constructed for the Build Alternative (LRT) over the UP RR main line freight tracks and no impact to existing or future rail freight traffic is anticipated. The existing DART-owned freight railroad will continue short-line operations to the one existing freight rail customer along the route. Freight traffic will continue to operate on dedicated tracks within the LRT right-of-way but not shared by LRT vehicles. There will be no crossing between LRT and freight rail tracks; therefore, no impact to short-line operations is anticipated.

S 5.6 AIR QUALITY IMPACTS

The No-Build Alternative will not help improve air quality. It will not be in compliance with the SIP for the Dallas-Fort Worth area and other Transportation Control Measure (TCM) measures will have to be included in the SIP if LRT is not built.

The Build Alternative (LRT) is included in the revised SIP as a TCM. The revised SIP for the Dallas-Fort Worth area was adopted by the TNRCC on April 19, 2000. The revised plan included an evaluation of a wide range of TCM commitments such as a high occupancy vehicle lanes, corridor management, park-and-ride lots, bicycle/pedestrian, commuter rail, light rail, intersection improvements, and signal improvements. The LRT will be a significant element in the fulfillment of the SIP attainment requirements. LRT in the Southeast Corridor has also been identified in both the NCTCOG *Mobility 2025 Plan Update* and the DART *Transit System Plan* as a priority for a transportation investment. Both plans recommended light rail as the appropriate technology for the Southeast Corridor. The implementation of the LRT is not expected to cause or contribute to new air quality violations, increase the frequency or severity of existing violations, or delay timely attainment of the National Ambient Air Quality Standards (NAAQS), but will result in a slight decrease in the emission of criteria pollutants.

S 5.7 NOISE AND VIBRATION

The No-Build Alternative is not expected to result in any change in noise levels or noise impacts. For the Build Alternative (LRT), detailed comparisons of the existing and future noise levels were conducted for the Category 2 receptors along the alignment with both daytime and nighttime sensitivity to noise (e.g. residences, hotels, and hospitals) and for all Category 3 receptors along the alignment, consisting of institutional sites that are not sensitive to noise at night (e.g. schools, places of worship, parks, and medical offices). The comparison results for the Category 2 noise impact totaled 275 residences, 18 with severe impact, and 257 with impact. The results for Category 3 receptors predict only marginal impact at the first hole green at the Grover C. Keeton Golf Course.

Based on the results of the noise assessment, mitigation measures have been identified. The primary mitigation measure will be the construction of sound barrier walls to shield areas where impact is projected. Street closures will eliminate the need of sound insulation in areas where noise due to audible warning devices typically would otherwise warrant sound mitigation. Other measures to be considered include sound insulation or speed reductions in some areas.

Mitigation for the Build Alternative (LRT) will include the construction of 4600 feet of noise barrier mitigation and eight structures will require sound insulation.

Vibration-sensitive locations along the alignment were analyzed. Potential impacts were identified at 104 residences. Ground-borne vibration mitigation will be in the form of LRT speed reductions in sensitive areas, ballast mats, floating slabs, property acquisitions, or easements.

S 5.8 VISUAL AND AESTHETIC IMPACTS

The No-Build Alternative will have no effect on visual and aesthetic quality of the area. The Build Alternative (LRT) will introduce new visual elements within a modern urban setting. New visual elements include fencing, catenary poles, catenary wires, TPSS and station structures. These new elements are predominantly located along Good-Latimer and in a railroad right-of-way, a portion of which is abandoned (Good-Latimer to Hatcher), a portion of which is active (Hatcher to Buckner). Both Option A and B along Good-Latimer will have visual impacts to the area; however Option B would include an elevated structure. A small section of the LRT alignment passes the main entrance to Fair Park, a national historic landmark. This area had extensive streetcar/interurban service in the 1930's. The proposed LRT system reintroduces elements that were part of Fair Park's original setting.

Two scenic overlooks in parklands adjacent to the alignment were identified during the public comment period. The view from these overlooks is generally out and over the treetops. In general no adverse effects to any population or resources are anticipated. In some areas along the LRT alignment, the introduction of light rail could improve the aesthetics of the current conditions.

Where appropriate, mitigation for the introduction of new visual elements includes: vegetative screening, and black vinyl coated fencing, minimizing the removal of trees, and judicious pole placement. Mitigation for Option A will include a new gateway which will provide a new visual asset. Vertical elements at the Fair Park Station will be minimal and complementary to existing and past design elements of the park.

Mitigation treatments other than landscaping will be developed during final design through discussions with affected property owners as well as to respond to other issues such as noise and to coordinate improvements with construction activities. If noise wall barriers are selected

as the appropriate mitigation treatments in areas of both noise and visual impact, this barrier could also serve as an effective visual screening treatment.

Based on a maximum exposure time of two seconds, vegetation or visual screening is recommended to be placed every 130 to 190 feet (depending on speed) to break up views from the LRT in areas where existing screening is sparse, particularly where the vertical distance of the rail alignment is higher than the residences. The type of mitigation for visual impacts, either vegetation or screening walls, depends on the surrounding areas. These mitigation treatments will reduce impacts to a level less than significant. Short-term impacts may result as vegetation matures. These mitigation treatments can be implemented in conjunction with any potential landscaped noise walls, where there are both noise and visual impacts, to alleviate more than one impact with only one mitigation treatment.

S 5.9 CULTURAL RESOURCES, HISTORIC PRESERVATION, ARCHAEOLOGICAL PRESERVATION

The No-Build Alternative will have no effect on cultural resources in the study area. Within the APE of the Build Alternative (LRT), 18 historic properties have been identified. The LRT project will have an adverse effect on only one of these historic properties, the Good-Latimer Tunnel. DART has demonstrated that there is no prudent or feasible alternative to the physical destruction of this historic structure. The adverse effect of physical destruction of the Good-Latimer Tunnel in Option A of the Build Alternative (LRT) will be mitigated through documentation.

The Build Alternative (LRT) will pass through the edge of Fair Park National Historic Landmark and National Register-Listed District. Any potential adverse effect to the Fair Park National Historic Landmark District will be mitigated through a sensitive design that minimizes vertical station elements and captures design elements of the 1936 park entrance. On-going coordination with the SHPO will ensure that the design of the LRT alignment will avoid adverse effect to the property.

The Build Alternative (LRT) passes adjacent to the Comanche Storytelling Place but will not have a direct impact on the site within Devon-Anderson Park. Coordination with the Comanche Nation is on-going and potential effects from the introduction of new visual elements will be mitigated through sensitive design.

The proposed project would require direct use of approximately 0.84 acres of the Fair Park HD/NHL, which is also a State Archeological Landmark. The area that is subject to construction for the placement of new facilities has been previously disturbed and thus the potential to encounter unanticipated resources is very low. However, because under the Antiquities Code historic buildings and other structures are considered to be archeological landmarks, construction of the proposed LRT station and other system elements would require a permit from the Texas Historical Commission. There are no feasible and prudent alternatives to the direct use of the Fair Park State Archeological Landmark and a process to incorporate all possible planning to minimize harm has been established.

Construction for the LRT line across White Rock Creek would occur in an area that has been previously disturbed and that also has a low potential to encounter unanticipated resources. The areas adjacent to and within the corridor have been highly affected by railroad construction, maintenance, and urban development over the past century, and shovel testing of the least disturbed areas yielded no artifacts. The only cultural find was a single historic locality, which appears to represent a construction materials dumping area. In addition to the backhoe trenching at White Rock Creek, visual assessments were made of the flood plains of the other five drainages in the project area. All were found to be either highly disturbed or to be steep-sided drainages with no flood plain or terrace surfaces suitable for occupation.

In accordance with 36 CFR 800.6, DART, FTA, and the SHPO have executed a Memorandum of Agreement that will provide for the continued coordination between these agencies. This agreement addresses the appropriate mitigation for the adverse effect of the project on the Good-Latimer Tunnel. Additionally, the agreement ensures that the LRT project will not result in an adverse effect on the remaining identified Southeast Corridor historic properties including the Fair Park National Historic Landmark District.

S 5.10 PARKLANDS [SECTION 4(f) AND 6(f) OF THE DEPARTMENT OF TRANSPORTATION ACT OF 1966]

The No-Build Alternative will have no direct or indirect impacts on any parklands. Of the 14 existing public parks, school grounds, and recreation lands in the study area, only one will be subject to direct impact. Parkland property at Fair Park will need to be used for installation of portions of the LRT line and portions of the proposed station adjacent to the ceremonial entrance of Fair Park at Parry Avenue.

Potential indirect impacts to parklands include noise and altered access. The LRT system will alter, without diminishing, access to historic Fair Park. Three crossings will be provided to Grover Keeton Park. To limit the noise impact from gate signals adjacent to parks, the lowest possible audible settings will be employed.

S 5.11 ECOSYSTEMS

Impacts to waters of the U.S. include both direct impacts and indirect impacts. The current railroad will remain operational under the No-Build Alternative. Currently, waters of the U.S. are impacted by stormwater runoff from the existing rail line. This runoff likely contains minor amounts of creosote, petroleum products (oil and grease), and other chemicals associated with rail activities.

The Build Alternative (LRT) will require impacts to the stream crossings at existing bridges, a crossing for the existing tracks was accomplished over culverts, and new tracks placed over culverts. Eight streams or tributaries will be crossed with bridge structures. The bridge crossings will result in negligible impacts to waters of the U.S. The station locations will not result in impacts to waters of the U.S. Short-term impacts to waters of the U.S. could also result from runoff during construction activities such as grading.

Mitigation for Impacts to Waters of the U.S.

The No-Build Alternative will not require mitigation for impacts to waters of the U.S. The Build Alternative (LRT) will potentially impact 13 waters of the U.S. All impacts associated with stream crossings will be covered under Nationwide Permit 14, which allows fill of up to 0.50 acre at each stream crossing, provided that pre-construction notification is provided to the U.S. Army Corps of Engineers (USACE) for impacts of more than 0.10 acre. Filling and grading activities should be in compliance with the Texas Pollution Discharge Elimination System (TPDES) General Permit for Construction Activities.

S 5.11.1 Vegetation Impacts

No additional impacts to vegetation (i.e., clearing) will result from the No-Build Alternative. However, the vegetation along the existing rail line will continue to be maintained by mowing and pruning to allow safe operation of the rail line. Vegetation along the project corridor will be directly impacted by the expansion associated with the implementation of the Build Alternative

(LRT) within the existing railroad rights-of-way. Approximately 70 acres of vegetation will be impacted by the Build Alternative (LRT): 30 acres of woods and 40 acres of maintained grassy areas. The majority of impacts to vegetation will occur between White Rock Creek and Lake June Road. Only trees and vegetation within the right-of-way will be disturbed. Vegetation outside of the right-of-way will not be disturbed. Operation of the rail line should not result in any additional impacts to vegetation in the area, with the exception of the mowing or pruning activities. DART will work with an arborist to identify quality trees within its right-of-way and make efforts to preserve them. Additionally, DART has committed to replacing trees of exceptional size and quality within the right-of-way. Outside of DART-owned right-of-way (station areas, etc.), DART is subject to the Tree Regulations.

Prior to construction, the construction contractor will provide information to the City of Dallas Building Inspection Department, Arborist Division regarding potentially impacted trees. Mitigation will consist of removal of only the amount of vegetation required for construction and implementation of the measures designed to control erosion and reduce the discharge of pollutants in stormwater runoff from construction sites as required in the NPDES General Permit. When vegetation is impacted, the disturbed areas will be reconstructed in accordance with the guidelines of the appropriate agencies.

S 5.11.2 Wildlife Impacts

Under the No-Build Alternative, the existing rail line will remain in use and no additional direct impacts to wildlife or wildlife habitat will be expected to occur. Effects to wildlife from the existing use of the track will continue. The Build Alternative (LRT) will result in minor impacts to wildlife and habitat in the project corridor. However, these impacts will be limited to a corridor that has already been heavily disturbed by past activities. Construction activities will result in indirect impacts to wildlife from destruction of habitat along the right-of-way, noise, and human activity/presence. After construction, the operation of the LRT will have impacts on wildlife in the immediate vicinity of the right-of-way. However, impacts to wildlife are expected to be minor. The areas with the most undisturbed habitats have an existing active rail line and wildlife in these areas are likely already conditioned to the presence of trains that are larger and louder than the LRT vehicles and safety fencing will be placed where speeds are greater than 45 miles per hour. The bottom of the safety fencing will be raised four inches above ground level to allow the passage of virtually all small to medium sized vertebrates, which make up the majority of the

forest fauna. Additionally, the developed nature of the corridor and surrounding area has already resulted in the displacement of all but the most adaptable animal species from the project corridor.

S 5.12 HYDROLOGY/WATER QUALITY

The project corridor crosses 13 water bodies (i.e., stream channels). The No-Build Alternative will continue to affect surface water quality through stormwater runoff, which likely contains small amounts of creosote, petroleum products, and other chemicals associated with railroad operation. The implementation of the Build Alternative (LRT) has the potential to cause minor impacts to these water bodies during construction. Long-term impacts to surface water quality will be less for the Build Alternative (LRT). Overall impacts to these resources will be minimal due to the limited number of resources identified in the area and the developed nature of the corridor. Filling and grading activities should be in compliance with the TPDES General Permit for Construction Activities.

Groundwater Quality Impacts

The No-Build Alternative will not likely impact groundwater quality. Minor impacts have potentially occurred due to stormwater runoff, etc. The No-Build Alternative is not expected to have a measurable impact to groundwater quality. The Build Alternative (LRT) could have short-term impacts due to construction activities. However, the groundwater within the project corridor has already been impacted by decades of runoff from nearby commercial and residential developments, streets, and the existing railroad. Long-term impacts to shallow groundwater quality will likely be reduced by the Build Alternative (LRT) due to decreases in vehicular traffic associated with use of the LRT.

Floodplain Impacts

The study area includes areas within the 100-year floodplain. The No-Build Alternative will involve no additional construction activities and will, therefore, not result in any impacts to floodplains. The Build Alternative (LRT) will involve the crossing of four floodplain areas. These floodplain areas could be impacted by the placement of fill below the base floodplain elevation in order to raise a rail bed for the two new tracks. Prior to construction activities that may affect floodplains, coordination will occur between DART, the City of Dallas, USACE, and FEMA with respect to placement of fill or any other activities within floodplains.

S 5.13 GEOLOGY AND SOILS

The No-Build Alternative will involve no additional construction activities and will not impact geology or soils. The Build Alternative (LRT) will not involve any subsurface work or deep excavation, with the exception of some boring at the bridged stream crossings. Therefore, it is not likely that geologic resources would be significantly affected by the Build Alternative (LRT).

S 5.14 HAZARDOUS/REGULATED MATERIALS

The results of the database searches, historical aerial photograph review, and field survey of hazardous materials in the project area indicated there are 33 sites that have the potential to be of high risk for right-of-way acquisition and/or construction of the project. Although a site is known or suspected to be contaminated, implementation of the LRT alternative does not necessarily mean that the proposed LRT corridor project will affect the site. More detailed information regarding project design, to be developed during the final design phase of this project, will be used to make such assessments.

S 5.15 CONSTRUCTION IMPACTS

The temporary impacts due to construction were assessed.

Access and Circulation of Traffic

Construction of the Build Alternative (LRT) will affect numerous major and minor roadways in the City of Dallas. A traffic management plan will be developed and agreed upon by the City of Dallas and TxDOT. The plan will include ways to maintain traffic, bus service, and pedestrian activities while allowing for the delineation of the construction areas. Separation of work areas will result in more stable traffic patterns, minimizing the number of times motorists will need to adjust to the change in the construction zones. The City of Dallas and TxDOT will review contract specifications and traffic management plans prior to initiation of construction.

During final design, a construction sequencing plan will be developed to schedule lane closures and use of temporary traffic control. Temporary lanes, sidewalks, driveways, and bus stops will be used. Detours will be kept to a minimum. The phasing of construction will be scheduled to minimize construction near Fair Park during the State Fair of Texas.

Disruption of Businesses and Residences

In most cases, the construction of the project will cause a short-term impact to areas due to access restrictions, general inconveniences to patrons, and temporary blocking of adjoining roadway intersections. The City of Dallas requires notification of all construction activities that will disrupt or block traffic flow. The mitigation measures required by the city for roadway access and traffic control also apply to disruption of area businesses. As a courtesy, notification of roadway disruptions should be provided to neighboring property owners/operators. In cases of roadway blockages, neighboring property owners/operators will be notified and provided with descriptions of alternative routes. If proper permitting and appropriate mitigation measures are used during construction, construction impacts would not be significant.

Disruption of Utilities

The potential to impact utilities exists throughout the corridor. The majority of the Build Alternative (LRT) is located within previous railroad rights-of-way which helps minimize impacts to utilities. No major utility relocations will be required. All utility work is expected to be within the norms for light rail construction, with the exception of the Texas Utilities 345kV power transmission line along Trunk Street and Scyene Road. This line is within an easement along the DART owned right-of-way. Discussions will be held with affected utility operators to determine specific measures to minimize disruptions and maintain system integrity and on City of Dallas underground storm sewer box culvert along Trunk Avenue.

Construction Air Quality Impacts

During the construction phase, there will be short-term impacts on air quality. Construction activities associated with excavations, grading, filling, and other operations disturb the soil, generate dust, and remove groundcover which causes the soil to be susceptible to wind and water erosion. Areas disturbed by construction activities will be covered or treated with dust suppressors. To minimize exhaust emissions, contractors will be required to use emission control devices and limit the unnecessary idling of construction vehicles. Construction of the project will not violate any federal, state, or local laws concerning air quality. Therefore, air quality impacts from construction activities will not be significant.

Construction Noise Impacts

Construction activities will be carried out in compliance with all applicable local noise regulations. In addition, specific residential property line noise limits will be developed during final design

and included in the construction specifications for the project, and noise monitoring would be performed during construction to verify compliance with the limits. With the incorporation of appropriate noise mitigation measures, impacts from construction-generated noise should not be significant. To provide added assurance, a complaint resolution procedure will also be put in place to rapidly address any noise problems that may develop during construction.

Construction Vibration Impacts

The most significant sources of construction vibration will be pile driving. Other construction activities that could cause an intrusive vibration include vibratory compaction, jack hammering and the use of trackbed vehicles, such as bulldozers. Vibration impacts during construction will be avoided through numeric limits and monitoring requirements that will be developed during final design and included in the construction specifications for the project.

Construction Visual Impacts

Potential construction-related visual impacts may occur due to the placement of construction staging areas and equipment/materials storage in viewable areas from sensitive uses. In addition, potentially significant long-term adverse impacts could result from the construction phase removal of existing vegetation that provides visual screening from the rail right-of-way for adjacent land uses. The DART contractor will attempt to minimize the removal of existing vegetation and would restore areas to their pre-construction appearance. During final design, DART will work closely with affected residents to assess the need for additional vegetation/screening to mitigate potentially significant privacy impacts so that improvements can be coordinated with construction activities.

Construction Staging Areas

The project is expected to be constructed in two sections. Section 1 will begin at Pearl Street Station and continue to just west of the UP RR. Section 2 will begin just west of the UP RR and continue to Buckner Boulevard. Three staging areas will be required for the storage of equipment and materials used for the construction of the project. One of the construction staging areas will be between Jaguar, 4th Street, Elihu, and the former SP RR. The other construction of staging areas will be just east of the Lawnview station and on the excess property at the Lake June Transit Center.

Construction Water Quality Impacts

The contractor will use best management practices to prevent stormwater runoff of construction materials and equipment. The contractor will also mulch and reseed disturbed areas to prevent air and waster erosion on the site after termination of construction operations.

S 5.16 PERMITS

Several permits and approvals will be required to implement the Build Alternative (LRT). These include: Section 404 Nationwide permit, TPDES, General Permit for storm water discharges associated with construction activities, development permit to perform construction activities in a flood zone, storm water management, sewer modification, Section 4(f), and Section 106 (Historic).

S 5.17 SAFETY AND SECURITY

Safety fencing will be placed along the right-of-way boundary where trains are expected to travel at speeds of 45 miles per hour and greater, where the train operator will have limited sight distance, or in areas needed to minimize safety risk to children such as near schools and parks.

In addition, safety fencing (3' tall cable & bollard type) is proposed along the Fair Park Station area and alignment along Parry Avenue to help direct pedestrian movements and prevent pedestrians from crossing the LRT tracks at unauthorized locations.

S 6.0 COMMENTS AND RESPONSES

The DEIS was circulated for 45-days, beginning February 22, 2002 and concluding April 8, 2002.

During this comment period, DART conducted three public hearings (March 12, 13, and 14), which were attended by 84 people. The public comment period resulted in 148 substantive comments in the areas of alternatives and alignment; Good-Latimer area; acquisition and displacements; neighborhood, community, social and environmental justice; businesses, employers and economics; transportation, traffic and parking; service and ridership; air quality; noise and vibration; visual aesthetics; cultural resources and historical properties; parks and recreation areas; ecosystems and wildlife; floodplains and water quality; safety and security; stations; and other.

S 7.0 NEXT STEPS

The completion of the preliminary engineering, environmental studies, and a mitigation program have led to the publication of this FEIS. This document reflects the attention given to the comments received during the evaluation of the alternatives, the selection of the preferred alternative, and the circulation of the DEIS. Completion of the environmental review and impact documentation process of the Final EIS, followed by the signed Record of Decision (ROD) by the FTA, will permit the project to be advanced to the final design and construction phases.

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CHAPTER 1 - PURPOSE AND NEED

The Southeast Corridor is currently identified in both the North Central Texas Council of Government's (NCTCOG) *Mobility 2025 Plan Update* (May 2001) and the Dallas Area Rapid Transit (DART) *Transit System Plan* (January 1995, updated December 1997) as a priority for a transportation investment. The *Transit System Plan* and *Mobility 2025 Plan Update* both recommended a light rail line as the appropriate technology in the Southeast Corridor.

A Major Investment Study (MIS) was conducted for the Southeast Corridor recommending a Locally Preferred Investment (LPIS) to meet the transportation needs of the study area. The recommended LPIS, approved by the DART Board on May 9, 2000, is composed of not just one project, but several projects designed to create a strategy to improve mobility. The main component of the LPIS was a new light rail transit (LRT) line that connects downtown Dallas with the communities of Deep Ellum, Baylor, Fair Park, South Dallas, Buckner Terrace, and Pleasant Grove. This Environmental Impact Statement (EIS) focuses on the LRT component of the LPIS.

1.1 GOALS AND OBJECTIVES

On February 9, 1999, the DART Board of Directors approved the Guiding Principles for the corridor which established a set of goals and objectives for transportation improvements in the Southeast Corridor. The goals and objectives respond to underlying transportation needs defined in this chapter, and are also based on the goals adopted in May 1993 to guide development of the DART *Transit System Plan* as well as goals stated within the DART mission statement:

“The mission of Dallas Area Rapid Transit is to build and operate an efficient and effective transportation system that, within the DART Service Area, provides mobility, improves the quality of life, and stimulates economic development through the implementation of the DART Service Plan as adopted by the voters of August 13, 1983, and as amended from time to time.”

DART completed the MIS for the Southeast Corridor in May 2000. The primary purpose of the MIS was to make a recommendation for an LPIS to be analyzed in greater detail during subsequent Preliminary Engineering (PE). The MIS process was based on identification of transportation needs, economic development and other issues, as well as initial identification of

potential environmental impacts. The Guiding Principles for the MIS provided the framework for evaluating transportation improvement alternatives and have guided the development of the PE/EIS for the corridor as well. The Guiding Principles have four primary goals with several objectives:

Achieve Regional Consensus

- In conducting the major investment study, follow all federal, state, and local regulations, policies, guidelines, and procedures to ensure an impartial study process.
- Proactively solicit communication with member cities, regional, state, and federal agencies and the public in general throughout the transportation decision making process, using a variety of methods.
- Coordinate with the City of Dallas, Dallas County, the Texas Department of Transportation (TxDOT), and the NCTCOG on any completed or on-going studies within the Southeast Corridor.
- Carefully coordinate with the on-going Northwest Corridor MIS to assess the southeast to northwest travel needs of the corridor.

Enhance Mobility

- Develop strategies that provide additional travel choices and increase capacity to serve the predominant southeast-northwest radial directional travel pattern through the study area and trips within the study area.
- Develop strategies that minimize transfers and duplicative services.
- Develop strategies that consider origins and destinations for residents and employees within the study area and specific trip generators and activity centers that:
 - Link residents of the study area to employment centers both within the study area and outside the study area.
 - Link activity and employment centers in the study area, including Deep Ellum, Fair Park and Baylor HCS to the regional transit system.
 - Include transportation system management (TSM) and travel demand management (TDM) elements.
- Develop strategies that recognize current and past planning efforts and commitments for transportation improvements in this study area and consider new alternatives. Details of the current plans are in the DART *Transit System Plan* and the NCTCOG *Mobility 2025*.

- Examine ways to improve and enhance existing service as a part of strategies to meet mobility needs.

Be Fiscally Responsible

- Ensure affordability based on accepted financial planning parameters and reasonable cost estimates.

Consider Effects on the Study Area

- Consider the effects of the strategies on environmentally sensitive areas, safety, quality of life, and the ability to promote transit supportive land use and economic development.

1.2 RELEVANT SYSTEM PLANNING ACTIVITIES

Formed in 1983, DART consists of 13 member cities in Dallas, Denton, and Collin counties, covering a 700 square mile service area. In June 1989, the DART Board approved the DART *Transit System Plan*, moving the agency from the planning mode to major construction. The Board also approved the local and technical assistance programs for member cities. In November 1995, after nearly two years of community based negotiations among member cities, the DART Board voted to revise the *Transit System Plan*. Reflecting the NCTCOG *Mobility 2010 Plan*, the new plan included: 53 miles of light rail transit; 98 miles of High Occupancy Vehicle (HOV) lanes; 37 miles of commuter rail transit linking Dallas and Fort Worth with extensions to Dallas/Fort Worth International Airport and the Interstate Highway (IH) 35E corridor; ridesharing, telecommuting and other trip reduction support programs; and redeployment of existing buses with initiation of rail services, and use of smaller transit buses. On December 9, 1997, the DART Board voted to accelerate light rail construction to the member cities of Garland, Richardson, and Plano, and to double-track the rail line where single-track lines were initially planned.

Overall, the *Transit System Plan* achieved a comprehensive system plan that included identification of logical travel corridors, development of alternatives to address the transit/mobility problems of each corridor, and intensive public involvement. This plan is the agency's current blueprint for achieving the long-range vision for transit services and facilities within the DART service area identifying the immediate and intermediate projects and programs. The *Transit System Plan* provided the foundation for initiating the development of the region's LRT System. The 20-mile light rail transit starter system opened on June 14, 1996. Revenue service began

for the system June 24, 1996. The LRT System was increased by approximately 24 miles when the Northeast line opened to Garland and the North Central line opened to Plano in late 2002.

On August 12, 2000, residents in DART's member cities voted overwhelmingly in favor of allowing the agency to use long-term financing to upgrade and accelerate future light rail lines. More than 77 percent of the 33,603 voters casting ballots in the election supported the proposition.

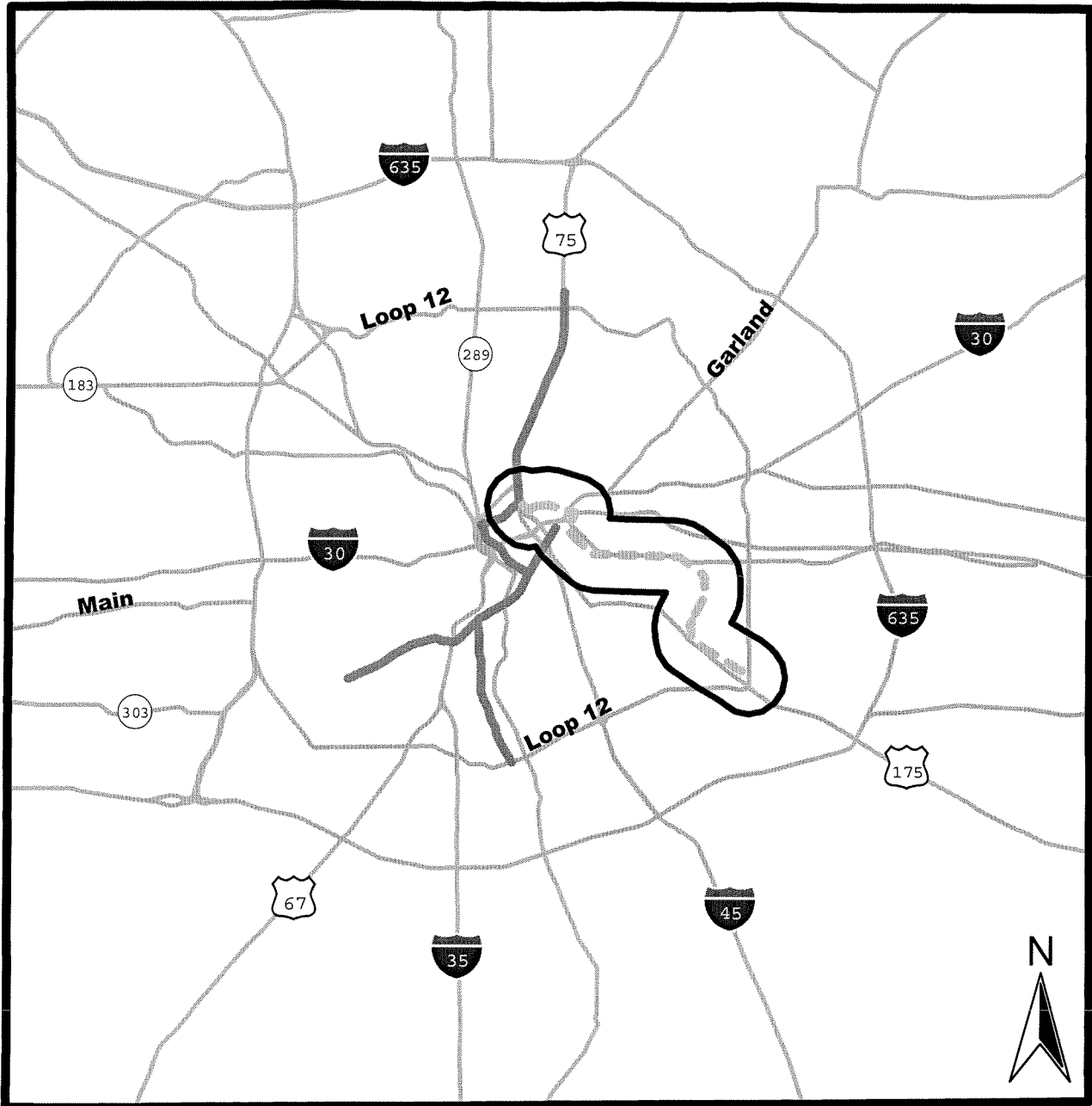
1.3 OVERVIEW OF THE STUDY AREA AND CORRIDOR

The study area includes the southeast quadrant of Dallas County and is generally bounded by IH 30 on the north, IH 635/IH 20 to the east and south, and IH 45 to the west. The study area also includes the Baylor/Deep Ellum/Bryan Place area north of IH 30. The City of Dallas is the only jurisdiction in the study area that is a member of the DART Service Area. The City of Dallas also comprises the majority of the study area with small portions under the jurisdiction of Dallas County; these areas are generally along the Trinity River. Due to the influence of growing jurisdictions east of the DART Service Area on travel characteristics, the study area also includes portions of Mesquite, Hutchins, and Balch Springs. Figure 1.1 shows the study area. The study corridor includes the area within one mile of the proposed LRT alternative recommended during the MIS (Figure 1.2).






The study area contains a dynamic mix of land uses including a burgeoning, eclectic entertainment district; one of the region's most prestigious hospital facilities; a multi-faceted, cultural, historical, museum, and entertainment complex; and large areas of single-family and multi-family housing. The study area and the character of station area development has three distinct subareas:

- The Baylor/Deep Ellum/Bryan Place subarea is a redeveloping/revitalizing area, an urban core environment of warehouses and commercial uses transitioning to an area of multi-family lofts, artist studios, retail, and service businesses. The area is anchored by Baylor Health Care System (HCS). This area includes pedestrian oriented development. The Deep Ellum area has been designated a historic district.

Figure 1.2 Study Corridor



Legend

 LRT Alignment	 Dallas County
 Study Corridor	 Roads
 DART LRT Starter System	

Source: DART, NCTCOG



- The South Dallas/Fair Park area is characterized by commercial, light industrial, and loft apartments immediately west of Fair Park; a strip of commercial businesses along Robert B. (R.B.) Cullum Boulevard; and single-family residential with some apartments and duplexes to the south and west of Fair Park. Fair Park, a 277-acre city park, forms a National Register District. It is also designated as a National Historic Landmark and a local landmark. This area is one of the most transit dependent areas of the City of Dallas.
- The Pleasant Grove area is primarily composed of residential, industrial, retail, parkland, and commercial uses. The commercial activities are concentrated along Loop 12 (Buckner Boulevard). This area contains a large amount of vacant and undeveloped land, which is dedicated parkland and/or located in the floodplain.

1.3.1 Transportation System

The transportation system that serves the study area includes roadways and freeways with some freight railroads and bus transit. The following sections briefly describe these modes. The primary means of travel to work in the region is by single-occupant vehicles (SOV). However, the percentage of people carpooling and using public transportation in the study area is higher than the average for Dallas County. Table 1.1 summarizes the means of transportation to work in Dallas County and the study area.

Table 1.1 1990 Means of Transportation to Work

Mode	Dallas County		Study Area	
	Count	Percentage	Count	Percentage
Drive Alone	718,709	77.89%	50,386	69.85%
Carpool	135,776	14.72%	13,862	19.22%
Public Transportation (Bus/Trolley/Taxi)	39,986	4.33%	5,530	7.67%
Bicycle	1,297	0.14%	115	0.16%
Walk	19,027	2.06%	1,644	2.28%
Other (includes motorcycle)	7,871	0.85%	602	0.83%

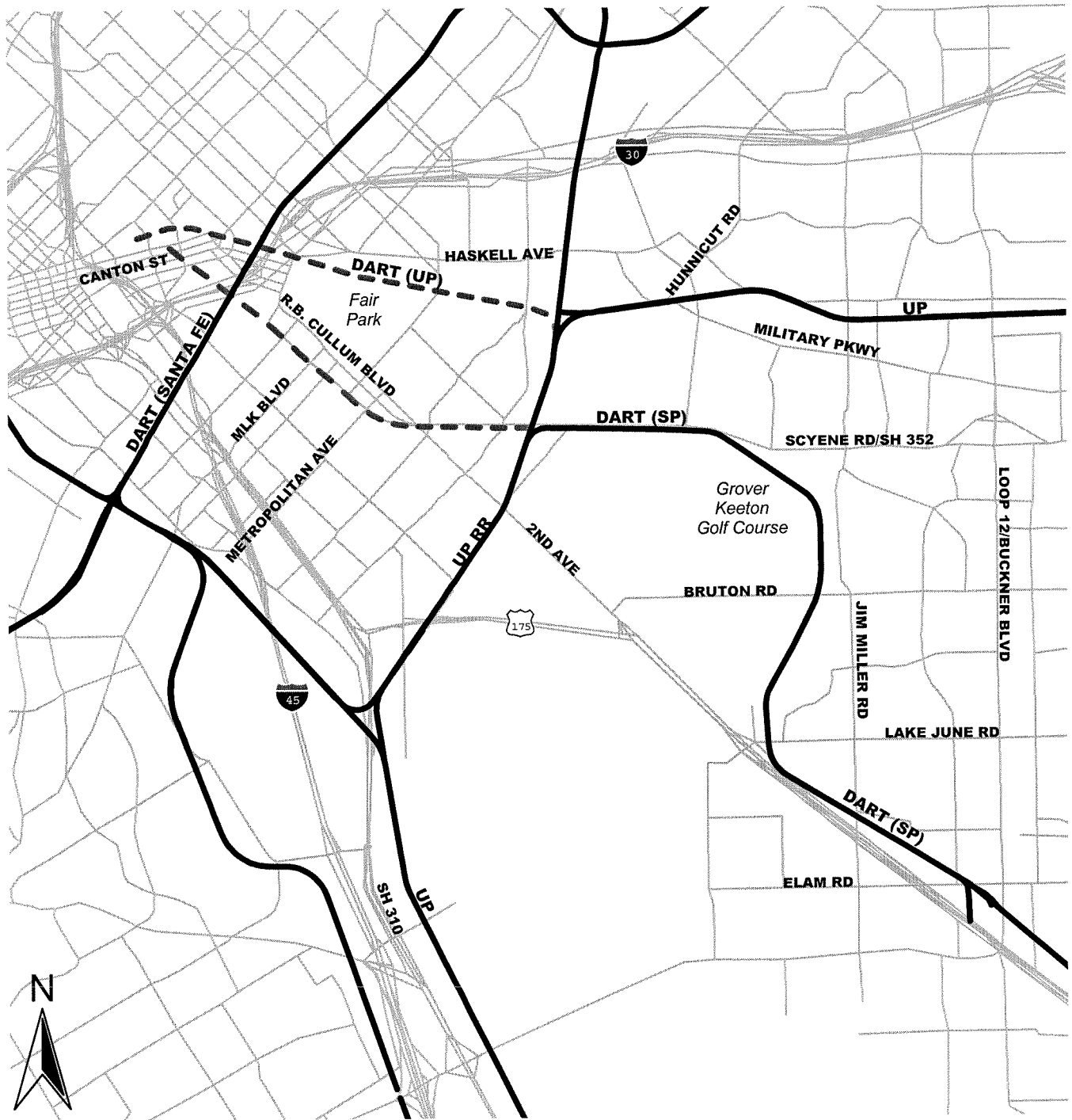
Source: 1990 Census Report, US Census Bureau

1.3.1.1 Roadways and Freeways

The transportation system consists of major arterials and local streets supported by the freeway system as depicted in Figure 1.3. Some arterial streets carry high volumes of traffic and experience recurring congestion. The highest traffic volumes currently occur on South Central Expressway, Martin Luther King Boulevard (MLK), and R.B. Cullum Boulevard.

Congestion is expected to increase in the future along these arterials as well as Military Parkway, Sam Houston Road, Loop 12/Buckner Boulevard, and Prairie Creek Road.

Figure 1.3 Map of Roadway and Railroad System



Legend

Railroads	Railroad Right of Way	Roads
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Source: NCTCOG



1.3.1.2 Railroads

Figure 1.3 also shows the railroads in the study area. There are two major railroad lines. The east-west Union Pacific Railroad (UP RR) within the study area is part of Union Pacific's transcontinental route that provides national coast-to-coast service. This line is identified by Union Pacific as a main line and carries approximately 30 freight train movements per day. This track is also used by Amtrak. The UP RR extends from beyond Mesquite, passes the east side of Fair Park area to Union Station, and continues through the mid-cities to Fort Worth and beyond. A second UP RR line generally runs north-south from far northeast Dallas to the Dallas County/Ellis County line, near Parkdale Lake.

The former Southern Pacific Railroad (SP RR) line, which is now owned by DART, begins north of IH 30 near Hall Street. The portion of this former railroad corridor near Fair Park is parallel to Trunk Avenue and is commonly referred to as the Trunk alignment. The line then turns to parallel the south side of Scyene Road and crosses the north-south UP RR, then continues through the Pleasant Grove area and parallels United States (US) 175 (C.F. Hawn Freeway). This corridor was acquired by DART in April 1988. Upon acquisition of the railroad, freight traffic was abandoned in the segment west of the UP junction and the tracks removed.

A former east-west UP RR line goes from Oakland/Malcolm X to the UP RR. As with the former SP RR, this corridor was acquired by DART in September 1989. This corridor serves customers north of Haskell Avenue and special events to the Age of Steam Train Museum at Fair Park.

1.3.1.3 Transit

The study area is serviced by a network of more than 18 bus routes, which include local, radial, and crosstown bus routes. The average weekday bus ridership in the study area is summarized in Table 1.2. The strongest ridership is on local routes originating from within the Pleasant Grove and South Dallas neighborhoods that are destined for downtown Dallas and the Northwest Corridor. These include bus routes 44 and 161. According to the 1990 Census, 7.6 percent of residents in the study area use public transportation compared to 4.3 percent for the entire county. While the study area comprises 10 percent of the DART Service Area, transit bus ridership in the study area accounts for approximately 20 percent of total bus ridership in the entire DART Service Area.

Table 1.2 Existing Bus Ridership

Local Routes – Number and Name	September 2000 Average Weekday Ridership
1 Live Oak-Matilda/Skillman/Wynnewood	3,502
2 Ervay/Preston Center – Oak Lawn	1,968
3 Columbia/Harwood	1,602
11 Peavy-Skyline/Hampton Station	4,374
12 Second/Lagow	1,936
24 Capitol/Ross-McMillan	2,371
26 Hines	5,345
29 Maple/Urbandale	3,336
42 Murdock/Hampton Station	2,468
44 Bexar/Park Forest/Brock	9,779
46 Meadow/Illinois Station	568
50 Piedmont/Beverly Hills	3,339
60 White Rock	2,300
161 Glen Oaks/St. Augustine-Spruce	7,625
164 Sandra Lynn-Wood/Meadow-South Garland	5,359
409 King Center-Irving-D/FW	5,262
445 Mountain View College-MLK Center	2,842
466 SW Center Mall-South Garland/Casa Linda	6,356

Source: DART Service Planning, February 2001

DART also offers paratransit services within the study area to provide curb-to-curb public transportation to people with disabilities who are unable to use fixed route DART bus or train service. One park-and-ride facility, the Lake June Transit Center which opened in February 2002 provides shared parking at Lake June Road near Buckner Boulevard. The MLK Transit Center is currently under development and should begin construction in early 2003.

1.3.1.4 Travel Demand Management

TDM efforts are another important component of DART's commuter services. TDM strategies focus on the reduction of SOV trips through managing travel demand and/or modifying driver behavior, primarily in peak commute periods. TDM strategies identified by DART to reduce peak period SOV trips in the study area include:

- Alternative work schedule arrangements such as telecommuting;
- Variable work hour schedules including flextime, staggered work hours, and compressed work week schedules;

- Discount transit pass programs with fares subsidized by employers; and
- Rideshare programs such as a vanpool incentives program and ride match services that encourage the use of carpools and vanpools.

Baylor HCS, the largest employer in the study area, currently participates in both the transit pass and rideshare programs.

1.3.2 Demographics

Existing and forecasted population figures are presented in Table 1.3. This information is provided not only for the Southeast Corridor and the City of Dallas, but also for communities adjacent to the corridor: Balch Springs, Hutchins, and Mesquite. Projections for these communities are included because they generate trips that go to and through the Southeast Corridor study area. Thus, trips beginning or ending in these communities can affect congestion and ridership within the study area.

Table 1.3 1990 and Forecasted 2025 Population

Area	Population from NCTCOG*		
	1990	2025	% Change
City of Dallas	1,007,618	1,263,500	25%
City of Mesquite	101,484	166,900	64%
City of Balch Springs	17,406	22,750	31%
City of Hutchins	2,719	2,650	-3%
Study Area	179,761	241,318	34%
Dallas County	1,852,810	2,587,100	40%

Source: NCTCOG Demographic Forecast Information, December 2001
 * Note: The 2025 population estimates are based on the NCTCOG Traffic Analysis Zones which are different from the census tracts in the 1990 Census Report by the US Census Bureau. In some cases, these districts are extended beyond the US Census tract areas.

Table 1.4 presents the ethnic composition of the population for the study area and Dallas County. The proportion of non-white population is expected to increase over the next 25 years for both areas.

Table 1.4 1990 Ethnic Composition

Race	Dallas County		Study Area	
	Population	Percent	Population	Percent
White	1,118,840	60.4%	76,122	42.35%
Black	366,080	19.8%	71,427	39.73%
American Indian, Eskimo, or Aleut	8,285	0.4%	518	0.29%
Asian or Pacific Islander	50,003	2.7%	1,695	0.94%
Other	2,060	0.1%	299	0.17%
Hispanic Origin	307,542	16.60%	29,700	16.52%
Total	1,852,810	100%	179,761	100%

Source: 1990 Census Report, US Census Bureau

Note: Hispanic persons are not considered a separate race, but may belong to any race.

As indicated in Table 1.5, the median household income for the study area is \$19,844. The median household income in Dallas County, \$31,605, is higher.

Table 1.5 1990 Income Characteristics of the Population

	Dallas County	Study Area
Median Household Income	\$31,605	\$19,844
Percentage of Households Under Poverty Level	13.2%	24%

Source: 1990 Census Report, US Census Bureau

1.3.3 Employment

As population in the study area increases, employment levels are expected to increase as well. Employment within the study area is forecasted to increase 63 percent between the years of 1990 and 2025 at approximately the same rate as Dallas County. Mesquite employment is expected to grow at a much higher rate than the study area and Dallas County. Employment in the City of Dallas is forecasted to increase by approximately 48 percent between the years of 1990 and 2025. The employment in the cities of Balch Springs and Hutchins is expected to increase 80 percent and 22 percent, respectively. Table 1.6 shows the existing and forecasted employment for the study area, the cities of Dallas, Mesquite, Balch Springs and Hutchins, and Dallas County.

Table 1.6 1990 and Forecasted 2025 Employment

Area	Persons Employed Per NCTCOG Districts		
	1990	2025	% Change
City of Dallas	809,634	1,195,250	48%
City of Mesquite	31,381	63,300	102%
City of Balch Springs	3,753	6,750	80%
City of Hutchins	2,294	2,800	22%
Study Area	95,421	155,586	63%
Dallas County	1,254,974	2,030,800	62%

Source: NCTCOG Demographic Forecast Information, May 1999

Within the study area, there are almost 100 companies with more than 100 employees. The study area is a net exporter of employees and has only two employers with over 1,000 employees – Baylor HCS and AT&T. According to the NCTCOG, the highest growth projected in employment will be in the areas along US 175 and the Trinity River. Table 1.7 summarizes the number of employers by size and employment type.

Table 1.7 Major Employers

Number of Employees	Employment Type		
	Basic	Retail	Service
100-499 employees	32	19	40
500-999 employees	2	1	1
>1000 employees	1	0	1
Total	35	20	42

Source: NCTCOG Transportation Department, April 1999

1.4 THE NEED FOR THE ACTION

Before beginning the MIS for the Southeast Corridor, DART conducted a needs assessment. The *Southeast Corridor Needs Assessment* Study was completed by DART in April of 1998. This study analyzed travel patterns and identified transportation issues and deficiencies in the southeast quadrant of the DART Service Area. The findings of this study determined that a primary need of the community was improved mobility and accessibility and system linkages to the overall Dallas-Fort Worth region. Another need identified during this study was a need for increased capacity of the existing transportation system. The Dallas-Fort Worth region continues to increase in population and employment with limited capacity on existing streets and highways resulting in increased travel time, delays, and air pollution. Finally, and importantly, there is a need for increased economic development opportunities. The communities in the

Southeast Corridor are looking for opportunities to increase the potential for economic development and its associated benefits.

1.4.1 Transportation Problems and Needs

The MIS examined a limited set of related corridor transportation problems not covered by other planning and implementation projects for the study area. The problems and issues identified within the Southeast Corridor included:

- Residential growth in the eastern suburban communities (Pleasant Grove, Mesquite and Balch Springs) has resulted in increasing travel demand along corridor major roadways, particularly US 175, IH 45, IH 30, and major arterials such as State Highway (SH) 352 and Loop 12;
- Sustained employment growth in the Dallas Central Business District (CBD), as well as in the Northwest and North Central corridors, is attracting commuter trips from and beyond the study area, particularly from growing residential areas in the southeastern portion of the study area and outside IH 635 and IH 30;
- The study area will continue to be a major exporter of employees. By the Year 2025, residents are expected to outnumber employees over three to one. Access to the employment centers outside of the study area will be difficult because of traffic congestion and limited transit service;
- Persons traveling to employment areas in the Northwest and North Central corridors must pass through or near the congested Dallas CBD;
- Existing and committed roadway improvements have not kept pace with traffic volume increases on the major radial roadways in the study area, resulting in steadily increasing congestion;
- Traffic congestion and incidents affect schedule adherence for bus routes, resulting in inconsistent or unreliable transit service;
- Facilities for non-motorized travel, including pedestrian and bicycle, are limited;
- Some major roadways in the study area, such as US 175, are characterized by operational and safety problems due to substandard design for merging and weaving maneuvers;
- Visitors to the major attractions within the study area such as the Fair Park complex, Deep Ellum, and the entertainment venues in and near the Dallas CBD have few travel choices; and

- The Trinity River and White Rock Creek floodplains act as natural barriers, limiting direct southeast to northwest travel and options for new roadways or guideways.

The transportation needs identified within the Southeast Corridor include:

- Residential areas in southeast Dallas need to have faster, more direct access and additional travel options to major employment centers including the Dallas CBD, Medical/Market Center, and growing employment areas in the North Central and Northwest corridors;
- Additional transportation capacity is needed for travel in the southeast-northwest radial direction in the study area;
- Improved internal circulation is required within the study area, particularly within and between the Deep Ellum, South Dallas, Fair Park, and Pleasant Grove communities;
- More frequent and expanded service hours for transit service, particularly on crosstown routes, to improve mobility for the transit dependent population and attract new riders;
- The major radial roadways need operational and safety improvements;
- Transportation options are needed that bypass congestion in the Dallas CBD to access employment areas to the north or northwest of the CBD; and
- Improved access to transit service should be provided by all potential access modes, including pedestrian, bicycle, and automobile.

1.4.2 Specific Transportation Needs within the Study Area

As shown in Figure 1.3, a system of major arterials and local streets support the freeway system in the study area. The Pleasant Grove area contains a comprehensive roadway grid system but the Trinity River and White Rock Creek floodplains act as natural barriers for travel from southeast Dallas County to other parts of the region. The study area is bound by several freeways and two access-controlled roadways are within the study area.

Table 1.8 shows the range of 1995 traffic volumes and level-of-service (LOS) for the major roadways in the study area. Level-of-service is a qualitative rating system for roadways based on operating conditions, with “A” being best and “F” worst. Most of the roadway facilities identified were found to be operating at a LOS C. However, a decline in maneuverability and speed were noticeable, particularly during peak hour periods. This results in a majority of the roadways located within the study area as operating from LOS C (somewhat stable) to LOS F

Table 1.8 Traffic Volumes and Level-of-Service 1995 and 2025

Roadway/Segment	1995 Traffic		Projected 2025 Traffic	
	Average Vehicles per Day	Level-of-Service	Average Vehicles per Day	Level-of-Service
Highways				
US 175 (CF Hawn Freeway)	44,000 to 68,000	C	83,000 to 120,000	C to F
IH 30 (East RL Thornton Freeway)	39,000 to 219,000	F	160,000 to 260,000	F
IH 45 (Julius Schepps Freeway)	53,000 to 89,000	C to F	80,000 to 124,000	C to F
IH 20/635 (LBJ Freeway)	67,000 to 102,000	C	109,000 to 175,000	C to F
North-South Arterials				
SH 310 (SM Wright Freeway)	47,000 to 60,000	C to F	20,000 to 82,000	C to F
Loop 12 (Buckner Boulevard)	16,000 to 30,000	C to F	23,000 to 41,600	D to F
Jim Miller Road	11,000	C	14,500 to 22,200	C to D
Masters Drive/Town East Boulevard	4,000 to 22,000	C to F	5,600 to 14,800	C
East-West Arterials				
Loop 12 (Ledbetter Road) From IH 45 to US 175	20,000 to 28,000	C to F	18,700 to 28,500	D to F
Lake June Road	11,000 to 19,000	C	14,500 to 24,300	C to D
Elam Road	2,000 to 19,000	C	6,700 to 15,900	C
Haskell Avenue/Military Parkway (From IH 30 to Buckner)	11,000 to 15,000	C to F	10,600 to 26,900	C to F
SH 352 (Scyene) From R.B. Cullum to Buckner Boulevard	17,000 to 24,000	C to D	18,000 to 32,000	C to F
Main Street	4,000 to 5,000	C	7,700 to 16,500	E to F
Commerce Street	6,000 to 10,000	C to F	9,100 to 15,500	C to F
Elm Street	13,000	F	22,300	F
Northwest-Southeast Arterials				
SH 352 (R.B. Cullum) From Parry Avenue to Scyene	36,000 to 40,000	F	27,900 to 36,000	D to F
1 st Avenue	10,000 to 24,000	C to F	20,600	C to F
2 nd Avenue From SH 352 to US 175	20,000 to 24,000	F	5,300 to 14,300	C
Northeast-Southwest Arterials				
Martin Luther King Boulevard From SH 352 to IH 45	5,000 to 15,000	C	8,400 to 19,400	F

Source: NCTCOG, 1995 Validation for Southeast Corridor MIS

(worst case scenario/ unacceptable). A few of the roadway facilities identified were noted as operating at LOS F on a consistent basis in 1995. It is projected that the major roadway facilities located within the study area will be operating at an unacceptable level of service by 2025 due to economic development and population growth. Projected traffic increases are also expected to create congestion delays for these roadway facilities as well.

1.4.3 Accident Data

It is difficult to directly relate the number of reported accidents that occur on the major arterials within the study area to any one underlying cause of a specific incident. However, it is assumed that increasing congestion can be an underlying cause for many incidents. As congestion increases, the opportunity for accidents to occur will increase due to the limited roadway space for the projected increase of vehicles utilizing the existing major arterials. Accident data along major roadways was obtained from the City of Dallas Police Department and TxDOT. Table 1.9 summarizes the available information.

1.4.4 Purposes of the Proposed Action

Based on the *Needs Assessment* study and the MIS, the purposes for implementing a LRT line in the Southeast Corridor can be summarized as:

Improving Mobility and System Linkages

- Enhancing the quality and reliability of transit service for existing and potential riders by decreasing delay and improving transit facilities and service;
- Providing more travel choices, especially for southeast-northwest radial travel from residential areas to major destinations in central Dallas and beyond;
- Enhancing travel to major employment centers such as Baylor HCS, downtown Dallas, and the Medical/Market Center; and
- Improving interregional connections to the existing and proposed LRT and commuter rail systems.

Table 1.9 Accident Data for the Existing Major Arterials for 1997

Facility/Segment	Number of Reported Accidents in 1997	Vehicle Miles Traveled (VMT) ⁽¹⁾	Accident Rate (No. Accidents/ 1000 VMT's) ⁽²⁾
North-South Arterials			
North of Jim Miller Road (IH 30 to Loop 12)	18	53,200	0.34
St. Augustine Road (Sam Houston Road to IH 20)	2	32,000	0.06
Hatcher Street/Dolphin Road (Lamar to IH 30)	27	45,600	0.59
Masters Drive/Town East Boulevard (US 175 to IH 30)	8	81,600	0.10
Prairie Creek Road/Big Town Boulevard (St. Augustine Road to IH 30)	17	174,300	0.10
East-West Arterials			
Bruton Road (2 nd Avenue to IH 20)	18	69,300	0.26
Lake June Road (US 175 to IH 20)	164	76,900	2.13
Elam Road (Elam to Pioneer Road)	40	69,000	0.58
Haskell Avenue/Military Parkway (IH 30 to IH 20)	93	94,500	0.98
Main Street (Malcolm X and Exposition Avenue)	27	2,300	11.74
Commerce Street (Malcolm X and Exposition Avenue)	21	4,500	4.67
Elm Street (Malcolm X and Exposition Avenue)	15	5,200	2.88
Northwest-Southeast Arterials			
1 st Avenue (Elm Street to SH 352)	6	10,200	0.59
2 nd Avenue (Commerce Street to SH 352)	4	11,000	0.36
Northeast-Southwest Arterials			
Martin Luther King Boulevard (IH 45 to SH 352)	78	16,500	4.73
Grand Avenue (IH 45 to Washington Avenue)	31	7,800	3.97
Controlled Access Roadways			
US 175	292	627,200	0.47
SH 310	74	363,800	0.20

Source: City of Dallas & TxDOT compiled by Carter & Burgess, August 1999

Notes: (1) Vehicle Miles of Travel (VMT) = Average Daily Traffic Volume (1995) x Length of Roadway Segment in Miles and (2) Accident Rate = Number of Accidents/(VMT / 1000)

Increasing Capacity of the Transportation System

- Providing additional transit capacity in heavily traveled corridors;
- Changing modes of travel and reducing the existing dependence on the automobile thereby helping improve air quality; and
- Reducing travel delay thereby helping improve air quality.

Increasing Economic Development Opportunities

- Creating new opportunities through transit-oriented development; and
- Enhancing travel and accessibility to major entertainment and cultural facilities such as Fair Park, the Latino Cultural Arts Center, and Deep Ellum.

1.5 PLANNING CONTEXT

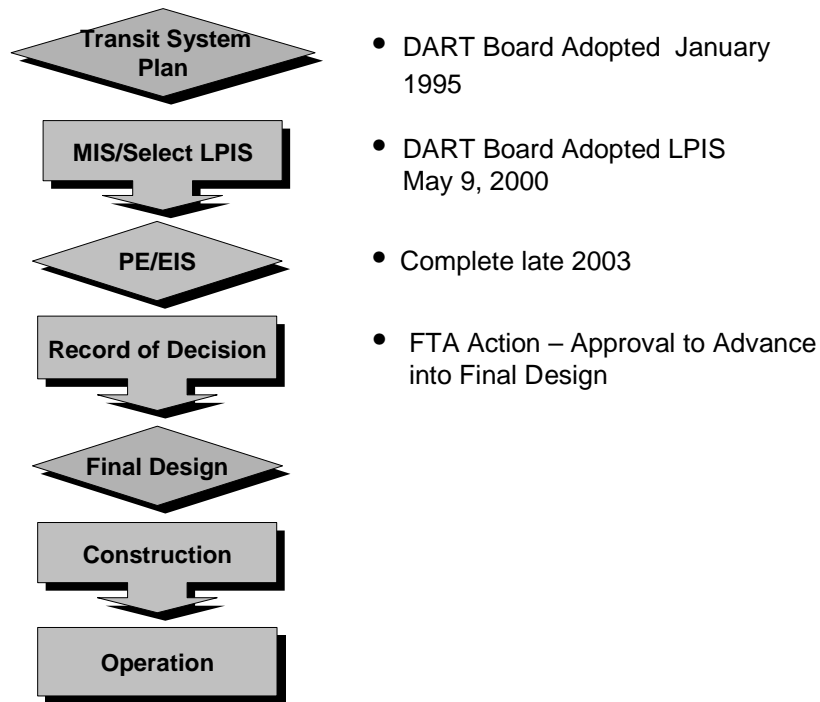
The direction and purpose of DART at the inception of its efforts to evaluate transportation improvement alternatives in the study area were oriented to the Federal Transit Administration's (FTA) traditional Alternatives Analysis/Draft Environmental Impact Statement (AA/DEIS) planning approach. Federal legislative action in 1991 and new planning regulations published in 1993 altered this approach, modifying the traditional selection process used in identifying the LPIS. A brief discussion of the decision framework is presented, followed by an outline of the process followed in selecting the LPIS through an MIS process. Subsequent to the initiation of the MIS for the Southeast Corridor, the passage of the Transportation Equity Act for the 21ST Century (TEA-21) eliminated the MIS as "a separate process." Instead, the Transportation Secretary has developed regulations integrating the MIS, as appropriate, as part of the analyses requiring an undertaking pursuant to the agency's planning provisions and the National Environmental Protection Act (NEPA). Pending this promulgation, the Southeast Corridor MIS and EIS has proceeded under the directives of the planning provisions of TEA-21 and NEPA to integrate the analyses. Thus, the LPIS is a set of mobility improvements, developed by the MIS and approved by the DART Board, that includes the Build Alternative (LRT), a light rail project. The LPIS includes TSM, TDM, and roadway improvements, some of which will be implemented by other agencies. The Build Alternative (LRT) is identified in this document as the Locally Preferred Alternative (LPA) and is the project to be implemented by DART.

1.5.1 Decision Framework

To qualify for federal funding for this project, DART proceeded on a course to fulfill the requirements of the NEPA, by satisfying regulations and guidelines established by the Council on Environmental Quality (CEQ) and the FTA. These regulations and guidelines define a process ensuring that reasonable and feasible alternative solutions to transportation problems are evaluated and their associated environmental impacts thoroughly assessed. In addition, DART must demonstrate to FTA that the build alternative is cost-effective before the project can be advanced through the process toward federal funding. Figure 1.4 depicts the steps and decision-making process involved in the FTA project development process and a possible schedule for implementing a major transit project in the Southeast Corridor.

Following the inclusion of the project in the DART *Transit System Plan*, DART conducted a *Needs Assessment* study for the Southeast Corridor. More specifically, the purpose of the study was to analyze travel patterns in the southeast portion of the DART Service Area, identify transportation issues and deficiencies, prepare a preliminary statement of purpose and need for a major transportation investment, and identify the initial alternatives for a planned MIS. The study documented a detailed analysis of population and employment growth trends, and travel characteristics in the study area. As a result of this study, a statement of the problems and needs to be addressed in the MIS, as well as a set of initial range of transportation improvement strategies to meet these needs, were developed. The *Needs Assessment* also developed the framework for the proposed public and agency involvement program.

Figure 1.4 FTA Flowchart



1.5.2 MIS

In the fall of 1999, DART, in cooperation with the FTA, initiated the MIS phase of the project development process for the study area. The MIS phase, which followed the first phase (Transit System Plan), was intended to provide a basis for selecting the most appropriate transportation improvement for the study area. Related documentation was being prepared in conformance with CEQ *Regulations for Implementing the Procedural Requirements of the NEPA of 1969, as amended* (40 CFR Part 1500), and FTA *Environmental Impact and Related Procedures* (49 CFR Part 622).

The MIS provides a broader basis for decisions by the local community relating to the design concept and scope of proposed major investments for transportation improvements. Implementation of this new framework for planning requires extensive coordinated agency action. The planning and decision process is coordinated with the Metropolitan Planning Organization (MPO), and other affected agencies (e.g., State Department of Transportation). In addition, integrated environmental analyses must be conducted, as well as modal trade-off analyses. Thus, effective coordination with the diverse interest groups becomes vitally important

during the evaluation of alternatives and the development of a consensus plan, which leads to the adoption of the LPIS.

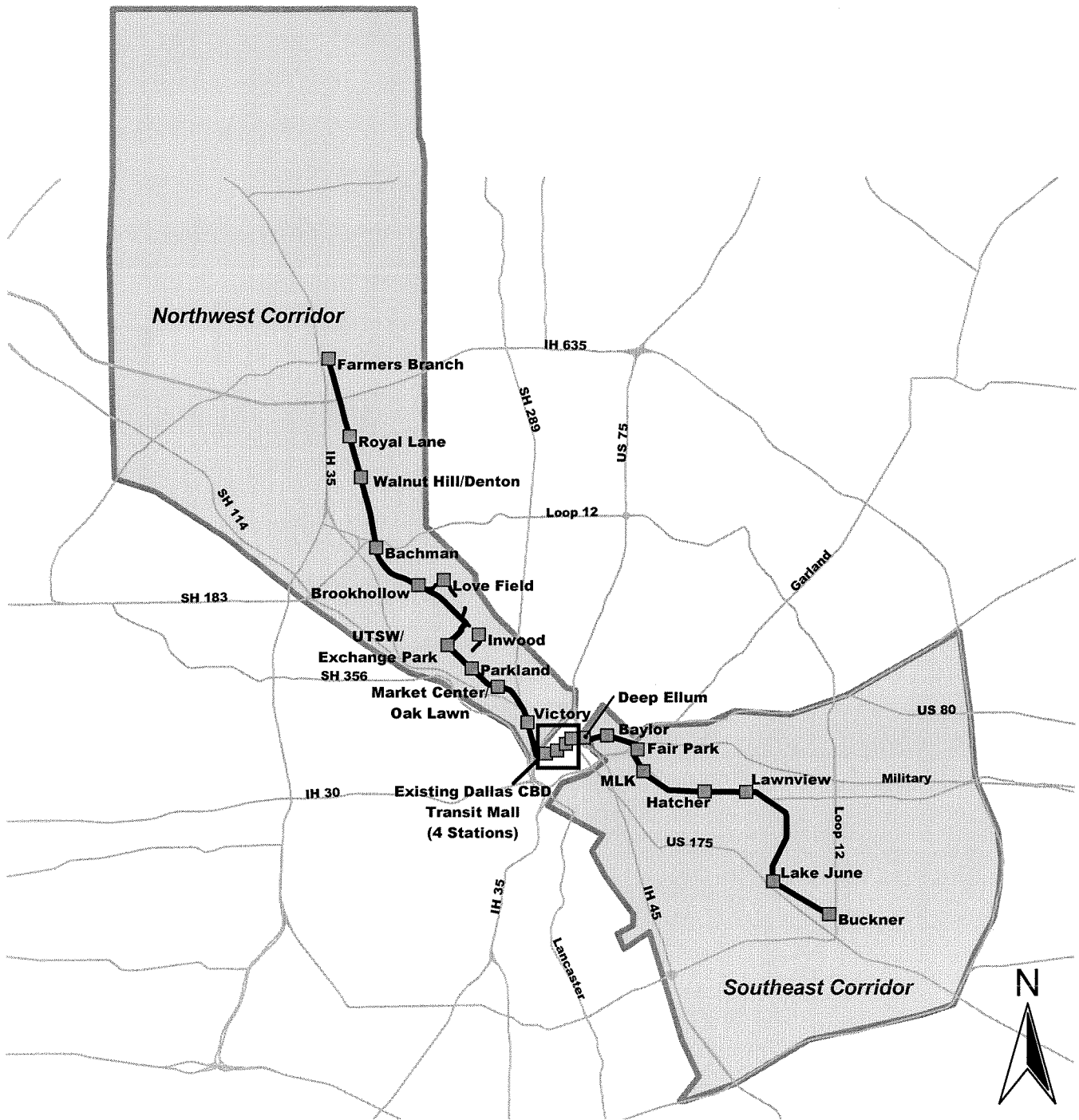
1.5.3 Selection of the Build Alternative

Based on the MIS evaluation process, the DART Board recommended UP/Parry/SP LRT (Alternative #4) as the Build Alternative for the Southeast Corridor. On February 8, 2000, the DART Board approved the first 8.2 miles (from downtown to Lake June Road). The Board requested further study regarding the use of Lake June Road for the last segment of the alignment instead of the former SP RR railroad right-of-way owned by DART. The study concluded that using the former SP RR alignment provided the best combination of ridership, cost, and public support with minimal environmental and community impacts because the majority of the alignment utilized former railroad right-of-way. As a result, DART amended the previously approved Build Alternative to include the former SP RR from Lake June Road to Buckner Boulevard on May 8, 2000. Final approval of the amended Build Alternative (LRT) was on May 9, 2000. This LRT alternative was presented to the public at a series of public scoping meetings on November 28, 29, and 30, 2000.

1.5.4 Description of Federal Project (New Starts)

For purposes of defining the “Federal Project” for a FTA Section 5309 New Starts submission, DART has combined the Southeast Corridor project and a majority of the Northwest Corridor. This federal project forms a single, federally funded, comprehensive, and cost-effective project to meet the wide range of mobility, community, and financial needs in both the Northwest and Southeast Corridors. A separate EIS is being done for the each of the corridors. The 22-mile Minimum Operable Segment (MOS) reflects an LRT line from Farmers Branch (Northwest Corridor) through the Dallas CBD to Buckner Boulevard (Southeast Corridor) (Figure 1.5). This federal project will link key activity and employment centers in the MOS corridor, including Dallas Love Field Airport, Medical Center District (Parkland, Children’s, Zale Lipshy, St. Paul hospitals and the University of Texas Southwestern Medical Center), Market Center, Victory American Airlines Center, the Dallas CBD, Baylor HCS, Deep Ellum, and Fair Park with the rest of the regional rail system. If approved, the project is scheduled to be completed and opened for revenue service in staged line segments during the years 2007 and 2008 (working schedule, subject to change. DART’s dedicated local sales tax, as well as long term bond financing, will

Figure 1.5 Northwest/Southeast Light Rail MOS



Legend					
	NW/SE MOS Line		NW Corridor Design Options		Roads
	NW/SE MOS Stations		NW/SE Study Area		



fund the remainder of the Northwest Corridor LRT line from Farmers Branch to Frankford, also planned to be open for revenue service in 2008 (subject to change).

Given the definition of the Federal Project and the similar revenue service dates for the Northwest and Southeast Corridors, the ridership forecasts and operating plans in each project's EIS document assume both corridors are in place for the Build Alternatives. Each No-Build Alternative assumes neither corridor is in place. This ensures an accurate portrayal of future ridership and operating plans, while addressing the effects of each corridor in separate EIS documents.

1.5.5 Role of the EIS in Project Development

The primary purpose of the DEIS was to assist decision makers in the assessment of impacts associated with the No-Build Alternative and the Build Alternative (LRT). The DEIS served as the primary document to facilitate review by federal, state, and local agencies and the general public of the proposed Build Alternative (LRT). The EIS documents the purpose and need for the project and presents a discussion of the alternatives considered. It addressed in detail the anticipated transportation and environmental impacts of the project and provided definition for appropriate mitigation measures.

The DEIS was circulated for the required 45-day review and comment period from February 22 to April 8, 2002. During the 45-day period, the document was made available to interested and concerned parties including private citizens, community groups, the business community, elected officials, and public agencies. A series of public hearings were held within the study area to obtain comments on March 12, 13, and 14, 2002. Following circulation and public review of the DEIS, the engineering and environmental studies have been completed, and responses prepared to address comments offered during the 45-day review period.

The completion of the preliminary engineering, environmental studies, and a mitigation program have led to the publication of this Final EIS (FEIS). This document reflects the attention given to the comments received during the evaluation of the alternatives, the selection of the preferred alternative, and the circulation of the DEIS. Completion of the environmental review and impact documentation process of the Final EIS, followed by the signed Record of Decision (ROD) by the FTA, will permit the project to be advanced to the final design and construction phases.

CHAPTER 2 - ALTERNATIVES CONSIDERED

This chapter describes the alternatives that have been considered for a major transportation investment to serve the study area. The initial discussion focuses on the general planning context used in selecting the Build Alternative (LRT) and advancing the project into implementation. The discussion provides an examination of the various alternatives considered during the alternative analysis, the MIS phases of the project, and the process by which the Build Alternative (LRT) was selected. Definitions of the alternatives considered for implementation and analyzed in detail as part of the EIS are discussed in the second part of this chapter. Alternatives being considered for implementation in the study area include a No-Build Alternative and a Build Alternative (LRT).

2.1 SCREENING AND SELECTION PROCESS

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) outlined a new policy for guiding consideration of proposed transportation investment projects before advancing them through the project development process. In the past, the FTA rated major transit investment projects based on narrowly defined cost-effectiveness indices. ISTEA and new implementing regulations require that the FTA consider a broad range of evaluation criteria during “corridor” or “subarea” studies. Major investment (corridor or subarea) studies are undertaken to provide a basis for evaluating the effectiveness and cost-effectiveness of alternative investments or strategies in attaining local, state, and national goals and objectives.

The new Joint Planning Regulations published by FTA and the Federal Highway Administration (FHWA) in response to the ISTEA indicates the sponsors of proposed major transportation investment projects now must consider, in addition to cost-effectiveness, the following factors:

- Mobility Improvements (such as travel time & travel opportunities, congestion relief, increased mobility for the transit dependent population);
- Social, Economic, and Environmental Effects (such as air and noise pollution);
- Safety;
- Operating Efficiencies;
- Land Use and Economic Development (such as transit-supportive land use policies and patterns); and
- Financing

The regulations also state that corridor or subarea studies should incorporate, as appropriate, analyses of demand reduction and operational management strategies (OMS).

2.1.1 Conceptual Alternatives Considered During the MIS

DART completed a MIS for the Southeast Corridor in May 2000. This study evaluated potential alternatives and alignments and presented a comprehensive transportation improvement strategy. The primary purpose of the study was to provide a decision-making tool for selecting the transportation strategies based upon an initial identification of issues and a preliminary assessment of potential environmental impacts. The study evaluated the engineering and environmental implications of the recommended alternative, as well as considered other modes and alignments for connecting the Dallas CBD to the southeastern portion of Dallas County.

An evaluation process was conducted, as part of the MIS, that provided the technical framework through which potential transportation improvement alternatives and alignments were comparatively analyzed. The evaluation analysis determined how well each alternative addressed the identified travel needs, goals, and objectives. The comparative evaluation of the alternatives was conducted in two phases: Phase 1 Conceptual Evaluation and Phase 2 Detailed Evaluation.

Conceptual alternatives were initially screened during the Phase 1 Conceptual Evaluation of the MIS process. A detailed discussion of the MIS process was documented in the *Southeast Corridor Final Phase 1 Conceptual Evaluation Summary Report, June 1999*, and is available to the public for review. A range of alignments and modes were identified to try to meet the mobility needs of the corridor, which included Transportation Systems Management (TSM)/Congestion Management System (CMS), Transit/HOV, and Bus Rapid Transit (BRT), and 54 LRT options. The screening approach was based on the goals and objectives described in Chapter 1 of this document. These alternatives represented a range of alignments and modes identified to meet the mobility needs of the corridor. Based on the evaluation measures and criteria established for this phase of the MIS process, the following alternatives were recommended for further definition and evaluation in the second phase of the MIS:

- No-Build Alternative
- TSM/CMS Alternative
- LRT Alternative – eight Selected Alternative Alignments

During the Phase 2 Detailed Evaluation, a more extensive list of evaluation criteria and measures was applied for a comparative rating of the alternatives which provided information for the recommendation of the preferred investment strategy decision. Most of the evaluation measures were based on a quantified decision-making process. For this phase of the evaluation, all alternatives were compared to each other with the No-Build as a baseline alternative, using the established set of evaluation criteria and measures. The following describes the MIS Phase 2 Alternatives:

No-Build - Alternative #1

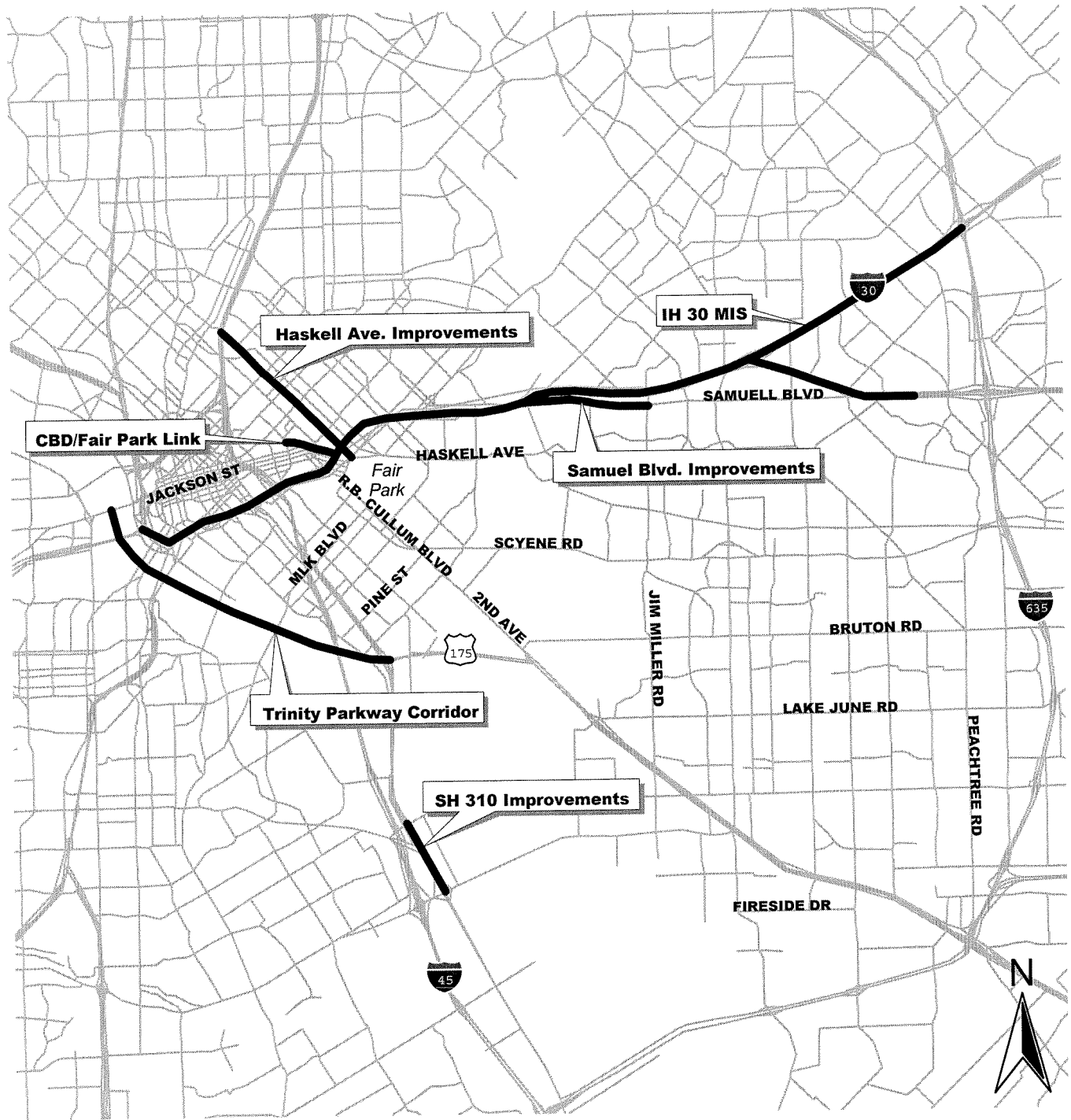
The No-Build Alternative was required as a part of the MIS process to provide a baseline for comparing the TSM/CMS Alternative and the LRT alternatives. The rating of the No-Build Alternative was as an indication of the planned and programmed projects capacity to meet the needs of the corridor.

The No-Build Alternative assumed no major investments in transportation improvements in the study area beyond those programmed and funded by the City of Dallas, Dallas County, DART, TxDOT, or Federal entities by the Year 2020. No-Build improvements were those projects included in the approved Metropolitan Transportation Plan (MTP) (NCTCOG *Mobility 2020 Plan*, November 1995, updated December 1997), Capital Improvement Plans for the City of Dallas, Dallas County, and the *1998 State Transportation Improvement Program (STIP)*. *Mobility 2020* was the adopted MTP at the time the MIS was conducted. The No-Build Alternative included a range of strategies and projects such as the regional CMS. See Figure 2.1 for map showing the programmed and funded improvements that were considered part of the No-Build Alternative.

TSM/CMS – Alternative #2

This alternative represented a less-capital intensive improvement strategy to address congestion problems in the Southeast Corridor. The TSM/CMS alternative included all of the elements of the No-Build Alternative, which contained projects planned and programmed through the Year

Figure 2.1 MIS Alternative 1: Major Roadway Projects



Legend

	
Major Roadway Projects	Roads

Source: TxDOT



2003. The TSM/CMS alternative attempted to identify additional measures beyond 2003 using strategies such as TDM programs, bus route modifications, bicycle and pedestrian improvements, TSM improvements on arterials and highways, Intelligent Transportation Systems (ITS)/Advanced Transportation Management (ATM), and special events management. The primary guideline in developing the TSM/CMS Alternative was to ensure that identified strategies resulted in a time or convenience benefit for the transit rider, an overall performance improvement for the roadway or route, or a general mobility improvement. During the development of the TSM/CMS Alternative, bus route modifications to the current route network and new route alignments were evaluated for the study area and are described in the Table 2.1. Figure 2.2 shows the roadway improvements included in the TSM/CMS Alternative.

SP/Service Plan LRT – Alternative #3

The SP/Service Plan LRT followed portions of the UP RR and SP RR owned by DART. This alternative was most commonly referred to as the Service Plan Alignment. This alignment followed Good-Latimer Expressway south from the Pearl Street Station of the existing LRT system to just south of Gaston Avenue. It would then turn eastward and follow the former UP RR right-of-way until Hall Street. The alignment then followed the former SP RR to the southeast. DART owns both the former UP & SP railroad rights-of-way. This alignment option could remain on the former SP RR, which parallels Trunk Avenue or could deviate onto the median of R.B. Cullum Boulevard until Second Avenue. Both options would be within the former SP RR west of Second Avenue. The alignment would continue along the former SP RR right-of-way, which parallels Scyene Road then turned south through the Grover Keeton Golf Course. The alignment would cross Lake June Road and turn southeast roughly parallel to US 175 to Elam Road. See Figure 2.3 for the map showing the SP/Service Plan LRT.

UP/Parry/SP LRT - Alternative #4

The UP/Parry/SP LRT was similar to the SP/Service Plan LRT except it used the former UP RR from Hall Street to Parry Avenue. This alignment would follow Good-Latimer Expressway south from the Pearl Street Station of the existing LRT system to just south of Gaston Avenue. It would then turn eastward and follow the former UP RR right-of-way until Haskell Avenue where it would turn southwest and parallel Parry Avenue and the west side of Fair Park, passing by the National Women's Museum and the Music Hall. This alignment option would turn to the southeast and could follow the median of R.B. Cullum Boulevard or the former SP RR parallel to

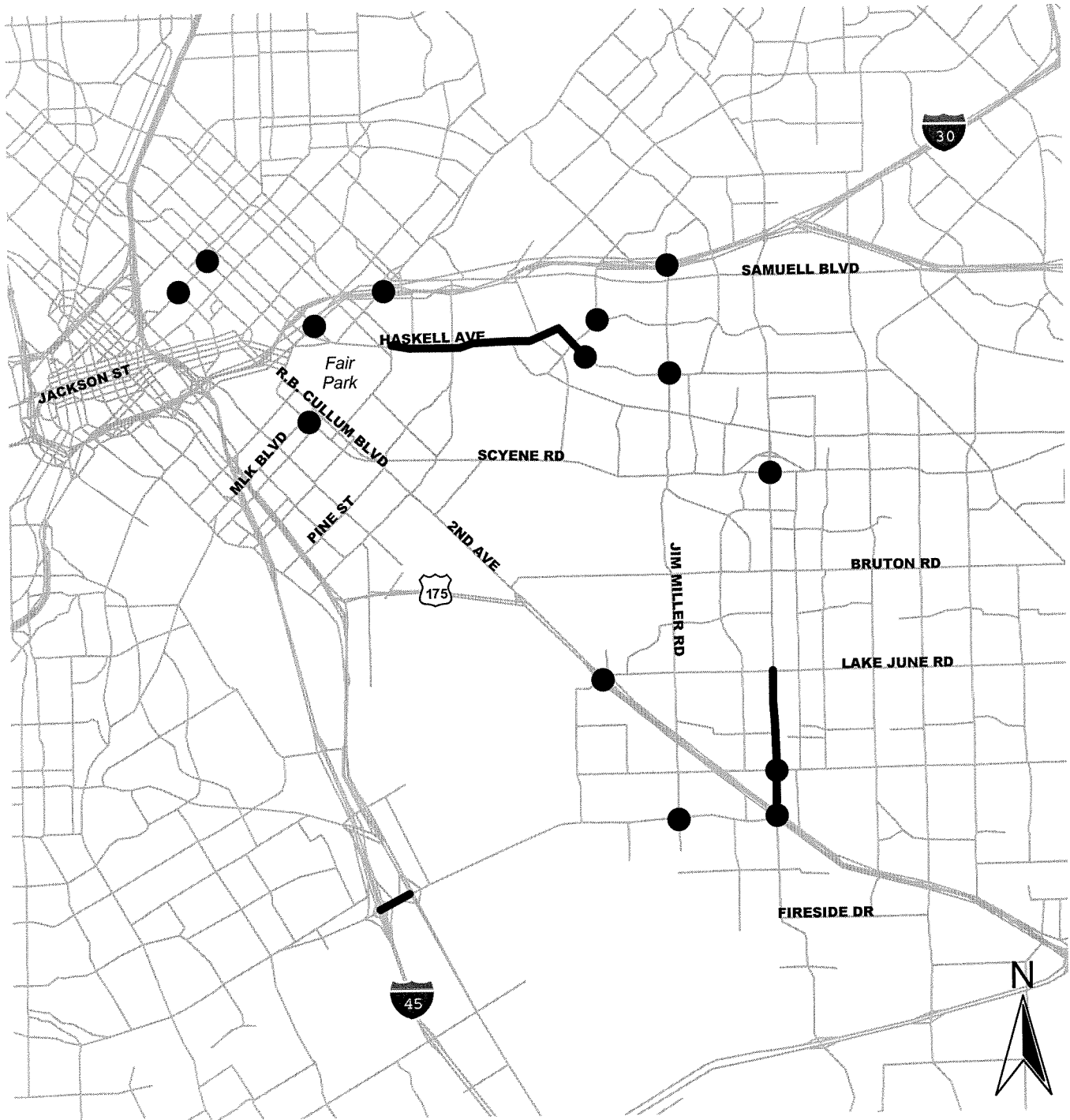
Table 2.1 MIS TSM/CMS Proposed Bus Route Modifications



Bus Route	Route Description
2	Route 2 is extended from Martin Luther King and Ervay as a counterclockwise loop via Colonial, Pennsylvania, Harwood, Cooper, Colonial, Hatcher, Troy, Spring, Second, Fitzhugh, and Cullum to the South Dallas/Fair Park transit center; continuing via Martin Luther King to Ervay (Route 26 provides clockwise service along this loop). West of Martin Luther King Boulevard Route 2 is unchanged.
3	Route 3 is restructured and interlined with Route 12 in South Dallas. The current Route 3 alignment is unchanged between downtown Dallas and Hatcher. Under this alternative, Route 3 extends from the Crozier/Hatcher intersection via Hatcher, Meadow, Garden, Second, and Dixon to Barber. At Barber Route 3 becomes revised Route 12 and continues via Scyene, Hatcher, Lagow, Fitzhugh, Cullum, the South Dallas/Fair Park transit center, Martin Luther King, Meadow, Grand, Good-Latimer and Elm westbound or Commerce eastbound to the CBD West Transfer Center.
11	Route 11 maintains its current alignment.
12	Route 12 is restructured and interlined with Route 3 in South Dallas. Route 12 replaces current Route 46 between downtown Dallas and the South Dallas/Fair Park transit center. The current Route 12 branch to Frazier Courts is deleted. Routes 2 and 26 (reverse loops) serve the current Frazier Courts branch of Route 12. Revised Route 12 extends from the CBD West Transfer Center via Main westbound or Commerce eastbound, Good-Latimer, Grand, Meadow, and Martin Luther King Boulevard to the South Dallas/Fair Park transit center; it continues along Cullum, Fitzhugh, Lagow, Hatcher, Scyene, and Dixon to Barber. At Barber, Route 12 becomes Route 3 and continues to downtown Dallas via Dixon, Second, Garden, Meadow, Hatcher, Crozier and the current Route 3 alignment to the CBD East Transfer Center, downtown stops, and the Lakewood terminus.
26	Route 26 is restructured. It operates as a clockwise loop from Ervay at Martin Luther King Boulevard via Martin Luther King to the South Dallas/Fair Park transit center, continuing via Cullum, Fitzhugh, Second, Spring, Troy, Hatcher, Colonial, Cooper, Harwood, Pennsylvania, Colonial to Martin Luther King (Route 2 provides counterclockwise service along this loop). West of Martin Luther King Boulevard Route 26 is unchanged.
29	Route 29 is restructured. The alignment is the same as described for Alternative B between downtown Dallas and the Scyene/Buckner intersection. Route 29L operates from the Forney/Military intersection via Forney, Lawnview, Glover Pass, Hollis, Jim Miller and Scyene (current Routes 29B and 29P) to Buckner. Route 29M operates via Military and Buckner to Scyene/Buckner. Both Routes 29L and 29M continue via Buckner, Loop 12, Jim Miller and Lake June to the Pleasant Grove transit center. Route 29 provides continuous service along Buckner between Scyene and Loop 12/US 175. Current Route 29 service along Bruton and Scyene Roads is replaced under this alternative by Route 161B along Bruton and Route 50 along Scyene.
42	Route 42 is restructured to comprise two branches (42A and 42B). Route 42A operates from downtown Dallas via US 175 to the Pleasant Grove transit center, it continues via Lake June, Pemberton Hill, Jeane, Rayenell, Elam, Masters and Old Seagoville to St. Augustine. Route 42B follows the same alignment as Route 42A between downtown and the Pleasant Grove transit center. Route 42B continues from the transit center via Lake June, Pemberton Hill, Jeane, Ella, Alcorn, Stoneport, Loop 12, Jim Miller, Gayglen, Forsythe, Komalty, Murdock, US 175, Prairie Creek, Orinoco, and Old Seagoville to St. Augustine. Routes 42A and 42B are interlined at the Old Seagoville/St. Augustine intersection. Selected trips from Route 42 operate to the Rylie-Kleburg area via St. Augustine, to a terminal loop along Rylie, Haymarket, Teagarden, and St. Augustine.
44	Route 44 maintains its current alignment.
46	This route is deleted between downtown and South Dallas. The segment west of Martin Luther King Boulevard is served by Route 12 under this alternative. No service is provided along the deleted segment along Meadow, east of Martin Luther King Boulevard.

Bus Route	Route Description
50	Extend Route 50 from the Old Seagoville/St. Augustine terminus to the Pleasant Grove transit center, South Dallas/Fair Park transit center and downtown Dallas as described for Alternative A. Also, extend a branch of Route 50 to the City Place LRT station. Route 50 is restructured to comprise two branches. It is extended farther east into the Pleasant Grove area to serve as a north/south cross-town and as a feeder to the Pleasant Grove transit center. The current Route 50 segment south of Scyene along Hillburn and Buckner is deleted; replacement service is provided by Route 475. Revised Route 50A extends from downtown Dallas and the CBD East Transfer Center via Gaston, Hall, the Fair Park connector, Exposition, Parry, and Cullum the South Dallas/Fair Park transit center. Route 50A continues via Cullum, Scyene, and St. Augustine to a terminal loop along Old Seagoville, Masters, US 175 and St. Augustine. At the end of the loop, Route 50A becomes Route 50B. Route 50B continues via Old Seagoville, Prairie Creek, Elam, Holcomb, and Lake June to Pleasant Grove transit center. Route 50B continues from the transit center via US 175, Second Avenue, Cullum, the South Dallas/Fair Park transit center, Cullum, Parry, Exposition, the Fair Park connector, Hall, Live Oak, Peak and Haskell to the City Place LRT station.
161	Route 161 comprises two branches east of the Pleasant Grove transit center.
161A	Route 161A operates along Lake June Road to Cheyenne, then south to a terminal loop via Big Thicket, Bitter Creek, and Addie. Route 161B operates from the Pleasant Grove transit center via Lake June, Jim Miller and Bruton Roads to a terminal loop along Cheyenne, Oakgate and Masters. Current Route 161 service along Holcomb is replaced by Route 11 under this alternative.
409	Route 409 is extended from the South Dallas/Fair Park transit center via Martin Luther King, Meyers, Pennsylvania, Malcolm X, Lawrence (westbound), Hastings (eastbound), Bexar, Bethurum, Pilgrim, Dorris, and a terminal loop along Bexar, Parsons, Canaan, Wells Municipal, and Samoa to Bexar. This southward extension is along the current Route 44 alignment between Pennsylvania and Samoa. Delete the route extension from the South Dallas/Fair Park transit center to the Pleasant Grove transit center via Second Avenue and US 175.
445	Route 445 maintains its current alignment.
466	Cross-town Route 466 is restructured to serve the Pleasant Grove transit center. From the intersection of Loop 12 and Stoneport, the route extends along Stoneport, Alcorn, Ella, Jeane and Lake June to the transit center; it continues along Lake June to Buckner Boulevard where it returns to the current route. Current Route 466 service along Loop 12 between Stoneport and Jim Miller, and along Buckner between Elam and Lake June, is replaced by Route 42 and Route C1 of this alternative, respectively. No replacement service is provided along Jim Miller between Loop 12 and Elam.
475	Route 475 operates to the Pleasant Grove transit center only. Terminate Route 475 at the Pleasant Grove transit center. Former Route 475 service south of US 175 is provided by Routes 42A and 42B.
992	New Route 992 operates express from the Pleasant Grove transit center directly to the Medical Center area in the Northwest corridor. Route 992 operates non-stop from the transit center via US 175, Trinity Parkway, and Inwood Road to Medical Center Drive. The route makes local stops along a loop via Medical Center Drive, Record Crossing, Harry Hines, Motor, and Medical Center Drive to the Inwood intersection where the return trip begins.
993	New Route 993 operates express service from the South Dallas/Fair Park transit center directly to the Medical Center area in the Northwest corridor. Route 993 operates limited-stop from the transit center via Martin Luther King Boulevard, with stops at Malcolm X Boulevard and Colonial. It operates non-stop along Trinity Parkway and Inwood Road to Medical Center Drive. The route makes local stops along a loop via Medical Center Drive, Record Crossing, Harry Hines, Motor, and Medical Center Drive to the Inwood intersection where the return trip begins.
Pleasant Grove Circulator	The circulator route operates along Prairie Creek, Pinehaven, Cypress, Scyene, Masters, Old Seagoville, Prairie Creek, Lake June, Buckner, Bruton, and Prairie Creek to Cypress). Bi-directional service is provided.

Source: Carter & Burgess, 2000

Figure 2.2 MIS Alternative 2: TSM/CMS



Legend		
	Intersection Improvements	
		Roadway Widenings
		
		Roads

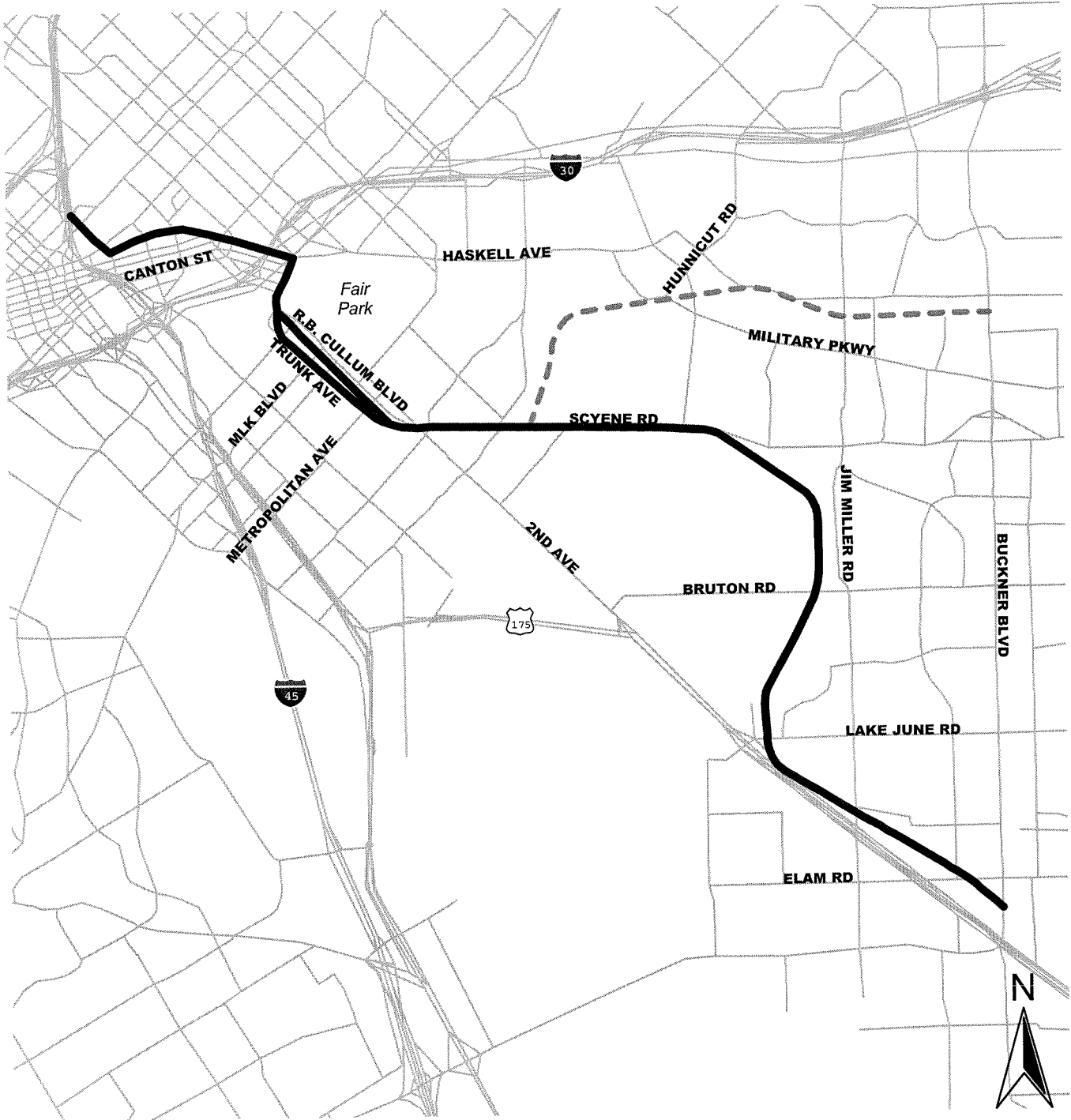
Source: NCTCOG






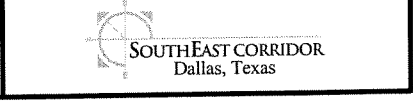
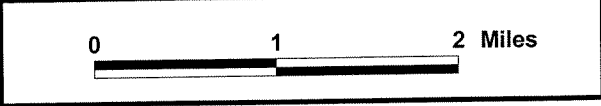
0 1 2 Miles




Figure 2.3 MIS Alternative 3: SP/Service Plan LRT



Legend		
	Alternative #3	
		Other alignments being studied
		
		Roads



Trunk Avenue until Second Avenue. Both options would be within the former SP RR from just west of Second Avenue to Buckner Boulevard. This alignment would use the former SP RR right-of-way, which parallels Scyene Road, then turns south through the Grover Keeton Golf Course. The alignment would cross Lake June Road and turn southeast roughly parallel to US 175 to Elam Road. See Figure 2.4 for the map showing the UP/Parry/SP LRT.

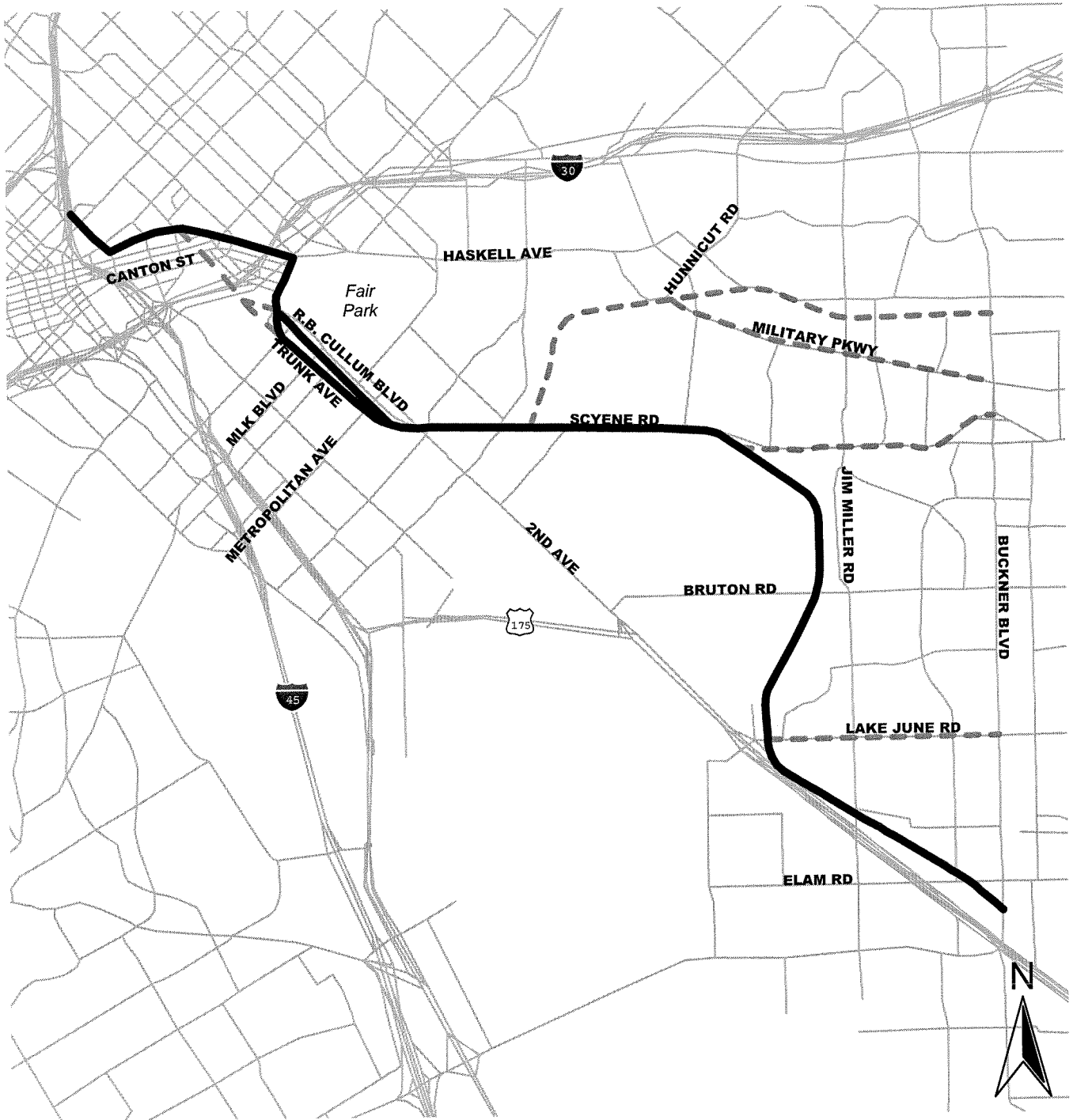
SP/Lake June LRT - Alternative #5

The SP/Lake June LRT provided increased access to commercial developments along Buckner Boulevard. The SP/Lake June LRT primarily would follow the SP/Service Plan LRT alignment except it would turn from the former SP RR to the east at Lake June Road and would continue east to its terminus at Buckner Boulevard. The alignment would follow Good-Latimer Expressway south from the Pearl Street Station of the existing LRT system to just south of Gaston Avenue. It would then turn eastward and follow the former UP RR right-of-way until Hall Street. This alignment then would follow the former SP RR to the southeast. This alignment option could remain on the former SP RR or could deviate onto the median of R.B. Cullum Boulevard until Second Avenue. Both options would be within the former SP RR from west of Second Avenue to Lake June. This alignment option would use the former SP RR right-of-way, which parallels Scyene Road, then turn south through the Grover Keeton Golf Course. At Lake June Road, the alignment would turn to the east along and follow Lake June Road to Buckner Boulevard. See Figure 2.5 for the map showing the SP/Lake June LRT.




UP/Parry/SP/Lake June LRT - Alternative #6

The UP/Parry/SP/Lake June LRT would provide increased access to commercial developments along Buckner Boulevard. It primarily would follow the UP/Parry/SP LRT alignment except it would turn from the SP RR to the east at Lake June road and would continue east to its terminus at Buckner Boulevard. This alignment would follow Good-Latimer Expressway south from the Pearl Street Station of the existing LRT system to just south of Gaston Avenue. It would then turn eastward and follow the former UP RR right-of-way until Haskell Avenue where it would turn southwest and parallel Parry Avenue and the west side of Fair Park, passing by the National Women's Museum and the Music Hall. This alignment option would turn to the southeast and follow the median of R.B. Cullum Boulevard or the former SP RR parallel to Trunk Avenue until Second Avenue. Both options would be within the former SP RR from just west of Second

**Figure 2.4 MIS Alternative 4:
UP/Parry/SP LRT**

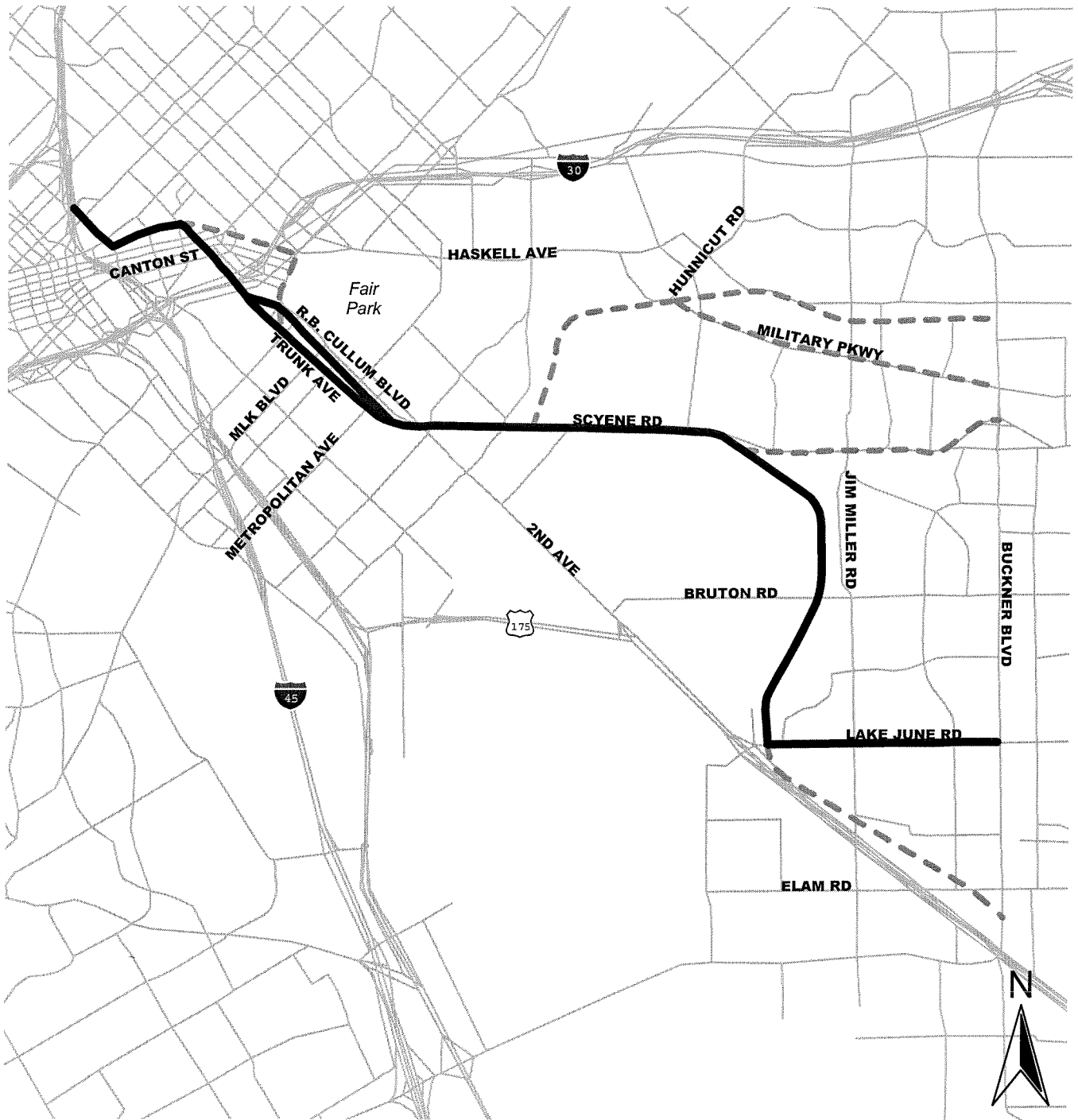


Legend




 <p>Alternative #4</p>	 <p>Other alignments being studied</p>	 <p>Roads</p>
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**Figure 2.5 MIS Alternative 5:
SP/Lake June LRT**



Legend

 <p>Alternative #5</p>	 <p>Other alignments being studied</p>	 <p>Roads</p>
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Avenue to Lake June Road. This alignment would use the former SP RR right-of-way, which parallels Scyene Road, then turned south through the Grover Keeton Golf Course. At Lake June Road, the alignment would turn to the east along and follow Lake June Road to Buckner Boulevard. See Figure 2.6 for the map showing the UP/Parry/SP/Lake June LRT.

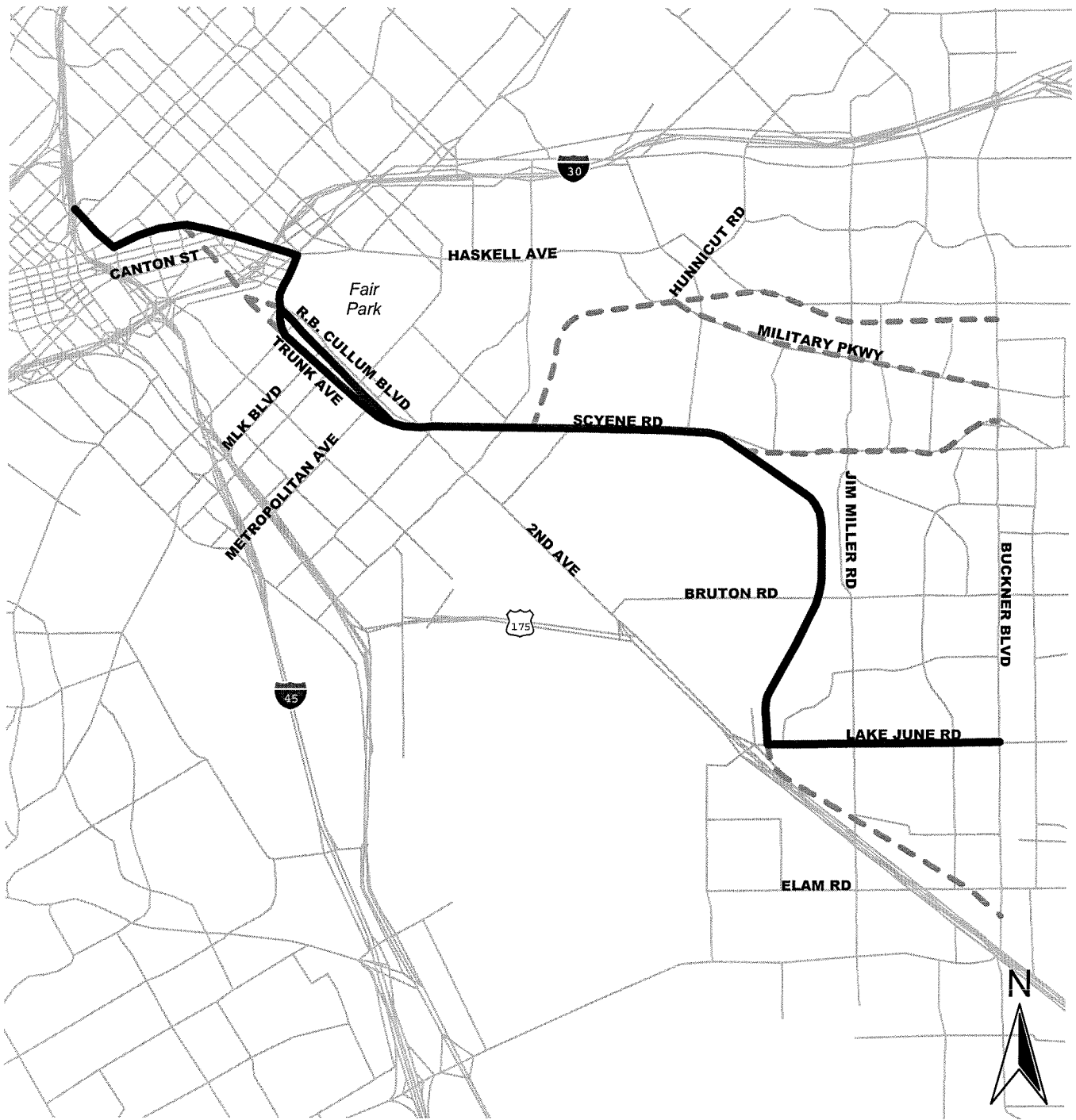
SP/Scyene Branch LRT - Alternative #7

The SP/Scyene Branch LRT included the SP/Service Plan LRT with the addition of a branch along Scyene Boulevard from Bisbee Drive to Buckner Boulevard. The alignment would follow Good-Latimer Expressway south from the Pearl Street Station of the existing LRT system to just south of Gaston Avenue. It would then turn eastward and follow the former UP RR right-of-way until Hall Street. This alignment then would follow the former SP RR to the southeast. This alignment option could remain on the former SP RR or could deviate onto the median of R.B. Cullum Boulevard until Second Avenue. All options would be within the former SP RR from west of Second Avenue to their termini at Buckner Boulevard. This alignment option would use the former SP RR right-of-way, which parallels Scyene Road then turns south adjacent to the Grover Keeton Golf Course. The alignment would cross Lake June Road and turn southeast roughly parallel to US 175 to Elam Road. This alternative included a second alignment, which would follow Scyene Road from Bisbee Drive to Buckner Boulevard. See Figure 2.7 for the map showing the SP/Scyene Branch LRT.

UP/Parry/SP/Scyene Branch LRT - Alternative #8

The UP/Parry/SP/Scyene Branch LRT included UP/Parry/SP LRT and added a branch along Scyene Boulevard from Bisbee Drive to Buckner Boulevard. This alignment would follow Good-Latimer Expressway south from the Pearl Street Station of the existing LRT system to just south of Gaston Avenue. It would then turn eastward and follow the former UP RR right-of-way until Haskell Avenue where it would turn southwest and parallel Parry Avenue and the west side of Fair Park, passing by the National Women's Museum and the Music Hall. This alignment option would turn to the southeast and follow the median of R.B. Cullum Boulevard or former SP RR parallel to Trunk Avenue until Second Avenue. Both options would be within the former SP RR just west of Second Avenue. This alignment would use the former SP RR right-of-way, which parallels Scyene Road, then turns south through the Grover Keeton Golf Course. The alignment crosses Lake June Road and turns southeast roughly parallel to US 175 to Elam Road. This option includes a second alignment, which would follow Scyene Road from Bisbee Drive to Buckner Boulevard. See Figure 2.8 for the map showing the UP/Parry/SP/Scyene Branch LRT.

**Figure 2.6 MIS Alternative 6:
UP/Parry/SP/Lake June LRT**



Legend




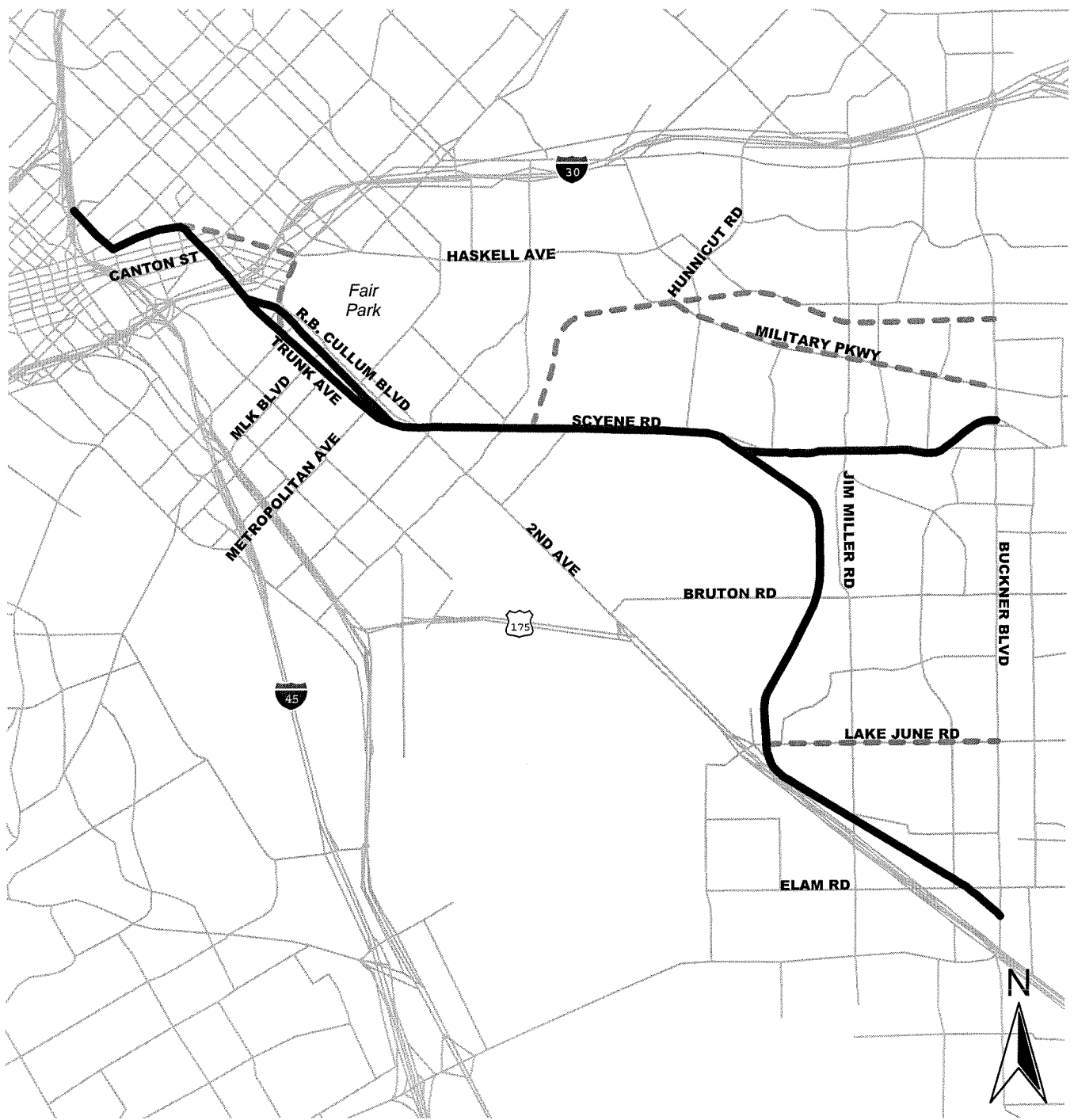
 Alignment #6	 Other alignments being studied	 Roads
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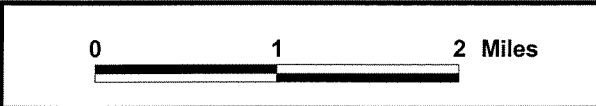


Figure 2.7 MIS Alternative 7: SP/Scyene Branch LRT

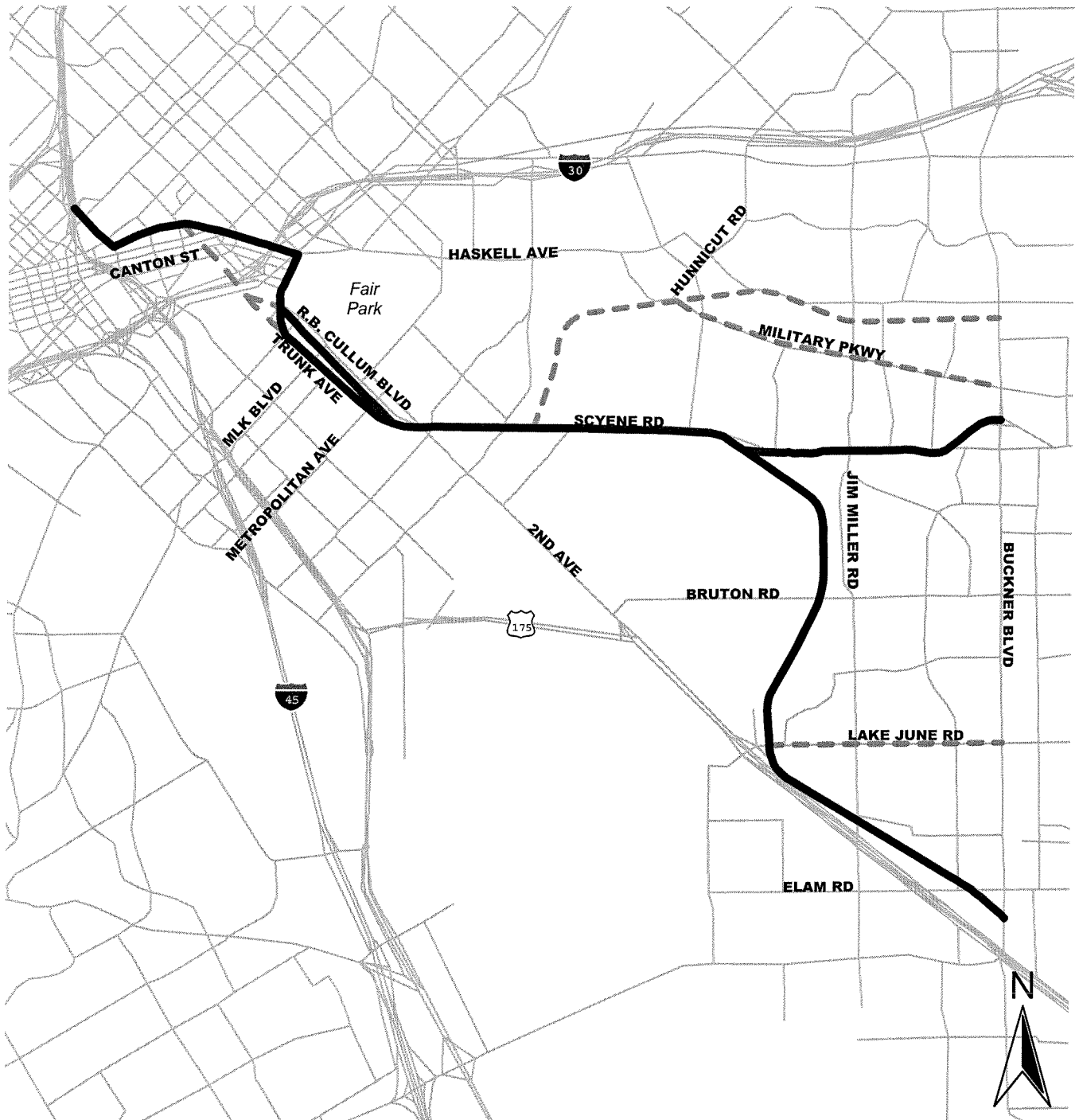


Legend

Alternative #7	Other alignments being studied	Roads
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**Figure 2.8 MIS Alternative 8:
UP/Parry/SP/Scyene Branch LRT**



Legend

Alternative #8	Other alignments being studied	Roads



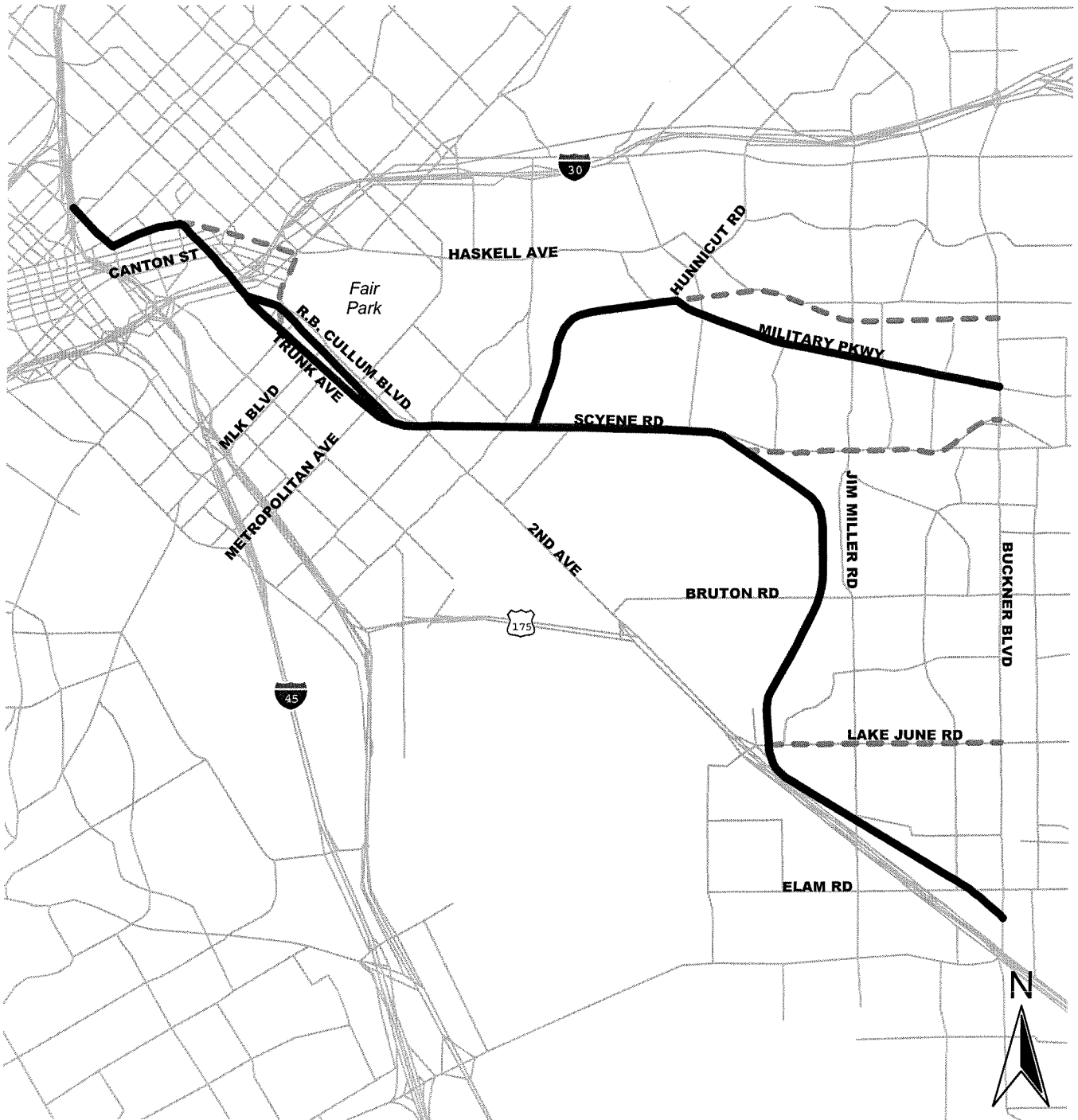
SP/UP/Military Parkway Branch LRT - Alternative #9

The SP/UP/Military Parkway Branch LRT included the SP/Service Plan LRT and adds a branch of the SP RR right-of-way along the SP RR/UP RR. The branch would follow the UP RR right-of-way to Military Parkway and then would transition to the median of Military Parkway, terminating at Buckner Boulevard. The alignment would follow Good-Latimer Expressway south from the Pearl Street Station of the existing LRT system to just south of Gaston Avenue. It would then turn eastward and follow the former UP RR right-of-way until Hall Street. This alignment then would follow the former SP RR to the southeast. This alignment option could remain on the former SP RR, which parallels Trunk Avenue or could deviate onto the median of R.B. Cullum Boulevard to Second Avenue. Both options would be within the former SP RR, west of Second Avenue. This alignment would use the former SP RR right-of-way, which parallels Scyene Road, then turn south through the Grover Keeton Golf Course. The alignment would cross Lake June Road and would turn southeast roughly parallel to US 175 to Elam Road. This alignment option also would include a branch alignment from the former SP RR right-of-way along the SP RR/UP RR right-of-way. This option would then follow the UP RR right-of-way to Military Parkway and then the median of Military Parkway to Buckner Boulevard. See Figure 2.9 for the map showing the SP/UP/Military Parkway Branch LRT.




SP/UP Branch LRT - Alternative #10

The SP/UP Branch LRT includes Alternative #3 and added a branch along the UP RR right-of-way. The alignment would follow Good-Latimer Expressway south from the Pearl Street Station of the existing LRT system to just south of Gaston Avenue. It would then turn eastward and follow the former UP RR right-of-way to Hall Street. This alignment then would follow the former SP RR to the southeast. This alignment option could remain on the former SP RR, which parallels Trunk Avenue or could deviate onto the median of R.B. Cullum Boulevard to Second Avenue. Both options would be within the former SP RR west of Second Avenue. This alignment would use the former SP RR right-of-way, which parallels Scyene Road, then turned south through the Grover Keeton Golf Course. The alignment crossed Lake June Road and turns southeast roughly parallel to US 175 to Elam Road. This alignment option also included a branch alignment from former SP RR right-of-way along the SP RR/UP RR. This option would follow the UP RR right-of-way to Buckner Boulevard. See Figure 2.10 for the map showing the SP/UP Branch LRT.

**Figure 2.9 MIS Alternative 9:
SP/UP/Military Parkway Branch LRT**



Legend

 Alternative #9	 Other alignments being studied	 Roads
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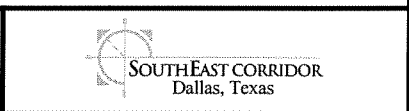
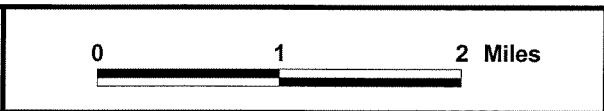
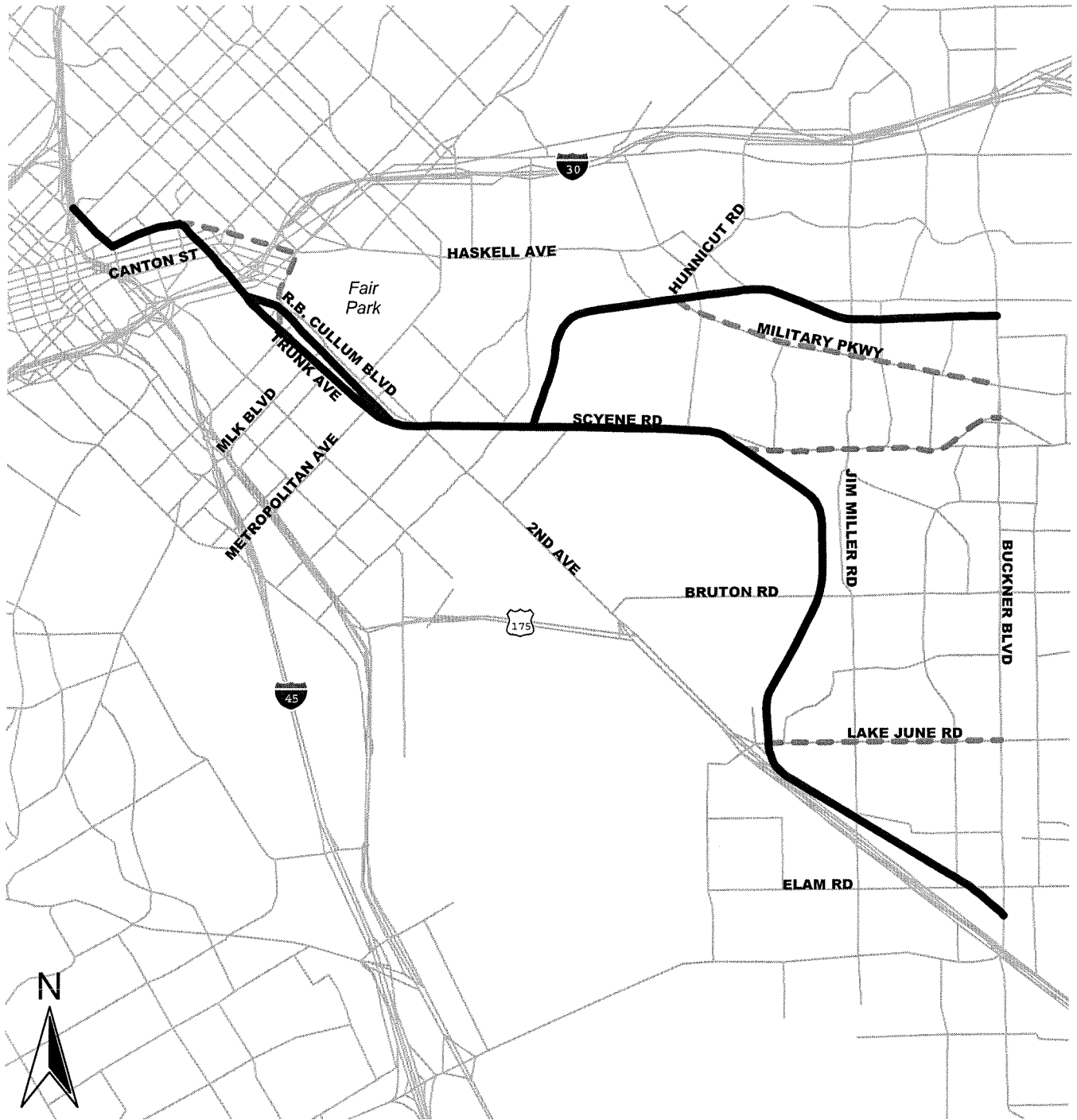


Figure 2.10 MIS Alternative 10: SP/UP Branch LRT



Legend

Alternative #10	Other alignments being studied	Roads
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2.1.2 The Rationale for Choosing the Locally Preferred Investment Strategy

The rationale for choosing the LPIS was based on a comparative rating system. The evaluation results, which are described in the *Southeast Corridor Phase 2 Detailed Evaluation Summary Report*, May 2000, are available to the public for review. A detailed list of evaluation criteria and measures were applied, comparatively rating each of the alternatives (including the No-Build Alternative). This rating system provided information for the recommendation of the preferred investment strategy decision. Numeric ratings were established for each criterion ranging from 1 to 5 with the “significantly negative ratings” assigned the number 1, and the “significantly positive ratings” assigned the number 5. All of the numeric ratings for each alternative were summed to form a single, numeric ranking of each alternative. The alternative with the highest rating was ranked the best candidate for recommendation as part of the LPIS.

The recommended LPIS, approved by the DART Board on May 9, 2000, is composed of not just one project, but several projects designed to create a strategy to improve mobility. The main component of the LPIS was a new LRT line that would connect downtown Dallas with the communities of Deep Ellum, Baylor, Fair Park, South Dallas, and Pleasant Grove. This component has been designated as the LPA to indicate that portions of the project to be implemented by DART, funded in part by FTA and the subject of this EIS. The LRT alignment selected to become the LPA was UP/Parry/SP LRT - Alternative #4. It was rated the highest and had the best combination of cost, ridership, and public and agency support. It also had minimal environmental and community impacts because the majority of the alignment would use existing railroad right-of-way. It also provided the best access and had the most economic development potential for both the South Dallas community and Fair Park. Table 2.2 summarizes the ratings for the ten alternatives considered.

2.1.3 Outstanding Issues for the LPA

During the development of the LRT Alternative during the MIS, several issues were identified that required further study during the development of the PE and EIS as more engineering data became available. The issues were as follows:



Table 2.2 Phase 2 Detailed Evaluation Summary

Alternative	Mobility Effects												Cost Effectiveness/Affordability				Social/Economic Effects				Environmental Effects						Public/Agency Support			Other	Total Score												
	Daily person trips	Regional System trips (daily)	Average annual corridor ridership (number of trips)	Aggregate annual hours of travel time saved	Changes in key intersection levels of service	Changes in corridor roadway levels of service	Number of street crossings	Improve travel time over No-Build Alternative	Completion of critical system links	Number of activity centers served	New service to centers not previously served	Improved service (frequency) over existing transit system	Key travel destinations accessible from the corridor without a transfer	Access to NW corridor employment centers not presently served	Change in Operating Cost per passenger Mile Compared to No-Build Alternative	Change in operating cost (annual) over the No-Build Alternative	Annual capital cost/annual rider	Within DART Financial Plan Budget	Incremental Cost/Incremental Rider	DART LRT Composite Index	Displacement and relocations (residents and businesses) or resources	Increased (new/additional) access to community facilities or resources	Level of consistency with existing or planned corridor development or redevelopment	Development/Redevelopment potential around stations or access points	Proximity of improvements to existing redeveloping areas or designated zones	Proximity to wetlands	Proximity to floodplain	Number of Section 4(f), 6(f) and 106 resources affected	Impacts to endangered species or wildlife habitat			Number of noise and vibration sensitive receptors within 200 feet of improvements	Change in criteria pollutant emissions	Presence of regulated materials, sites, brownfields and landfills	% of minority and low income populations served compared to average % in the region	Degree to which the alternative addresses issues & concerns in the Guiding Principles	Expressions of public support	Acceptability to property owners	Construction difficulty	Operational difficulty			
#1 No-Build	3	3	1	1	2	2	1	1	3	3	1	3	3	3	3	5	5	5	5		5	1	3	2	2	3	3	3	3	5	5	3	5	2	2	1	2	2	1	2	5	5	112
#2 TSM/CMS	2	4	2	2	3	4	2	2	3	4	3	4	3	4	3	5	5	5	5		4	1	3	1	2	3	3	3	3	5	5	4	5	3	3	2	3	2	3	5	5	125	
#3 SP/Service Plan LRT	5	4	5	5	3	3	3	5	5	5	5	5	5	5	5	3	4	4	2	5	4	4	4	4	2	2	2	3	3	5	2	4	5	4	5	4	3	4	3	4	4	150	
#4 UP/Parry/SP LRT	5	4	5	5	3	3	3	5	5	5	5	5	5	5	5	3	4	3	3	5	4	4	5	4	2	2	2	2	3	5	3	4	5	5	4	5	4	3	4	4	4	154	
#5 SP/Lake June LRT	5	4	5	5	3	2	2	5	5	5	5	5	5	5	5	3	4	4	2	5	4	3	4	4	2	2	2	3	5	3	4	5	3	4	5	3	2	4	4	4	4	146	
#6 UP/Parry/SP/Lake June LRT	5	4	5	5	3	2	2	5	5	5	5	5	5	5	5	3	4	3	2	5	3	4	4	4	2	2	2	2	3	5	3	4	5	3	4	5	3	2	4	4	4	144	
#7 SP/Scyene Branch LRT	5	4	5	5	3	2	2	5	5	5	3	5	5	5	5	2	3	3	1	5	4	4	4	4	2	2	2	3	5	2	4	5	4	4	3	3	3	3	3	3	137		
#8 UP/Parry/SP/ Scyene Branch LRT	5	4	5	5	3	2	2	5	5	5	3	5	5	5	5	2	3	3	1	4	3	4	5	4	2	2	2	2	3	5	3	4	5	4	4	3	3	3	3	3	137		
#9 SP/UP/Military Pkwy Branch LRT	5	4	5	5	3	1	1	5	5	5	3	5	5	5	5	2	3	2	1	4	4	3	4	4	1	2	2	2	3	5	1	4	4	4	3	3	3	3	3	4	130		
#10 SP/UP Branch LRT	5	4	5	5	3	3	2	5	5	5	3	5	5	5	5	2	3	2	1	4	1	3	3	3	2	2	2	2	3	5	1	4	4	4	2	1	1	3	3	3	124		

Ratings: 1 = Significantly Negative 2 = Moderately Negative 3 = Neutral 4 = Moderately Positive 5 = Significantly Positive

Source: Carter & Burgess, 2000

- Station Locations – The LPA includes eight potential station areas based on public input and ridership estimates. During the PE/EIS, these potential stations were finalized based on a more detailed station location evaluation process. The finalized locations are discussed in more detail in Section 2.2.2.3.
- Traffic Impact Analysis and Grade Separations – During the MIS, the study team conducted a preliminary analysis of potential traffic impacts related to LRT. Based on this analysis, several areas in the South Dallas/Fair Park area required more study. During the PE/EIS, the need for grade separations to avoid traffic impacts was evaluated based on criteria established in an existing agreement between DART and the City of Dallas as discussed in Section 4.2.2.1. No grade separations were warranted but several intersection improvements are proposed to mitigate any impacts to traffic.
- Historical Properties – Five properties in the study corridor are listed on the National Register of Historic Places (NRHP) and 13 additional properties have been determined eligible for listing. The Good-Latimer Tunnel would be directly impacted by the LRT alignment. No direct impacts would occur to the other properties and the introduction of catenary wires and equipment needed for the operation of LRT would not create an indirect visual impact to resources located adjacent to the alternatives. One of the most significant historic landmarks within the corridor is Fair Park. A station without parking is proposed at the ceremonial entrance to Fair Park. Although a trolley system operated in front of Fair Park historically, no physical evidence remains and the required equipment would have to be reinstalled. There is strong local support for the project and station in front of Fair Park from the Dallas Landmark Commission, City of Dallas Park Board, and Friends of Fair Park. Continued coordination with these organizations would be needed during the final design effort to ensure an LRT and station design that is sensitive to the historic nature of Fair Park.
- Freight Service – Currently, the southern portion of the Southeast Corridor is used by the UP RR to serve one freight customer, Dal-Tile. The industry is served over an existing track in the corridor that is connected to the UP RR near Hatcher Avenue. DART has made a commitment to the local community and this industry to maintain this service once LRT operations in the corridor begin. During the PE/EIS, alternatives and strategies were developed to address the service needs and provide the best operational and cost effective solution to a mixed operation on the corridor.

- Alignment along Good-Latimer Expressway – The MIS determined the Build Alternative (LRT) alignment should travel along Good-Latimer Expressway from downtown Dallas to the former UP RR. Neither the exact location within Good-Latimer nor how the alignment would transition into the former UP RR right-of-way was determined during the MIS. Different alignment options were developed during the PE/EIS and included west and center running alignments within roadway right-of-way to Gaston Avenue (see Section 2.2.2). Issues regarding traffic operations, LRT operations, access to local properties, and the structural and historical significance of the Good-Latimer tunnel were evaluated to select the best alignment.

2.2 DESCRIPTION OF THE ALTERNATIVES CONSIDERED IN THE ENVIRONMENTAL IMPACT STATEMENT

The purpose of the EIS is to compare environmental impacts associated with the Build Alternative (LRT) and the No-Build Alternative. The Build Alternative (LRT) carried forward for comparison is UP/Parry/SP LRT - Alternative #4, which was selected as the LPA during the MIS for the Southeast Corridor.

2.2.1 No-Build Alternative

The No-Build Alternative will examine the affects of not building LRT in the Southeast Corridor. This alternative assumes no major investments in transportation improvements in the study area beyond those programmed and funded by the City of Dallas, Dallas County, DART, TxDOT, or Federal entities by the Year 2025. Improvements included in the No-Build Alternative are in the NCTCOG *Mobility 2025 Plan Update*, the approved MTP for the region, Capital Improvement Plans for the City of Dallas, Dallas County, and the 2002-2004 STIP. In accordance with the metropolitan planning regulations, *Mobility 2025 Update* includes a CMS program to help improve air quality. The No-Build Alternative includes a range of strategies and projects described below.

- Employer Trip Reduction (ETR) Programs - DART provides alternative transportation services to employers in the region by offering transit system information, E-Pass program, vanpool/carpool matching, Bike & Ride program, and QuickStart vanpool program/subsides.
- Park-and-Ride Facilities/Transit Centers – One new transit center is planned in the Southeast Corridor near MLK Boulevard. The Lake June Transit Center opened in February

2002. These facilities will include bus bays, kiss-and-ride areas, permanent parking spaces, bicycle storage, and an enclosed waiting area with restroom facilities at each location. Both transit centers are designed to function as light rail stations in the future.

- Intersection and Signal Improvements - Approximately 40 intersection improvements and 185 signal improvements are planned and funded within the study area.
- Advanced Transportation Management - A mobility assistance program currently operates on IH 30, IH 45, US 175, IH 635, and IH 20 during peak hours. This program will be complemented by a basic communication system and a system of changeable message signs, closed circuit TV, and lane control signals on these same highways plus the proposed Trinity Parkway.
- Bicycle and Pedestrian Improvements - The *Mobility 2025 Plan Update* includes a regional system of bicycle paths designed for faster moving, commuting cyclists called Veloweb. The Trinity Dallas and East Loop segments of the Veloweb are within the study area. Other funded hike-and-bike trails within the study area include the Trinity Park Trail, Fair Park/CBD Link Trail, and Fair Park Connector/Trestle Trail.

The bus operating plan for the No-Build Alternative in the study area represents the bus service expected to be provided in 2010. No major changes from the fiscal year 1995 service levels have been made. It is expected that some small changes will involve the reassignment of vehicles between routes to balance service with demand. These changes may include reassignment of buses to relieve routes currently experiencing heavy peak-load conditions. The bus operating plan for the No-Build Alternative in the study area assumes that the current level of bus transit service will increase as the population increases. Accordingly, an increase in vehicle miles of transit service is assumed. A result of this assumption is a decrease in transit schedule adherence, because lower operating speeds will be associated with increased traffic congestion in the future. The No-Build Alternative also assumes continuation of the CBD-oriented radial bus transit service currently operated by DART. Guidelines derived from service standard policies adopted by the DART Board of Directors for establishing improved bus service are incorporated in the definition of the No-Build Alternative. These guidelines are as follows:

- Continue to provide service to all areas currently receiving bus transit service;
- Expand service consistent with DART's existing policy of servicing new demand;

- Maintain existing service standards and provide more frequent service to the extent warranted by increased ridership;
- Add direct bus service to study corridor and non-corridor major employment areas, with service originating from the transit centers; and
- Provide connecting bus service to the North Central Line of the LRT Starter system.

Several regional transit rail extensions have recently opened. The North Central line from North of Park Lane to Parker Road in August 2002 to Richardson and December 2002 to Plano. The Northeast line from the Mockingbird Station to the Garland Central Transit Center opened September 2001 to the White Rock Station and opened to Garland in December 2002. The Trinity Railway Express from the South Irving Transit Center to downtown Fort Worth opened December 2001.

Major roadway capacity improvements are also included in the No-Build Alternative and are listed below and shown on Figure 2.1.

- CBD/Fair Park Link - This City of Dallas project will link Gaston Avenue to Exposition Avenue with a five-lane roadway. The proposed roadway requires 80 feet of right-of-way and includes two-lanes in each direction with a center, continuous left-turn lane, and ten foot sidewalks on both sides.
- Haskell Avenue Improvements - The City of Dallas and Dallas County are studying two segments of Haskell Avenue from Main Street to Fair Park and from Fair Park to East Grand Avenue to create a “grand boulevard” from US 75 to Fair Park. The northern section from Lemmon Avenue to Main Street has a proposed 160-foot right-of-way, which includes a six-lane divided roadway with a median of sufficient width to accommodate the potential extension of the McKinney Avenue Trolley.
- SH 310 (S.M. Wright Freeway) - TxDOT has plans to reconstruct SH 310 from a four-lane divided roadway with access roads to a six-lane divided urban arterial from Overton Road to Loop 12.
- Samuell Boulevard - TxDOT will widen and reconstruct Samuell Boulevard from two- and four-lanes to a four- and six-lane divided urban arterial from Loop 12 to Ferguson Road IH 30.

- Trinity Parkway Corridor MIS - This study recommended improvements that establish a southeast-northwest parkway along the Trinity River beginning at US 175/Central Expressway (SH 310) interchange and extending to SH 183/IH 35E, northwest of downtown Dallas. The LPA also included operational and safety improvements to IH 30 and the IH 30/IH 35E interchange that would generally improve circulation on IH 45 and IH 30 in the Southeast Corridor.
- IH 30 East Corridor (East R.L. Thornton Freeway) MIS - Mobility 2025 Update and the DART Transit System Plan recommend upgrading the existing interim HOV lane on IH 30 to a two-lane barrier separated reversible HOV lane from IH 45 to IH 635. Additionally, Mobility 2025 Update shows adding two general purpose lanes to the freeway from Peak Street to IH 635. These transportation improvements are documented and an MIS for the project began in early 2001.

2.2.2 Build Alternative (LRT)

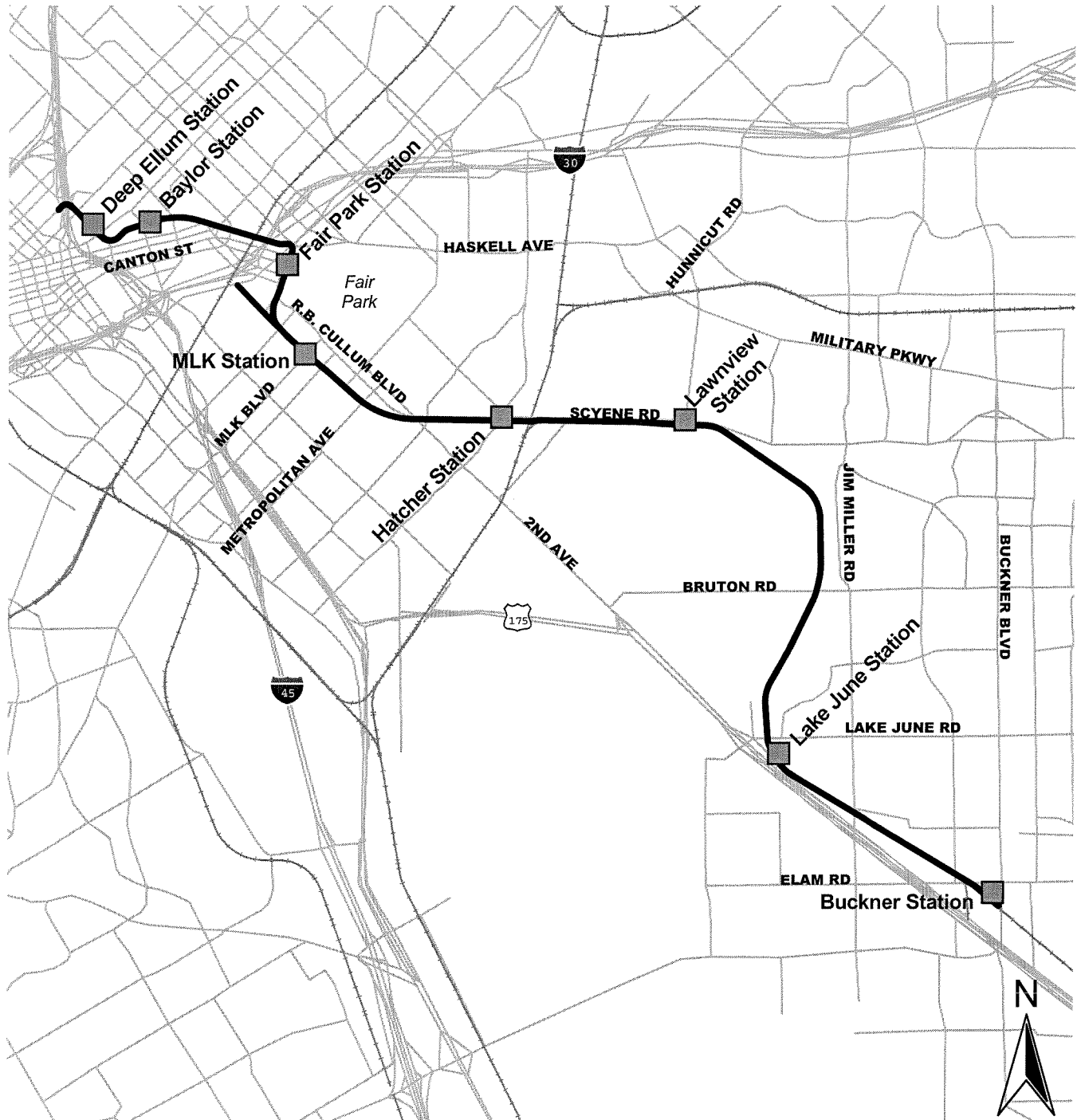
The alignment of the proposed Build Alternative (LRT) is shown in Figure 2.11. The alignment follows Bryan Street east from the Pearl Street Station under North Central Expressway to Good-Latimer Expressway. At Good-Latimer, the alignment turns and follows the roadway until just south of Gaston Avenue. It then turns eastward and follows the former UP RR right-of-way to Haskell Avenue where it turns southwest and parallel to Parry Avenue along the west side of Fair Park, passing by the National Women's Museum and the Music Hall. The alignment then turns southeast to the former SP RR right-of-way parallel to Trunk Avenue until Second Avenue. The alignment is within the former SP RR right-of-way to just west of Second Avenue. At the junction with the UP RR mainline, the LRT alignment would be grade-separated over the UP RR. The alignment uses the former SP RR right-of-way, which parallels Scyene Road, then turns south through the Grover Keeton Golf Course.

The alignment crosses Lake June Road and turns southeast roughly parallel to US 175 to Elam Road at Buckner Boulevard.



Good-Latimer Area

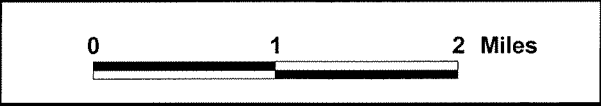
Currently, Good-Latimer Expressway goes under Gaston Avenue via a 300-foot long tunnel. The tunnel was originally built to accommodate the SP RR rail yard. As described previously, the proposed LRT alignment follows Good-Latimer and then turns onto the former UP RR.

Figure 2.11 Build Alternative (LRT)



Legend

	Transit Center/LRT Station		Existing Rail
	Build Alternative (LRT)		Roads



The existing tunnel cannot be used for LRT. The tunnel has not been maintained properly, is deteriorating, and cannot support the weight of LRT. Other concerns include frequent flooding of the tunnel, poor lighting, and the perceived safety of pedestrians (transit users). The tunnel has been determined eligible for listing in the National Register by the Texas State Historical Preservation Officer (SHPO). To the community, the tunnel represents a local landmark and a gateway to the Deep Ellum area. Local artists decorate the retaining walls through an art program.

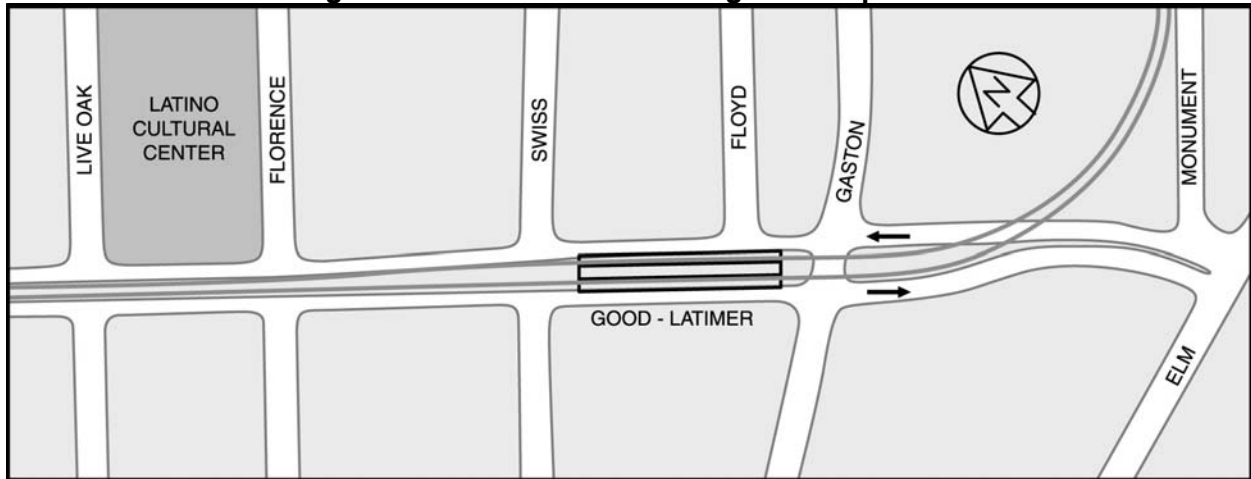
Because of the potential engineering issues and social impacts in the area, three options were developed to transition from Good-Latimer to the former UP RR. Two of the options are included in the EIS to determine the affects of each. The options are designated Good-Latimer Option A and Good-Latimer Option B. A third alternative in the Good-Latimer area (Option C) is discussed in the Section 4(f) statement in Appendix E of this document as an avoidance option for the Good-Latimer Tunnel. However, it would have the greatest impacts to the community because it would require more displacements, directly impact the St. James AME Temple with is eligible for listing on the NRHP, cost more to implement, and has no public support. Therefore, it was not considered a prudent option and not included in the EIS.

DART proposes to design and construct Option A, which displaces the national Register Eligible Deep Ellum Tunnel. Option B, which represents the best alternative to directly using the tunnel, is included in this EIS to document the comparison of the two alternatives. The Section 4(f) Statement, in Appendix E, demonstrates that there is no prudent and feasible alternative to Option A. The decision to displace the Good-Latimer tunnel is supported by the Dallas City Council and the community.

Good-Latimer Alignment Option A

This LRT alignment option follows the median of Good-Latimer and then crosses the northbound lanes of Good-Latimer (Figure 2.12). It requires removing the tunnel and filling in the area to bring the travel lanes of Good-Latimer to the same level as Gaston Avenue and the surrounding properties.

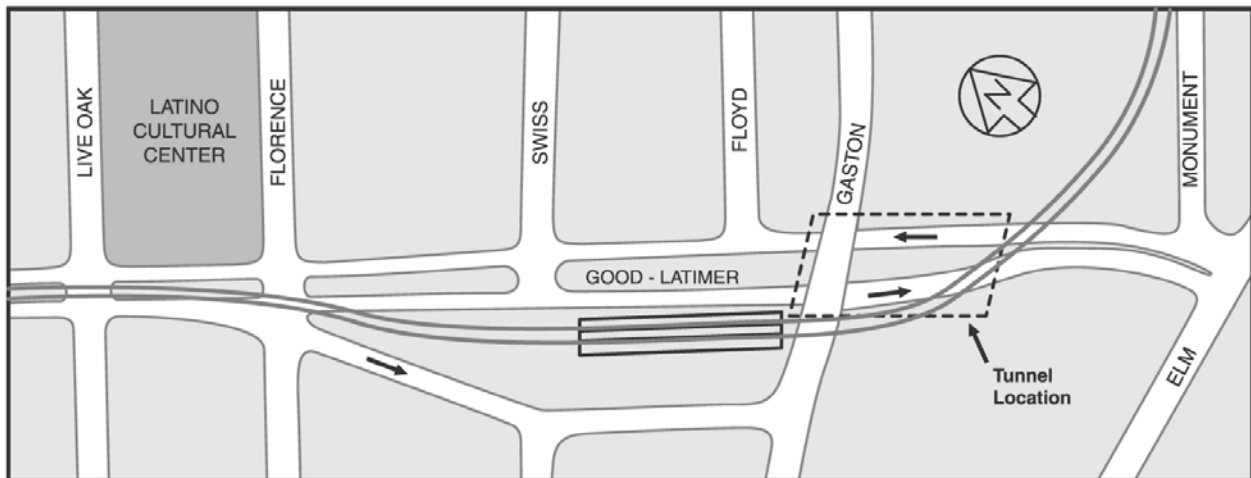
Figure 2.12 Good Latimer Alignment Option A



Good-Latimer Alignment Option B

This option would avoid the existing tunnel and allow it to stay in place by shifting the LRT alignment to the west (Figure 2.13). This alignment option would also require the construction of a new one-way street west of the LRT to allow access to adjacent properties and closing Swiss Avenue between Good-Latimer and the new one-way street.

Figure 2.13 Good Latimer Alignment Option B

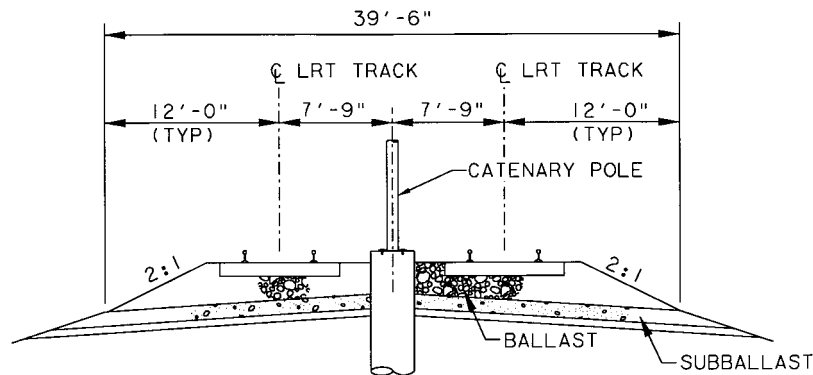


2.2.2.1 Right-of-Way

The right-of-way needed for the Build Alternative (LRT) varies. A minimum of 40 feet will be needed to accommodate double-track LRT (Figure 2.14). Additional right-of-way will be needed for slopes, drainage, easements, and stations. The alignment will use existing street right-of-way from the Pearl Street Station to Gaston Avenue and from Haskell Avenue to R.B. Cullum.

From R.B. Cullum to the former SP RR, the alignment will be on new right-of-way. The remaining portions of the alignment follow existing or abandoned railroad rights-of-way, which are typically 100 feet in width.

Figure 2.14 Minimum Typical Section for LRT



2.2.2.2 Physical Description

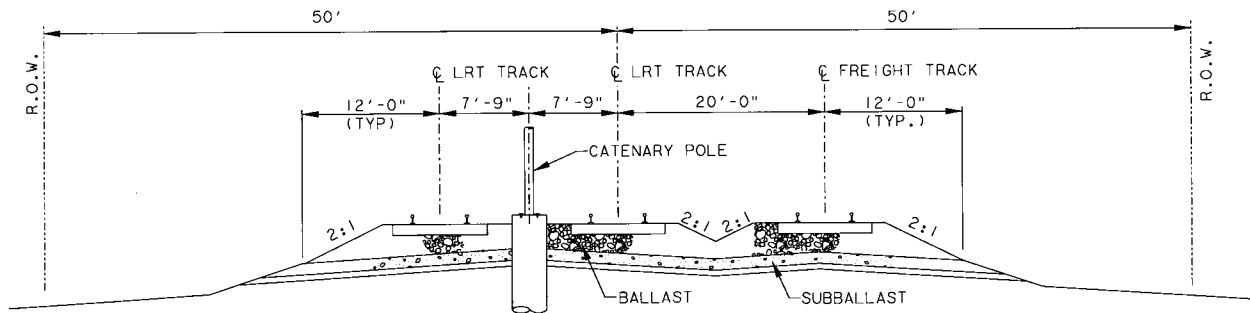
This section provides a description of the physical facilities and equipment that will become operational with the full implementation of the Build Alternative (LRT) when all phases are complete. This section also describes the anticipated operating plan of the alternative and adjacent freight railroad and identifies the estimated capital and operating costs associated with its implementation.

The physical aspects of light rail are defined by two features: the alignment and the stations. The proposed route and alignment for the LRT guideway includes the tracks, trackbed, overhead electric system (or catenary), and ancillary equipment. LRT vehicles will operate on two-track, two-way, continuously welded steel rails. The stations where patrons board and alight from the LRT vehicles typically include amenities such as bench seating, windscreens, trash receptacles, newspaper racks, and artwork. In the area from just east of Hatcher Street to Buckner Boulevard, an unrelated feature includes the existing freight rail line on which service must be maintained and the operation of which will not affect LRT operations.

From the UP RR mainline, just east of Hatcher Road, three tracks will be provided – two for LRT and one for freight (Figure 2.15). The right-of-way in the area is generally 100-feet wide with the

existing track located in the center of the right-of-way. Some portions of the freight track will be relocated, particularly along Scyene Road and through Grover Keeton Park. The freight track will be moved to accommodate the LRT tracks, avoid impacts to the parks, and minimize impacts to the floodplains, vegetation, and wetlands. LRT track will be constructed generally on the north and east side of the right-of-way.

Figure 2.15 Typical Sections for LRT with Freight Tracks



2.2.2.3 Stations

LRT service will be provided to eight new stations at Deep Ellum, Baylor, Fair Park, MLK, Hatcher, Lawnview, Lake June, and Buckner. The stations are identified by their relative location within the study area. Stations generally include minor bus transfer facilities, but most bus-rail transfers will occur at the transit centers. Stations proposed for the Build Alternative (LRT) are shown in Figure 2.11.

Station platforms will be at-grade with 300-foot, low-level platforms. Station platforms can be extended to 400 feet in the future and weather protection for patrons will be provided by canopies covering the width of the platform for a minimum of one-third of the platform's length. All platforms and LRT vehicles will be accessible to elderly and physically challenged patrons during all hours of operation. DART currently uses a combination of low and high platforms in its stations. Typical boarding is done from the low platform, approximately eight inches above top of rail, with special use boarding taking place from high-block platforms.

Deep Ellum Station

The Deep Ellum Station will be located in the median of Good-Latimer Expressway between Swiss Avenue and Gaston Avenue. Option B would locate the station on the west side of

Good-Latimer between Swiss Avenue and Gaston Avenue. The two options are shown on Figures 2.16 and 2.17. This station would not include parking, drop-off, or bus transfer facilities. Pedestrian access will be provided at the Florence and Swiss intersections on both ends of the boarding platform. The downtown street grid would provide sidewalks and full pedestrian accessibility near this station.

This station will serve as a destination station. Wide varieties of land uses are located near the station including cultural, automotive repair services, residential, office, storage, and light industrial uses. The Meadows Foundation, the Latino Cultural Center, and several apartments are located at Good-Latimer and Florence adjacent to the proposed Good-Latimer station location. Other apartments are within several blocks of the proposed station.

Baylor Station

The Baylor Station (Figure 2.18) will be located on DART (former UP RR) right-of-way in the block bounded by Walton, Indiana, Malcolm X, and Junius. This station will include short-term parking and a bus transfer platform. The station will be an at-grade configuration and will include LRT side platforms and an off-street bus platform for bus-to-bus and bus-to-rail transfers. The Baylor Station will provide four bus bays and three short-term parking spaces for passenger pick-up and drop-off. Pedestrian access will be provided to the north from the center of the station to Junius. To the south, pedestrians will access either end of the station from Malcolm X Boulevard or Walton Street.



This station will serve as a destination and transfer station. Wide varieties of land uses exist and are emerging near this station. The Baylor Heart and Vascular Center, currently undergoing an expansion, lies adjacent to the north side of the proposed station. Yahoo! Corporate Headquarters is on the south side of the proposed station and the Gaston Yard Apartments are in the block to the west. Much of downtown's new multi-family housing is located in this district.

Figure 2.16

Deep Ellum Station: Good-Latimer Alignment Option A



Legend

	Station Platform		Build Alternative (LRT)
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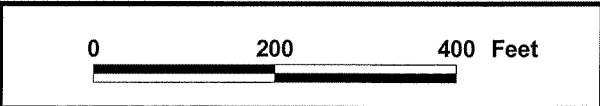


Figure 2.17

Deep Ellum Station: Good-Latimer Alignment Option B



Legend



 Station Platform	 Build Alternative (LRT)
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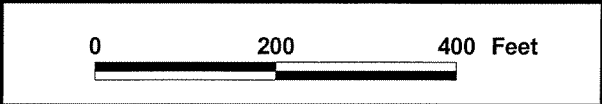


Figure 2.18 Baylor Station



Legend

 Station Platform	 Proposed CBD/Fair Park Link Project	 Build Alternative (LRT)
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Fair Park Station

The Fair Park Station (Figure 2.19) will be located at the ceremonial entrance to Fair Park, on the east side of Parry Avenue. The center of the LRT platform will be located at the intersection of Exposition and Parry directly across from the park entrance. This station will include a bus pull-out on Parry Avenue for a limited number of bus-to-bus and bus-to-rail transfers. This station will include LRT side platforms. Station design will be sensitive to the historic context of Fair Park. The new pedestrian enhancements along the south side of Parry, the pedestrian gateway to Fair Park, and the enhanced crossing at Exposition will be the dominant pedestrian access points.

This station will serve as a destination and limited transfer station. The National Women's Museum lies at the north end of the station platform and Fair Park Music Hall is located across 1st Avenue to the south of the station. A traditional neighborhood commercial district is found on Exposition north of Parry across the Fair Park entrance and several vacant tracts used for event parking offer potential for redevelopment. Development of this station re-institutes transit rail service that was provided to Fair Park decades ago by interurban and trolley lines.

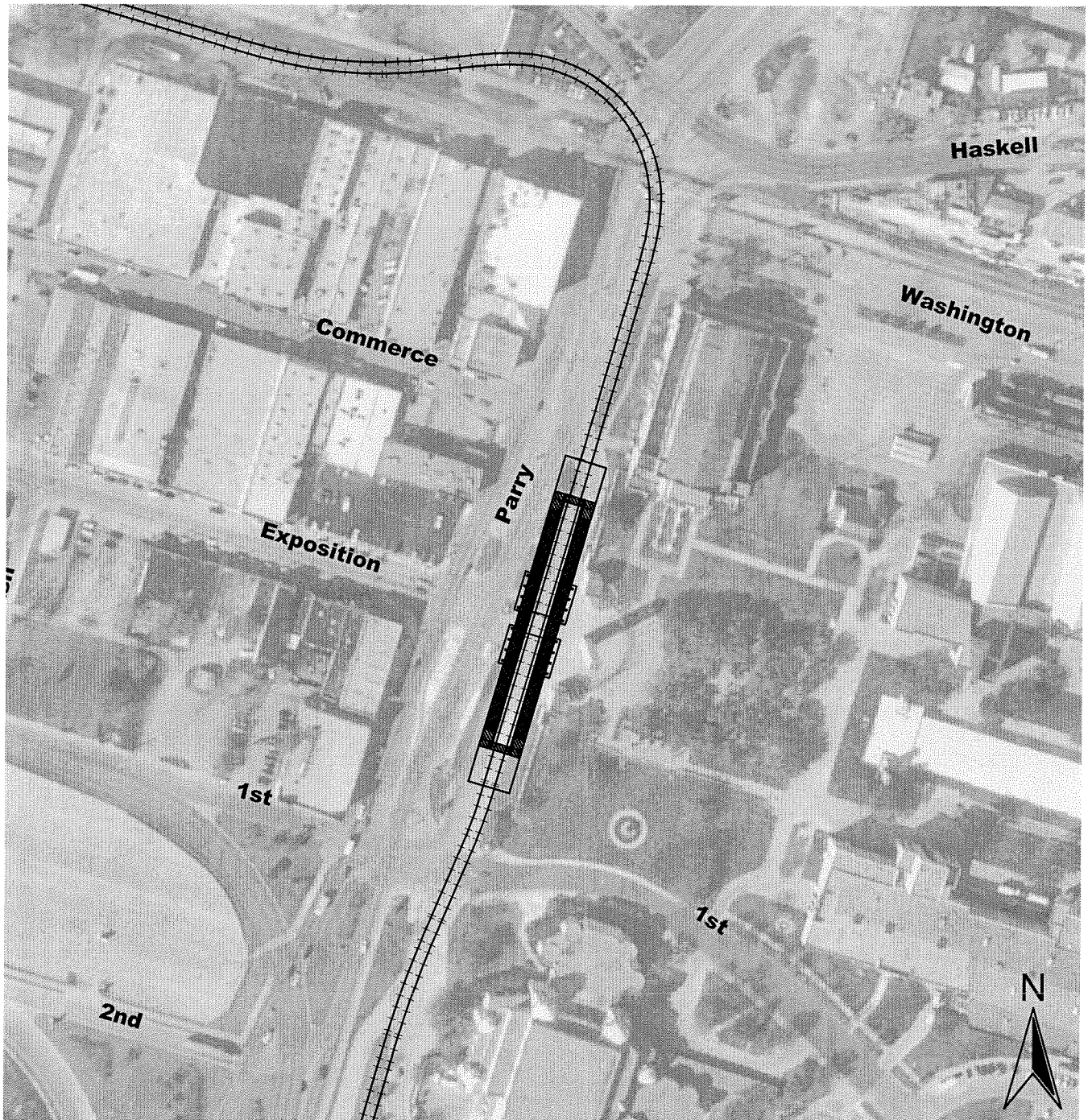
MLK Station

The MLK Station (Figure 2.20) will be located at the center of the block between the DART (former SP RR) right-of-way, Trezevant Street, Fourth Street, and MLK Boulevard.

Initially, the site will be developed as a transit center that will accommodate a LRT side platform. The station/transit center will include approximately 208 parking spaces, an off-street bus transit center with six bays, and the LRT platform. To accommodate the transit center design, several street modifications will be made. Trunk Avenue between Trezevant and MLK will be closed to through traffic and a portion reconstructed as a bus-only entrance to the transit center. A second bus entrance will be located on Fourth Avenue. A new turnaround will be constructed between Trezevant and South Boulevard west of the transit center. Auto access will be provided from Fourth and Trezevant. A major southwest-northeast pedestrian axis will be provided from South Boulevard through the center of the LRT station and continuing between the parking and bus transfer areas. Pedestrian access to MLK will be provided along DART LRT right-of-way from the platform and along Fourth Avenue.

This station will serve as a major transfer station and a destination station with a limited park-and-ride capacity. While only a short distance from the Parry Station, suburban land uses begin

Figure 2.19 Fair Park Station



Legend



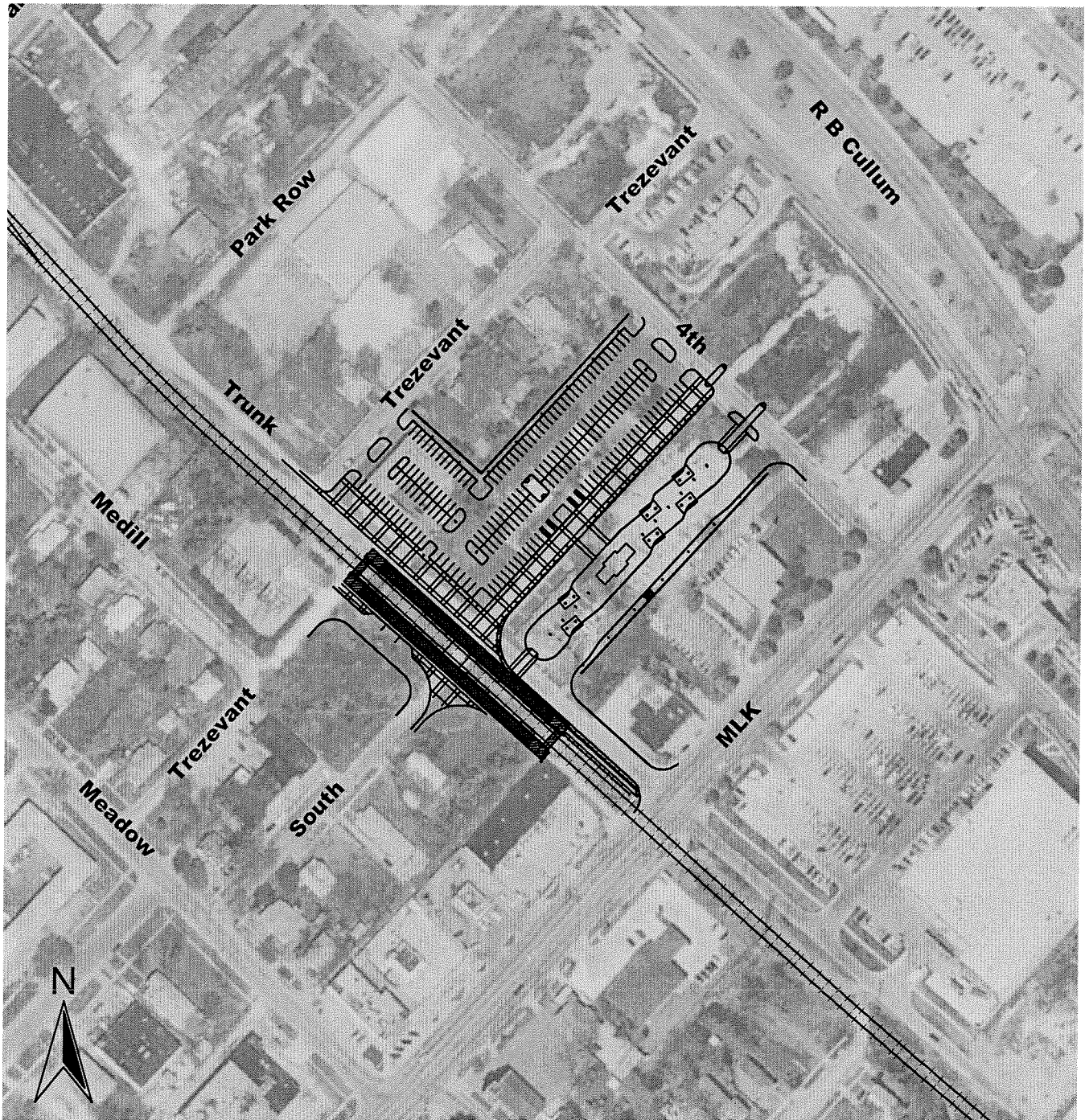


	Station Platform		Build Alternative (LRT)
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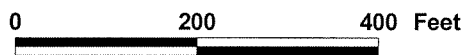


Figure 2.20
MLK Station



Legend

	Station Platform		Build Alternative (LRT)
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to emerge near the MLK Station/Transit Center. The transit center will be located north of the commercial hub along MLK that includes a Social Security Administration office, a Minyards grocery market, a Walgreen's drug store, a Bank of America branch, a K-Clinic medical office, and other service-oriented businesses. To the north and west of the transit center are predominately single- and multi-family residences, including numerous vacant parcels, several abandoned properties, and a place of worship. One block to the east is the Fair Park entrance at MLK.

Hatcher Station

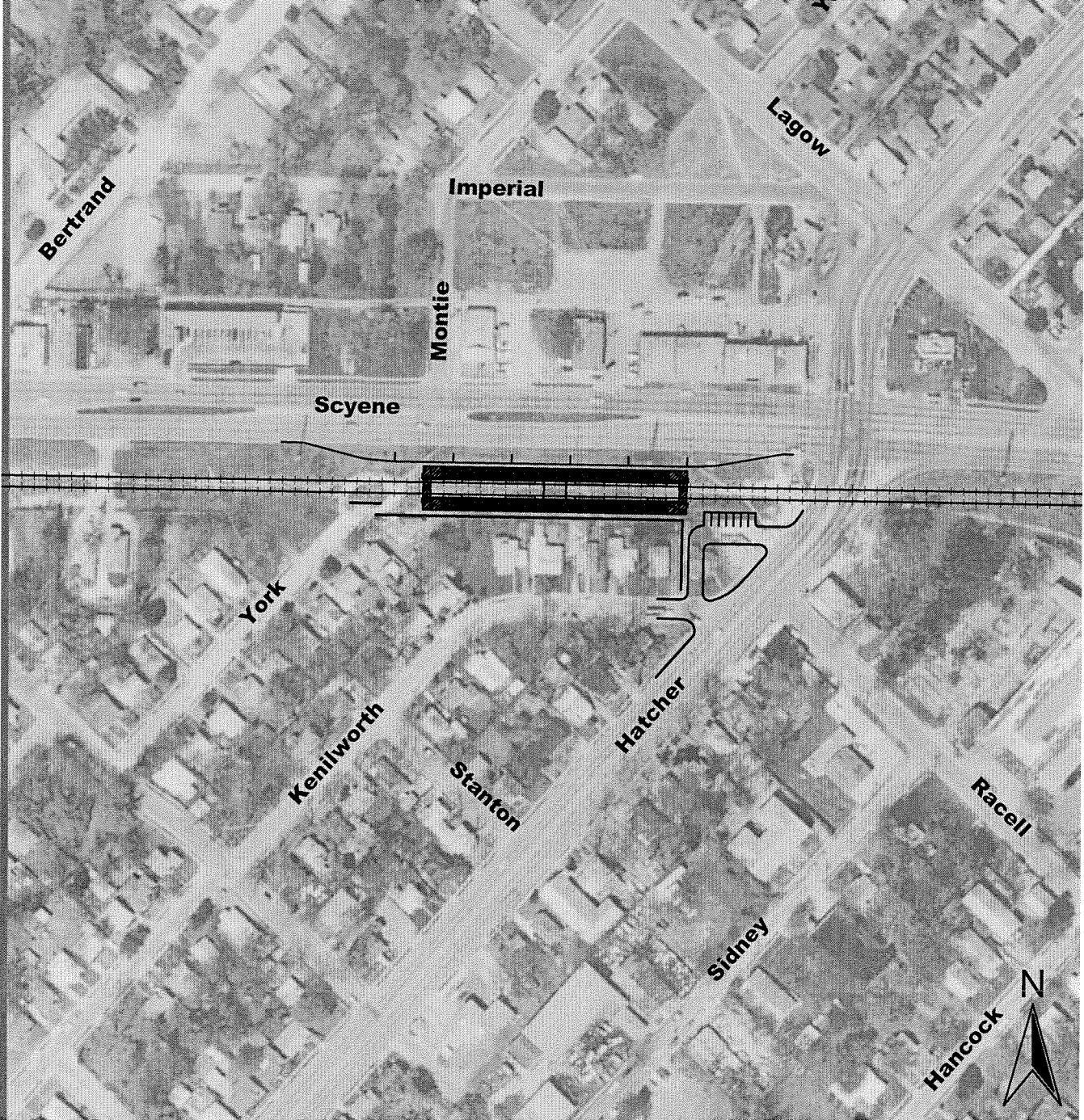
The Hatcher Station (Figure 2.21) will be located on DART (former SP RR) right-of-way south of Scyene near Hatcher. For this station, different options were considered for the station layout. As a result of community input, a station option with no parking is proposed to minimize impacts to existing residences. The station will be located on the southwest corner of Hatcher and Scyene. The parking requirement at the Hatcher Station will be accommodated at other stations and bus transfers planned at the Hatcher Station will take place at the MLK Transit Center. This station will provide a bus drop-off area and Kiss-and-Ride. The station area will also include a seating area. Suburban land uses dominate the areas surrounding the proposed Hatcher Street Station. The station will serve a mix of single-family residential areas, limited retail commercial, and light industrial land uses.

Lawnview Station



The Lawnview Station (Figure 2.22) will be located on DART (former SP RR) right-of-way south of Scyene at Lawnview. The station will include parking, a bus transfer center, and LRT station with side platforms. This LRT station location is proposed to be at the southeast corner of Scyene and Lawnview and includes, bus pull-outs, and approximately 356 parking spaces.

This station will serve primarily as a park-and-ride station. The areas south of Scyene are commercial and light industrial uses or floodplain. The northwest corner of Lawnview and Scyene includes Silberstein Elementary School and the northeast corner is single family residential.

**Figure 2.21
Hatcher Station**



Legend

	Station Platform		Build Alternative (LRT)
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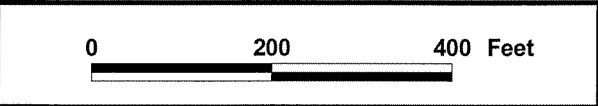
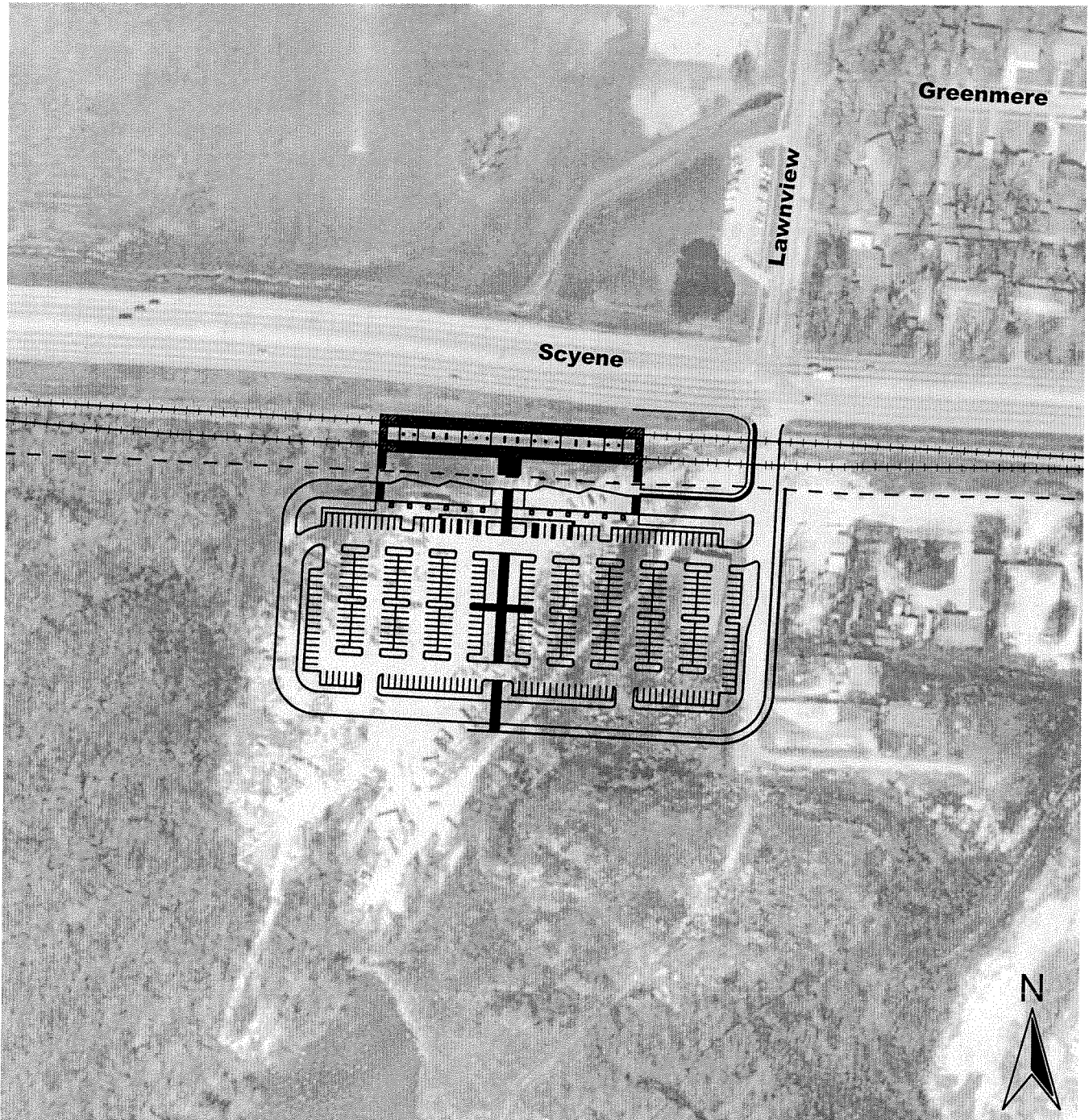


Figure 2.22
Lawnview Station



Legend



Station Platform



Build Alternative (LRT)



Freight Track



Lake June Station

The Lake June Station (Figure 2.23) will be located east of the DART (former SP RR) right-of-way and south of Lake June Road. The LRT station will include side platforms. The station will be part of the transit center. The station/transit center will include approximately 474 parking spaces with space reserved for expansion of parking, and off-street bus transit center with six bays will be provided. The transit center was opened in February 2002 and serves as a major park-and-ride facility with auto access provided from US 175 via Lake June Road. Auto, bus, and pedestrian access is provided at the Lake June and Gillette intersection.

Land uses adjacent to the transit center include commercial businesses dominated by automotive services along the US 175 frontage road. Single-family residential neighborhoods dominate areas north of Lake June Road, while a mix of light industrial and commercial land uses dominate areas immediately surrounding the transit center.

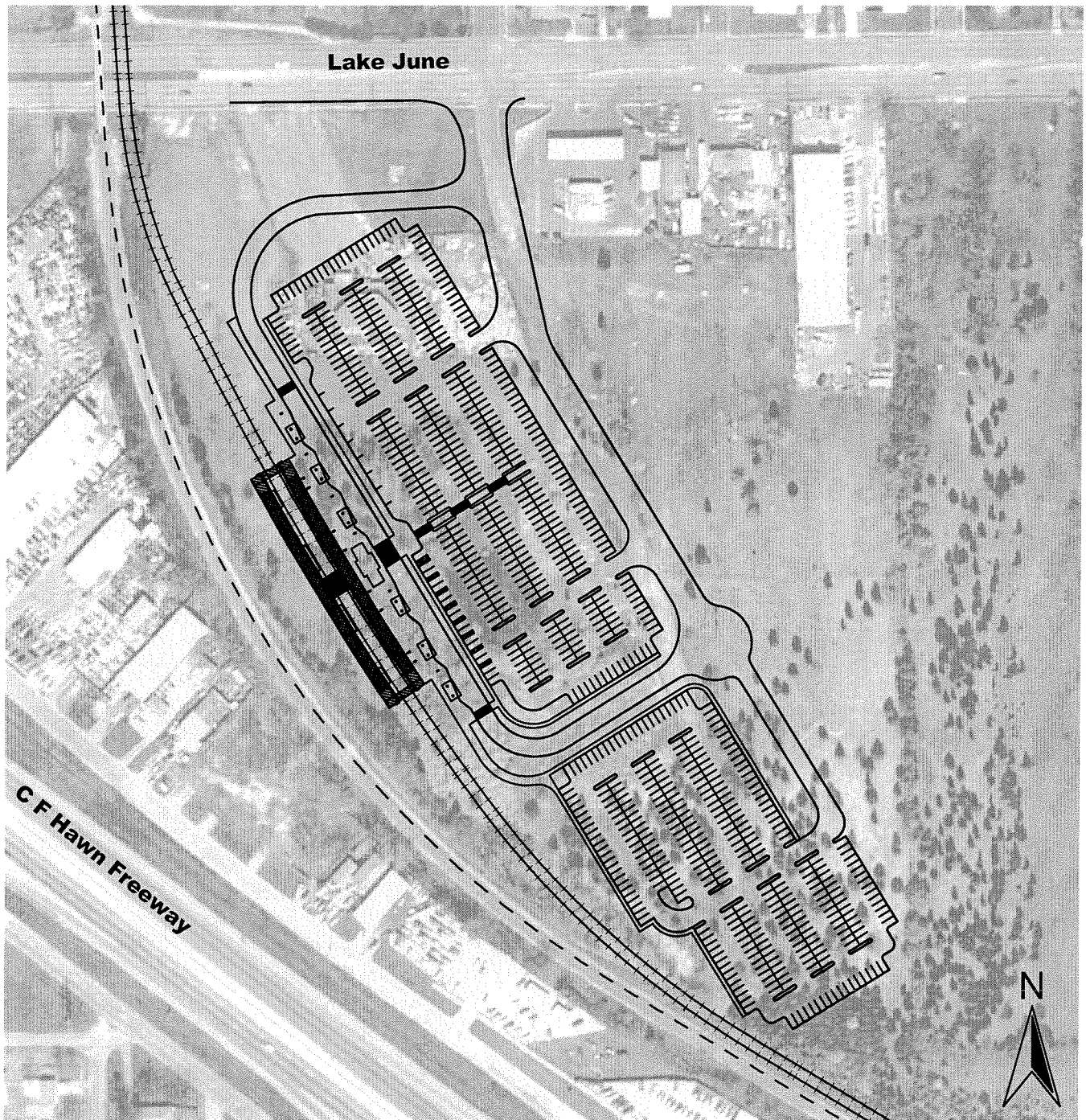
Buckner Station

The Buckner Station will be located on the DART (former SP RR) right-of-way between Buckner Boulevard and Elam (Figure 2.24). The LRT station will include side platforms. The proposed station will include approximately 536 parking spaces and an off-street bus transit center with four bays. Auto, bus, and pedestrian access will be provided into the facility along a new street connecting at Elam and Roland on the north end and Buckner and Kipling on the east end of the facility. Land uses in the area are characterized by a mix of single-family residential, automotive, commercial, and industrial uses, including the Dal-Tile manufacturing plant adjacent to the proposed station.




2.2.2.4 Traction Power Substations

Traction Power Substations (TPSS) will be included where needed along the Build Alternative (LRT) to supply the required energy for transport systems, which power traction networks and utilities in passenger stations. The proposed locations of the TPSS, shown in Table 2.3, have been placed to minimize impacts. Impacts and mitigation associated with the TPSS are identified in this document, however, the locations are subject to change during final design. The DART mitigation monitoring process will track any changes in the locations and identify mitigation and additional environmental studies will be submitted to FTA, if needed.

Figure 2.23 Lake June Station



Legend

 <p>Station Platform</p>	 <p>Build Alternative (LRT)</p>	 <p>Freight Track</p>
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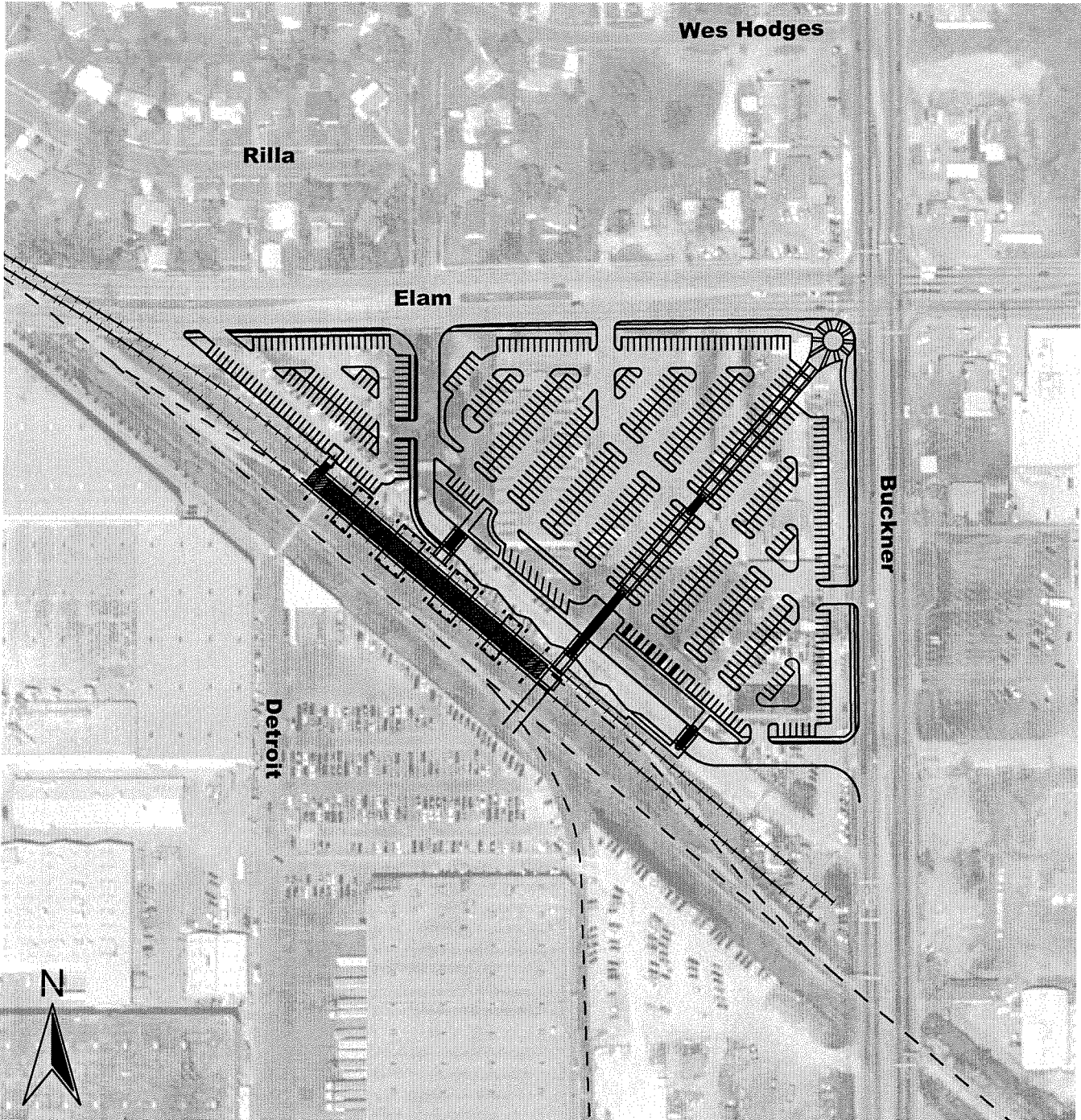


0 200 400 Feet




 SOUTH EAST CORRIDOR
 Dallas, Texas

Figure 2.24 Buckner Station



Legend

 <p>Station Platform</p>	 <p>Build Alternative (LRT)</p>	 <p>Freight Track</p>
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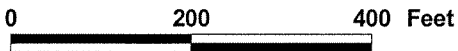


Table 2.3 Traction Power Substations

No.	Location	Approximate Civil Station*
1	West of Crowds Street, North of LRT alignment	Station 133+50
2	South of IH 30, North of LRT alignment	Station 185+75
3	Near Birmingham Avenue, West of LRT alignment	Station 250+50
4	West of the UP RR, South of the LRT alignment	Station 328+60
5	East of Bisbee, North of LRT alignment	Station 398+50
6	North of Bruton Road, East of LRT alignment	Station 470+50
7	Lake June Station Area	Station 542+00
8	Rosemont at Jim Miller, North of LRT alignment	Station 574+25
9	Buckner Station Area	Station 633+50

Source: Carter & Burgess, 2001

Note: The alignment stationing is shown on the plan and profile drawings in Appendix D. The stationing numbers references to the location on the engineering drawings and not to the passenger station locations.

2.2.2.5 Maintenance and Storage Facility Requirements

Any additional bus vehicles and equipment can be accommodated at existing DART maintenance and storage facilities. The East Dallas Maintenance and Storage Facility will be able to handle the required additional buses. Additional light rail vehicles and equipment will be accommodated at the existing DART LRT Service and Inspection (S&I) Facility. The S&I Facility will not need to be expanded. A connection to the S&I will be constructed along a portion of the former SP RR right-of-way from Grand Avenue (Figure 2.25).

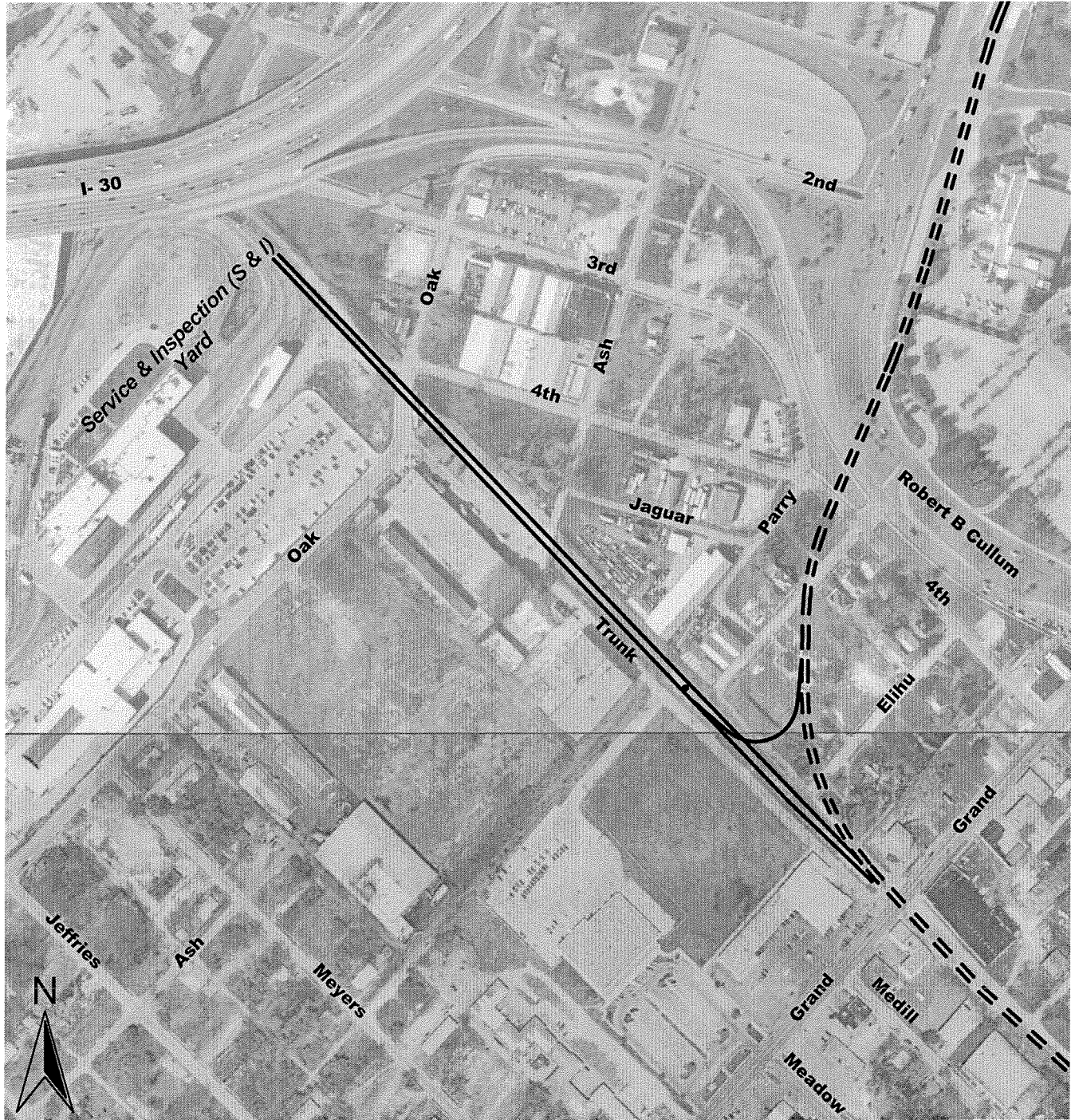
2.2.2.6 Capital Cost

Capital costs were estimated for the service to be provided within the definition of the Build Alternative (LRT). The cost estimate reflects conceptual engineering and understanding of the principal structural and system elements. The estimated cost to construct required facilities and acquire necessary system control and operating equipment and vehicles for the Build Alternative (LRT) would be approximately \$450 million in year 2002 dollars. This estimate includes expenses for the development of civil/structural elements, accommodation of known site conditions, purchase and installation of system control components, and vehicle acquisition. The cost to develop transit stations is included in the total capital cost estimates.

2.2.2.7 Operations Description

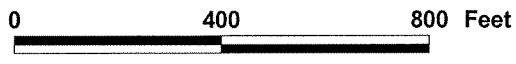
Implementation of the Build Alternative (LRT) will involve operating both bus transit services and an LRT system in the study corridor. A description of each of these systems is provided in the following sections.

Figure 2.25 Connection to S & I Rail Yard



Legend

Wye Connection	Build Alternative (LRT)
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Bus Transit System

Implementation of the Build Alternative (LRT) will require changes to the existing bus transit operations and an extension of LRT into the corridor. Some existing bus routes will be restructured or relocated to service and feed the LRT stations and transit centers. Some bus routes will act solely as feeder bus service, while others will function as both feeder bus service and local service.

The existing local bus system will be modified to serve the Build Alternative (LRT). Connecting bus and LRT service will be available at the CBD Transit Mall and the CBD West Transit Center. Additional connecting bus service will be available at the CBD East Transit Center approximately two blocks from the Pearl Street LRT Station. Connecting bus service will be available at or in the immediate vicinity of all new LRT Stations.

The Deep Ellum and Baylor stations will be served by existing bus route 44. The Fair Park Station will be served by bus routes 11, 60, 164, and 409. Routes 3, 44, 409, 445, and one new route (“A”) will serve MLK Station and Transit Center. The Hatcher Station will also be served by new route “A” and routes 2, 3, 12, and 409. The Lawnview Station will be served by routes 29, 50, and two new routes (“B” and “C”). The Lake June Station will be served by bus routes 42, 161, and 475 and the Buckner Station by routes 42, 466, 475, and one new route (“B”). The bus routes and destinations are described in Table 2.4.

Table 2.4 Bus Route Descriptions

Bus Route	Route Description
2	Serves the Southeast Corridor from the CBD to Hatcher via Ervay, Colonial, Hatcher. This route connects to existing LRT service in the CBD and the Southeast Corridor Build Alternative (LRT) at the Hatcher Street Station. Peak headways will be 15 minutes, and off-peak service will operate on 30 minute headways, with service provided from 5:00 a.m. to 1:00 a.m.
3	Serves the Southeast Corridor from the MLK Transit Center via MLK, Latimer, Crozier, Hatcher, Dolphin, and Haskell. Connections to the LRT stations will be available at the MLK Transit Center and Hatcher Street Station. Peak headways will be 15 minutes, and off-peak service will operate on 45 minute headways, with service provided between 5:00 a.m. and 11:00 p.m.
11	Serves Skyline, Eastfield College, Peavy, and Buckner Boulevard with local and express service. Local service generally operates along Samuell, East Grand, and Parry and will connect to the LRT system at Parry Station and in the CBD. Express service will be provided on IH 30, including HOV service, and connect to the LRT system in the CBD. Route 11 will continue to West Oak Cliff, connecting to the LRT system at Hampton Station (Red Line). Peak headways would be 15 minutes, and off-peak service will operate on 30 minute headways, with service operating from 4:30 a.m. to 1:00 a.m.
12	Serves as a neighborhood feeder to the Hatcher Street Station via Hatcher, Spring, Lagow, Fitzhugh, Second, Meadow, Goldspier, and Dixon. Peak headways will be 10 minutes, and off-peak service will operate on 15 minute headways, with service provided between 5:00 a.m. and 1:00 a.m.

Bus Route	Route Description
29	Serves the Lawnview Station east along Scyene, Bruton, and St. Augustine to Masters. Peak headways will be 30 minutes, and off-peak service will operate on 60 minute headways, with service provided from 6:00 a.m. to 10:00 p.m.
42	Serves the Lake June and Buckner Stations via Pemberton Hill, Elam, and St. Augustine to Masters. Peak headways will be 15 minutes, and off-peak service will operate on 30 minute headways, with service operating from 4:30 a.m. to 12:30 a.m.
44	Serves the Southeast Corridor from Parsons at Bexar via Malcolm X, Hall, and Gaston before entering the CBD. This route will serve Baylor HCS and the Deep Ellum Station, Baylor Station, and MLK Transit Center before continuing northwest along Harry Hines. Connecting LRT service is also available in the CBD. Peak headways will be 10 minutes, and off-peak service will operate on 15 minute headways, with service operating from 4:30 a.m. to 1:00 a.m.
50	This route will provide connecting service at the Lawnview Station. Peak headways will be 15 minutes, and off-peak service will operate on 30 minute headways, with service between 4:30 a.m. and 1:00 a.m.
60	Serves Northeast Dallas in local service via Plano, Lake Highlands, Buckner, Garland, Lindsley, and Parry to the CBD. Connection to the LRT system will be at the Parry Station and in the CBD. Peak express service is provided via IH 30, bypassing inner portions of the local route on Lindsley and Garland and providing LRT connections in the CBD. Peak headways will be 20 minutes, and off-peak service will operate on 30 minute headways, with service between 5:30 a.m. and 11:00 p.m.
161	One branch of this route serves Lake June to Cheyenne, Elam, and Masters. A second branch of this route serves Lake June, Buckner, and Bruton to Masters, Lake June, and St. Augustine. Peak headways will be 10 minutes, and off-peak service will operate on 15 minute headways, with service operating from 4:30 a.m. to 1:00 a.m.
164	Serves Northeast Dallas and South Garland with several branches along Shiloh, Centerville, and Materhorn. All local services operate on Ferguson, Samuell, East Grand, and Parry, connecting to the LRT System at Parry Station and in the CBD. Express services operate on IH 30 and connect to the LRT system in the CBD. Peak and off-peak headways will be 60 minutes between 6:00 a.m. and 8:00 p.m.
409	Serves the Southeast Corridor from Peak/Haskell along Parry, R.B. Cullum, and Scyene. Service will be provided to the Parry Station, MLK Transit Center, and Hatcher Street Station. Crosstown service continues from the Southeast Corridor to Northwest Dallas, Irving, and DFW Airport, connecting to the Cityplace LRT Station (Red and Blue Lines) and the South Irving Trinity Railway Express Station. Peak headways will be 15 minutes, and off-peak service will operate on 30 minute headways, with service operating from 4:30 a.m. to 12:30 a.m.
445	Serves West and South Oak Cliff in crosstown service via Illinois, Cedar Crest, and MLK. This route will provide connecting LRT service at the MLK Transit Center, Illinois Station (Blue Line), and Westmoreland Station (Red Line). Peak headways will be 15 minutes, and off-peak service will operate on 30 minute headways, with service operating from 5:30 a.m. to 11:30 p.m.
466	Serves major through destinations along Loop 12/Buckner. This route connects to the existing LRT system at both terminal stations on the Blue Line (Ledbetter and White Rock) with continuing service to the South Garland Transit Center. This route will connect to LRT service in the Southeast Corridor at the Buckner Station. Peak and off-peak headways will be 15 minutes, with service operating between 4:30 a.m. and 1:00 a.m.
475	Serves the Southeast Corridor in north-south crosstown service from Buckner at Peavy to Spruce High School and St. Augustine at US 175 via Buckner, Samuell, Jim Miller, Lake June, Pemberton Hill, Elam, Jim Miller, and US 175 Frontage Roads. Service will connect to the LRT system at Lake June Transit Center and the Buckner Station. Peak headways will be 15 minutes, and off-peak headways will be 45 minutes, with service provided between 5:00 a.m. and 12:00 a.m.
New Route A	Serves as a neighborhood feeder and rail station connector between the Southeast Corridor Build Alternative (LRT) and exiting LRT lines. This route will operate along Lagow, Fitzhugh, R.B. Cullum, Grand Avenue, Harwood, Corinth, and Akard. Connections to LRT service will be provided to the Hatcher Street Station, MLK Transit Center, and the Cedars Station (Red and Blue Lines). Peak headways will be 15 minutes, and off-peak headways will be 45 minutes, with service provided between 5:00 a.m. and 1:00 a.m.
New Route B	Replaces service currently provided by a branch of Route 29. This new route begins at the Lawnview Station and operates along Lawnview, Military, Prairie Creek, Lake June, Holcomb, and Elam to the Buckner Station. Peak headways will be 15 minutes, and off-peak headways will be 45 minutes, with service provided between 5:00 a.m. and 11:30 p.m.

Bus Route	Route Description
New Route C	Serves as a neighborhood connector between the Lawnview Station and Scyene High School via Scyene, Glover Pass, Parkdale, Lawnview, Hunnicut, Everglade, Chariot, Buckner, and Forney. Peak headways will be 30 minutes, and off-peak headways will be 45 minutes, with service provided between 4:30 a.m. and 12:30 a.m.

Source: DART, 2001

LRT System

The LRT system has various elements. This section describes the Build Alternative (LRT) technology, operating plan, freight railroad operations, roadway and railroad crossings, fare collection system, and operating and maintenance costs.

Technology

LRT is characterized by vehicles of one to three car lengths operating at fixed headways (i.e., the time interval between transit service on a single route in a single direction). Light rail vehicles (LRV) receive power from an overhead catenary system. DART's light rail vehicles utilize a nominal 750-volt direct current electric traction system.

Operating Plan

The proposed operations of the LRT Alternative for the study area will be similar to current DART operations for a double track line. The double tracks will be signaled for bi-directional running if required. Normal operations will use the track on the east side for traffic in-bound to the Dallas CBD and the west track will be predominantly outbound service.

Light rail service will be provided between 5 a.m. and midnight with the non-service hours reserved for maintenance. The LRT service and freight operation will coexist in the area between Hatcher and Buckner Boulevard as a separate operation, with two tracks dedicated for LRT service and a track maintained for freight service. The separation between the tracks will meet Federal Railroad Administration (FRA) and FTA requirements.

The operating plan for LRT service assumes a peak hour headway of ten minutes and an off-peak headway of 20 minutes. The LRT vehicles are capable of operating at speeds up to 65 miles per hour; however, actual operating speeds are influenced by a number of factors including: track curvature, station spacing, and safety considerations. Initially, two-vehicle trains will operate most of the day; some three-vehicle trains will operate during peak periods and

special event service. Single-vehicle trains will operate during evening hours. The LRT trains will have an average station dwell time of 30 seconds for passenger boarding and alighting.

Freight Railroad Operating Plan

The current operation of freight traffic for the Southeast Corridor is limited to wayside industrial switching. At present, rail service is provided to one customer under contract to the UP RR, Dal-Tile. This industry is served over an existing track in the study area that is connected to the UP RR main line. DART has made a commitment to the local community and this industry to maintain freight service to this industry through LRT construction and operation.

LRT and freight rail operations will co-exist in the study area with freight rail from just east of Hatcher to Buckner Boulevard. Sidings near Dal-Tile will also be relocated to make room for the LRT platform and station. A grade separation at the UP RR mainline will allow the LRT line to avoid any connection or interaction with the heavily used UP RR main line. Because three tracks will be built, two for LRT and one for freight service, no new joint operating policies between or for DART and UP RR will be required, and the physically separate operations will enhance safety for both LRT and freight rail.

Roadway and Railroad Grade Crossings

A number of existing grade crossings are already in place and will be utilized by the Southeast Corridor LRT line. The LRT line will utilize a former railroad grade crossing still in place at Good-Latimer and Gaston near the Deep Ellum Station. The LRT will then cross an existing grade separation under IH 30 following the railroad alignment before entering Fair Park at the Fair Park Station. A new grade crossing will be required at R.B. Cullum. After the MLK and Hatcher stations, the LRT line will require a new grade-separated crossing over the UP RR mainline east of Hatcher Street. After the Lawnview Station, the LRT will cross under an existing grade separation at Bruton. A new grade-separated crossing parallel to the existing freight rail grade-separated crossing over Lake June Road will be required before entering the Lake June Station. The LRT line will continue at grade into the Buckner Station.

Fare Collection

The fare structure for service provided within the definition of the Build Alternative (LRT) will follow the adopted DART policy of matching LRT fares to local bus fares. On November 26, 2002 the DART Board voted to increase transit fares by 25 percent. This fare increase will go

into effect on March 1, 2003. Regular one-way bus and train fares will be \$1.25 and transfers to a second bus or rail route will require a \$2.50 Day Pass. A barrier-free system for fare collection will continue, which requires sufficient vending and validation machines at each station to handle the expected patron demand. DART Transit Police Officers will check passengers to verify patrons have paid the proper fare. Parking will be free at the stations, transit centers, and park-and-ride lots for all DART system patrons.

Operating and Maintenance Costs

Operating and maintenance (O&M) costs were estimated using a fully allocated cost methodology, in accordance with standard industry practice. The fully allocated cost methodology calls for the application of cost factors to individual, projected operating characteristics of the system (i.e., miles, hours, and boardings) and key physical elements (i.e., vehicles and facilities). Total annual O&M costs for the Build Alternative (LRT) will be approximately \$15.3 million in Year 2001 dollars. The cost of vehicle operations, which are measured in miles, and hours of operation is 61 percent of the total O&M costs. Bus operations and maintenance accounts for about 39 percent of the total O&M costs of the Build Alternative (LRT).

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CHAPTER 3 - AFFECTED ENVIRONMENT

This chapter describes the existing natural and built environmental conditions in the Southeast Corridor that would potentially be affected by the alternatives considered. The study corridor is defined as the area within one mile on either side of the Build Alternative (LRT) (Figure 1.2, page 1-6). This information provides a baseline against which each alternative is compared for environmental change and/or effect.

3.1 LAND USE

This section provides a description of the current land use patterns in the project study corridor.

3.1.1 Regional Summary

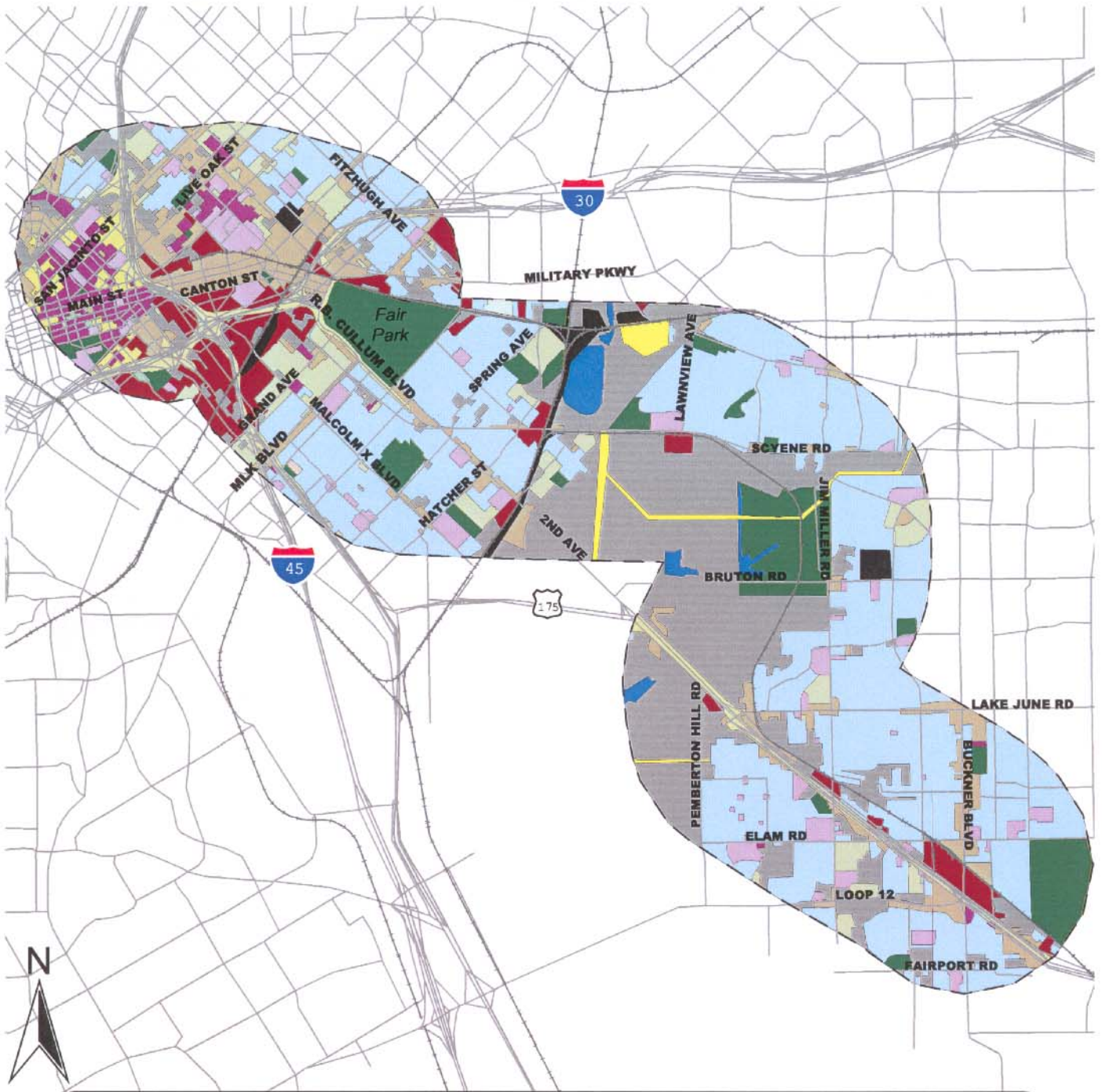
The Southeast Corridor is one of 11 major transportation corridors serving the travel needs of DART's 700 square mile service area that includes 13 cities. The City of Dallas is the commercial and industrial center of the DART service area and greater Dallas metropolitan area. The Dallas CBD is the northern boundary of the study corridor. As described in Section 1.3, the study corridor has three distinct subareas: Baylor/Deep Ellum/Bryan Place, South Dallas Fair Park, and Pleasant Grove.

The study corridor land use patterns reflect the physical constraints imposed by three creeks and their associated floodplains. White Rock Creek, Peaks Branch, and Elam Creek are tributaries of the upper Trinity River. The land use patterns within the study corridor are also influenced by various elements of the transportation infrastructure, including IH 45, IH 30, and US 175, as well as arterial roadways, local streets, and rail facilities. Office, commercial/retail, and light industrial land uses are located to take advantage of accessibility provided by IH 45, IH 30, and US 175. Numerous parks and recreational areas have been developed in the study corridor.

3.1.2 Existing Land Use

The land uses along the study corridor vary considerably, from industrial, retail, and commercial, to single- and multi-family residential and floodplain. To categorize land uses, the study corridor has been divided into three geographic regions: Baylor/Deep Ellum/Bryan Place, South Dallas/Fair Park, and Pleasant Grove. Figure 3.1 depicts the 1995 land uses for the study corridor.

Figure 3.1 1995 Generalized Land Use



Legend			
1995 Land Use Type/Percent of Total Area			
Group Quarters / 0.03%	Mobile Home / 0%	Retail / 9%	Utilities / 1%
Hotel-Motel / 0.1%	Multi Family / 4%	Roadway / 4%	Vacant / 22%
Industrial / 5%	Office / 3%	Single Family / 37%	Water / 1%
Institutional / 4%	Parking / 1%	Transportation / 1%	Study Corridor
	Parks / 8%	Under Construction / 0.2%	

Source: NCTCOG



3.1.2.1 Baylor/Deep Ellum/Bryan Place

As shown in Figure 3.2, the existing land uses in the Baylor area are categorized as institutional, office, and retail. Deep Ellum land uses include retail, institutional, and some industrial uses to the south. Bryan Place consists primarily of single- and multi-family residential uses.

A new Latino Cultural Art Center is being built on the corner of Live Oak and Good-Latimer. Deep Ellum includes the area south of Baylor HCS, east of Good-Latimer, north of IH 30, and west of Fair Park. The Bryan Area is defined as the area located east of Central Expressway, west of Fitzhugh Avenue, south of Roseland Street, and north of Gaston Avenue. It is adjacent to the Dallas CBD, Baylor HCS, Cityplace, and Deep Ellum. Baylor HCS is located at the southwest corner of Gaston Avenue and Washington Avenue, north of the Build Alternative (LRT) alignment. Among its many facilities, the Baylor HCS complex includes Baylor University Medical Center, Baylor University Dental School, Tom Landry Fitness Center, Baylor Adult Outpatient Therapy Clinic, Baylor Institute for Rehabilitation, Baylor Senior Health Center, and Baylor Geriatrics Center.

Currently, there is aggressive redevelopment of this area. New town homes are currently under construction and old warehouses and buildings are being converted to residential use. Baylor HCS is constructing a new Heart and Vascular Center, located between Malcolm X Boulevard and Hall Street at Baylor HCS. Yahoo! recently located their National headquarters just south of the Baylor HCS between Malcolm X Boulevard and Walton Street.

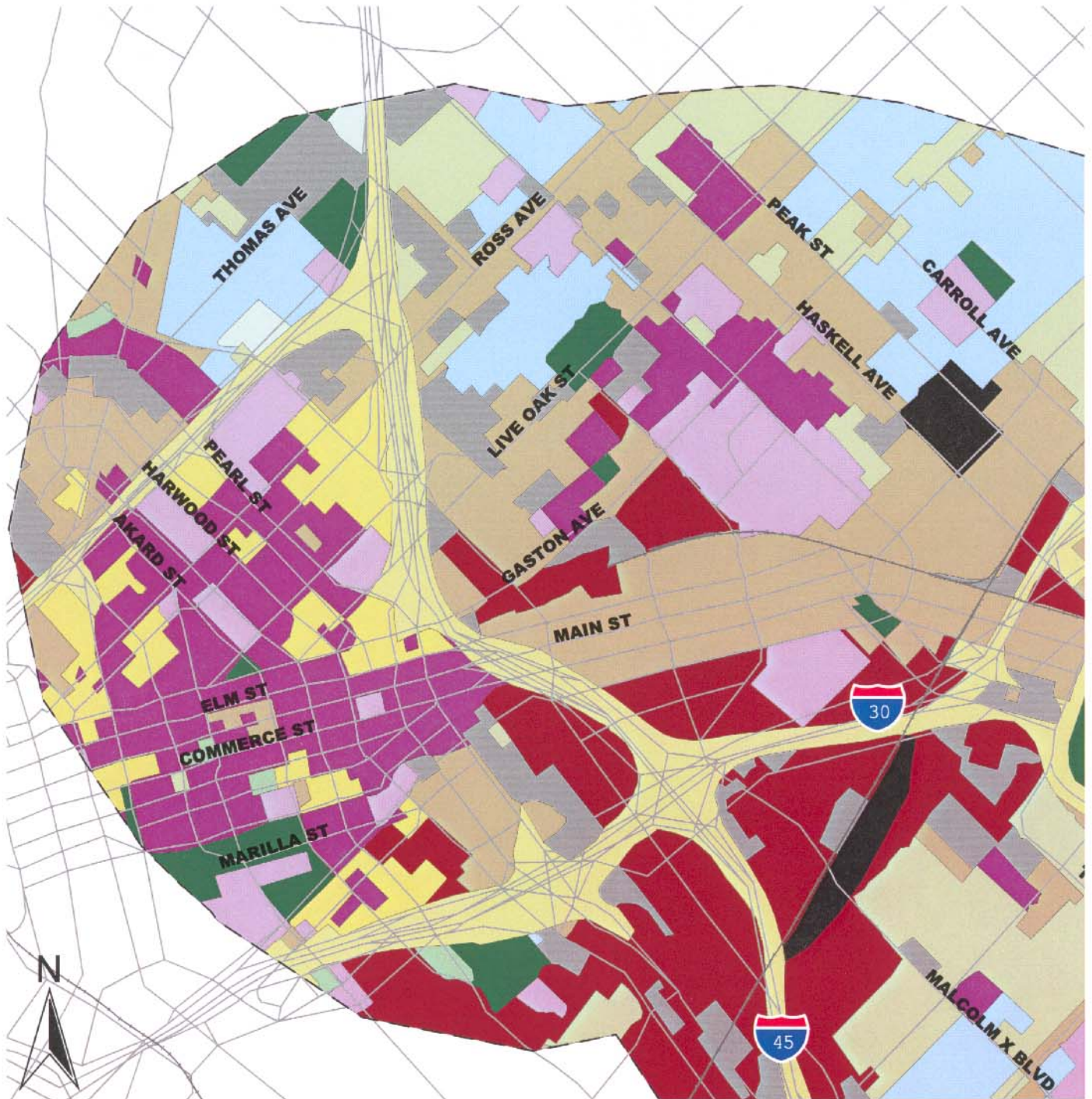
3.1.2.2 South Dallas/Fair Park

The South Dallas area as defined for the study corridor project is bounded by Good-Latimer to the west, IH 30 to the north, White Rock Creek to the east, and the Trinity River to the south. Fair Park is located south of the UP RR (DART) right-of-way and north of R.B. Cullum Boulevard, between Parry Avenue and Fitzhugh.

As shown in Figure 3.3, the majority of the South Dallas area is single- and multi-family residential use. Some industrial uses are located along the railroad on the west side of the South Dallas region. One segment along the south side of R.B. Cullum, just south of Fair Park, is used for retail purposes with businesses such as banks, restaurants, grocery stores, and pharmacies. Proceeding east along Scyene Road toward White Rock Creek, land uses

Figure 3.2

1995 Generalized Land Use - Baylor/Deep Ellum Area



Legend

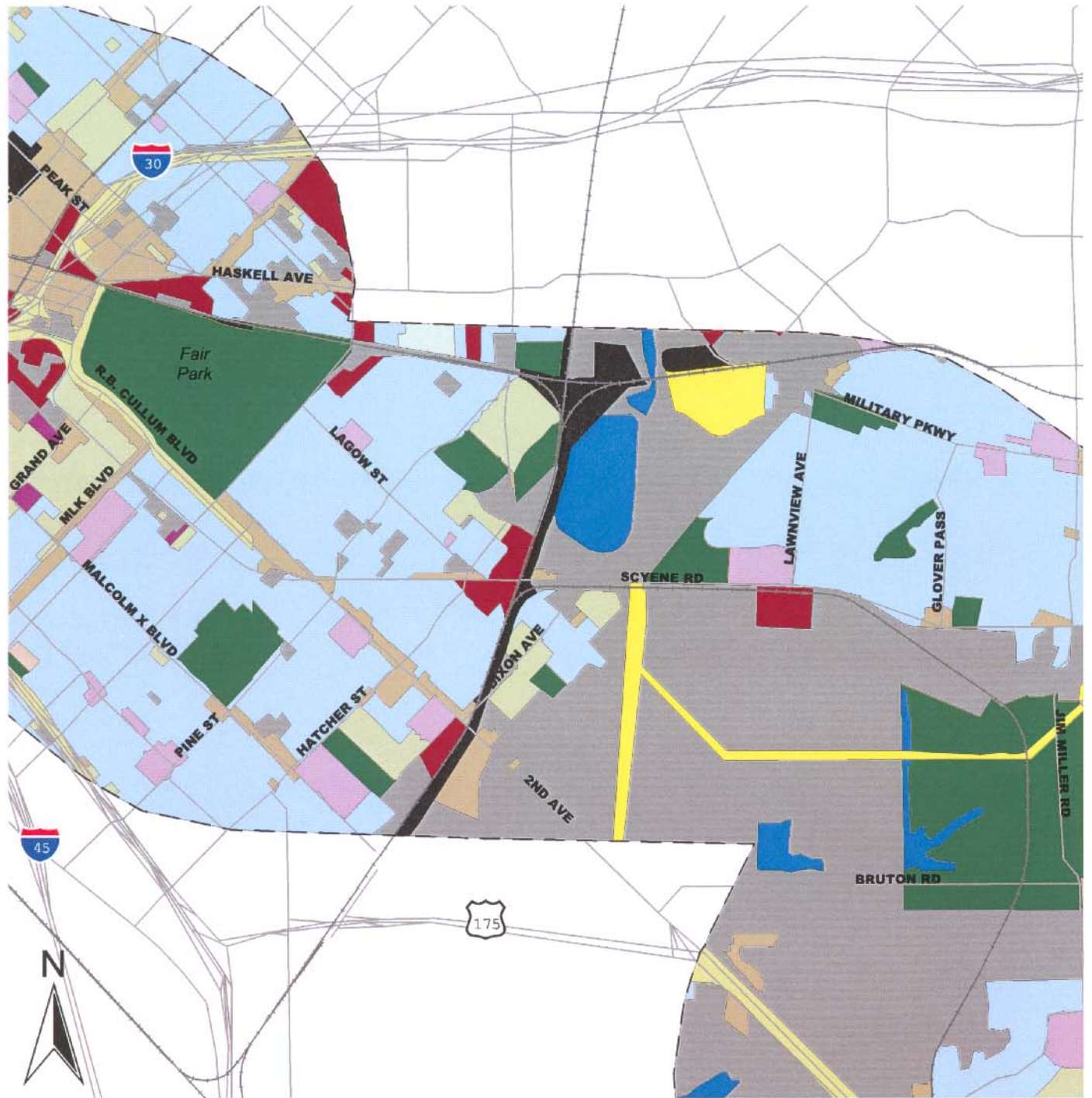
1995 Land Use Type/Percent of Total Area	Mobile Home / 0%	Retail / 9%	Utilities / 1%
Group Quarters / 0.03%	Multi Family / 4%	Roadway / 4%	Vacant / 22%
Hotel-Motel / 0.1%	Office / 3%	Single Family / 37%	Water / 1%
Industrial / 5%	Parking / 1%	Transportation / 1%	Study Corridor
Institutional / 4%	Parks / 8%	Under Construction / 0.2%	

Source: NCTCOG



Figure 3.3

1995 Generalized Land Use - South Dallas/Fair Park Area



Legend			
1995 Land Use Type/Percent of Total Area			
	Group Quarters / 0.03%		Mobile Home / 0%
	Hotel-Motel / 0.1%		Multi Family / 4%
	Industrial / 5%		Office / 3%
	Institutional / 4%		Parking / 1%
			Parks / 8%
			Single Family / 37%
			Retail / 9%
			Transportation / 1%
			Roadway / 4%
			Under Construction / 0.2%
			Utilities / 1%
			Vacant / 22%
			Water / 1%
			Study Corridor

Source: NCTCOG



0 3000 6000 Feet



are primarily single-family residential north of Scyene and vacant (floodplain) south of Scyene Road. Fair Park land use is categorized as parks/open space. The park is over 277-acres and contains numerous cultural and community facilities.

3.1.2.3 Pleasant Grove

The Pleasant Grove area is the southern and easternmost segment of the study corridor. Following the SP RR (DART) alignment along Scyene Road east of White Rock Creek is the Buckner Terrace area, and the land uses remain varied but considerably less developed (Figure 3.4). In this area, single-family residences are on the north side of Scyene Road, and the White Rock Creek floodplain is located south of Scyene Road. Several parks are located within the White Rock Creek floodplain, including Grover Keeton Golf Course just north of Bruton Road and west of Jim Miller Road. Although the majority of the land along the existing SP RR (DART) south of Scyene is vacant and within the floodplain, the Trinity Corridor project includes plans to establish the Great Trinity Forest as a designated resource within much of the floodplain area south of the SP RR (DART).

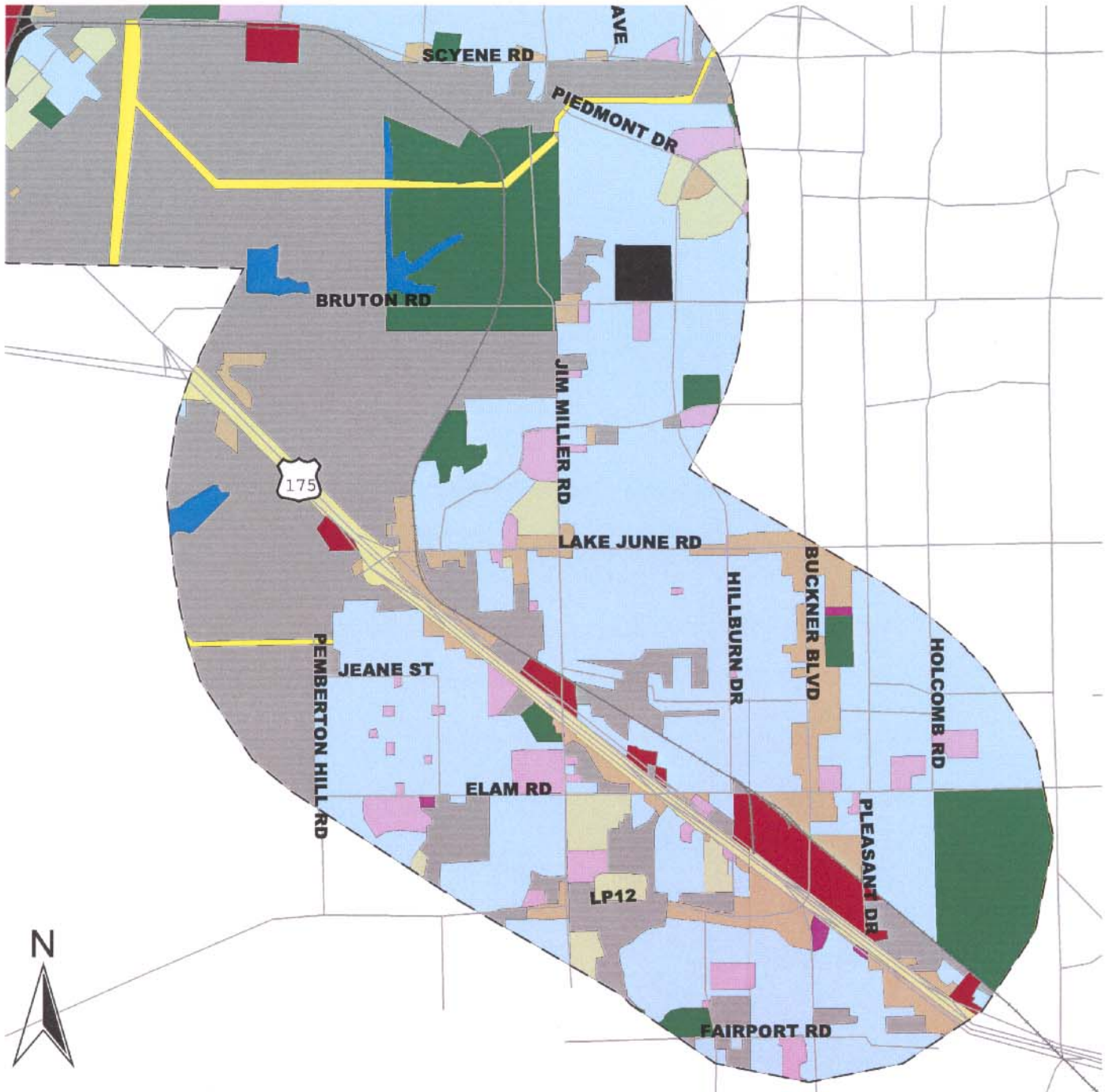
Land uses along Buckner Boulevard are predominantly retail with single-family residential beyond the retail areas. The land adjacent to the existing SP RR (DART) alignment in the Pleasant Grove area is used for retail, industrial, residential, and the majority of the surrounding areas are residential.

3.1.3 Land Use Policies

An evaluation of land use and economic development effects should address a project's consistency with local land use plans. Two plans currently guide the development and land use policies for the City of Dallas. The City of Dallas *Growth Policy Plan* is a long-range planning tool, providing a framework for the future development of Dallas, as well as a context for the preparation of more detailed plans. The City of Dallas initially prepared the plan in 1987 and revised it in 1990 and 1993. This long range plan includes: the preparation of station area plans to address the linkage of DART stations to employment centers and residential areas, site layout and design (including access improvements, urban design features and impact mitigation measures), and where appropriate, development policies such as density bonuses necessary to support higher levels of development.

Figure 3.4

1995 Generalized Land Use - Pleasant Grove/Buckner Terrace Area



1995 Land Use Type/Percent of Total Area			
	Group Quarters / 0.03%		Mobile Home / 0%
	Hotel-Motel / 0.1%		Multi Family / 4%
	Industrial / 5%		Office / 3%
	Institutional / 4%		Parking / 1%
			Parks / 8%
			Retail / 9%
			Roadway / 4%
			Single Family / 37%
			Transportation / 1%
			Under Construction / 0.2%
			Utilities / 1%
			Vacant / 22%
			Water / 1%
			Study Corridor

Source: NCTCOG



The *Dallas Plan* was adopted in 1994 as the city's official long-range planning tool. This plan focuses on strategic initiatives that are identified as critical to the city. Two of the initiatives relevant to this corridor are "Economic Development" and "Southern Sector." The goal of the "Economic Development" component of the *Dallas Plan* is to leverage resources to attract new business and support expansion of existing businesses. The goal for the "Southern Sector" program is to foster employment, investment, recreational, and educational opportunities in the southern part of the City of Dallas.

Local governments and the NCTCOG have shown a growing commitment to ordinances and policies that are transit supportive and that seek to better integrate land use and transportation planning. The DART's 20-mile Starter System has been extremely successful in attracting development and stimulating economic growth and development. Developers and local policy makers have clearly seen the value of investment in transit infrastructure, redevelopment, infill development and "smart growth" strategies. DART has a proven record generating economic value through transit supported development. A study by Dr. Bernard Weinstein of the University of North Texas's Center for Economic Development and Research found that the DART light rail system had generated over \$800 million in increased property value, rents, and property taxes. This is nearly a 100 percent return on investment for the \$850 million Starter System that has been in operation less than five years.

3.1.4 Schools, Community Facilities and Resources

Facilities within one mile of a transit route generally are considered to be served by that route. Therefore, community facilities have been identified that are within one mile of the proposed Build Alternative (LRT) alignment.

3.1.4.1 Schools

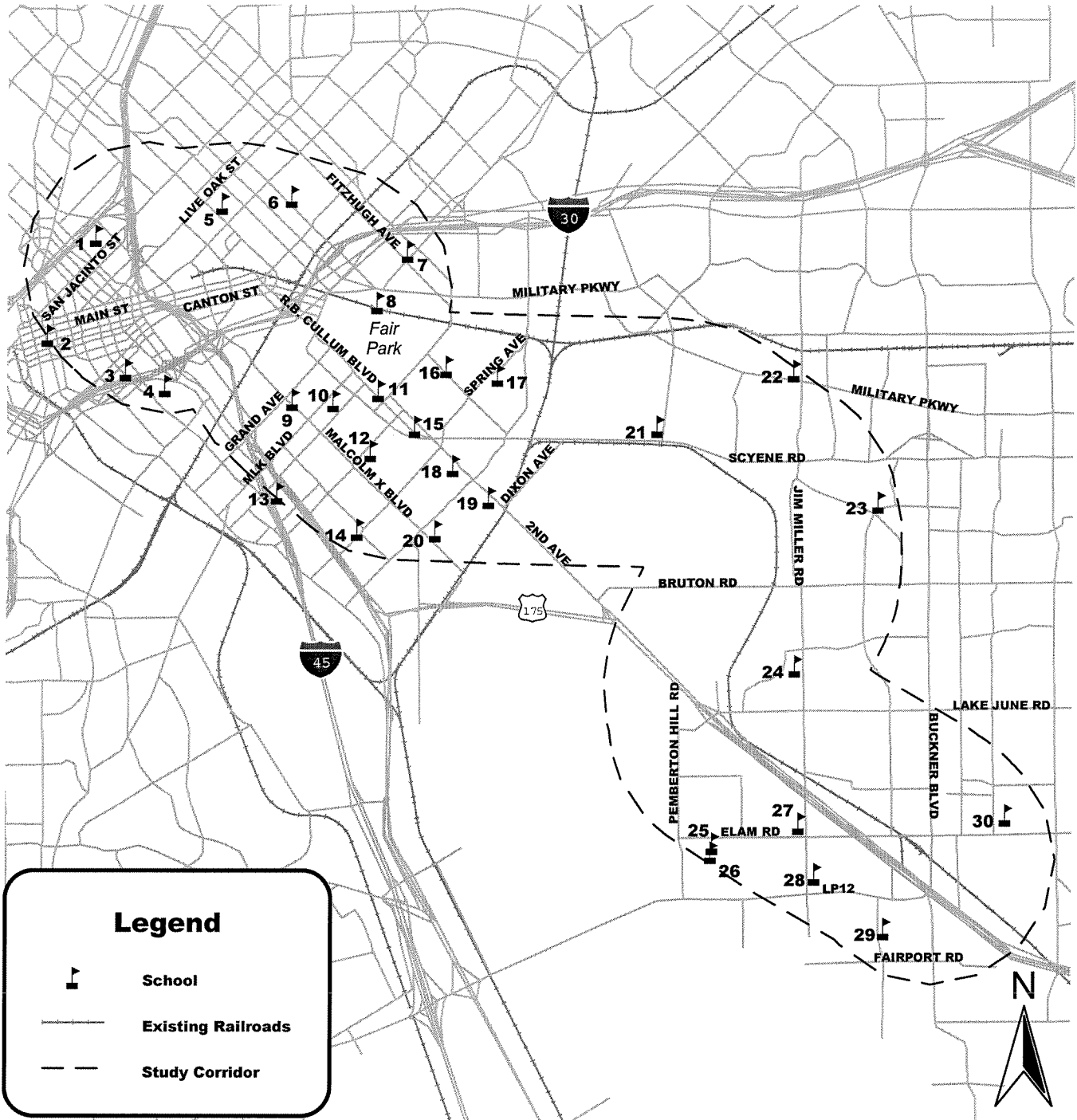
Public schools within the study area are administered by the Dallas Independent School District. As shown in Table 3.1 and Figure 3.5, there are 30 schools within the study corridor. There are 23 primary education schools (elementary and middle schools), five secondary/high schools, one seminary, and one dental school. Baylor HCS, located in the northwest portion of the study area near downtown Dallas, includes the Baylor University Dental School. A large number of primary and secondary schools are concentrated between the downtown area and Rochester Park bordered by the SP RR (DART) on the northeast and US 175 on the southwest.

Table 3.1 Schools

Site No.	Name	Address
1	W.A. Blair Elementary School	7720 Gayglen Drive
2	Billy Dade Elementary School	2801 Park Row Avenue
3	Robert C. Buckner Elementary School	400 Ella Avenue
4	Rufus C. Burluson Elementary School	6300 Elam Road
5	City Park Elementary School	1738 Gano Street
6	Colonial Learning Center	1824 Pennsylvania
7	Frederick Douglass Elementary School	226 N. Jim Miller Road
8	Paul L. Dunbar Elementary School	4200 Metropolitan Avenue
9	Julia C. Frazier Elementary School	4600 Spring Avenue
10	Fannie C. Harris Elementary School	4212 East Grand Avenue
11	John Ireland Elementary School	1515 N. Jim Miller Road
12	Daniel "Chappie" James Learning Center (Elementary School)	1718 Robert B. Cullum Boulevard
13	B.H. Macon Elementary School	650 Holcomb Road
14	Joseph J. Rhoads Learning Center (Elementary School)	4401 2nd Avenue
15	Charles Rice Learning Center (Elementary School)	2425 Pine Street
16	Ascher Silberte Elementary School	5940 Hollis Avenue
17	South Dallas Learning Center	Scyene Road near Spring Road (under construction)
18	Urban Park Elementary School	6901 Military Parkway
19	Phyllis Wheatley Elementary School	2908 Metropolitan Avenue
20	Ignacio Zaragoza Elementary School	4550 Worth Street
21	Pearl C. Anderson Learning Center (Middle School)	3400 Garden Lane
22	E.B. Comstock Middle School	7044 Hodde Street
23	John B. Hood Middle School	7625 Hume Drive
24	Barbara M. Manns High School	912 S. Ervay Street
25	B.T. Washington for the Performing/Visual Arts (High School)	2501 Flora Street
26	Lincoln High School	2826 Hatcher Street
27	James Madison High School	3000 Martin Luther King, Jr. Boulevard
28	Middle College High School	Main & Lamar Streets
29	Dallas Theological Seminary	1206 N. Haskell Avenue
30	Oran Roberts Elementary School	4919 E. Grand Avenue

Source: Carter & Burgess, 2001

Figure 3.5 Schools



Legend



School



Existing Railroads



Study Corridor

1. B.T. Washington High School
2. Middle College
3. Barbara Manns High School
4. City Park Elementary
5. Dallas Theological Seminary
6. Ignacio Zaragoza Elementary
7. Oran Roberts Elementary
8. Fannie Harris Elementary
9. Billy Dade Elementary
10. James Madison High School
11. Daniel "Chappie" James Learning Center
12. Phyllis Wheatley Elementary

13. Colonial Learning Center
14. Charles Rice Learning Center
15. South Dallas Learning Center
16. Paul L. Dunbar Elementary
17. Julia Frazier Elementary
18. Joseph J. Rhoads Learning Center
19. Pearl C. Anderson Learning Center
20. Lincoln High School
Lincoln Magnet
21. Ascher Silberstein Elementary
22. Urban Park Elementary
23. John B. Hood Middle School

24. John Ireland Elementary
25. Rufus C. Burleson Elementary
26. Robert C. Buckner Elementary
27. E.B. Comstock Middle School
28. Frederick Douglass Elementary
29. W.A. Blair Elementary
30. B.H. Macon Elementary

Source: NCTCOG



3.1.4.2 Community Facilities and Resources

There are numerous community facilities and activity centers in the study corridor. Locations of community facilities within the study corridor are illustrated in Table 3.2 and Figure 3.6. In addition cemeteries and golf course are listed. These facilities provide necessary services to residents within Dallas and the surrounding communities. These include hospitals, public buildings, libraries, police stations, and fire stations. Also identified in the table and corresponding maps are several civic and community buildings. These include public buildings such as museums, auditoriums, libraries, and government buildings. Within the study corridor, the majority of civic and community buildings are located near the downtown Dallas area, with another concentration in and around Fair Park. Parks and recreational lands are further discussed in Section 3.9.

3.1.5 Major Activity Centers

Several activity centers located in the study corridor are major traffic generators. These activity centers include various businesses, institutions (schools, hospitals, clinics, etc.). The study corridor has three major activity areas – Deep Ellum, Baylor HCS, and Fair Park. Numerous other smaller employers are in the same areas as the larger employers. These activity centers generate significant transportation needs for both employees and patrons. The activity centers located within one mile of the proposed Build Alternative (LRT) alignment are shown in Figure 3.7.

Deep Ellum – The Deep Ellum Historic district is located in the area between Main Street, Exposition, and IH 30. Deep Ellum includes multi-use buildings, with an eclectic variety of retail, residential, and commercial uses. Many restaurants, specialty shops, and clubs are located within Deep Ellum. The new Latino Cultural Center will also be located on the northern edge of Deep Ellum.

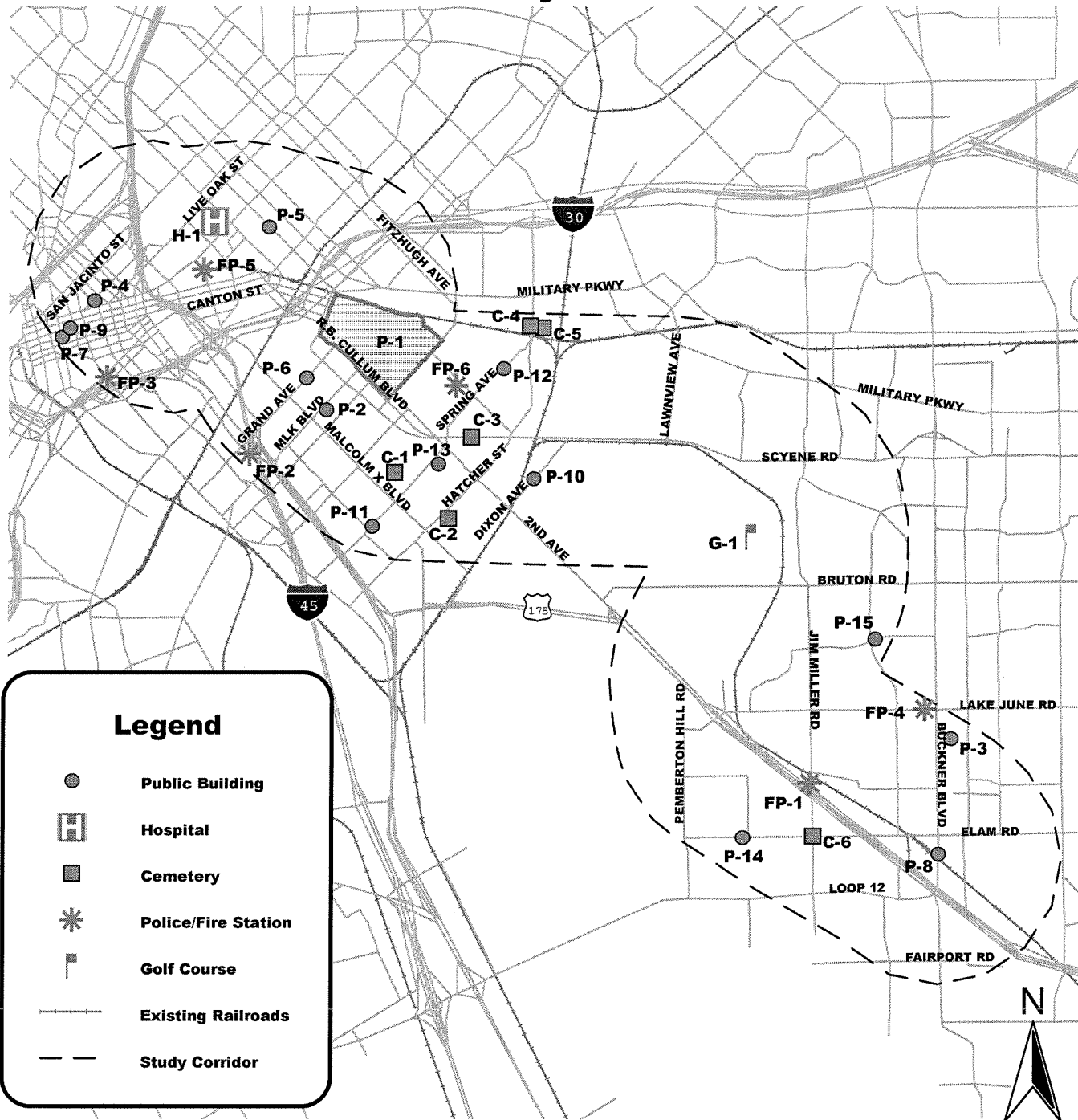
Baylor HCS – The Baylor HCS is located at the southwest corner of Gaston Avenue and Washington Avenue, north of the Build Alternative (LRT) alignment. Among its many facilities, the Baylor HCS complex includes Baylor University Medical Center, Baylor University Dental School, Tom Landry Fitness Center, Baylor Adult Outpatient Therapy Clinic, Baylor Senior

Table 3.2 Community Facilities

Site	Facility	Location
FP-1	Dallas Police, Patrol Operations West	725 N. Jim Miller Road
FP-2	Fire Station #6	2808 S. Harwood
FP-3	Fire Station #4	816 S. Akard
FP-4	Fire Station #34	8003 Lake June
FP-5	Fire Station #34	500 N. Malcolm X Boulevard
FP-6	Fire Station #44	4114 Frank Street
C-1	Oakland Cemetery	3900 Malcolm X Boulevard
C-2	Samuell-Crawford Memorial Park	Elam Road and Prairie Creek Road
C-3	Shearith Israel Cemetery	Hatcher & Mingo
C-4	Woodland (Butler-Nelson) Cemetery	Vannerson & Cason
H-1	Baylor Health Care System	3500 Gaston Avenue
P-1	National Women's Museum Marine Corps Square Centennial Building Esplanada Automobile Building Texas Hall of State Music Hall African American Museum Magnolia Lounge Natural History Museum The Science Place Aquarium Band Shell Texas Discovery Gardens Cotton Bowl Stadium Smirnoff Music Centre	Texas State Fair Grounds 3921 Martin Luther King, Jr. Boulevard
P-2	Martin Luther King, Jr. Center Library Recreational Center Senior Center	2922 Martin Luther King, Jr.
P-3	Dallas Public Library - Pleasant Grove	1125 S Buckner Boulevard
P-4	Downtown Station Post Office	400 N. Ervay Street
P-5	East Side Finance Station Post Office	502 N. Haskell Avenue
P-6	Juanita Craft Station Post Office	3055 Grand Avenue
P-7	Station C Post Office	1100 Commerce Street
P-8	Pleasant Grove Station Post Office	350 Buckner Boulevard
P-9	Main Place Station Post Office	1201 Main Street
P-10	Larry Johnson Recreational Center	3700 Dixon
P-11	Exline Recreation Center	2525 Pine Street
P-12	Juanita J. Craft Recreation Center	4500 Spring
P-13	Mildred Dunn Recreation Center	3322 Reed Lane
P-14	Pemberton Hill Recreation Center	6424 Elam Road
P-15	Umpress Recreation Center	7616 Umpress
G-1	Grover C. Keeton Golf Course	2323 N. Jim Miller Road

Source: Carter & Burgess, 2001

Figure 3.6 Community Facilities



Public Buildings

- P-1. Fair Park Facilities
 - The Woman's Museum
 - Marine Corps Square
 - Centennial Building
 - Esplanada
 - Automobile Building
 - Texas Hall of State
 - Music Hall
 - African American Museum
 - Magnolia Lounge
 - Natural History Museum
 - The Science Place
 - Aquarium
 - Band Shell
 - Texas Discovery Gardens
 - Cotton Bowl Stadium
- P-2. Martin Luther King, Jr. Center (Recreational & Senior Center)
- P-3. Dallas Library - Pleasant Grove
- P-4. Downtown Station Post Office
- P-5. East Side Finance Station Post Office
- P-6. Juanita Craft Station Post Office
- P-7. Station C Post Office
- P-8. Pleasant Grove Station Post Office
- P-9. Main Place Station Post Office
- P-10. Larry Johnson Recreation Center
- P-11. Exline Recreation Center
- P-12. Juanita J. Craft Recreation Center
- P-13. Mildred Dunn Recreation Center
- P-14. Pemberton Hill Recreation Center
- P-15. Umphress Recreation Center

Cemeteries

- C-1. Oakland Cemetery
- C-2. Butler-Nelson Cemetery
- C-3. Lagow Cemetery
- C-4. Beeman Cemetery
- C-5. Shearith Israel Cemetery
- C-6. Elam Cemetery

Hospitals

- H-1. Baylor Health Care System

Golf Course

- G-1. Grover C. Keeton Golf Course

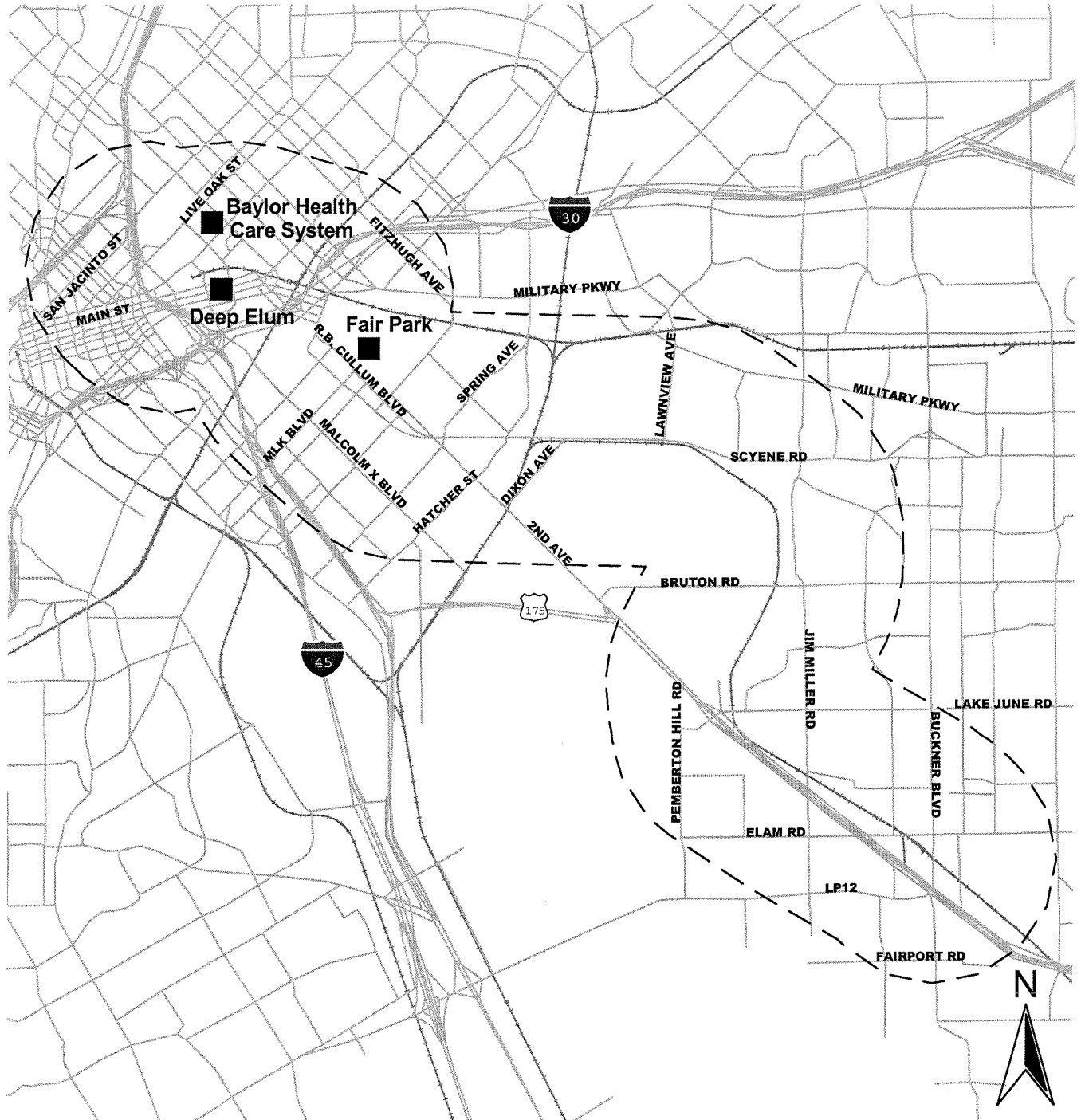
Fire/Police Station

- FP-1. Dallas Police, Patrol Operations West
- FP-2. Fire Station #6
- FP-3. Fire Station #4
- FP-4. Fire Station #34
- FP-5. Fire Station #3
- FP-6. Fire Station #44



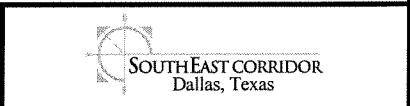
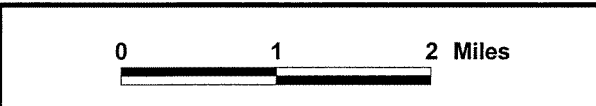
SOUTH EAST CORRIDOR
Dallas, Texas

Figure 3.7 Major Activity Centers



Legend

Major Activity Center	Existing Railroads	Study Corridor
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Health Center, and Baylor Geriatrics Center. It is one of the largest employers in the in the study corridor, employing about 7,400 persons. It also generates many trips by patients and visitors.

The Baylor Heart and Vascular Center is being built adjacent to the proposed Baylor LRT station.

Fair Park – Fair Park is located north of US 175 and south of IH 30. Fair Park houses many points of interest including: the National Women’s Museum, Music Hall, Age of Steam Railroad Museum, Centennial Building, Hall of State, Cotton Bowl Stadium, Smirnoff Music Centre, Science Place, Aquarium, the Texas State Fair Grounds, and other buildings (Figure 3.8). Activities are held within the park year round. Employment numbers vary throughout the year depending on the activities that are taking place. Over seven million people visit Fair Park every year with over 3.5 million people visiting the during the approximately three week duration of the Texas State Fair.

3.2 SOCIAL CHARACTERISTICS AND NEIGHBORHOODS

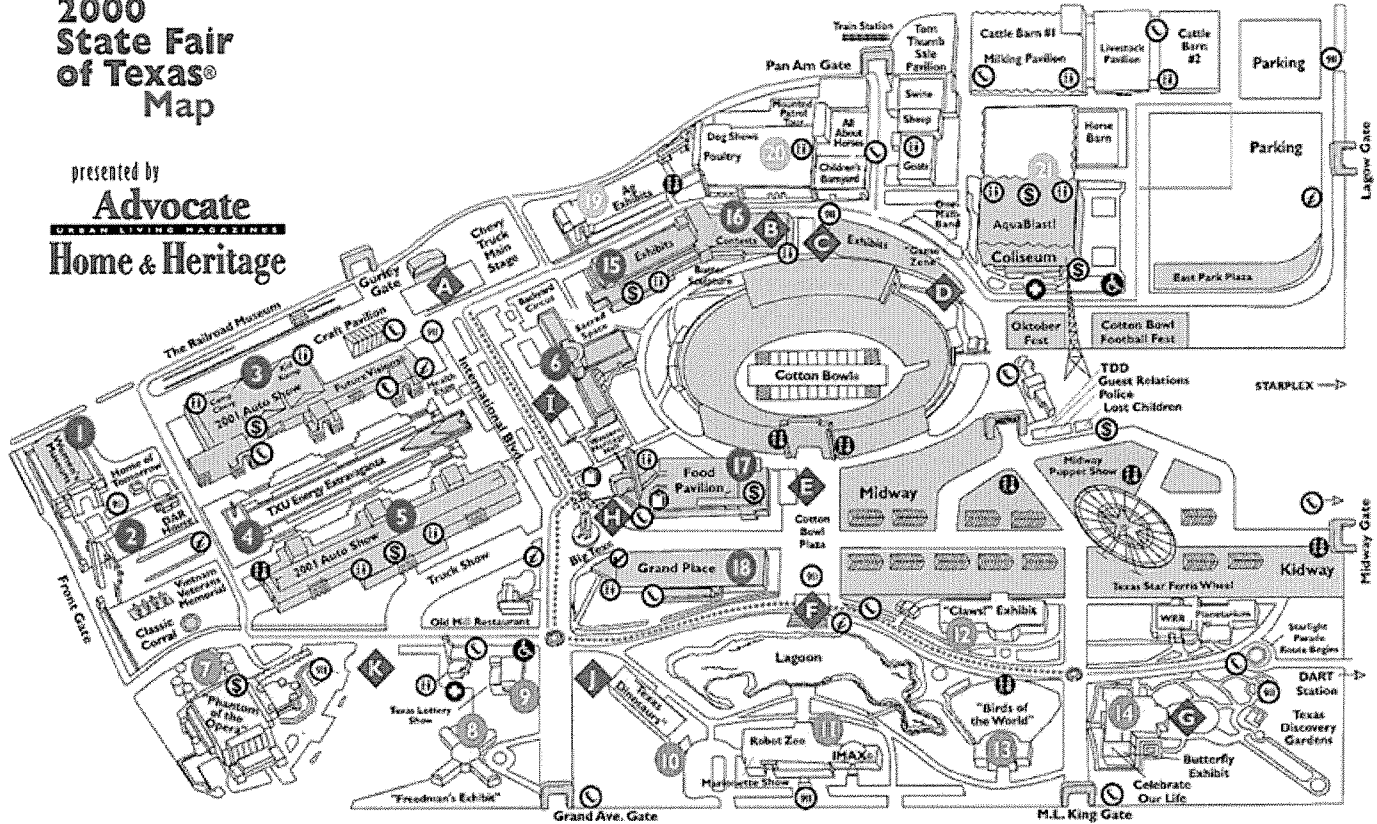
The primary social characteristics of the study corridor are described in this section. Executive Order 12898, entitled “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,” requires Federal agencies to identify and address as appropriate, adverse, and disproportionate impacts of their programs, policies, and activities on the health and environment of minority communities and low-income populations. This order provides, in part:

- To the greatest extent practicable and permitted by law... each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies and activities on minority populations and low-income populations...[Subsection 1-101]
- Each Federal agency shall conduct its programs, policies and activities that substantially affect human health or the environment, in a manner that ensures that such programs, policies and activities do not have the effect of excluding persons (including populations) from participation in, denying persons (including populations) the benefits of, or subject persons (including populations) to discriminations under such programs, policies and activities, because of their race, color, or national origin. [Subsection 2-2]

Figure 3.8 Fair Park

2000
State Fair
of Texas®
Map

presented by
Advocate
DREAM LIVING MAGAZINE
Home & Heritage



State Fair Favorites

1. The Women's Museum
2. Marine Corps Square
3. Centennial Building
4. Esplanade
5. Automobile Building
6. Texas Hall of State

Museums & More

7. Music Hall
8. African American Museum
9. Magnolia Lounge
10. Natural History Museum
11. The Science Place
12. Aquarium
13. Band Shell
14. Texas Discovery Gardens

Exhibits

15. Embarcadero
16. Creative Arts
17. Tower Building
18. Grand Place

Livestock

19. Food & Fiber Pavilion
20. Dr. Pepper Arena
21. Coliseum

Stage Shows

- | | |
|----------------------------------|------------------------|
| A. Chevy Truck Main Stage | G. La Fuente Stage |
| B. Showplace Theator | H. Big Tex Circle |
| C. Budweiser International Stage | I. Hall of State Steps |
| D. Schepps Dairy Stage | J. Amphitheater |
| E. Miller Plaza Stage | K. Pontiac/GMC State |
| F. McDonald's/Fox 4 Stage | |

Routes

- Starlight Parade
- Trams



Source:
<http://www.bigtex.com/info/map/statefairmap.htm>



- Each Federal agency shall work to ensure that public documents, notices, and hearings relating to human health or the environment are concise, understandable, and readily accessible to the public. [Subsection 5-5 {c}]

A Presidential Memorandum that accompanied the executive order emphasized that the order was “intended to promote nondiscrimination in Federal programs substantially affecting human health and the environment, and to provide minority communities and low-income communities access to public information on, and an opportunity for public participation in, matters relating to human health or the environment” (*Weekly Compilation of Presidential Documents* at 279, February 11, 1994). It also underscored the application of certain provisions of existing law, such as NEPA. Specifically, the memorandum notes that a NEPA analysis must include “effects on minority communities and low-income communities,” and that mitigation measures “should address significant and adverse environmental effects of proposed Federal actions on minority communities and low-income communities.” [Subsection 5-5 {c}]. All actions that would be taken by FTA and DART with respect to this project would comply with applicable statutory requirements, the spirit of this new Executive Order and applicable administrative regulations, including joint FHWA/FTA regulations on Statewide Planning published October 28, 1993 (23 CFR 450 and 49 CFR 613) and Department of Transportation Proposed Order to Address Environmental Justice in Minority Populations and Low-Income Populations, published June 29, 1995, (*Federal Register*, Vol. 60, No. 125, Thursday, June 29, 1995).

A minority population is defined as a group of people and/or community experiencing common conditions of exposure or impact that consists of persons classified by the U.S. Bureau of the Census as Negro/Black/African-American, Hispanic, Asian or Pacific Islander, American Indian, Eskimo, or Aleut, or other non-white persons. According to the U.S. Bureau of the Census, a low-income population is defined as a group of people and/or community, which as a whole, lives below the national poverty level. Disproportionate environmental impacts from the exposure to an environmental hazard occur when the risk to a minority population or low-income population exceeds the risk to the general population. As shown in the following sections, the study corridor has a predominantly minority population.

3.2.1 Demographics

This section identifies the characteristics of the study corridor population, including growth trends of recent years, distribution patterns, and projections for the future. Population figures for 1990 are based on the 1990 Census. The data needed to complete the demographic analysis using the 2000 Census data was not final at the time of the publication of this document. Population projections for 2025 were developed through a coordinated effort by NCTCOG and local governments. Existing and forecasted population figures for the study corridor, Dallas County, and the City of Dallas are presented in Table 3.3. Forty-six census tracts are within the study corridor. A map of the study corridor and its associated census tracts is shown in Figure 3.9. Some census tracts extend partially beyond the defined borders of the study area.

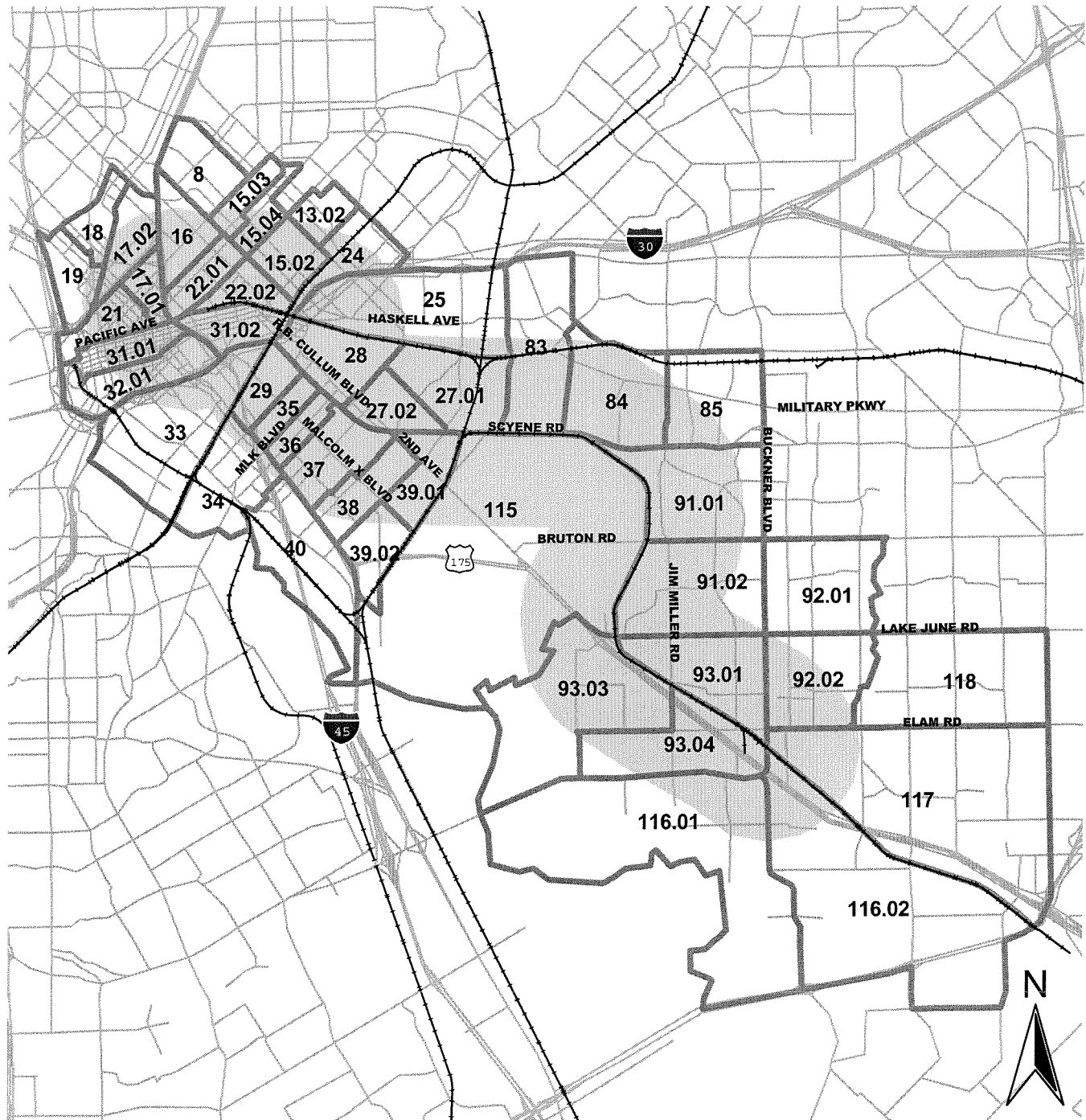
As shown in Table 3.3, the population of the City of Dallas is expected to increase by approximately 25 percent between 1990 and 2025 according to the NCTCOG District Population Forecast Estimates. This increase equates to an additional 255,932 persons. The population in the study corridor is expected to increase 36 percent or 27,075 persons by 2025.

Table 3.3 Population Projections




Area	Population		Increase	Percent Change
	1990	2025		
Study Corridor	75,356	102,432	27,075	36%
City of Dallas	1,007,618	1,263,550	255,932	25%
Dallas County	1,852,810	2,587,100	734,290	40%

Source: NCTCOG District Population Forecast Estimates
 Note: Numbers for "Study Corridor" include only that portion of the city's population within the study corridor previously defined. Populations are based on NCTCOG Districts, which are different than the census tracts in the 1990 Census Report, by the US Census Bureau. In some cases, these districts extend beyond the US census tract areas.

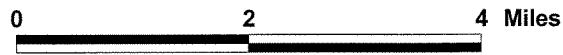
Figure 3.9 1990 Census Tracts



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 <p>Census Tracts</p>	 <p>Existing Railroads</p>	 <p>Study Corridor</p>
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Source: US Census Bureau



As shown in Table 3.4, racial minorities comprise of approximately 76 percent of the population in the study corridor. The ethnic composition of the study corridor is 52 percent Black, 0.3 percent Native American, 1.5 percent Asian, and 0.2 percent Other. While Hispanic is not classified as a racial group, or race, persons of Hispanic Origin account for about 22 percent of the population in the study corridor and meet the definition of a “minority population.”

Table 3.4 1990 Ethnic Composition

Ethnicity	Dallas County		Study Corridor	
	Population	Percent	Population	Percent
White	1,118,840	60.4%	17,955	23.8%
Black	366,080	19.8%	39,041	51.8%
American Indian, Eskimo, or Aleut	8,285	0.4%	219	0.3%
Asian or Pacific Islander	50,003	2.7%	1,155	1.5%
Hispanic Origin	307,542	16.6%	16,803	22.3%
Other	2,060	0.1%	184	0.2%
Total	1,852,810	100.0%	75,356	100.0%

Source: 1990 Census Report, US Census Bureau

Note: Hispanic persons are not considered a separate race, but may belong to any race.

The median age of residents within the study corridor is 32 years old, whereas in the City of Dallas the median age is 27 years old, as shown in Table 3.5. In the study corridor, approximately 31 percent of the population is under 18 years and eight percent is over 64 years. In Dallas County, approximately 28 percent of the population is under 18 years and 5 percent is over 64 years. These age groups typically have a greater dependency on transit services. Median household income in the study corridor, according to the 1990 Census, was \$15,832, with approximately 35 percent of households under poverty level. The median income in the study corridor is approximately 50 percent less than Dallas County’s median household income of \$31,605 in 1990. Approximately 16 percent of households within the study corridor do not have access to an automobile, compared to eight percent for Dallas County.

Table 3.5 Population Characteristics

Characteristic	Dallas County		Study Corridor	
	Population	Percent	Population	Percent
Poverty	245,395	13%	26,629	35 %
Under 18	520,448	28%	23,619	31 %
Over 64	99,108	5%	6,221	8 %
Households with No Vehicle	57,073	8%	7,516	16 %
Median Household Income	\$31,605		\$15,832	
Median Age	27		32	

Source: 1990 Census Report, US Census Bureau

3.2.2 Neighborhoods

There are several residential areas in the study area (Figure 3.10). Most of these residential areas do not have distinct boundaries, but are representative of the community's cohesiveness. The known neighborhood associations in the study include: Bryan Place Homeowners Association, Parkdale Heights Neighborhood Association, Piedmont-Scyene Homeowners Association, Phyllis Wheatley Neighborhood Association, Rose Garden Homeowners Association, South Boulevard/Park Row District, Urbandale Park Homeowners League of Dallas, and Waterwood Neighborhood.

Transportation improvement issues associated with neighborhoods focus on neighborhood integrity and community cohesion. A brief description of the neighborhoods near the study corridor follows:

Bryan Place Neighborhood

The Bryan Place neighborhood is located between Central Expressway, Washington and Gaston Ave, Live Oak and Ross Streets. This neighborhood consists of single and multi-family homes. Retail businesses, schools, churches, and parks are located within this area. The Latino Cultural Center is also located within this neighborhood.

Deep Ellum

The Deep Ellum historical district is located in the area between Main Street, Exposition, and IH 30. This area includes multi-family housing. Deep Ellum includes multi-use buildings, which include an eclectic variety of retail, residential, and commercial uses. Many restaurants, specialty shops, and clubs are located within Deep Ellum.

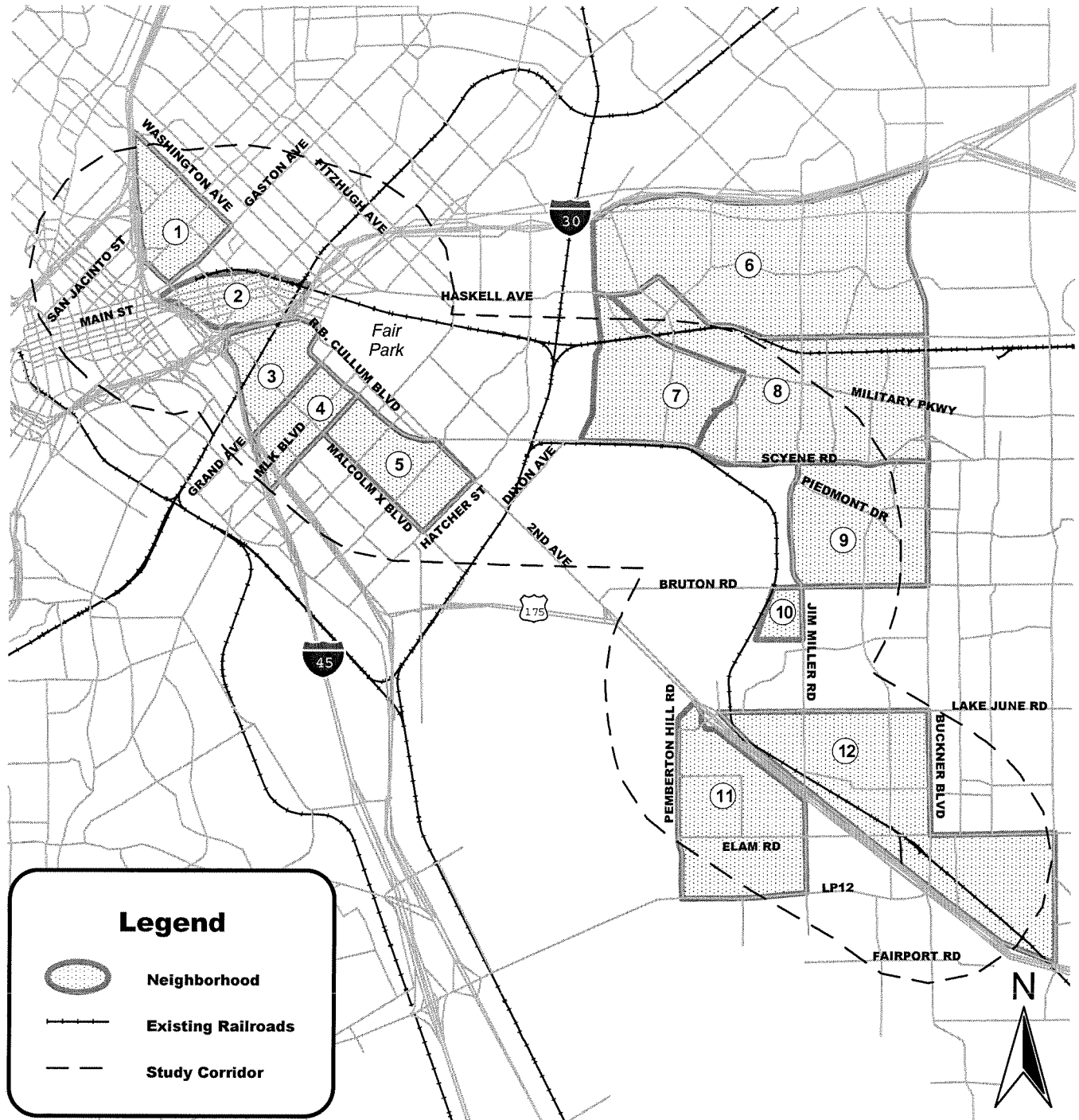
Urbandale Park

The Urbandale Park neighborhood is located between IH 30 and Fair Park, between Fitzhugh and 2nd Avenue. This neighborhood area includes single-family homes and retail.

South Boulevard/Park Row

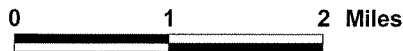
The South Boulevard/Park Row neighborhood is located between IH 45, IH 30, and Grand Avenue. This neighborhood area is predominantly composed of single-family homes. An industrial area borders the northwestern area of the neighborhood.

Figure 3.10 Existing Neighborhoods



Neighborhoods

- | | |
|-----------------------------|--------------------|
| 1. Bryan Place | 7. Parkdale |
| 2. Deep Ellum | 8. Urbandale Park |
| 3. South Boulevard/Park Row | 9. Piedmont Scyene |
| 4. Phyllis Wheatley | 10. Bruton Street |
| 5. Rose Garden | 11. Pemberton Hill |
| 6. Buckner Terrace | 12. Waterwood |



Phyllis Wheatley Neighborhood

The Phyllis Wheatley neighborhood is located between Grand and Pennsylvania Avenue. This neighborhood consists of single and multi-family homes. Retail establishments, schools, and a church, are located within this neighborhood.

Rose Garden

The Rose Garden neighborhood is located between Pennsylvania Avenue, Hatcher Street, and Scyene. This neighborhood is predominantly composed of single-family homes. Parks and retail businesses are also located within this neighborhood.

Southeast Dallas

The Southeast Dallas neighborhood is located between Fair Park and Hatcher Street. This neighborhood is comprised of single-family and multi-family homes. This area also includes some retail uses, parks, and industrial land uses.

Parkdale Heights Neighborhood

The Parkdale Heights neighborhood is located between Hatcher Street, Haskell Avenue, Military Parkway, and Scyene Road. This neighborhood includes single and multi-family homes. A lake, school, and parklands are also located within this neighborhood.

Piedmont Scyene Neighborhood

The Piedmont Scyene neighborhood is located between Bruton Road, Buckner, and Samuell Boulevard. This neighborhood has single-family, multi-family homes, schools, and parks.

Bruton Ridge Subdivision (under construction)

The Bruton Ridge subdivision is currently under construction. It is located south of Bruton Road, north of Woodhill, and west of Jim Miller Road. This neighborhood consists of approximately 162 single-family home sites. According to the developer, there are currently 70 single-family homes sold within this subdivision. This subdivision should be completed in 2003.

Pemerton Hill Neighborhood

The Pemerton Hill neighborhood is located south of Bruton Road, between Buckner Boulevard and Jim Miller, and includes the area south of Bruton Ridge subdivision and north of Lake June.

This neighborhood is comprised of single- and multi- family homes. The Umpress Recreational Center, churches, retail, and two elementary schools are also located within this neighborhood.

Waterwood Neighborhood

The Waterwood neighborhood is located south of Lake June Road. This neighborhood is comprised of single-family homes. A park, retail, and industrial areas are also located within this neighborhood.

3.3 EMPLOYMENT

This section presents existing employment conditions and forecasted employment trends.

3.3.1 Major Employers

Within the study corridor, there are 30 companies with more than 100 employees. Table 3.6 and Figure 3.11 identify the major employers within the study corridor.

Table 3.6 Major Employers

Employer	Address	Number of Employees
Baylor University Medical Center	3500 Gaston Avenue	4425
Dal-Tile	7834 C.F.Hawn Freeway	950
Baylor College of Dentistry	3302 Gaston Avenue	475
Baylor Institute for Rehabilitation	3505 Gaston Avenue	410
Supreme Beef Processors, Inc.	5219 S. 2nd Avenue	300
Metwest, Inc.	4004 Worth Street	300
Dallas Theological Seminary	3909 Swiss Avenue	269
City of Dallas	2922 Martin Luther King, Jr. Boulevard	250
Unicare Health Facilities, Inc.	4005 Gaston Avenue	250
Baylor Center for Reconstructive Care	3504 Swiss Avenue	230
United - Southern Waste Metal Company	301 N. Crowdus Street	224
City of Dallas	3300 Commerce Street	214
Leggett & Platt Incorporated	410 Hillburn Drive	200
US Dept. of Health & Human Services	3032 Bryan Street	200
Baptist General Convention of Texas	333 N. Washington Avenue	200
Buell Door Company	5200 E. Grand Avenue	190
Gary K. Nevins	Fair Park	180
American Permanent Ware Company	729 3rd Avenue	160
United Dominion Industries	5100 E. Grand Avenue	150
Tom Landry Fitness Center	411 N. Washington Avenue	150
Southwestern Typographics, Inc.	2820 Taylor Street	127
Dallas Independent School District	7625 Hume Drive	125

Employer	Address	Number of Employees
Baylor Institute for Rehabilitation	411 N. Washington Avenue	120
Glasfloss Industries	2711 Hickory Street	116
Dallas Medical Surgical Clinic Association	4105 Live Oak Street	108
Pearl C. Anderson Middle School	3400 Garden Lane	106
Baylor Health Care System	3801 Main Street	106
Lincoln High School	2826 Hatcher Street	104
Watson Electric Supply Company	320 S. Walton Street	100
Buell Door Company	1420 Barry Avenue	100

Source: NCTCOG, 1999

3.3.2 Employment Trends

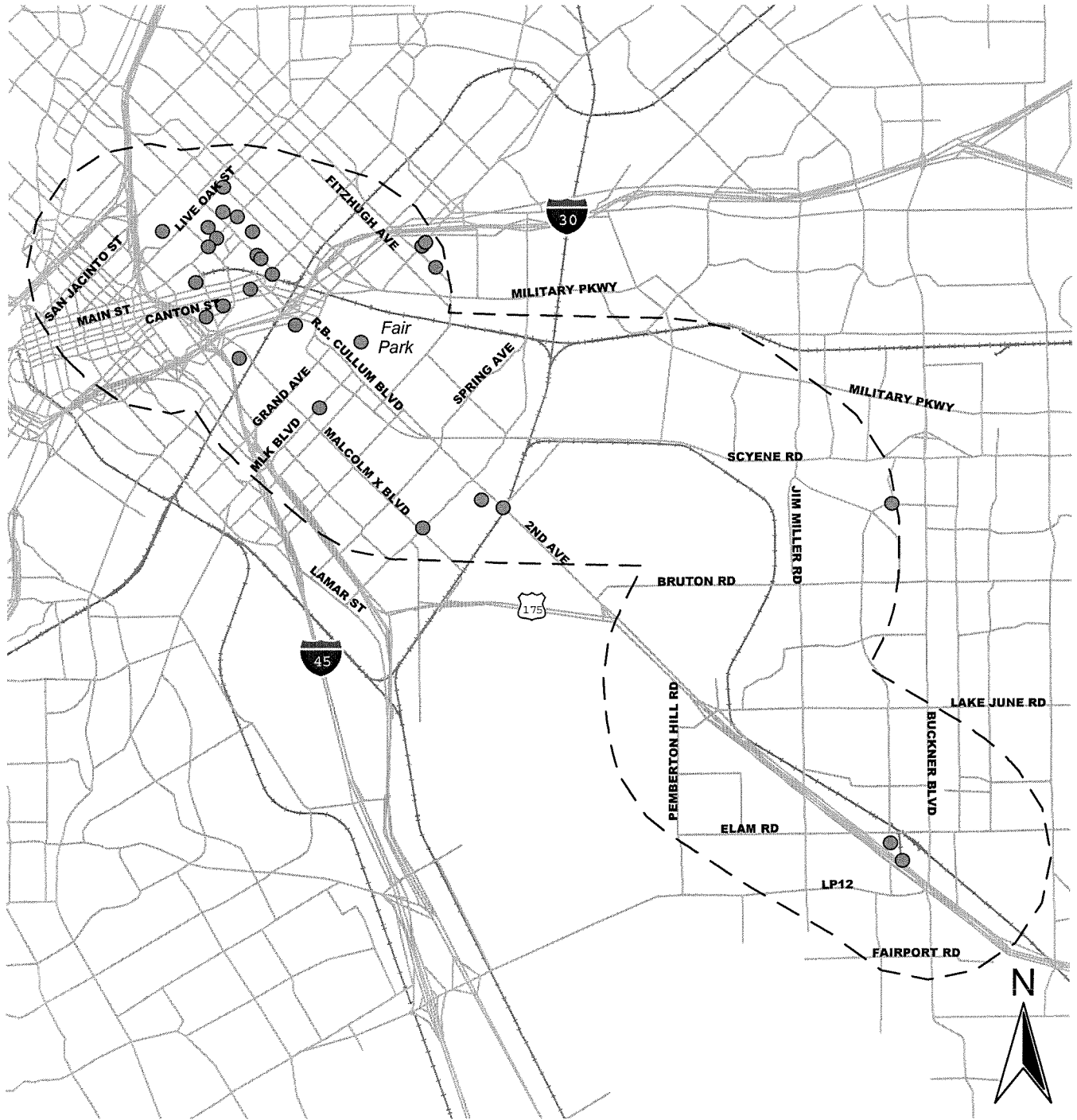
As population in the study corridor increases, employment levels are expected to increase. Table 3.7 shows the 1990 and forecasted employment for the study corridor and Dallas County. Employment within the study corridor is forecasted to increase at a lower rate than Dallas County. Employment in the City of Dallas is forecasted to increase by approximately 48 percent between the years of 1990 and 2025.

Table 3.7 Existing 1990 and Forecasted 2025 Employment

Study Area	Persons Employed per NCTCOG District		Increase	Percent Change
	1990	2025		
Study Corridor	135,421	187,822	52,401	39%
City of Dallas	809,634	1,195,250	385,616	48%
Dallas County	1,254,974	2,030,800	775,826	62%

Source: NCTCOG, March 2001

Figure 3.11 Major Employers



Legend

● Major Employer	— Existing Railroads	- - - Study Corridor
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Source: TxDOT



3.4 TRANSPORTATION

This section describes the existing transportation network and services in the Southeast Corridor. Transit facilities, transit operations, streets, highways, railroads, parking, movement of freight, bicycle facilities, pedestrian facilities, and safety are discussed.

3.4.1 Transit Infrastructure, Operations and Ridership

The study corridor is served by a network of 18 DART bus routes. Bus transit services operate in mixed traffic on US 175 and city streets. There are 12 local-radial routes, three limited-express routes, and three cross-town routes. There are no circulator routes, which operate between transit centers. Other bus routes pass through the southern edge of the study corridor bound for the CBD. The study corridor bus network generally is oriented in the north-south direction, radiating from the CBD located northwest of the study area (Figure 3.12).

Ridership, service descriptions, and headways for the bus routes operating in the study area are summarized in Table 3.8. DART also offers paratransit services within the study area to provide curb-to-curb public transportation to people with disabilities who are unable to use fixed route DART bus or train service.

The strongest current ridership is on local routes destined for downtown Dallas and northwest Dallas County that originate within the Pleasant Grove and South Dallas neighborhoods. These include bus routes 44 and 161. According to the 1990 Census, 7.6 percent of residents in the Southeast Corridor use public transportation compared to 4.3 percent for the entire county. While the Southeast Corridor comprises 10 percent of the DART Service Area, transit bus ridership in the Southeast Corridor accounts for approximately 20 percent of total bus ridership in the entire DART Service Area.

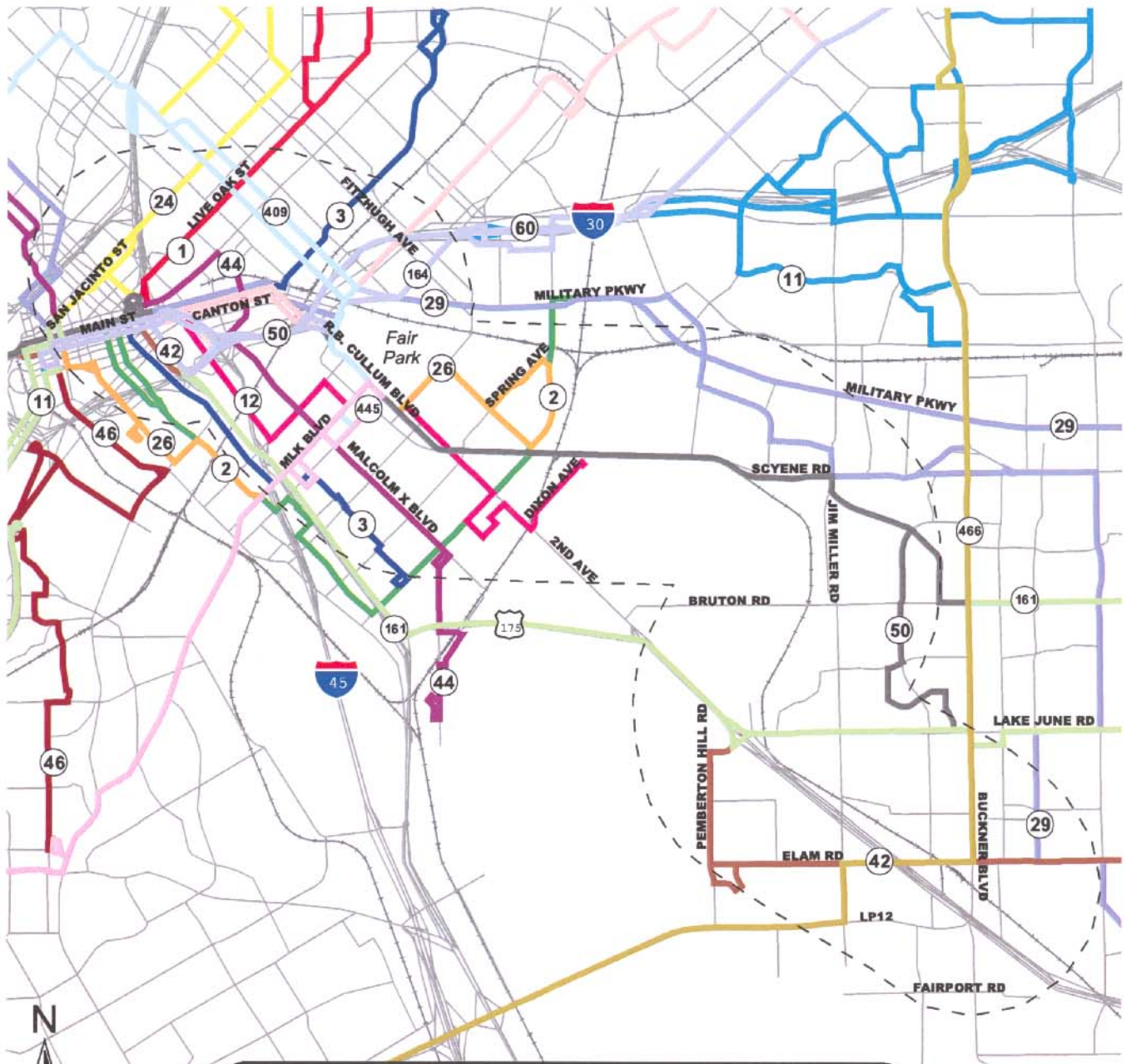
Table 3.8 Bus Operations and Ridership

Route	Bus Route Description	Service Frequency (minutes)		Existing Southeast Corridor Bus Ridership			
		Peak	Off-Peak	Average Weekday	Average Saturday	Average Sunday	Monthly Passengers
1	Mockingbird LRT Station, Skillman/Matilda, Live Oak, East CBD Transit Center, Beckley, Zang	10	22	3,502	1,874	1,140	87,480
2	West CBD Transit Center, Ervay, Lincoln High School, Hatcher, Dolphin	30	35	1,968	814	503	47,402
3	Lakewood, East CBD Transit Center, Harwood, Farmers Market, MLK, Latimer, Crozier	24	40	1,602	758	475	39,339
11	Skyline Branch: West CBD Transit Center, Parry, East Grand, Samuell, Everglade, Buckner, Wimbledon	20	55	4,374	2,419	1,404	109,557
12	West CBD Transit Center, Good-Latimer, Madison High School, Second, Pinkston, Dixon	20	25	1,936	985	752	48,586
24	Mockingbird LRT Station, East & West CBD Transit Center, Ross	10	25	2,371	1,174	865	59,113
26	"F" Branch: Harry Hines, West CBD Transit Center, Akard, Cedars LRT Station, Ervay, MLK, Fitzhugh, Lagow	20	20	5,345	1,938	1,344	127,315
29	"P" Branch: Thurston, Maple, CBD East Transit Center, Haskell, Scyene, Prairie Creek, Samuell High School, Holcomb.	34	120	3,336	1,641	1,028	82,378
	"S" Branch: Thurston, Maple, East CBD Transit Center, Haskell, Military, St. Augustine, Spruce High School	31	120				
42	Hampton LRT Station, Edgefield, West CBD Transit Center, Central Expressway, C.F. Hawn Freeway, Pemberton Hill, Elam, St. Augustine	20	40	2,468	936	419	58,189
44	Harry Hines, East CBD Transit Center, Gaston, Hall, Malcolm X, John Henry Brown Learning Center, MLK Center, Lincoln High School, Pilgrim, Rhoads Transit Center, Turner Court	10	20	9,779	5,278	2,957	243,576
46	West CBD Transit Center, Lamar, Corinth, Industrial, Cadiz, Morrell LRT Station, Denley, Illinois LRT Station	35	35	568	299	0	13,415
50	Cockrell Hill, East CBD Transit Center, Scyene, Fair Park, Hillburn, Buckner	15	30	3,339	1,257	777	79,516
60	IH 635, Plano, Garland, Doctors Hospital, Lindsley, Fair Park, Parry, West CBD Transit Center [local route only]	20	30	2,300	1,114	655	56,489
161	"C" Branch: Wheatland, Polk, South IH 35E, West CBD Transit Center, South Central Expressway, Lake June, Cheyenne	10	40	7,625	3,506	1,937	185,410
	"B" Branch: Wheatland, Polk, South IH 35E, West CBD Transit Center, South Central Expressway, Lake June, Buckner, Bruton	20	40				
	"S" Branch: Wheatland, Polk, South IH 35E, West CBD Transit Center, South Central Expressway, Lake June, Masters	60	0				
164	Shiloh, Centerville, Ferguson, East Grand, Fair Park, CBD	0	0	5,359	2,410	915	128,252
409	DFW South Shuttle, Walnut Hill, Beltline, Irving Boulevard, Irving TRE Station, Mockingbird, Harry Hines, Motor, Maple, Oak Lawn, Blackburn, Peak/Haskell, Cityplace LRT Station, Parry, Cullum, MLK, Malcolm X	13	35	5,262	3,163	1,554	132,530
445	Cullum, James Madison High School, MLK, Cedar Crest, Illinois LRT Station, Illinois, Westmoreland LRT Station, Knoxville, Mountain View College	20	30	2,842	1,718	838	71,617
466	Charlton M. Hospital, Westmoreland, Ledbetter, Ledbetter LRT Station, L-12, Elam, Buckner, Doctors Hospital, Northwest Highway, Garland Road, South Garland Transit Center	16	32	6,356	4,191	1,773	161,517

Source: DART Service Planning, February 2001

Note: Average Weekday, September 2000

Figure 3.12 DART Bus Routes



Legend

	Study Corridor		3		42		164
	Existing Railroads		11		44		409
	Bus Route Number		12		46		445
	Existing DART Bus Route		24		50		466
	1		26		60		
	2		29		161		

Source: DART



3.4.2 Streets and Highways

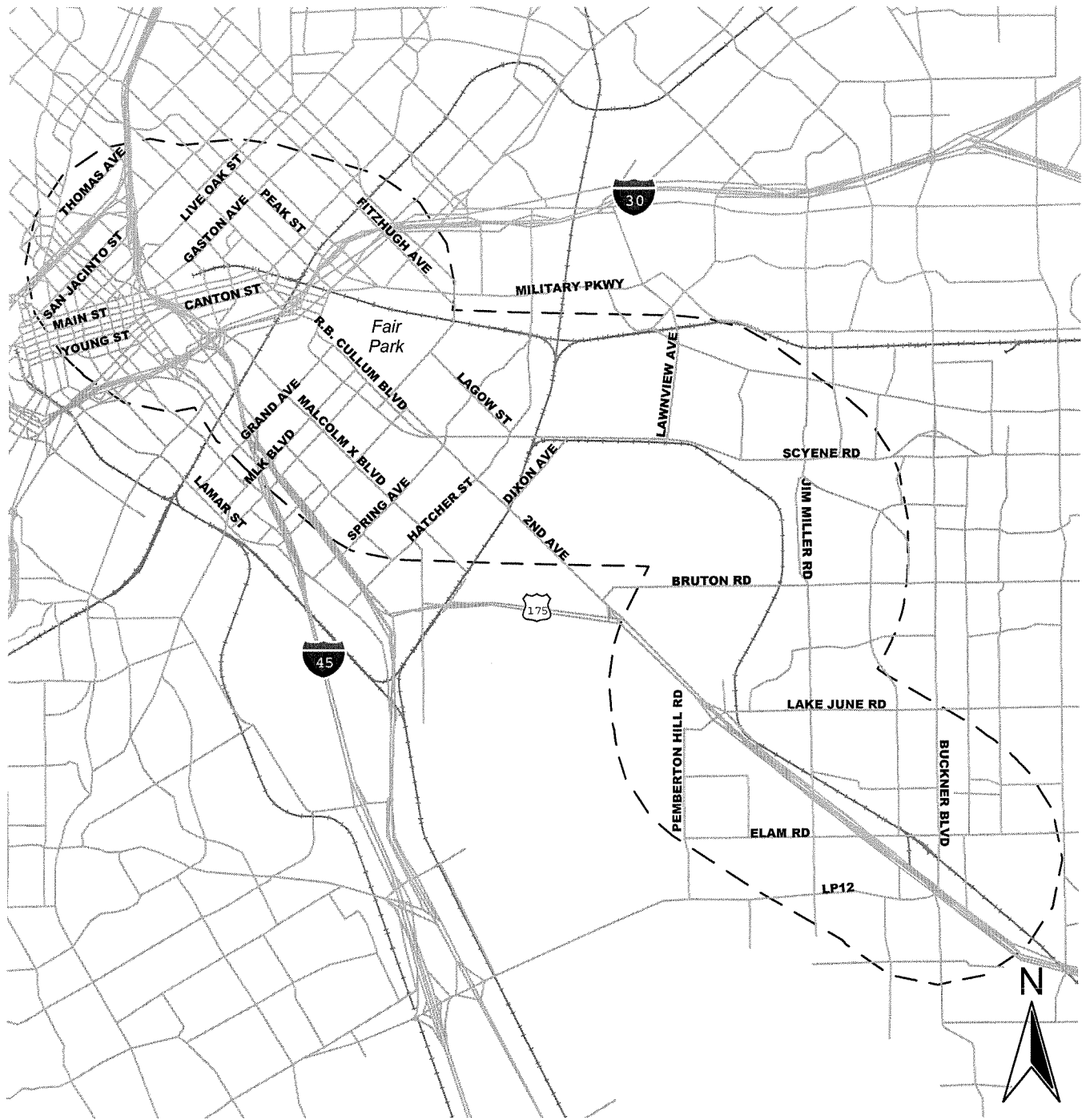
A system of major arterials and local streets support the freeway system in the study area (Figure 3.13). The Pleasant Grove area contains a comprehensive roadway grid system but the Trinity River and White Rock Creek floodplains act as natural barriers to travel from the southeast portion of Dallas County to other parts of the region. The study area is bounded several access-controlled roadways: IH 45, US 75, IH 30, and US 175. Table 3.9 shows the range of 1995 traffic volumes.

Table 3.9 Major Traffic Volumes, 1995

Street Name	Daily Traffic Volume	Street Name	Daily Traffic Volume
1st Avenue	13,834	IH 30 Eastbound	250,339
2nd Avenue	37,269	IH 30 Westbound	157,564
Bruton Road	30,662	IH 45 Northbound	91,936
Bryan/Live Oak	7,663	IH 45 Southbound	91,936
Bryan Street	13,829	Jim Miller Road	70,513
Buckner Boulevard	66,633	Lake June Road	68,157
Cadiz Street	21,757	Lawnview Avenue	12,304
Canton Street	47,924	Loop 12	36,563
Central Expressway	49,754	Martin L. King Boulevard	49,341
Commerce Street	46,880	Munger Boulevard	17,223
Dolphin Road	10,693	Olive Street	21,913
East Grand Avenue	14,399	Peak Street	30,886
Elam Road	50,641	Pennsylvania Ave	14,108
Elm Street	43,624	Pine Street	29,244
Exposition Avenue	6,109	Ross Avenue	85,592
Fitzhugh Avenue	7,547	South Fitzhugh Avenue	8,917
Gaston Avenue	94,183	Scyene Road (SH 352)	58,132
Good Latimer Expressway	33,615	St. Paul Street	23,758
Grand Avenue	14,554	US 175 Northbound Frontage Road	8,869
Griffin Street	72,488	US 175 Southbound Frontage Road	11,249
Hall Street	11,611	US 175 Northbound	103,876
Harwood Street	76,856	US 175 Southbound	100,551
Haskell Avenue	71,395	US 75/Central Northbound	83,232
Hatcher Street	34,806	US 75/Central Southbound	3,232

Source: NCTCOG, 2001

Figure 3.13 Existing Roadway Network



Legend

Street Network	Existing Railroads	Study Corridor
----------------	--------------------	----------------

Source: NCTCOG



3.4.3 Railroads

There are two major railroad corridors within the study area, the UP RR and the SP RR (DART). Figure 3.14 highlights the railroad alignments and current ownership.

3.4.3.1 UP RR Mainline

The UP RR is a mainline railroad and is part of the Union Pacific's transcontinental route that provides coast-to-coast service. The UP RR is located approximately 1.25 miles south of IH 30 and generally parallels the freeway alignment. It extends beyond Mesquite to the east and continues west through the mid-cities to Fort Worth to the west. The UP RR also owns and operates the north-south railroad through the corridor, west of White Rock Creek and Parkdale Lake, which links the UP RR and SP RR (DART) corridors. The proposed LRT would be grade separated where it crosses the UP RR mainline.

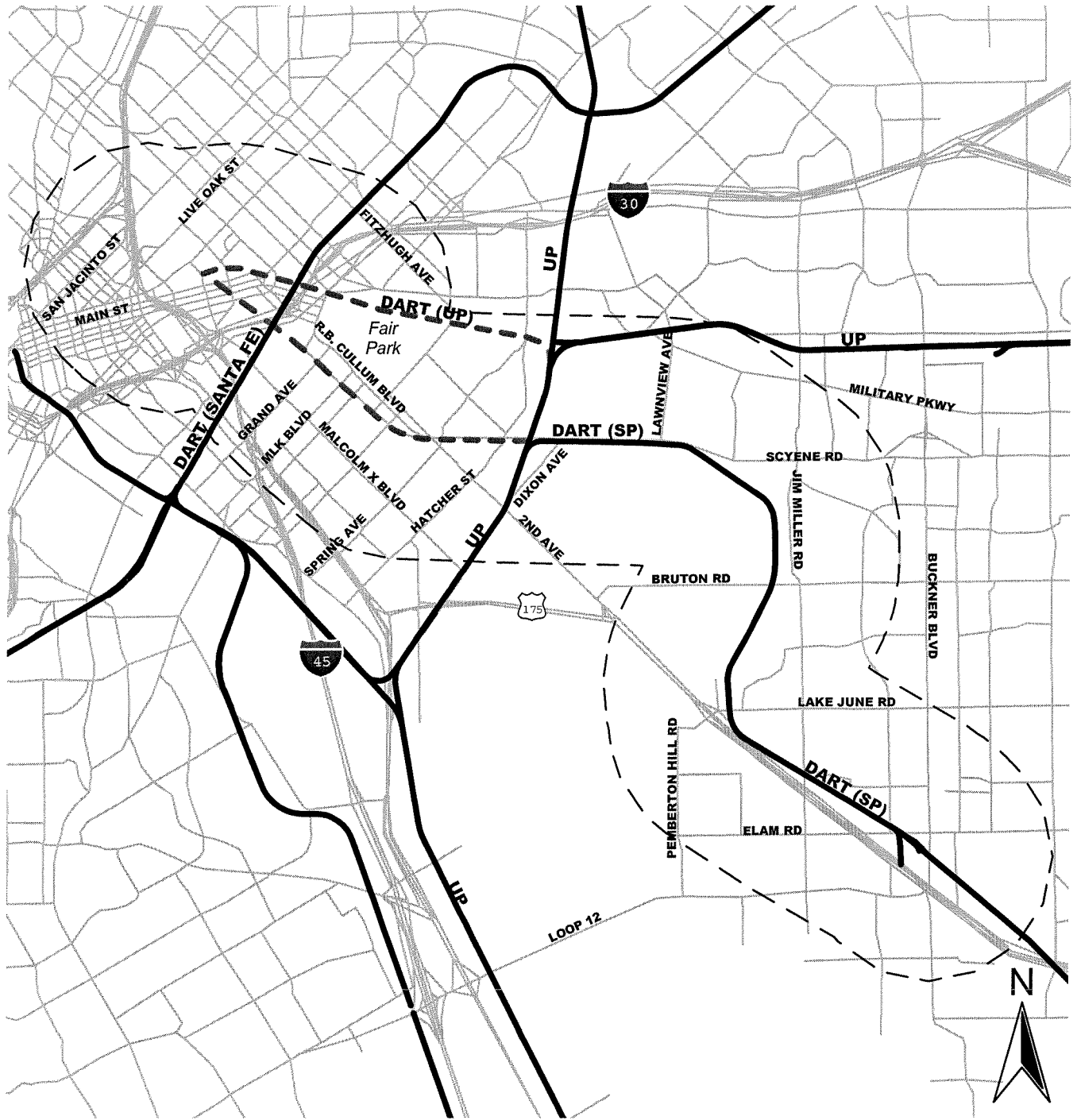
3.4.3.2 UP RR (DART)

The original UP RR alignment began just west of Good-Latimer Avenue between Gaston Avenue and Indiana Street. It then proceeded east to Hall Street where it and the former SP RR (DART) met. From Hall Street, the UP RR proceeded southeast to Parry Avenue. From Parry Avenue, the railroad alignment continued southeast, roughly parallel to Haskell Avenue past Fair Park to a junction with the north-south UP RR. DART purchased this portion of the UP RR from Gaston Avenue to a point east of Fitzhugh in 1989 for the purpose of right-of-way preservation. The UP RR corridor beyond that point is still owned and operated by the UP. Trackage in the corridor from north of Parry to Gaston has been removed.

3.4.3.3 SP RR (DART)

DART purchased the former SP RR in 1989 for right-of-way preservation. The tracks, ties, and ballast in the former SP RR corridor from Hall Street to the north-south UP RR have been removed. The former SP RR begins at Hall Street and the previously described UP RR. It runs parallel to Trunk Avenue until it turns east near the intersection of Spring Street. It then parallels Scyene Road and crosses with the north-south UP RR main track near Hatcher Street. The SP RR (DART) then continues on Scyene Road until near the intersection with Bisbee Street. Then the SP RR (DART) turns southeast across Grover Keeton Park. The alignment continues south until crossing Lake June Road and then turns paralleling US 175 on the north side to Buckner Boulevard.

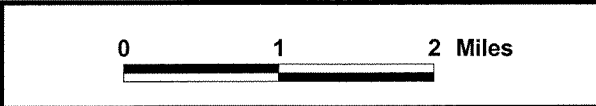
Figure 3.14 Railroad Alignments



Legend

Existing Railroads	Railroad Right-of-Way	Study Corridor
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Source: NCTCOG



3.4.3.4 Freight Operations

The UP RR and the Dallas, Garland, and Northeastern Railroad (DGNO) currently operate trains at varying levels of frequency in both the UP RR and SP RR (DART) corridors. The UP RR main track is contained within the described corridors from Buckner to the point where it turns south, just to the east of Hatcher Street and then proceeds south across the SP RR (DART) corridor. This section of the UP RR carries over 30 freight trains a day. The section of the former UP RR corridor, now owned by DART, serves customers north of Haskell Avenue and special events to the Age of Steam Train Museum at Fair Park.

The trackage in the former SP RR (DART) corridor to the north of the UP RR crossing has been removed and no service is provided in that direction. The corridor to the east of that point is currently used to provide local freight service to one industry along the SP RR (DART) corridor between Elam Road and Buckner Boulevard. This industry generally receives three deliveries a week. The DGNO took over this service in September, 2002.

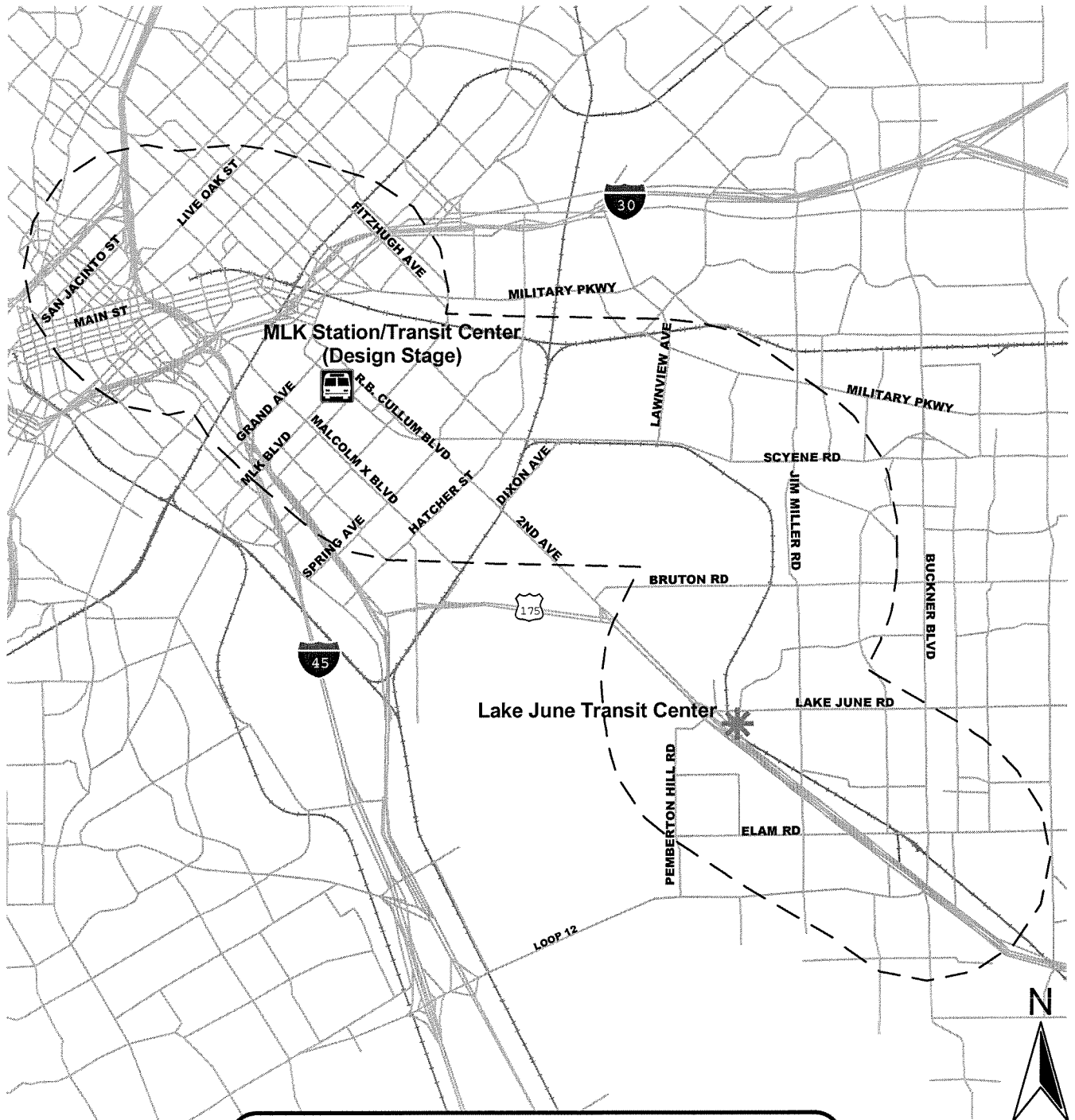
3.4.3.5 Amtrak Passenger Operations

Currently, Amtrak passenger service, the Texas Eagle, operates through Dallas on the existing UP RR mainline tracks. Amtrak operates one train in each direction daily over this line.

3.4.4 Parking

The study corridor is currently served by one park-and-ride facility, the Lake June Transit Center. It is located at Lake June Road and the Build Alternative (LRT). Local bus route 161 operates to downtown Dallas from this facility. One future transit center is planned in the study corridor. The MLK Transit Center is in the design stage and should begin construction in early 2003 (Figure 3.15). The Lake June facility is adjacent to the LRT alignment and will also function as an LRT station.

Figure 3.15 Parking/Transit Centers



Legend

*	Existing Park & Ride	———	Existing Railroads
🚌	Proposed Transit Center	- - -	Study Corridor



3.4.5 Movement of Freight

The movement of goods and products is extremely important to the economic vitality of the corridor. Active freight rail lines operating through the study corridor are discussed in Section 2.2.2.1.

The primary hazardous materials routes in Dallas County are identified in Figure 3.16. No hazardous materials routes are designated in the study corridor. The transportation of hazardous materials is controlled by ordinances adopted by the City of Dallas. The City of Dallas Ordinance on the Transportation of Hazardous Materials specifically identifies the following “Prohibited Hazardous Material Area” within the study corridor:

- IH 30 (R.L. Thornton Freeway) from IH 35E (Stemmons Freeway) to Oakland Avenue;
- IH 45 (Julius Schepps Freeway) from Lamar Street to US 75 (Central Expressway) elevated bypass;
- US 75 (Central Expressway) elevated bypass from IH 45 (Julius Schepps Freeway) to Bryan Street;
- Spur 366 (Woodall Rodgers Freeway), all portions within the city limits; and
- Underground tunnel systems.

3.4.6 Bicycle and Pedestrian Facilities

Bicycle and pedestrian facilities are key elements in an efficient transportation network. These types of facilities provide opportunities for people to complete both short and longer-commute type trips by walking or bicycling. According to the 1990 Census, 0.16 percent of residents in the Southeast Corridor bicycle to work and 2.28 percent walk to work.

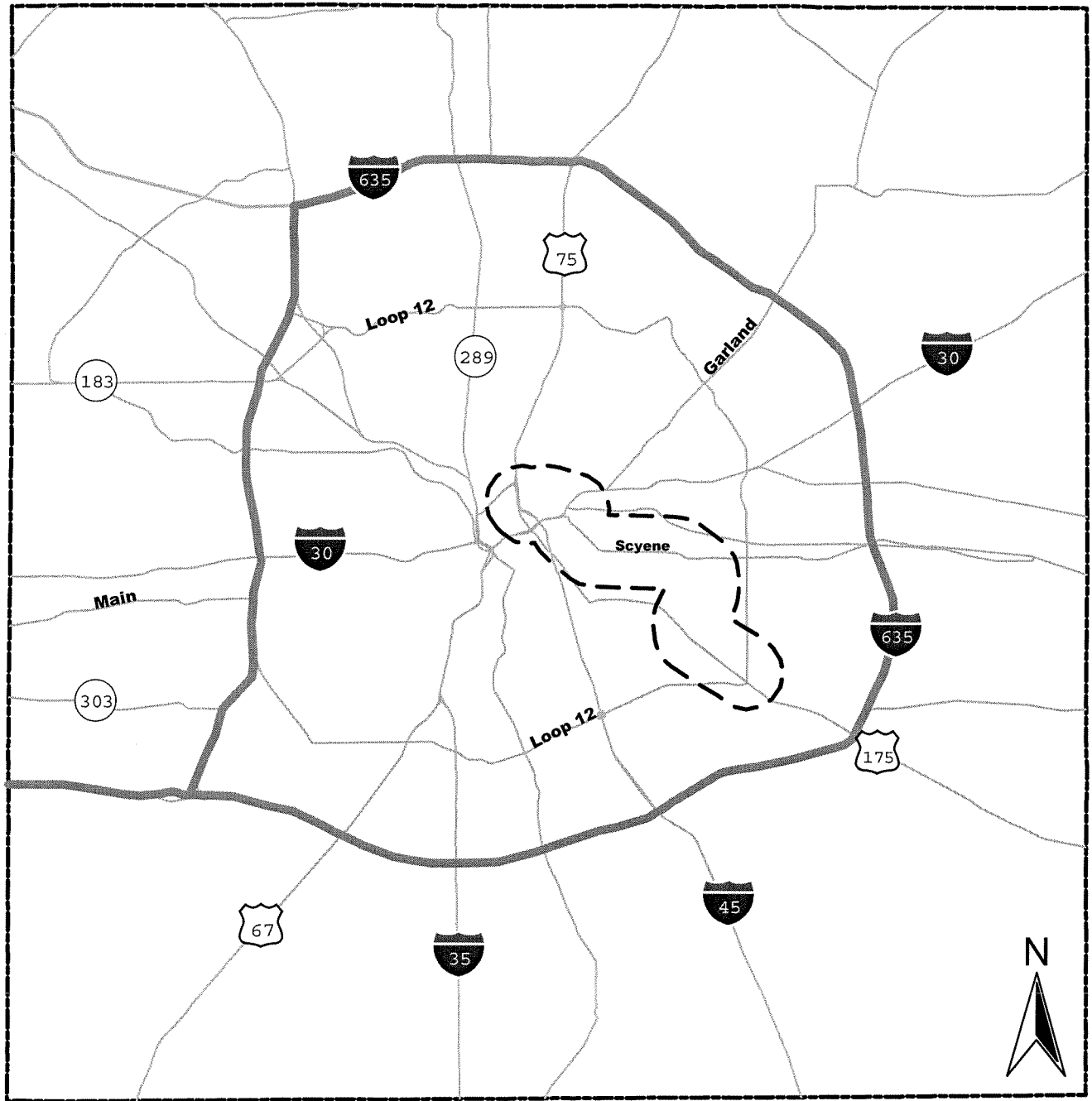
3.4.6.1 City of Dallas Bike Plan Map

The City of Dallas has an official bicycle thoroughfare plan called the City of Dallas Bike Plan Map. There are nine bicycle routes in the study corridor as shown in Figure 3.17.



3.4.6.2 NCTCOG Veloweb

The creation of a regional veloweb was a recommendation of *Mobility 2025 Update* as a companion to the on-street bicycle system. The veloweb will be an interconnected system of paved routes with signing and grade separated crossings to facilitate bicycle commuter travel.

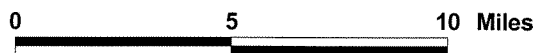
Figure 3.16 Hazardous Material Routes



Legend

 Hazardous Material Route	 Study Corridor
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Source: NCTCOG, TxDOT



Two sections of the proposed veloweb, Trinity Dallas and East Loop, are within the corridor and are shown in Figure 3.17.

3.4.7 Regional Transportation Improvement Plans

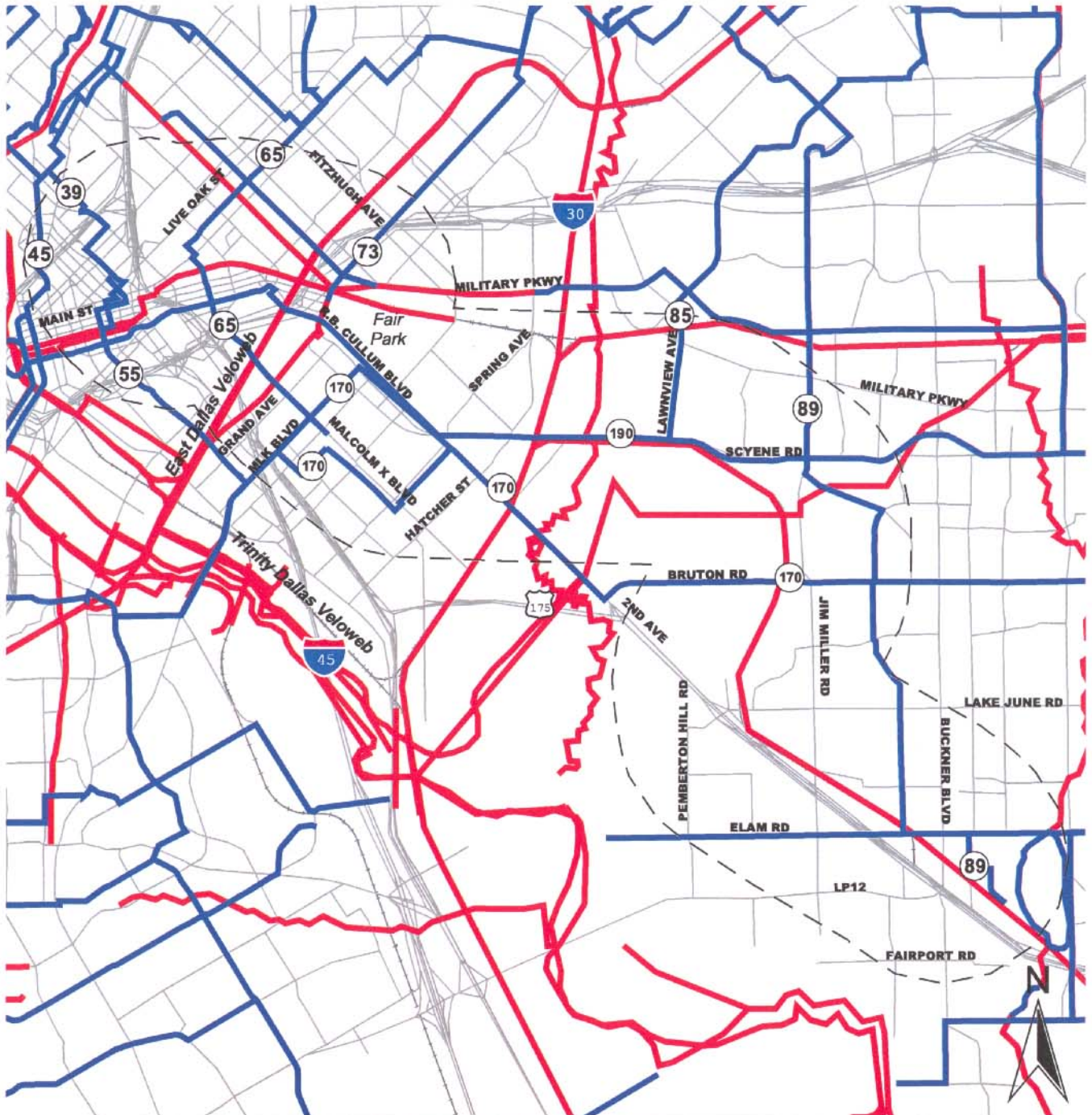
Regional transportation improvement plans for the study area include the DART system plan improvements and improvements outlined in *Mobility 2025 Update* for the region. *Mobility 2025 Update* is the product of a cooperative effort among transit authorities and local governments. The MTP developed for the year 2025, includes both long and short-term strategies to improve transportation in the Dallas-Fort Worth Metropolitan area. The plan calls for \$45.1 billion in transportation system improvements. The 2002-2004 TIP identifies roadway and transit programmed for construction within the next three years in the Dallas-Fort Worth area. These projects are funded by federal, state, and local sources within the area and are consistent with the transportation improvements outlined in the MTP. Projects within the TIP include: additional lanes, traffic signal improvements, adding HOV lanes, and rail transit improvements and are shown in Figure 3.18.

3.4.7.1 Bus Service Improvements

The *DART Transit System Plan* is currently under revision. The past *DART Five Year Bus Service Action Plan* (1998 to 2002) included three categories of bus service improvements: general system enhancements, regional system enhancements, and local system enhancements. Projects emphasize additional weekend and evening service, and increase frequencies on existing routes. These projects focus on increasing ridership by serving major travel patterns. These enhancements focus on improving cost-effectiveness through reorientation of selected bus routes as feeder service and local circulators. In the Southeast Corridor study corridor, recommended projects include:

- Enhanced weekend service on Buckner Boulevard/Loop 12
- Increased bus service frequency for routes along Buckner Boulevard/Loop 12 and routes serving King Center/Irving Boulevard, and King Center/Mountainview
- New crosstown service to address travel patterns from South Dallas into East Dallas, particularly to the Baylor HCS complex.
- South Dallas circulator shuttle; and
- Feeder routes to the future Lake June and MLK Transit Centers.

Figure 3.17 Existing/Future Bicycle Routes



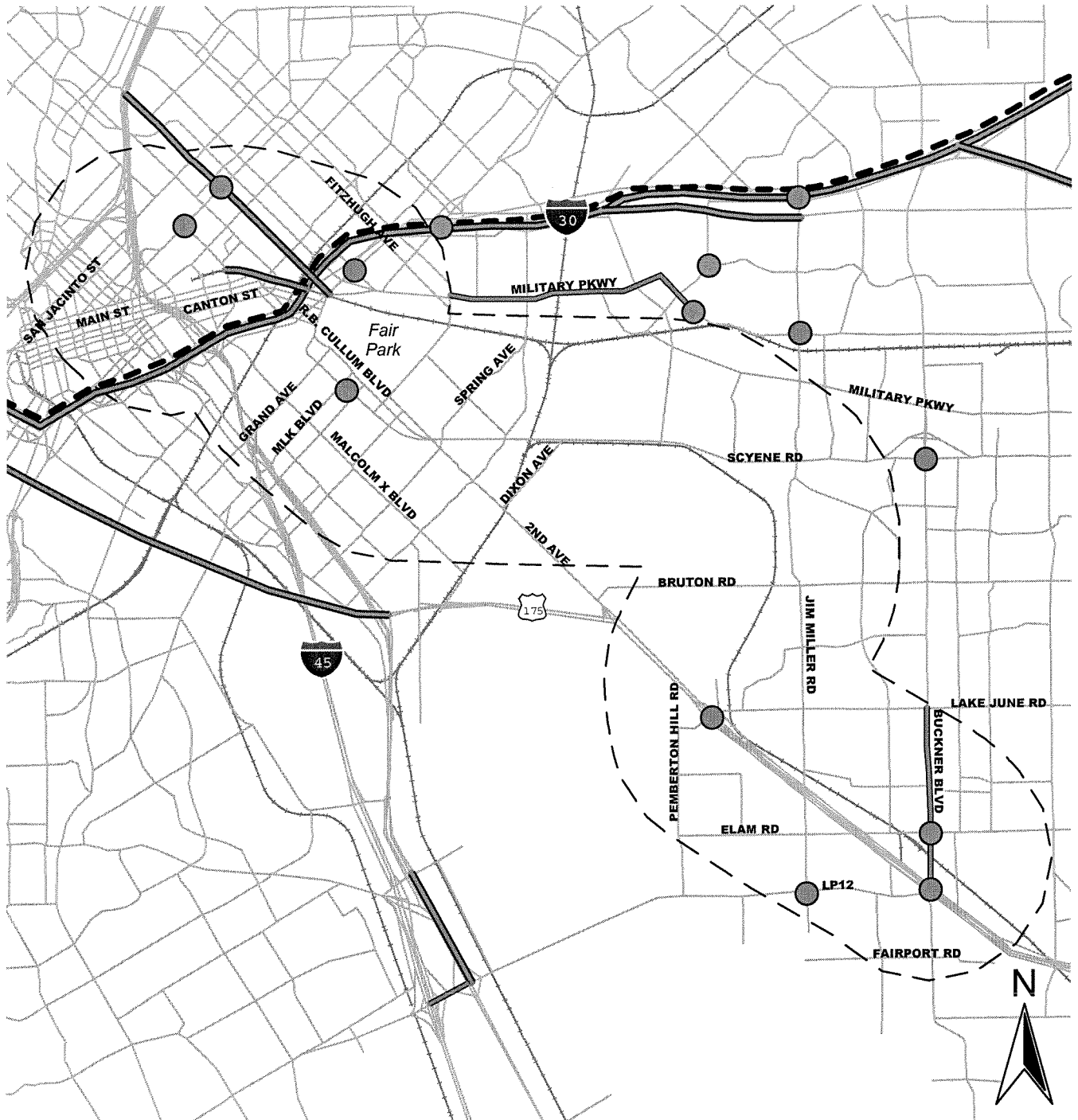
Legend

<p>--- Study Corridor</p> <p>(XXX) Bicycle Route Number</p>	<p>— Existing Bicycle Routes</p> <p>— Future Bicycle Routes</p>	<p>— Existing Railroads</p>
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Source: NCTCOG



Figure 3.18 MTP/TIP Programmed Improvements



Legend

●	Intersection Improvements	- - -	HOV
—	Roadway Improvements	- - -	Study Corridor

Source: NCTCOG



3.4.7.2 Street and Highway Improvements

Several major roadway capacity improvements are included in the study corridor:

Fair Park Link

This City of Dallas project will link Gaston Avenue to Exposition Avenue with a five-lane roadway. The proposed roadway requires 80 feet of right-of-way and includes two-lanes in each direction with a center, continuous left-turn lane, and ten foot sidewalks on both sides. The portion of this project between Gaston and Hall is currently under construction. The portion of this project from Hall to Exposition is on hold pending funding.

Haskell Avenue Improvements

The City of Dallas and Dallas County are studying two segments of Haskell Avenue from Main Street to Fair Park and from Fair Park to East Grand Avenue to create a *Agrand boulevard* from US 75 to Fair Park. The northern section (Lemmon Avenue to Main Street) has a proposed 160-foot right-of-way, which includes a six-lane divided roadway with a median of sufficient width to accommodate the potential extension of the McKinney Avenue Trolley.

SH 310 (S.M. Wright Freeway)

TxDOT has plans to reconstruct SH 310 from a four-lane divided roadway with access roads to a six-lane divided urban arterial from Overton Road to Loop 12.

Samuell Boulevard

TxDOT will widen and reconstruct Samuell Boulevard from a two- and four-lane to a four- and six-lane divided urban arterial from Loop 12 to Ferguson Road.

Trinity Parkway

The North Texas Tollway Authority (NTTA) is proposing a new southeast-northwest parkway along the Trinity River beginning at C.F. Hawn Freeway (US 175)/South Central Expressway (SH 310) interchange and extending to SH 183/IH 35E, northwest of downtown Dallas.

IH 30/IH 35E Improvements

TxDOT is proposing improvements and high occupancy vehicle lanes along IH 30 from IH 45 to Sylvan Avenue and IH 35E from 8th Street to SH 183. The project would include operational and

safety improvements to IH 30 and the IH 30/IH 35E interchange that would generally improve circulation on IH 45 and IH 30 in the Southeast Corridor.

IH 30 (East R.L. Thornton Freeway)

This corridor is currently under study. *Mobility 2025 Update* and the *DART Transit System Plan* recommend upgrading the existing interim HOV lane to a two-lane barrier separated reversible HOV lane from IH 45 to IH 635. Additionally, *Mobility 2025 Update* shows adding two general purpose lanes to the freeway from Peak Street to IH 635. IH 30, near Fair Park (from IH 45 to Peak Street), has been previously widened/reconstructed to allow for ten general purpose lanes.

3.5 AIR QUALITY

3.5.1 Study Methodology

In compliance with the Clean Air Act (CAA), the United States Environmental Protection Agency (EPA) developed and adopted the National Ambient Air Quality Standards (NAAQS) for sulfur dioxide (SO₂), particulates less than or equal to 10 microns (PM₁₀), carbon monoxide (CO), ozone (O₃), nitrogen oxide (NO_x), and lead (Pb). These were established in order to protect public health, safety, and welfare from known or anticipated effects of pollutants. Table 3.10 shows the standards for major criteria pollutants. The Dallas-Fort Worth area is currently in attainment of all major pollutants, except ozone. The EPA has classified Collin, Dallas, Denton, and Tarrant counties as a serious nonattainment area for one-hour ozone.

In 1997, the EPA announced new NAAQS for ground-level ozone. The EPA is phasing out and replacing the previous one-hour standard with a new eight-hour standard that is to be more protective of public health against longer exposure to this air pollutant. This new eight-hour standard of 0.08 parts per million (ppm) (85 ppb to exceed the standard) is determined by the fourth highest eight-hour daily maximums at any single monitor in an area, averaged over a three-year period. However, the previous one-hour standard still applies to communities, such as the Dallas-Fort Worth areas, which were not in attainment of one-hour ozone standard in July 1997. Once these communities meet the one-hour standard, the EPA will judge them by the new eight-hour standard. On February 27, 2001, the Supreme Court released its ruling which upholds the eight-hour standard. The EPA now has the authority to implement the standard but must work out several timeline issues related to the one-hour and eight-hour standard and the

lack of classification for eight-hour standards. Currently, the EPA has not designated areas as nonattainment under the eight-hour standards.

Table 3.10 National Ambient Air Quality Standards

Pollutant	Averaging Period	Standard	Primary NAAQS ¹	Secondary NAAQS ²
Ozone (O ₃)	1-hr	Not to be at or above this level on more than three days over three years.	125 ppb	125 ppb
	8-hr	The average of the annual fourth highest daily eight-hour maximum over a three-year period is not to be at or above this level.	85 ppb	85 ppb
Carbon Monoxide (CO)	1-hr	Not to be at or above this level more than once per calendar year.	35.5 ppm	35.5 ppm
	8-hr	Not to be at or above this level more than once per calendar year.	9.5 ppm	9.5 ppm
Sulfur Dioxide	3-hr	Not to be at or above this level more than once per calendar year.	-	550 ppb
	24-hr	Not to be at or above this level more than once per calendar year.	145 ppb	-
	Annual	Not to be at or above this level.	35 ppb	-
Nitrogen Dioxide (NO _x)	Annual	Not to be at or above this level.	54 ppb	54 ppb
Respirable Particulate Matter (10 microns or less) (PM ₁₀)	24-hr	The three-year average of the annual 99th percentile for each monitor within an area is not to be at or above this level.	155 µg/m ³	155 µg/m ³
	Annual	The three-year average of annual arithmetic mean concentrations at each monitor within an area is not to be at or above this level.	51 µg/m ³	51 µg/m ³
Respirable Particulate Matter (2.5 microns or less) (PM _{2.5})	24-hr	The three-year average of the annual 98th percentile for each population-oriented monitor within an area is not to be at or above this level.	66 µg/m ³	66 µg/m ³
	Annual	The three-year average of annual arithmetic mean concentrations from single or multiple community-oriented monitors is not to be at or above this level.	15.1 µg/m ³	15.1 µg/m ³
Lead	Quarter	Not to be at or above this level.	1.55 µg/m ³	1.55 µg/m ³

Source: TNRCC, 2001

ppm = parts per million ppb = parts per billion µg/m³ = microgram per cubic meter

Notes: 1) Primary NAAQS: the levels of air quality that the EPA judges necessary, with an adequate margin of safety, to protect the public health.

2) Secondary NAAQS: the levels of air quality that the EPA judges necessary to protect the public welfare from any known or anticipated adverse effects.

Ozone is a regional problem in that the contribution of the pollutant emissions from a single-transportation facility cannot be determined because of the complexity of the chemical reactions and the time between the emission of pollutants and the formation of O₃. In the Dallas-Fort Worth area, on-road transportation related mobile sources contribute 34 percent of

Hydrocarbons (HC)/Volatile Organic Compounds (VOC), 53 percent of NO_x, and 62 percent of CO emissions.

3.5.2 Existing Monitored Air Quality Levels

The Texas Commission on Environmental Quality (TCEQ) (formerly known as the Texas Natural Resource Conservation Commission/TNRCC) monitors specific air pollution levels at 21 air-monitoring stations throughout the Dallas-Fort Worth area. Currently, there are four active stations in Dallas County (Figure 3.19) that monitor ozone levels; however, no ozone monitoring sites are within the study corridor. Table 3.11 lists these stations and number of exceedances by year. The highest one-hour ozone level of 0.151 ppm was recorded at Redbird Airport C402 in 1998. Ambient levels of SO₂, PM₁₀, CO, NO_x, and Pb measured from 1994 to 2000 did not exceed the NAAQS in Dallas County.

Table 3.11 Ozone Exceedances

Year	Exceedances per Year by Monitoring Station			
	Dallas North C63/C5*	Hinton C401	Red Bird Airport C402	Sunnyvale C74
2001	0	1	0	0
2000	2	1	0	NA
1999	3	2	0	NA
1998	0	1	1	NA
1997	0	1	3	NA
1996	0	0	2	NA
1995	7	1	0	NA
1994	0	NA	0	NA

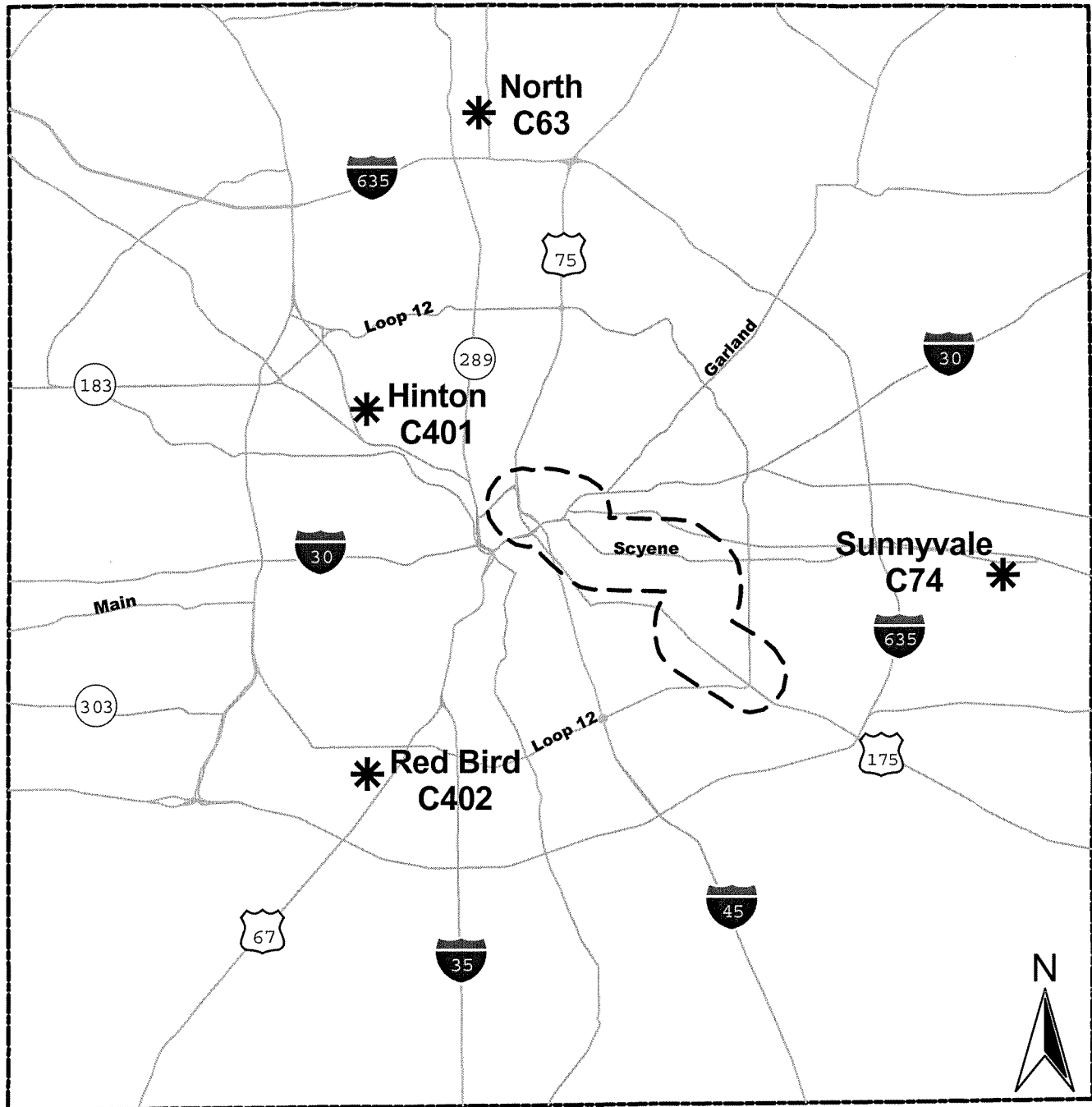
Source: NCTCOG

* Note: Dallas North C5 was the designation of the previous monitor at this location.

3.5.3 Air Quality Conformity

The Clean Air Act Amendments of 1990 (CAAA) require each state to submit a State Implementation Plan (SIP) to the EPA to define strategies and measures to reduce emissions and attain the NAAQS standard for pollutants. Through the SIP, the air quality planning process ties transportation planning to the conformity provisions of the CAAA. This ensures that transportation investments are consistent with state and local air quality objectives. Additionally, federal regulations require the MTP and TIP to demonstrate air quality conformity. The *Mobility 2025 Update* and *2002-2004 TIP*, both meet the conformity-related requirements of the SIP, the CAAA (42 U.S.C. 7504, 7506 8 and (d) as amended on November 15, 1990), and the final

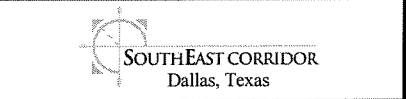
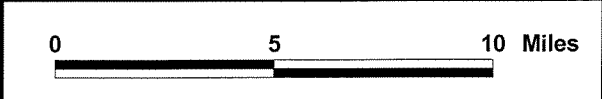
Figure 3.19 Dallas County Air Quality Monitoring Stations



Legend

*	Air Quality Monitor	- - -	Study Corridor
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Source: NCTCOG



conformity rule (40 CFR Parts 51 and 93). This conformity determination was approved October 19, 2001, by the FHWA and FTA. Transit elements such as TDM, HOV lanes, and LRT are included in the region's SIP.

3.5.3.1 Attainment Demonstration for Dallas/Fort Worth Ozone

On April 25, 2000, the TNRCC submitted a revised SIP to EPA addressing attainment of the ozone standard for the Dallas-Fort Worth area. The primary purpose of the plan is in response to §181 (b)(2)(A) of the CAA Amendments of 1990 concerning the reclassification of an area for failing to attain the standard and to fulfill §182 (c)(2) of the CAA Amendments of 1990 concerning Attainment and Reasonable Further Progress Demonstrations and other EPA guidance. The Attainment Demonstration for the Dallas-Fort Worth included the following elements:

- Photochemical modeling of specific control strategies and future state and national rules for attainment of the one-hour ozone standard in the Dallas-Fort Worth area by the attainment deadline of November 15, 2007;
- A modeling demonstration that shows that the air quality in the Dallas-Fort Worth area is influenced at times by transport from the Houston-Galveston area;
- Identification of the level of reductions of VOC and NO_x emissions necessary to attain the one-hour ozone standard by 2007;
- Control strategies developed by the state involving controls on stationary sources;
- Control strategies selected by the NCTCOG North Texas Clean Air Steering Committee; and
- A 2007 mobile source budget for transportation conformity.

The revised plan also includes additions for emission reductions needed to achieve the nine percent Rate-of-Progress (ROP) SIP target satisfying EPA's requirement of reasonable further progress in emission reductions for the Dallas-Fort Worth area for the years 1997 through 1999. The SIP revision quantifies additional VOC reductions not previously credited in order to meet the EPA's nine percent ROP requirement and establishes a transportation conformity budget. Because the SIP recognizes the impact of ozone traveling from the Houston-Galveston area to other areas in the states, the new attainment date for the Dallas-Fort Worth area has been set for no later than November 15, 2007. Mid-course review to assess the effectiveness of the controls established in the revised SIP is set for May of 2004.

Vehicular Emissions

The primary air pollutants associated with motor vehicle emissions are carbon monoxide, unburned hydrocarbons, and nitrogen oxides. Hydrocarbons and nitrogen oxides are reactive pollutants whose impacts usually occur well beyond the areas immediately adjacent to a roadway. As hydrocarbons and nitrogen oxides diffuse downwind, they can combine in a complex series of reactions catalyzed by sunlight to produce photochemical oxidants such as ozone and nitrogen dioxide. Because these reactions take place over a period of several hours, maximum concentrations of photochemical oxidants are often found downwind of the precursor sources. These pollutants are regional problems. The effects of hydrocarbons, vehicular related nitrogen oxides, and photochemical oxidants are therefore examined on an area-wide basis. The change in area wide emissions of these pollutants is directly related to the increase or decrease of VMT throughout the Dallas County area, thereby making it impractical to measure these pollutants on a project-by-project basis. The modeling procedures of O₃ and NO₂ require long-term meteorological data and detailed area wide emission rates for all potential sources and are normally too complex to be performed within the scope of an environmental document for a light rail project.

Carbon monoxide concentrations can vary greatly over relatively short distances. Elevated concentrations are typically found near congested intersections, along heavily traveled and congested roadways, and in locations where dispersion is inhibited by urban “street canyon” conditions.

3.6 NOISE AND VIBRATION

This section describes the methodology used to characterize the existing noise and vibration conditions along the study corridor and provides background information on airborne noise and ground-borne vibration issues related to the proposed transit project.

3.6.1 Noise

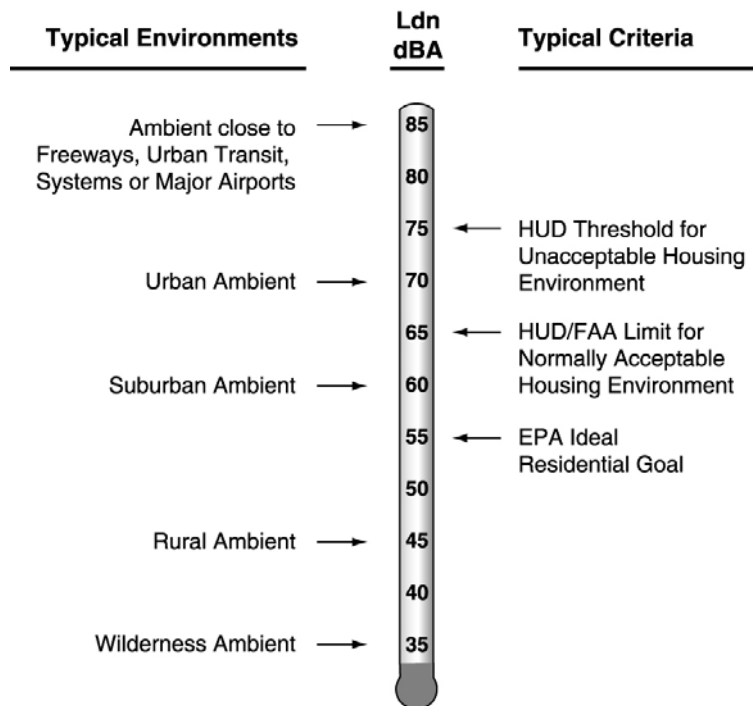
Noise is typically defined as unwanted or undesirable sound, where sound is characterized by small air pressure fluctuations above and below the atmospheric pressure. The basic parameters of environmental noise that affect human subjective response are (1) intensity or level, (2) frequency content and (3) variation with time. The first parameter is determined by how greatly the sound pressure fluctuates above and below the atmospheric pressure, and is expressed on a compressed scale in units of decibels (dB). By using this scale, the range of

normally encountered sound can be expressed by values between 0 and 120 decibels. On a relative basis, a three-decibel change in sound level generally represents a barely-noticeable change outside the laboratory, whereas a ten-decibel change in sound level would typically be perceived as a doubling (or halving) in the loudness of a sound.

The frequency content of noise is related to the tone or pitch of the sound, and is expressed based on the rate of the air pressure fluctuation in terms of cycles per second (called Hertz and abbreviated as Hz). The human ear can detect a wide range of frequencies from about 20 Hz to 17,000 Hz. However, because the sensitivity of human hearing varies with frequency, the A-weighting system is commonly used when measuring environmental noise to provide a single number descriptor that correlates with human subjective response. Sound levels measured using this weighting system are called “A-weighted” sound levels, and are expressed in decibel notation as “dBA.” The A-weighted sound level is widely accepted by acousticians as a proper unit for describing environmental noise.

Because environmental noise fluctuates from moment to moment, it is common practice to condense all of this information into a single number, called the “equivalent” sound level (Leq). Leq can be thought of as the steady sound level that represents the same sound energy as the varying sound levels over a specified time period (typically one hour or 24 hours). Often the Leq values over a 24-hour period are used to calculate cumulative noise exposure in terms of the Day-Night Sound Level (Ldn). Ldn is the A-weighted Leq for a 24-hour period with an added ten-decibel penalty imposed on noise that occurs during the nighttime hours (between 10 p.m. and 7 a.m.). Many surveys have shown that Ldn is well correlated with human annoyance, and therefore this descriptor is widely used for environmental noise impact assessment. Figure 3.20 provides examples of typical noise environments and criteria in terms of Ldn. While the extremes of Ldn are shown to range from 35 dBA in a wilderness environment to 85 dBA in noisy urban environments, Ldn is generally found to range between 55 dBA and 75 dBA in most communities. As shown in Figure 3.20, this spans the range between an “ideal” residential environment and the threshold for an unacceptable residential environment according to U.S. Federal agency criteria.

Figure 3.20 Examples of Typical Outdoor Noise Exposure



3.6.1.1 Transit Noise Criteria

Noise impact for this project is based on the criteria defined in the FTA guidance manual *Transit Noise and Vibration Impact Assessment* (FTA Report DOT-T-95-16, April 1995). The FTA noise impact criteria are founded on well-documented research on community reaction to noise and are based on change in noise exposure using a sliding scale. Although higher levels of transit noise are allowed in neighborhoods with high levels of existing noise, smaller increases in total noise exposure are allowed with increasing levels of existing noise.

The FTA Noise Impact Criteria separate noise sensitive land uses into the following three categories:

- Category 1: Buildings or parks where quiet is an essential element of their purpose.
- Category 2: Residences and buildings where people normally sleep. This includes residences, hospitals, and hotels where nighttime sensitivity is assumed to be of utmost importance.

Category 3: Institutional land uses with primarily daytime and evening use. This category includes schools, libraries, churches, and active parks.

Ldn is used to characterize noise exposure for residential areas (Category 2). For other noise sensitive land uses, such as outdoor amphitheaters and school buildings (Categories 1 and 3), the maximum one-hour Leq during the facility's operating period is used.

There are two levels of impact included in the FTA criteria. The interpretation of these two levels of impact is summarized below:

- **Severe:** Severe noise impacts are considered "significant" as this term is used in the NEPA and implementing regulations. Noise mitigation will normally be specified for severe impact areas unless there is no practical method of mitigating the noise.
- **Impact:** In this range of noise impact, sometimes referred to as moderate impact, other project-specific factors must be considered to determine the magnitude of the impact and the need for mitigation. These other factors can include the predicted increase over existing noise levels, the types and number of noise-sensitive land uses affected, existing outdoor-indoor sound insulation, and the cost effectiveness of mitigating noise to more acceptable levels.

The noise impact criteria are summarized in Table 3.12. The first column shows the existing noise exposure and the remaining columns show the additional noise exposure from the transit project that would cause either moderate or severe impact. The future noise exposure would be the combination of the existing noise exposure and the additional noise exposure caused by the transit project.

3.6.1.2 Existing Noise Conditions

Noise-sensitive land uses along the project corridor were first identified based on preliminary alignment drawings, aerial photographs, visual surveys, and land use information from the MIS process. Based on this review, summary descriptions of noise-sensitive land uses and existing noise sources along the study corridor, from south to north, are as follows:

Table 3.12 FTA Noise Impact Criteria

Existing Noise Exposure Leq or Ldn	Project Noise Exposure Impact Thresholds, Ldn or Leq (dBA)			
	Category 1 or 2 Sites		Category 3 Sites	
	Impact	Severe Impact	Impact	Severe Impact
<43	Amb.+10	Amb.+15	Amb.+15	Amb.+20
43	52	58	57	63
44	52	59	57	64
45	52	59	57	64
46	52	59	57	64
47	52	59	57	64
48	53	59	58	64
49	53	59	58	64
50	53	60	58	65
51	54	60	59	65
52	54	60	59	65
53	54	60	59	65
54	55	61	60	66
55	55	61	60	66
56	56	62	61	67
57	56	62	61	67
58	57	62	62	67
59	57	63	62	68
60	58	63	63	68
61	58	64	63	69
62	59	64	64	69
63	60	65	65	70
64	60	66	65	71
65	61	66	66	71
66	61	67	66	72
67	62	67	67	72
68	63	68	68	73
69	64	69	69	74
70	64	69	69	74
71	65	70	70	75
72	65	71	70	76
73	65	72	70	77
74	65	72	70	77
75	65	73	70	78
76	65	74	70	79
77	65	75	70	80
>77	65	75	70	80

Source: Federal Transit Administration, April 1995

Note: Ldn is used for land uses where nighttime sensitivity is a factor; maximum one-hour Leq is used for land use involving only daytime activities.

Good-Latimer Expressway (Bryan Street to Gaston Avenue)

Noise-sensitive land uses along this corridor segment are limited to the Live Oak Lofts apartment building and the site of the Latino Cultural Center across the street from the apartments. Existing noise is dominated by traffic on Good-Latimer Expressway and on nearby highway US 75, as well as by aircraft overflights.

Good-Latimer Expressway to Parry Avenue

Noise-sensitive land use along this segment of the corridor is essentially limited to buildings at the Gaston Yard apartment complex, located at the western end of this segment. The dominant noise sources in this area are aircraft overflights and local vehicular traffic.

Fair Park (Parry Avenue)

While Fair Park covers a large area with many noise-sensitive land uses, the Music Hall and Women's Museum are the buildings closest to the alignment along the east side of Parry Avenue. Noise-sensitive land use on the west side of Parry Avenue is limited to the Fireman's Museum. Traffic on Parry Avenue and aircraft overflights are the dominant sources of noise in this area.

Trunk Avenue (Parry Avenue to 2nd Avenue)

Noise-sensitive land use along Trunk Avenue includes numerous single-family residences, several apartment complexes, and three churches. There are also areas of commercial use in addition to several abandoned buildings. Existing noise sources include traffic on local streets and on nearby R.B. Cullum Boulevard, as well as aircraft overflights.

Scyene Road (2nd Avenue to Hatcher Street)

Noise-sensitive land use along this section of Scyene Road includes a large number of single-family residences on both sides of the alignment. There is also a church on the south side of the alignment, and a motel and a funeral home are located on the north side of the alignment. Existing noise sources in this area include Scyene Road traffic and aircraft overflights.

Scyene Road (Hatcher Street to White Rock Creek)

This short segment of the corridor includes a large apartment complex and a few residences, all on the south side of Scyene Road. The dominant noise source in this area is traffic on Scyene

Road, with additional contribution from both passenger and freight train traffic on the heavily used UP RR mainline tracks that cross Scyene Road at-grade.

Scyene Road (White Rock Creek to Glover Pass Street)

Along this segment of the corridor, there is a single-family residential area, as well as a park and a school, to the north of the alignment on the opposite side of Scyene Road. Scyene Road traffic is the dominant noise source in this area.

Scyene Road to Bruton Road

In this area, the alignment traverses the eastern border of the Grover C. Keeton Public Golf Course and the western border of Gateway Park. Although there are some playing fields and picnic tables in Gateway Park, the closest noise-sensitive areas are at the golf course. Existing noise sources in this area include traffic on Jim Miller Road, located to the east of the alignment, aircraft overflights and natural sources (e.g. birds).

Bruton Road to Lake June Road

This segment of the corridor runs along the west side of a relatively quiet residential neighborhood near Seco Road and Brockham Circle and includes Devon-Anderson Park. The Comanche Storytelling Place is also located within Devon-Anderson Park. Existing noise sources in this area are limited to local neighborhood activities and aircraft overflights.

Lake June Road to Buckner Boulevard

This area, extending from the south end of the corridor to just north of Lake June Road, primarily includes single-family residential neighborhoods, with most of the residences located on the northeast side of the alignment. There are also several commercial areas on the southwest side of the alignment, concentrated between Jim Miller Road and Lake June Road. Existing noise sources along this corridor segment include traffic on highway US 175 and on arterial roads, as well as aircraft overflights.

Existing ambient noise levels in the above areas were characterized through direct measurements at selected sites along the proposed alignment during the period from February 26 through March 7, 2001. Estimating existing noise exposure is an important step in the noise impact assessment since, as indicated above in Section 3.6.1, the thresholds for noise impact are based on the existing levels of noise exposure. The measurements included both

long-term (typically 24-hour) and short-term (30 minute) monitoring of the A-weighted sound level at representative noise-sensitive locations.

All of the measurement sites were located in noise-sensitive areas, and were selected to represent a range of existing noise conditions along the corridor. Figure 3.21 shows the general location of the 11 long-term monitoring sites (LT-1 through LT-11) and four short-term monitoring sites (ST-1 through ST-4). At each site, the measurement microphone was positioned to characterize the exposure of the site to the dominant noise sources in the area. For example, microphones were located at the approximate setback lines of the receptors from adjacent roads or rail lines, and were positioned to avoid acoustic shielding by landscaping, fences, or other obstructions.

The results of the existing ambient noise measurements, summarized in Table 3.13, were used as a basis for determining the existing noise conditions at all noise-sensitive receptors along the study corridor. The following summarizes the resulting characterization of existing ambient noise conditions.

Good-Latimer Expressway (Bryan Street to Gaston Avenue)

The Ldn in this area is estimated to be 71 dBA, based on the measurement results for a 13-hour period at the Live Oak Lofts apartment building along Good-Latimer Expressway (site LT-11).

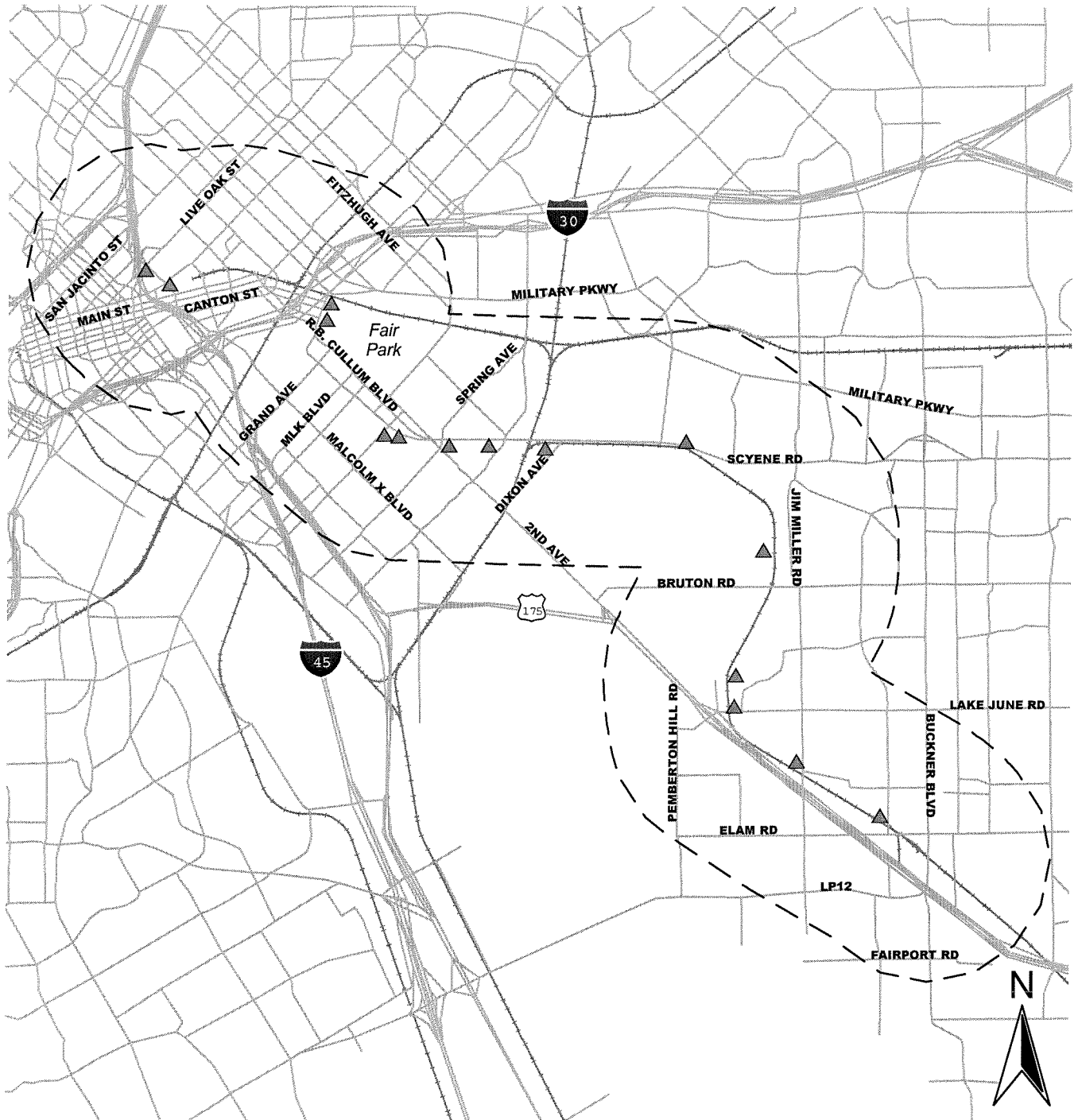
Good-Latimer Expressway to Parry Avenue

The existing Ldn is taken to be 63 dBA in this area, based on the measurement results at the Gaston Yard Apartments (site LT-10).

Fair Park (Parry Avenue)

The existing daytime Leq values at the Fair Park buildings along Parry Avenue are based on the measured levels of 62 dBA at the Music Hall (site ST-3) and 65 dBA at the Women's Museum (site ST-4). The level at the Women's museum, which also applies to the Fireman's Museum across the street, was higher than at the Music Hall because it is closer to the traffic on Parry Avenue.

Figure 3.21 Ambient Noise Monitoring Locations



Legend

▲	Noise Monitor	———	Existing Railroads	- - -	Study Corridor
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Table 3.13 Summary of Existing Ambient Noise Measurement Results

Site No.	Measurement Location Description	Start of Measurement		Meas. Time (hrs)	Noise Exposure (dBA)	
		Date	Time		Ldn	Leq
LT-1	Single Family Residence @ 7706 Rilla Avenue	2-26-01	00:00	24	59	--
LT-2	Single-Family Residence @ 909 Annabelle Lane	2-26-01	00:00	24	58	--
LT-3	Single-Family Residence @ 6429 Seco Boulevard	2-26-01	00:00	24	60	--
LT-4	Single-Family Residence @ 1447 Brockham Circle	2-26-01	00:00	24	55	--
LT-5	Single-Family Residence @ 6215 Scyene Road	2-28-01	11:00	24	72	--
LT-6	Single-Family Residence @ 3911 DeMaggio Avenue	2-28-01	12:00	24	68	--
LT-7	Single-Family Residence @ 3838 York Street	2-28-01	12:00	24	65	--
		3-6-01	13:00	24	66	--
LT-8	Single-Family Residence @ 3143 Harmon	2-28-01	13:00	24	62	--
LT-9	Single-Family Residence @ 3519 Trunk Avenue	3-1-01	14:00	24	61	--
LT-10	Apt. #1411 @ Gaston Yard Apts.	3-1-01	15:00	24	63	--
LT-11	2502 Live Oak St. @ Live Oak Lofts	3-1-01	16:00	13*	71*	--
ST-1	Grover C. Keeton Public Golf Course	2-26-01	12:20	½	--	48
ST-2	St. Joseph Baptist Church	2-26-01	14:30	½	--	61
ST-3	Fair Park Music Hall	2-26-01	15:30	½	--	62
ST-4	National Women's Museum	2-26-01	16:45	½	--	65

Source: Harris Miller Miller & Hanson Inc., 2001

* Ldn for a full 24-hour day estimated based on available data for a 13-hour period.

Trunk Avenue (Parry Avenue to 2nd Avenue)

The existing Ldn is taken to be 61 dBA at the noise-sensitive receptors in this area, based on the measurement results at Site LT-9. The Ldn at this site was only one decibel lower than the Ldn measured at nearby site LT-8.

Scyene Road (2nd Avenue to Hatcher Street)

The existing Ldn along this area is taken to be 66 dBA at 100 feet from Scyene Road, based on an average of the two 24-hour measurements made at site LT-7 (with an unobstructed view of the road). At St. Joseph Baptist Church, also located in this area, the daytime Leq is taken to be 61 dBA based on the short-term measurement at site ST-2.

Scyene Road (Hatcher Street to White Rock Creek)

The Ldn at residences along this segment of the alignment is taken to be 68 dBA, based on the measurement results at site LT-6. These measurements included noise from Scyene Road traffic as well as from trains and locomotive horns associated with operations on the nearby Union Pacific Railroad line.

Scyene Road (White Rock Creek to Glover Pass Street)

The existing Ldn along this segment of the corridor is taken to be 72 dBA, based on a measurement taken at a residence located 80 feet from Scyene Road (site LT-5) with a full view of the road.

Scyene Road to Bruton Road

The existing daytime Leq at the noise-sensitive location closest to the alignment in this area is taken to be 48 dBA, based on the short-term measurement made on the golf course at the first hole (Site ST-1).

Bruton Road to Lake June Road

Beginning just north of Lake June Road, the existing Ldn is taken to transition from 59 dBA down to 55 dBA at the homes along Brockham Circle. The lower noise level is based on the measurement results at site LT-4.

Lake June Road to Buckner Boulevard

The existing Ldn for the residences in this area, extending from the south end of the corridor to just north of Lake June Road, is taken to be 59 dBA, based on an average of the similar measurement results at sites LT-1, LT-2, and LT-3.

3.6.2 Vibration

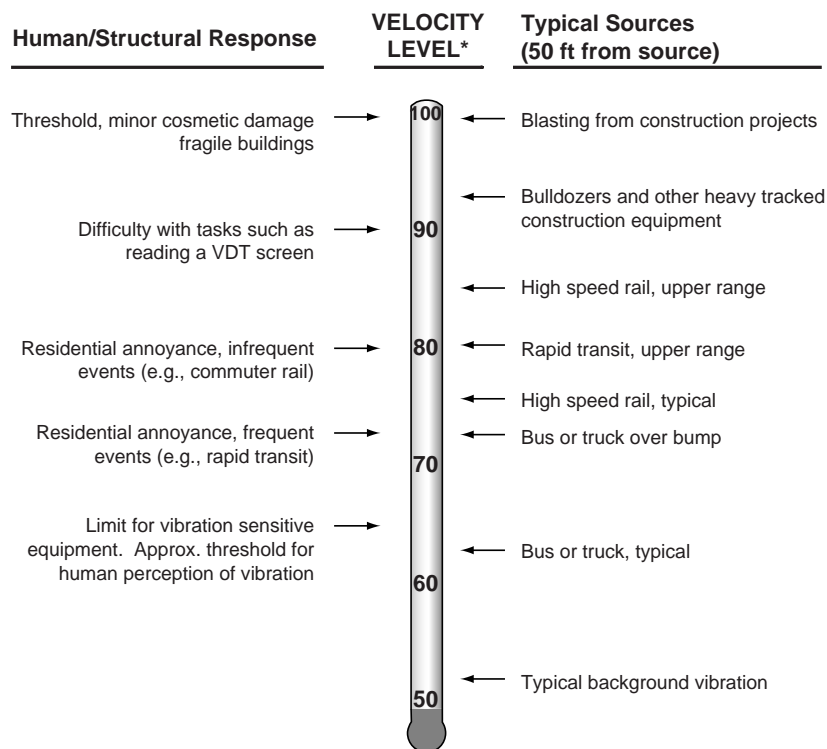
Ground-borne vibration is the oscillatory motion of the ground about some equilibrium position that can be described in terms of displacement, velocity, or acceleration. Because sensitivity to vibration typically corresponds to the amplitude of vibration velocity within the low-frequency range (roughly 5-1000 Hz), it is of the most concern for environmental vibration. Velocity is the preferred measure for evaluating ground-borne vibration from transit projects.

The most common measure used to quantify vibration amplitude is the peak particle velocity (PPV), defined as the maximum instantaneous peak of the vibratory motion. PPV is typically used in monitoring blasting and other types of construction-generated vibration, since it is related to the stresses experienced by building components. Although PPV is appropriate for evaluating building damage, it is less suitable for evaluating human response, which is better related to the average vibration amplitude. Thus, ground-borne vibration from transit trains is usually

characterized in terms of the “smoothed” root mean square (rms) vibration velocity level, in decibels (VdB), with a reference quantity of one micro-inch per second. VdB is used in place of dB to avoid confusing vibration decibels with sound decibels.

Figure 3.22 illustrates typical ground-borne vibration levels for common sources as well as criteria for human and structural response to ground-borne vibration. As shown, the range of interest is from approximately 50 to 100 VdB, from imperceptible background vibration to the threshold of damage. Although the approximate threshold of human perception to vibration is 65 VdB, annoyance is usually not significant unless the vibration exceeds 70 VdB.

Figure 3.22 Typical Ground-Borne Vibration Levels and Criteria



* RMS Vibration Velocity Level in VdB relative to 10⁶ inches/second

3.6.2.1 Ground-Borne Vibration Criteria

The FTA ground-borne vibration impact criteria are based on land use and train frequency, as shown in Table 3.14. There are some buildings, such as concert halls, recording studios and theaters, which can be very sensitive to vibration but do not fit into any of the three categories listed in Table 3.15. Due to the sensitivity of these buildings, they usually warrant special attention during the environmental assessment of a transit project. Table 3.15 gives criteria for acceptable levels of ground-borne vibration for various types of special buildings.

It should also be noted that Tables 3.14 and 3.15 include separate FTA criteria for ground-borne noise, the “rumble” that can be radiated from the motion of room surfaces in buildings due to ground-borne vibration. Although expressed in dBA, which emphasizes the more audible middle and high frequencies, the criteria are set significantly lower than for airborne noise to account for the annoying low-frequency character of ground-borne noise. Because airborne noise often masks ground-borne noise for above ground (i.e. at-grade or elevated) rail systems, ground-borne noise criteria are primarily applied to subway operations where airborne noise is not a factor. For the above-grade transit system planned along the Southeast Corridor, ground-borne noise criteria are applied only to buildings such as the Fair Park Music Hall and Women’s Museum that have sensitive interior spaces which are well insulated from exterior noise.

Table 3.14 Ground-Borne Vibration and Noise Impact Criteria

Land Use Category	Ground-Borne Vibration Impact Levels (VdB re 1 micro inch/sec)		Ground-Borne Noise Impact Levels (dB re 20 micro Pascals)	
	Frequent	Infrequent	Frequent	Infrequent
Category 1: Buildings where low ambient vibration is essential for interior operations.	65 VdB ³	65 VdB ³	-4	-4
Category 2: Residences and buildings where people normally sleep.	72 VdB	80 VdB	35 dBA	43 dBA
Category 3: Institutional land uses with primarily daytime use.	75 VdB	83 VdB	40 dBA	48 dBA

Source: Federal Transit Administration, April 1995

- Notes:
1. “Frequent Events” is defined as more than 70 vibration events per day. Most rapid transit projects fall into this category.
 2. “Infrequent Events” is defined as fewer than 70 vibration events per day. This category includes most commuter rail systems.
 3. This criterion limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration sensitive manufacturing or research will require detailed evaluation to define the acceptable vibration levels. Ensuring lower vibration levels in a building often requires special design of the HVAC systems and stiffened floors.
 4. Vibration-sensitive equipment is not sensitive to ground-borne noise.

Table 3.15 Ground-Borne Vibration and Noise Impact Criteria for Special Buildings

Type of Building or Room	Ground-Borne Vibration Impact Levels (VdB re 1 micro-inch/sec)		Ground-Borne Noise Impact Levels (dB re 20 micro Pascals)	
	Frequent Events ¹	Infrequent Events ²	Frequent Events ¹	Infrequent Events ²
Concert Halls	65 VdB	65 VdB	25 dBA	25 dBA
TV Studios	65 VdB	65 VdB	25 dBA	25 dBA
Recording Studios	65 VdB	65 VdB	25 dBA	25 dBA
Auditoriums	72 VdB	80 VdB	30 dBA	38 dBA
Theaters	72 VdB	80 VdB	35 dBA	43 dBA

Source: Federal Transit Administration, April 1995

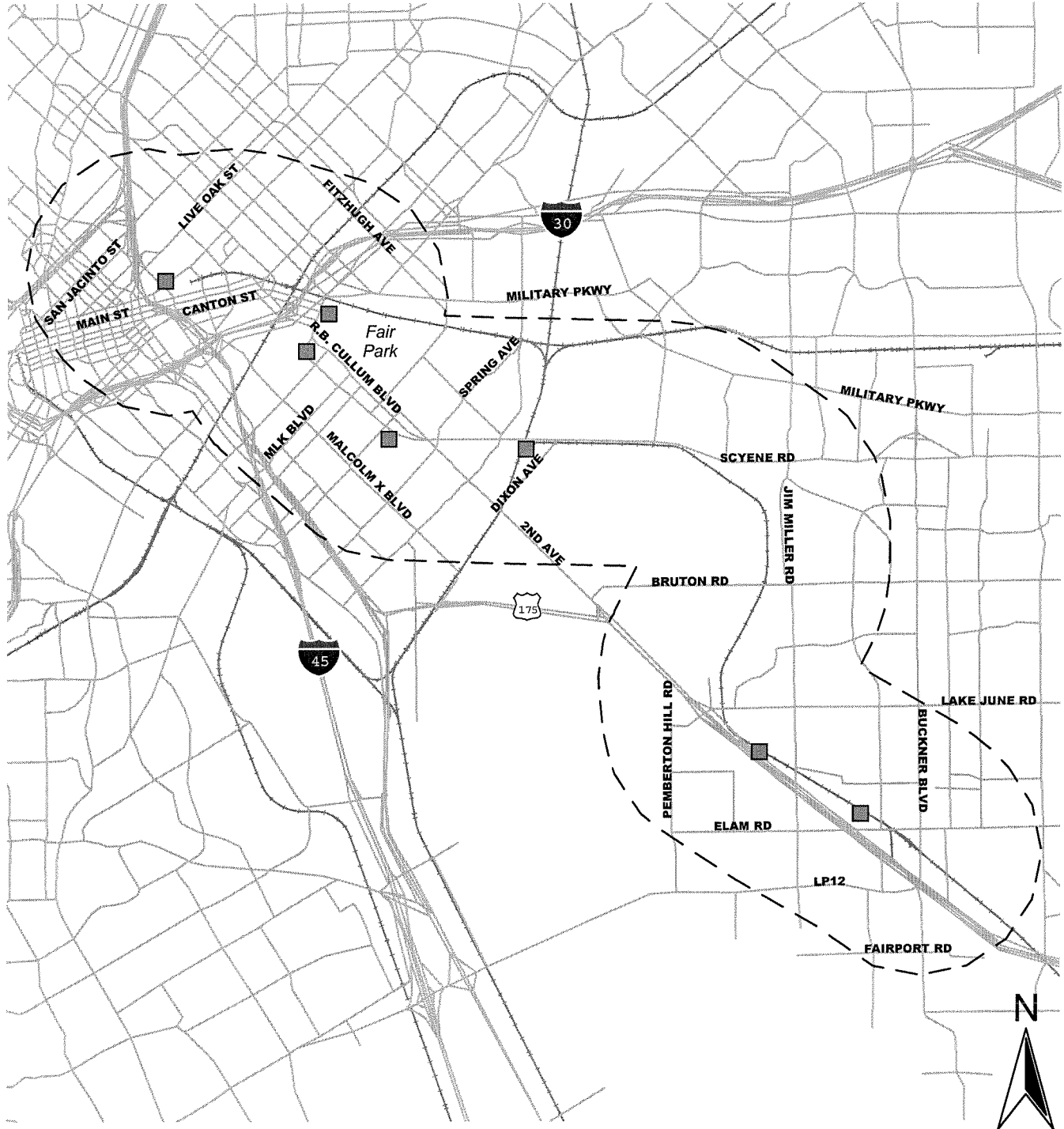
- Notes:
1. "Frequent Events" is defined as more than 70 vibration events per day. Most transit projects fall into this category.
 2. "Infrequent Events" is defined as fewer than 70 vibration events per day. This category includes most commuter rail systems.
 3. If the building will rarely be occupied when the trains are operating, there is no need to consider impact. As an example, consider locating a commuter rail line next to a concert hall. If no commuter trains will operate after 7 pm, it should be rare that the trains interfere with the use of the hall.

3.6.2.2 Existing Vibration Conditions

Because there are no significant sources of existing ground-borne vibration within the study corridor (except for some very occasional slow-moving freight train deliveries along the south portion of the corridor), the vibration measurements for this project focused on characterizing the vibration propagation characteristics of the soil at representative locations. Seven vibration testing sites, at the locations shown in Figure 3.23 were selected to represent a range of soil conditions in areas along the corridor that include a significant number of vibration-sensitive receptors. At each of these sites, ground-borne vibration propagation tests were conducted by impacting the ground and measuring the input force and corresponding ground vibration response at various distances. The resulting force-response transfer function can be combined with the known input force characteristics of the DART light rail vehicle to predict future vibration levels at locations along the project corridor.

Figure 3.23

Ground - Borne Vibration Measurement Locations



Legend

 Vibration Monitor	 Existing Railroads	 Study Corridor
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3.7 VISUAL AND AESTHETIC RESOURCES

This section summarizes the visual and aesthetic resources existing within the study corridor.

3.7.1 Overview of the Corridor

The study corridor generally follows the UP and SP railroad corridors. The proposed Build Alternative (LRT) alignment would pass through the Deep Ellum Historic District and by Fair Park, which is listed on the NRHP as a National Historic Landmark. It would also pass several residential areas including South Boulevard/Park Row, Phyllis Wheatley, Rose Garden, Southeast Dallas, Parkdale Heights, Piedmont Scyene, and Waterwood neighborhoods. The study corridor also would pass through natural and recreation areas, such as the Lawnview Park, Lower White Rock Creek Greenbelt Park, Gateway Park, Grover Keeton Golf Course, and Devon-Anderson Park.

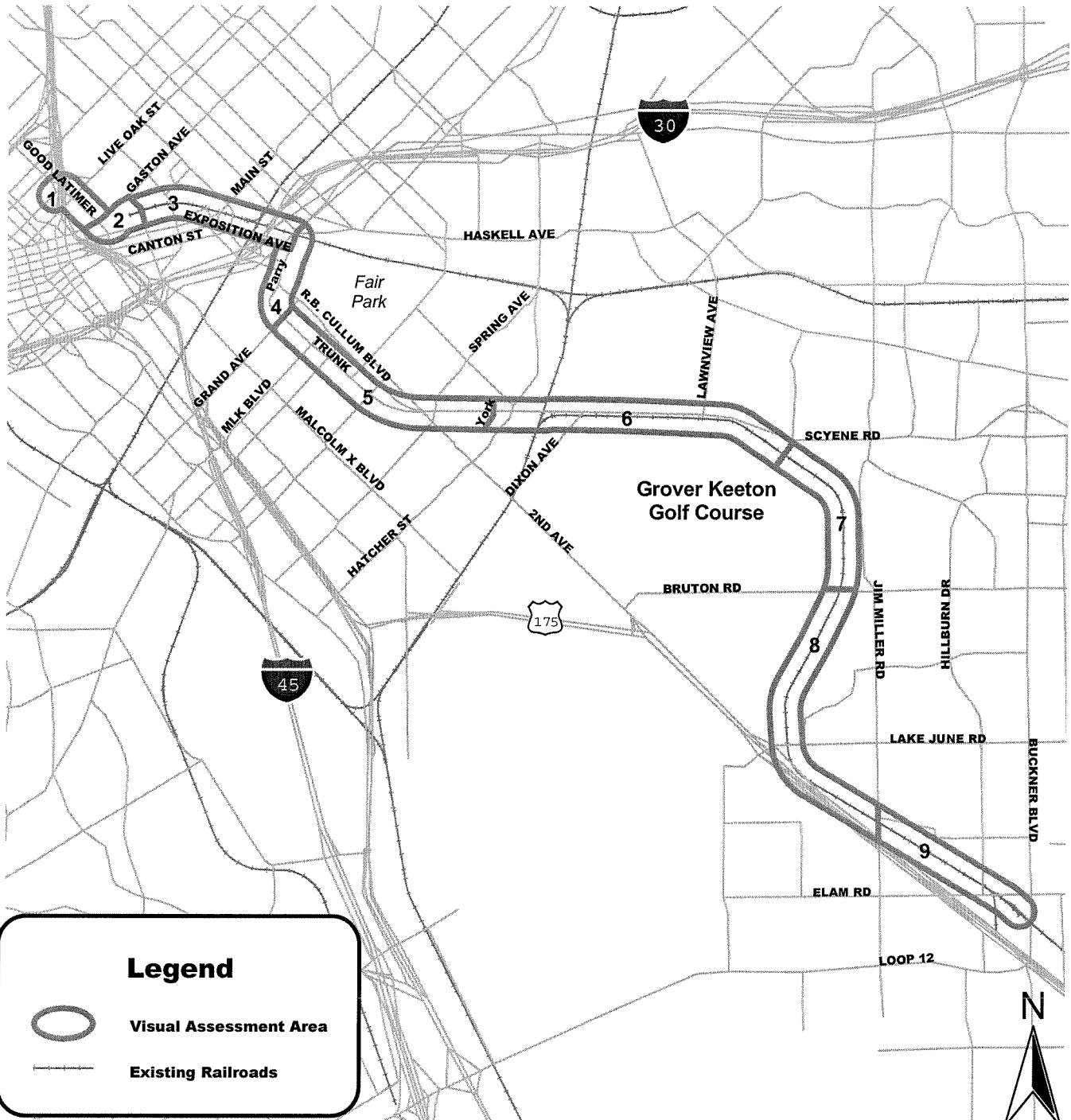
3.7.2 Inventory of Visual Resources

Visual and aesthetic resources within the study corridor were identified through a review of planning reports and a field study. Generally, significant visual and aesthetic resources within the study corridor include historic structures, parklands, and undeveloped open space/natural areas. In addition, sensitive visual receptors (i.e., areas or users affected by changes in the visual and aesthetic character of the study corridor) have been identified. The sensitive receptors of primary concern are residential areas adjacent to the proposed Build Alternative (LRT) alignment and the users of the adjacent parks and golf course. For purposes of assessing visual and aesthetic impact, resources and receptors within 0.25 miles of both sides of the proposed Build Alternative (LRT) alignment were identified.

3.7.3 Corridor Assessment Unit Descriptions

In order to best facilitate the identification of visual and aesthetic resources within the study corridor, the corridor was separated into distinct assessment units (Figure 3.24). Assessment units consist of an area with visual and aesthetic cohesiveness. Each assessment unit is described below. Table 3.16 provides definitions of the ratings used in evaluating each assessment unit. Table 3.17 provides a general rating of each unit's visual quality, sensitivity to change, primary viewers and sensitive visual assets and/or receptors.

Figure 3.24 Visual Assessment Units



Visual Assessment Unit:

- | | |
|-------------------|------------------------------|
| 1. Good - Latimer | 6. Hatcher |
| 2. Deep Ellum | 7. Grover Keeton Golf Course |
| 3. Baylor HCS | 8. Pleasant Grove |
| 4. Fair Park | 9. Buckner |
| 5. South Dallas | |

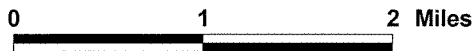


Table 3.16 Evaluation Ratings and Criteria

Primary Viewers	Visual Quality	Visual Sensitivity
A = Arterial Motorists B = Single Family Residents C = Multi-Family Residents D = Recreational Users E = Commercial/Office Tenants F = Industrial Tenants G = Downtown Pedestrians H = Others	High = Assessment unit, or portions thereof, is of significant visual and/or aesthetic quality to the primary viewers. Moderate = Assessment unit, or portions of, is of average visual and/or aesthetic quality to the primary viewers. Low = Assessment unit is of little or no visual and/or aesthetic quality to the primary viewers.	High = Introduction of new elements into the assessment unit could significantly impact the quality of the visual aesthetic resources observed by the primary viewers. Moderate = Introduction of new elements into the assessment unit may have an impact on the quality of the visual/aesthetic resource as observed by the primary viewers, or a portion thereof. Low = Introduction of new elements into the assessment unit is not likely to have an impact on any visual/aesthetic resource as observed by primary viewers.

Source: Carter & Burgess, Inc., May 2001

Note: Sensitive receptors include residential areas. Museums, historic structures are visual resources generally with high visual quality.

Table 3.17 General Rating of Corridor Assessment Units

Unit	Name	City	Primary Viewers	Visual Quality	Visual Sensitivity	Sensitive Receptors/Assets
1	Good-Latimer	Dallas	A, C, E, D	Moderate	Moderate	Live Oak Lofts, Commercial buildings / St. James AME Temple, Latino Cultural Center
2	Deep Ellum	Dallas	A, C, E	Moderate	Moderate	Gaston Yard Apartments, Yahoo! redevelopment site, Knights of Pythias Temple, Good-Latimer tunnel and Deep Ellum Historic District
3	Baylor HCS	Dallas	A, E, H	Moderate	Moderate	Baylor HCS / Continental Gin building, Historic structures
4	Fair Park	Dallas	A, E, H	High	High	Residential Housing / Fair Park, Historic Structures, Museums
5	South Dallas	Dallas	B, C, H	Low	Moderate	Residential Housing, Churches
6	Hatcher	Dallas	A, B, E, F	Moderate	Moderate	Residential Housing, Church / White Rock Creek Greenbelt, Lawnview Park
7	Grover Keeton Golf Course	Dallas	D	High	High	Park / Lower White Rock Creek Greenbelt, Grover Keeton Golf Course, Gateway Park, Natural Areas/Escarpment
8	Pleasant Grove	Dallas	B, F, H, D	Moderate	Moderate	Residential Housing, Texas National Guard Facility / Natural area, Devon-Anderson Park, Comanche Storytelling Place, Lower White Rock Creek Greenbelt
9	Buckner	Dallas	A, B, F	Low	Moderate	Residential Housing/ Natural areas

Source: Carter & Burgess, July 2002

3.7.3.1 Unit 1: Good-Latimer

The Good-Latimer unit starts at the beginning of the proposed Build Alternative (LRT) and continues south and east toward Deep Ellum. This unit ends north of the Good-Latimer tunnel located on Good-Latimer, under Gaston Avenue. The Build Alternative (LRT) alignment would follow Good-Latimer in the median of the road. The unit contains a mixture of recently developed multi-family housing and low-rise commercial buildings, many of which are oriented towards the street. The Deep Ellum station would be located within this unit. The St. James AME Temple and Latino Cultural Center are visual and aesthetic resources. Sensitive visual receptors within this unit include the Live Oak Lofts and adjacent commercial buildings.



Unit 1: Good-Latimer

3.7.3.2 Unit 2: Deep Ellum

The Deep Ellum unit begins at the Good-Latimer tunnel at Good-Latimer and Gaston, passes through the Deep Ellum Historic District, and ends at Malcolm X Boulevard. The Build Alternative (LRT) would follow Good-Latimer at the west end of the unit, then would tie into the former UP RR right-of-way, now owned by DART. This unit contains the Good-Latimer tunnel, an apartment complex directly north of the alignment and to the south of the alignment, the Knights of Pythias Temple and low-rise (one to three story) commercial buildings. The Good-Latimer tunnel is a community landmark and a visual and aesthetic resource. The artwork on the retaining walls along the tunnel is periodically changed by the community to reflect the character of the area. The Gaston Yard Apartments, Knights of Pythias Temple, and Yahoo! redevelopment site are sensitive receptors within this unit.



Unit 2: Deep Ellum

3.7.3.3 Unit 3: Baylor HCS

The Baylor HCS unit begins at Malcolm X Boulevard and continues along the Build Alternative (LRT) toward Fair Park, ending at Parry Avenue. The Build Alternative (LRT) would be within the existing DART right-of-way to Parry Avenue. This unit includes low-rise commercial buildings and the Baylor HCS complex, which includes mid to high-rise structures. The Baylor

Hospital Tower is one of the highest, most visual items on the south Dallas skyline. The planned Baylor Heart and Vascular Center lies north of the alignment, between Malcolm X Boulevard and Hall Street. The Baylor station site would be located at the beginning of this unit. The historic Continental Gin Building, and other historical structures including 3601 Main Street and multiple historic sites on Commerce Street are visual and aesthetic resources.

3.7.3.4 Unit 4: Fair Park

The Fair Park unit begins at Haskell/Parry Avenue, and continues along the Build Alternative (LRT) to Trunk Street, just north of the location for the planned MLK Transit Center. The Build Alternative (LRT) would follow Parry Avenue on new track right-of-way connecting to the DART right-of-way parallel to Trunk Street. This unit includes Fair Park east of the LRT, and residential and commercial buildings on the west.



Unit 4: Fair Park

Along Parry Avenue, the Fair Park LRT Station site would be at the front entrance of Fair Park, between the National Women’s Museum and Music Hall. Fair Park is on the NRHP and is a visual and aesthetic resource. Fair Park contains multiple low-rise structures reflecting 1930’s art deco architecture. The structure housing the Dallas Firefighters Museum on the west side of Parry is an historic building, and a visual and aesthetic resource. The residential housing along the west of the Build Alternative (LRT) is a sensitive receptor.

3.7.3.5 Unit 5: South Dallas

The South Dallas unit begins at Trunk Street, continues along the Build Alternative alignment, onto the existing DART right-of-way, parallel to Trunk Street, and ends at York Street. This unit includes single and multi-family housing, a medical clinic, and mostly low-rise small-scale retail building structures. The MLK Transit Center site is located within the northern portion of this unit. Sensitive receptors include adjacent housing and churches along the alignment.



Unit 5: South Dallas

3.7.3.6 Unit 6: Hatcher

The Hatcher unit begins along the Build Alternative (LRT) at York Street and continues along the existing DART right-of-way to the northern boundary of the Grover Keeton Golf Course, a City of Dallas park. The Build Alternative (LRT) would parallel Scyene Road, just south of the road. Directly south of the Build Alternative (LRT), there is residential housing located between York Street and Hatcher Street with commercial buildings between Hatcher and the intersection of the UP RR and the DART right-of-way. Directly north of the LRT along the Build Alternative (LRT) alignment is Scyene Road. Just north of Scyene Road are commercial and industrial buildings. The LRT would tie into the existing DART right-of-way where it crosses the UP RR east of Hatcher and remain within the DART right-of-way. After the Build Alternative crosses the UP RR, the LRT would cross White Rock Creek, and several small tributaries. Wooded/natural areas are adjacent to both sides of the alignment along the Lower White Rock Creek Greenbelt. North of Scyene between Dixon and Lawnview, is the Lawnview Park and Silberstein Elementary School. The Hatcher station and Lawnview station sites are located within this unit. The Hatcher station site is at Hatcher, south of Scyene Road. The Lawnview Station site is located south of Scyene, at Lawnview. The White Rock Creek Greenbelt area and Lawnview Park along the alignment are visual and aesthetic resources. The sensitive receptors within this unit include the adjacent housing and a church.



Unit 6: Hatcher

3.7.3.7 Unit 7: Grover Keeton Golf Course

The Grover Keeton Golf Course unit begins just south of Scyene along the Build Alternative (LRT) alignment within the DART right-of-way, and ends at Bruton Road. The Build Alternative (LRT) would follow existing railroad tracks, which are currently being used. This unit is generally characterized by wooded areas on both sides of the proposed LRT alignment. Along the golf course, the LRT would cross a tributary to White Rock Creek, near the entrance of Grover Keeton Golf Course. The adjacent



**Unit 7: Grover Keeton
Golf Course**

wooded area, tributary of White Rock Creek, Lower White Rock Creek Greenbelt, Grover Keeton Golf Course, an escarpment near Bruton Road and Gateway Park are visual and aesthetic resources. Recreational users are the sensitive receptors identified within this unit.

3.7.3.8 Unit 8: Pleasant Grove

The Pleasant Grove unit begins along the Build Alternative (LRT) alignment within the DART right-of-way, at Bruton Road, and ends at Jim Miller Road. The Build Alternative (LRT) would follow the existing DART right-of-way, which is currently in use for freight rail service. This unit is primarily characterized by highly wooded areas south of Bruton Road to Lake June. The unit borders the Lower White Rock Creek Greenbelt and Devon-Anderson Park. Within Devon-Anderson Park, an escarpment is adjacent to the railroad. This escarpment has been noted as a scenic overlook and a Comanche Storytelling Place. The LRT would cross a tributary of White Rock Creek just south of Bruton Road and two other tributaries along the middle section of this unit, north of Lake June Road. Between Lake June and Jim Miller Road, the unit borders industrial and residential areas. Some residential housing is located east of the LRT just north of Lake June Road. A Texas National Guard facility borders the west side of the LRT immediately north of Lake June Road. South of Lake June Road, there is an industrial area west of the LRT. The Lake June station would be located at the Lake June Transit Center (currently under construction). The adjacent wooded area, the Lower White Rock Creek Greenbelt, Devon-Anderson Park, and tributaries along the LRT are visual and aesthetic resources. Sensitive receptors include residential housing, the Comanche Storytelling Place, and the Texas National Guard facility.

3.7.3.9 Unit 9: Buckner

The Buckner unit begins along the Build Alternative (LRT), within the existing DART right-of-way, at Jim Miller Road and terminates at the end of the alignment at Buckner Boulevard. The Build Alternative (LRT) would follow the existing DART right-of-way. Residential housing is located east of the Build Alternative (LRT) alignment between Jim Miller and Elam Road. Some large-scale industrial buildings are also located west of the LRT at Jim Miller. Industrial buildings dominate both sides of the LRT between Elam Road and Buckner Boulevard. The Buckner station site would be located at the northwest intersection of Buckner and the existing DART right-of-way. Prairie Creek just east of Jim Miller is a visual and aesthetic resource. Sensitive receptors include adjacent residential housing.

3.7.4 Corridor Assessment Evaluation Results

Generally, the study corridor visual quality is rated moderate to high with high visual sensitivity areas in the Fair Park and Grover Keeton Golf Course areas. The existing visual quality of the corridor ranges from low to high with visual and aesthetic resources including the historic structures and natural areas.

3.8 CULTURAL RESOURCES

This section describes the existing cultural resources including but not limited to historic structures, archaeological resources, and Section 4(f) resources potentially in the Southeast Corridor study area. First, the regulatory framework governing cultural resources is presented; next historic structures are presented and analyzed followed by archaeological resources and Section 4(f) resources.

3.8.1 Regulatory Framework

If projects are federally permitted, licensed, funded or partially funded with federal money, the project must comply with Section 106 of the 1966 National Historic Preservation Act (NHPA). Section 106 requires that every Federal agency “take into account” the undertaking’s effects on historic properties. The process begins with inventorying and evaluating historic properties. For Section 106 purposes, any property listed in or eligible for the NRHP is considered historic. The NRHP is a historic resources inventory and is maintained by the Secretary of the Interior. This list includes buildings, structures, objects, sites, and districts. Furthermore, Section 106 requires Federal agencies to seek comments from an independent reviewing agency, the Advisory Council on Historic Preservation (ACHP). The ACHP has developed a process for carrying out Section 106 responsibilities, which is defined in their regulations entitled *Protection of Historic Properties*, 36 CFR 800.

Cultural resources may include archeological, historical, architectural sites, and places of particular significance to traditional cultures. Cultural resources located on land owned or controlled by the State of Texas, or one of its cities or counties, or other political subdivisions, are protected by the Texas Antiquities Code (TAC). Under the TAC, any historic or prehistoric property located on publicly-owned land may be determined eligible as a State Archeological Landmark (SAL). Conditions for formal landmark designation are covered in Chapter 26 of the Texas Historical Commission’s (THC) Rules of Practice and Procedure for the Antiquities Code

of Texas. All groundbreaking activities affecting public land must be authorized by the THC Department of Antiquities Protection (DAP). Authorization includes a formal Antiquities Permit, which stipulates the conditions under which survey, discovery, excavation, demolition, restoration, or scientific investigations would occur.

In addition, Federal transportation projects have to consider the project's effects on Section 4(f) properties. A Section 4(f) property is a publicly owned park, recreation area, wildlife management area, or any significant historic property. Regulations prescribing procedures for implementing the Section 4(f) process are found in Section 4(f) of the 1966 Department of Transportation Act (DOT Act) (23 CFR 771.135 Section 4(f)).

3.8.1.1 State Historic Preservation Officer Coordination

The Texas State Historic Preservation Officer (SHPO) coordinates state participation in implementing Section 106. In accordance with the ACHP's guidelines, DART and the FTA are consulting with the Texas SHPO on this undertaking. In accordance with Section 106 and on behalf of FTA, DART identified those properties that are already listed in, were previously determined eligible for listing in, or appear eligible for listing in the NRHP, and requested SHPO's concurrence with these findings.

3.8.2 Historic Structures

This section presents those properties that are already listed in, or have been determined eligible for listing in the NRHP that are located along the proposed light rail alignment within the Area of Potential Effect (APE).

3.8.2.1 Identification Effort

As defined in the Section 106 guidelines, the Area of Potential Effects (APE) means "the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects cause by the undertaking" (36 CFR §800.16(d)). The APE for architectural and historical resources includes the parcels adjacent to the proposed alignment, parcels containing and adjacent to traction power substations, and parcels within a reasonable view shed of the elevated portion of the proposed alignment.

3.8.2.2 Records Search

DART reviewed existing information on historic properties within the APE, by undertaking a records search to determine the proximity of previously documented historic and architectural resources to the project and to help establish a context for resource significance. National, state and local inventories of architectural/historic resources were examined in order to update this previous information, and identify significant local historical events and personages, development patterns, and unique interpretations of architectural styles. The following inventories and sources were consulted:

- The National Register of Historic Places, National Register Information System, updated through April 2001
- Registered Texas Historical Landmarks
- Texas Historic Engineering Site Inventory
- City of Dallas Landmarks

3.8.2.3 Consulting and Interested Parties

The Section 106 guidelines require that a Federal agency evaluate all properties within the APE and identify historic properties by seeking information from consulting parties, and other individuals and organizations likely to have knowledge of, or concerns with, historic properties in the area. The following organizations having interests, involvement, or concerns relating to historic preservation have been contacted:

- City of Dallas, Planning & Development, Historic Preservation Division
- City of Dallas Landmarks Commission
- Dallas County Historical Commission
- Dallas Historical Society
- Preservation Dallas
- Deep Ellum Association
- Deep Ellum Foundation
- Fair Park Board
- Friends of Fair Park
- City of Dallas Park and Recreation Department
- The Comanche Nation

In addition, community workshops were held before the selection of the LPA and stakeholder meetings have continued during the PE/EIS efforts. A listing of these meetings is included in Appendix C.

3.8.2.4 Identification Methodology

A field survey of all properties within the APE was undertaken by FTA/DART according to standard Section 106 guidelines and related procedures. Field investigations were conducted by a qualified architectural historian on August 5, 1999, March 28, 29, and 30, 2001, and December 5 and 6, 2001. During the field investigations, the boundaries of the preliminary APE were confirmed, and an assessment was made of all extant buildings and structures within the APE to determine if their age and integrity warranted application of National Register criteria. The field survey of historic and architectural resources included the following steps:

- A field survey consisting of a visual on-site examination of every parcel within the APE, including an assessment of integrity;
- Identification of the age of all major buildings, structures, objects, and districts located within the APE;
- Photography of each district feature, major structure, building, or object within the APE;
- Review in the field findings of previous surveys and inventories of significant historic properties.

Following the field survey, site-specific research was conducted using the Dallas Public Library, City Directories of Dallas, Texas, and City of Dallas Building Permits. In addition, historical information was requested from the organizations and individuals such as the Central Electric Railfans' Association, Dallas Landmarks Commission, and City of Dallas Park and Recreation Department.

Tables 3.18 and 3.19 and Figure 3.25 summarize the results of the identification effort by indicating which properties are listed in or eligible for listing in the NRHP.

Table 3.18 Properties Listed in the National Register

Map ID	Address	Resource Name	Year Built	Significance
1	3301-3333 Elm Street, 212 and 232 Trunk Avenue	Continental Gin District	1888-1914	Listed 02-14-1983
2	3800 Commerce	John E. Mitchell Co. Plant	1928	Listed 03-04-1991
3	Parry Ave on the northwest, the Texas & Pacific Railroad tracks on the northeast, Cullum Blvd on the southwest, and Pennsylvania Ave on the southeast	Fair Park (Texas Centennial Exposition Buildings)	1936-37	Designated a National Historic Landmark 09-24-1986
4	4140 Commerce	B.F. Goodrich Building	1927	Listed 03-01-2002
5	3809 Parry	Howard Wolfe Building and Garage	1929	Listed 03-01-2002

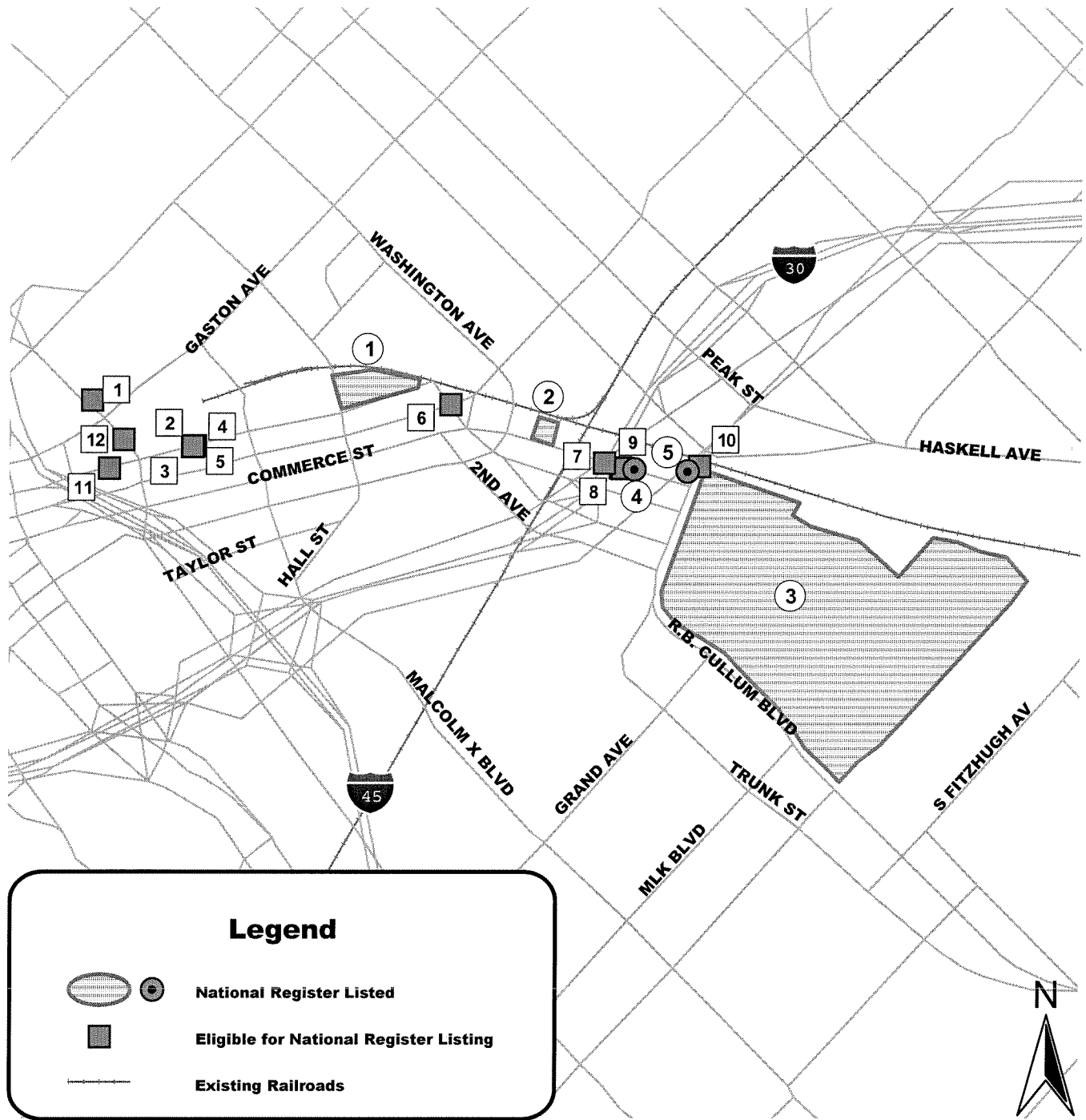
Source: Myra L. Frank & Associates, 2001

Table 3.19 Properties Found Eligible for Listing in the National Register

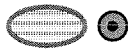
Map ID	Address	Resource Name	Year Built	Significance
1	624 N. Good-Latimer	St. James AME Temple	1919	Eligible individually under Criterion C
2	2605 Elm	Fink Paint Company Building	1944	Contributor to the Deep Ellum Historic District, which appears eligible for the National Register under Criteria A and C
3	2625 Elm	Manufacturers Expo Building	1924	Contributor to the Deep Ellum Historic District, which appears eligible for the National Register under Criteria A and C
4	2615 Elm	American Transfer & Storage	1924	Appears eligible individually under Criterion C and as a Contributor to the Deep Ellum Historic District, which appears eligible for the National Register under Criteria A and C
5	2609 Elm	Southern Refrigeration Co. Building	1940	Contributor to the eligible Deep Ellum Historic District, which appears eligible for the National Register under Criteria A and C.
6	3601 Main	National Biscuit Company	1930	Appears eligible individually under Criterion C
7	4044 Commerce	Lincoln Paint & Color Company Building	1945	Contributor to the Commerce Street Warehouse District, which appears eligible for the National Register under Criteria A and C
8	4100 Commerce	Alexander Motor Company Building	1929	Contributor to the Commerce Street Warehouse District, which appears eligible for the National Register under Criteria A and C
9	4118 Commerce	W. Gottlich Company Manufacturing Building	1929	Contributor to the Commerce Street Warehouse District, which appears eligible for the National Register under Criteria A and C
10	3801 Parry	Old Tige	1920	Contributor to the Commerce Street Warehouse District, which appears eligible for the National Register under Criteria A and C
11	2551 Elm Street	Knights of Pythias Temple	1916	Individually eligible under Criterion A as the social, professional, and cultural center of Dallas' African-American community, Criterion B for its association with African-American architect William Sidney Pittman, and Criterion C, as an example of the eclectic Beaux-Arts style. It is a Dallas Landmark.
12	400-500 N. Good-Latimer	Good-Latimer Tunnel	1930, 1952	Eligible individually for the NRHP under Criterion A.

Source: Myra L. Frank & Associates, 2002

Figure 3.25 Historical Sites



Legend



National Register Listed



Eligible for National Register Listing



Existing Railroads



Properties Listed in the National Register

1. Continental Gin District
3301-3333 Elm St., 212 and 232 Trunk Ave.
2. John E. Mitchell Co. Plant
3800 Commerce
3. Fair Park
4. Textile Building, 4140 Commerce
5. Howard Wolfe Building and Garage, 3809 Parry

Properties Eligible for Listing in the National Register

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. St. James AME Temple, 500 N. Good-Latimer 2. Fink Paint Company Building, 2605 Elm 3. Manufacturers Expo Building, 2625 Elm 4. American Transfer & Storage, 2615 Elm 5. Southern Refrigeration Co. Building, 2609 Elm 6. National Biscuit Company, 3601 Main | <ol style="list-style-type: none"> 7. Lincoln Paint & Color Company Building, 4044 Commerce 8. Alexander Motor Company Building, 4100 Commerce 9. W. Gottlich Company Manufacturing Building, 4118 Commerce 10. Old Tige (Fire Station Museum), 3801 Parry 11. Knights of Pythias Temple, 2551 Elm 12. Good-Latimer Tunnel |
|--|--|



0 2000 4000 Feet



SOUTH EAST CORRIDOR
Dallas, Texas

The SHPO concurred with these findings on March 25, 2002. Additionally, the SHPO found the Good-Latimer Underpass (Good-Latimer Expressway under Gaston Avenue) eligible for the NRHP on February 1, 2002.

3.8.3 Comanche Storytelling Place

This section describes a unique resource that was identified during the public comment period for the Draft Environmental Impact Statement. A Comanche Storytelling Place was identified as a resource adjacent to the Southeast Corridor LRT alignment that should be preserved. The Storytelling Place is located on the escarpment ridgeline along the DART right-of-way in Devon-Anderson Park. Figure 3.26 identifies the location of the Comanche Storytelling Place.

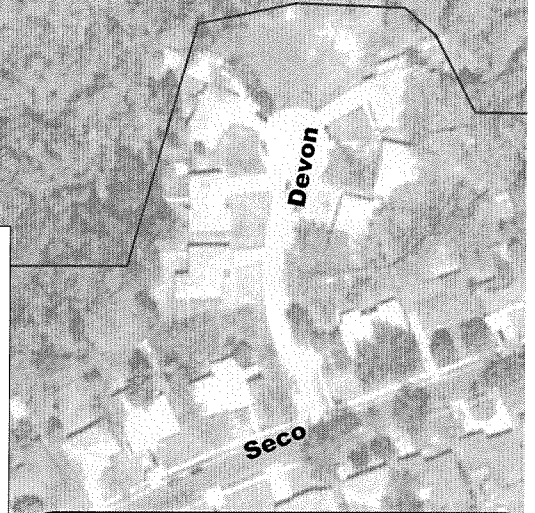
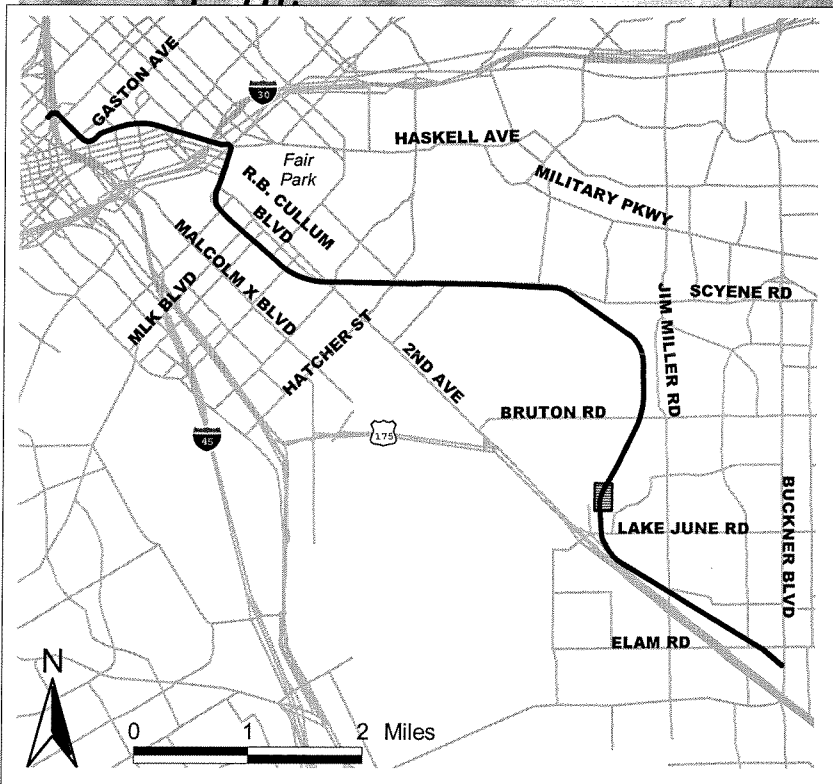
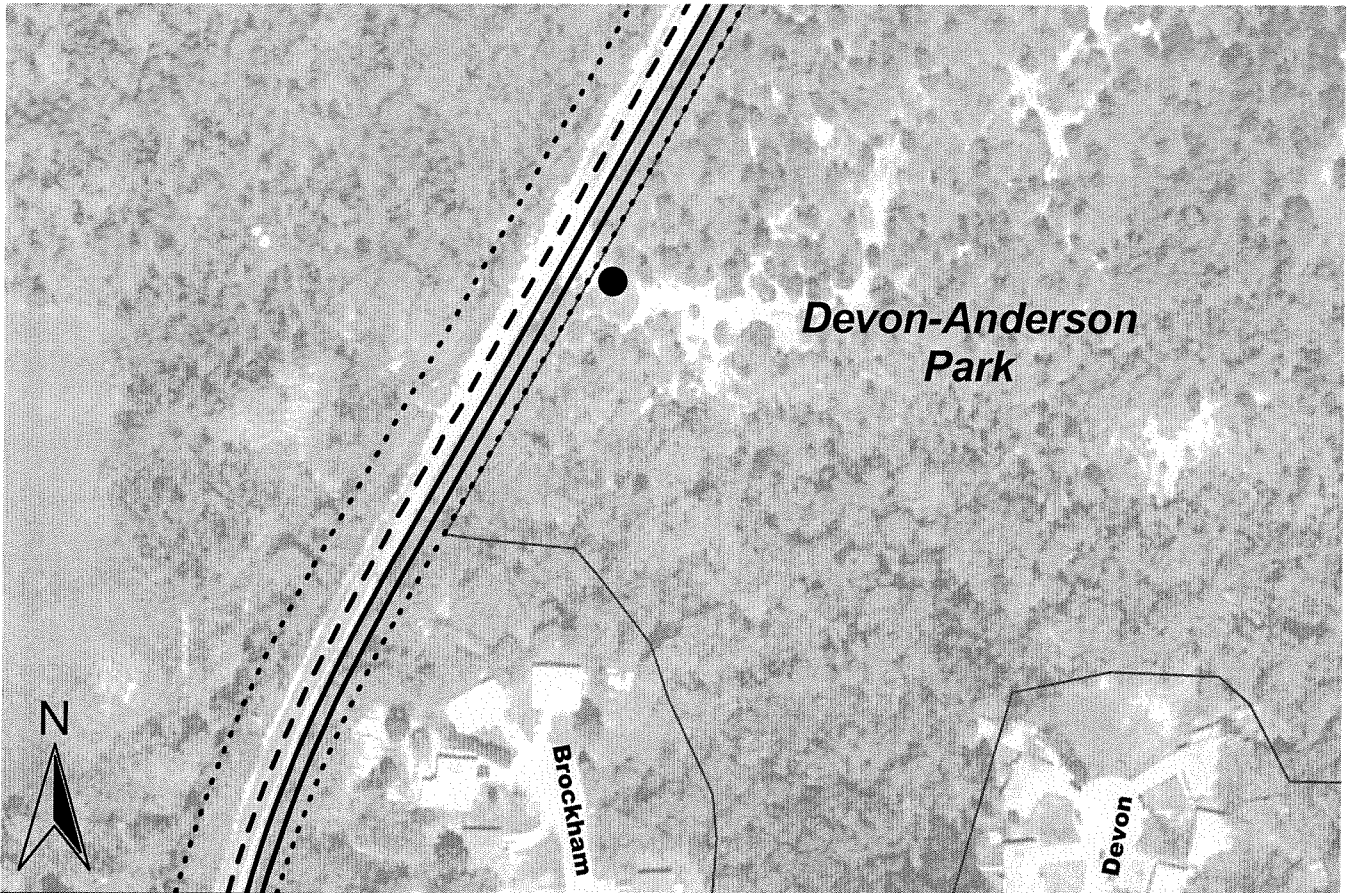
Traditionally, a Storytelling Place is used as means of cultural transition for Comanche children and young adults. Although, events associated with this site involve the sacred traditions that can only be discussed among the Comanche people, the Storytelling Place is essentially a gathering place where stories were shared and games played. Additionally, the Storytelling Place also functions as a scenic overlook from the escarpment to the Great Trinity Forest.

3.8.3.1 Documentation







The Comanche Nation has recognized the location in Devon-Anderson Park as having the characteristics of a traditional Storytelling Place. Local advocates of the Storytelling Place have provided some historical documentation along with geographical and archaeological evidence that indicate that the Comanche People may have occupied the Great Trinity Forest in the Dallas area prior to 1840. The oral history and sacred traditions of the Comanche People bolstered by this indirect empirical evidence help the Comanche Nation identify the location in Devon-Anderson Park as a Storytelling Place.

The necessary components of a Storytelling Place include a natural spring, specific rock formations, timber, medicinal plants, minerals, berries, fish and game. The location within Devon-Anderson Park contains all of these qualifying factors. The limestone outcropping of rock that forms a bowl-shaped configuration that is luminescent in the moonlight is a very significant feature of the Storytelling Place.

Figure 3.26
Comanche Storytelling Place



Legend

-  Comanche Storytelling Place
-  Build Alternative (LRT)
-  Existing Rail
-  Existing Right-of-Way
-  Devon Anderson Park
-  Area of Interest

DART's archeological records search did not identify any information directly related to the Comanche People or the Storytelling Place. However, after consultation with the SHPO and the Comanche Nation regarding the Storytelling Place, DART conducted a pedestrian archaeological survey of the DART right-of-way adjacent to parkland and the Storytelling Place. This survey, discussed in Section 5.9.4, did not encounter any items of significant relevance to the Storytelling Place.

3.8.3.2 Historical Context

The documentation provided by the Comanche Nation and interested environmental groups supports the concept that the Comanche People may have occupied the Dallas area prior to 1840. The City of Dallas and Dallas County were formed and settled in the 1840's. In the 1880's the Trunk Railroad was constructed in the corridor now referred to the Southern Pacific (SP) Railroad Corridor. Freight traffic has continuously operated in this corridor since the 1880's. Devon Park was dedicated as a park in 1966 and expanded into Devon-Anderson Park in 1981. Prior to this the land was in private ownership. The primary recommended use for this community park is playground and interpretive nature trails.

DART service along the SP RR was included in DART's first Service Plan in 1983 and has included in Transit System Plan updates in 1989 and 1995. DART purchased this right-of-way in April 1988 for right-of-way preservation. The DART Board of Directors approved light rail in the SP RR Corridor as the Build Alternative for the Southeast Corridor on May 9, 2000. DART initiate the EIS process for the project with scoping meetings in November and December 2000. The DEIS was published in February 2002 and the public comment period closed on April 8, 2002.

A representative of the Comanche Nation first visited the site in July 2001. On May 23, 2002, The Comanche Nation proclaimed the Storytelling Place a sacred site. On August 12, 2002, representatives of FTA, DART, the Comanche Nation and local environmental groups met at the Storytelling Place to discuss potential impacts of the DART LRT Project.

3.8.3.3 Historic Status

As the Storytelling Place was only brought to DART's attention during the public comment period for the DEIS in April 2002, it has not been included in earlier consultation with the SHPO.

Documentation supporting the site within Devon-Anderson Park as eligible for the NRHP is limited, however, the Comanche Nation has a strong oral tradition that supports this location as a Storytelling Place. Given this oral tradition and the Comanche Nation's proclamation that the site is sacred, FTA and DART have determined that the site is potentially eligible for the NRHP. The Comanche Nation is not presently seeking to have the Storytelling Place listed as individual Traditional Cultural Property, but they are working with interested local environmental groups to elevate recognition of the Storytelling Place as a component of a National District, Traditional Cultural Property. This district would include additional resources that are significant to the Comanche People but are not within the APE of the Southeast Corridor LRT Project.

3.9 PARKLANDS

3.9.1 Study Corridor and Methodology

A field survey was conducted in March 2001 to inventory neighborhood, community, regional, and special use parks, municipal golf courses, and publicly owned greenbelt areas. Although not classified as public parkland, the inventory also includes school playgrounds because they are publicly owned and are often used after-hours by community groups for local sports activities. No wildlife or waterfowl refuges that are protected under the regulating legislation were identified in the study corridor. Resources within a distance of approximately 500 feet from the proposed alignment were included in the inventory.

3.9.2 Resources

Fourteen public parks, school grounds, and recreation lands and one proposed park were identified within the study corridor. Table 3.20 provides a list and descriptive characteristics of the properties identified during the field survey. Figure 3.27 illustrates the location of parks and recreational lands in the study corridor.

Celebration of Life Park and John W. Carpenter Plaza are both designated as urban open spaces, and are located in downtown Dallas. In addition to open space, John W. Carpenter Plaza contains public art and sculpture.

Fair Park is designated not only as a park, but also as a National Historic Register District, a National Register Landmark, and a local landmark. The portion of the park adjacent to Parry Avenue includes the entrance gates and pylon, Exposition Plaza, Esplanade and Texas Hall of State, and the Music Hall. The area adjacent to R.B. Cullum Boulevard includes a fence and landscaping that provide a 250-foot wide buffer between R.B. Cullum Boulevard and the main body of the park.

There are a total of four neighborhood parks and two community parks in the study corridor. The neighborhood parks include Liberty Park, Pine Park, Glover Park, and Devon-Anderson Park. These neighborhood parks contain basic facilities, such as open space, playground equipment, and picnic areas. The Mildred L. Dunn Recreation Center and Park is a larger community park that contains a broader array of facilities, as well as a community center for local activities and meetings.

There are four large parks in the area, including two regional parks, one municipal golf course, and a designated open space/greenbelt. Lawnview Park and Gateway Park, both regional parks, contain a wide variety of facilities including baseball, soccer, and football fields, playground equipment, and open space. Gateway Park also contains public tennis courts. Grover Keeton Golf Course is an 18-hole municipal golf course located immediately adjacent to the White Rock Creek Greenbelt, a large area designated as open space along White Rock Creek. The Audubon Society has also recognized Grover Keeton as a cooperative bird sanctuary.

In addition, in this general area, the State of Texas is in the process of developing the Great Trinity Forest Park as part of the Trinity River Corridor Project. The Great Trinity Forest Park Master Plan Concept was approved by the Dallas City Council on March 26, 1997. The park would extend south from Scyene Road along the west side of the Grover Keeton Golf Course, and would continue south of the city along the Trinity River. Facilities planned for the park in the Master Plan Concept include the Trinity Interpretive Center, equestrian facilities and nature trails, multi-purpose trails to be used for recreation and transportation, boat launches, and trailhead improvements.

Table 3.20 Parks and Recreational Resources

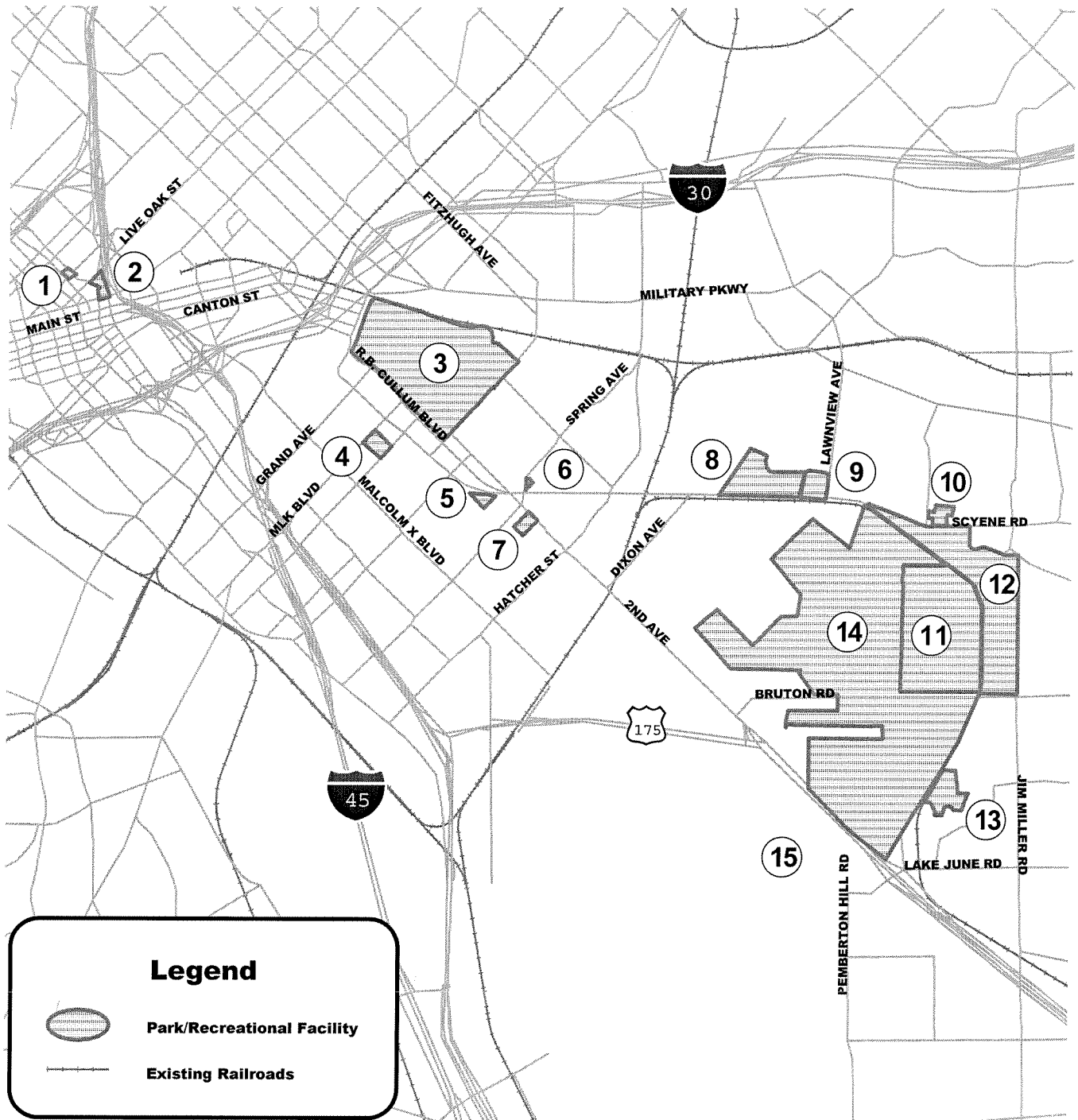
Map No.	Name	Type of Park ¹	Owner	Acres	Type of Facilities										
					Open Space	Playground Equipment	Benches/Picnic Tables	Baseball/Softball	Basketball	Soccer/Football	Hike & Bike Trails	Golf Course	Community Center/Activity Center	Other	
1	Celebration of Life Park	Urban Open Space	City of Dallas	0.76	X		X								
2	John. W. Carpenter Plaza	Urban Open Space	City of Dallas	3.97	X										X
3	Fair Park	Special	City of Dallas	277											X
4	James Madison High School	School grounds	Dallas Independent School District	--				X	X	X					
5	Liberty Park	Neighborhood	City of Dallas	1.1	X										
6	Pine Park	Neighborhood	City of Dallas	0.51	X										
7	Mildred L Dunn Recreation Center and Park	Community	City of Dallas	5.13		X	X	X	X					X	
8	Lawnview Park	Community	City of Dallas	38.4	X	X		X		X					
9	Silberstein Elementary School	School grounds	Dallas Independent School District	---				X	X	X					
10	Glover Park	Neighborhood	City of Dallas	6.3		X	X								
11	Grover Keeton Golf Course	Regional	City of Dallas	204.3									X		
12	Gateway Park	Regional ²	City of Dallas	110.7	X	X	X	X		X					X
13	Devon-Anderson Park	Neighborhood	City of Dallas	24.3	X	X	X								
14	Lower White Rock Creek Greenbelt	Linkage	City of Dallas	1,003.8	X										
15	Great Trinity Forest Park (proposed)	State	State of Texas	---	X							X		X	X

Source: Myra Franks and Associates, 2001

Notes: 1. As classified by the City of Dallas Parks and Recreation Department.

2. Gateway Park is currently classified by the City of Dallas as a regional park. This classification is scheduled to change to 'Community Park' by the year 2002.

Figure 3.27 Parks/Recreation Facilities



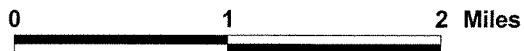
Legend

Park/Recreational Facility

Existing Railroads

- | | | |
|------------------------------|--------------------------------------|--|
| 1. Celebration of Life Park | 6. Pine Park | 11. Grover Keeton Golf Course |
| 2. John W. Carpenter Plaza | 7. Mildred L. Dunn Recreation Center | 12. Gateway Park |
| 3. Fair Park | 8. Lawnview Park | 13. Devon Anderson Park |
| 4. James Madison High School | 9. Silberstein Elementary School | 14. Lower White Rock Creek Greenbelt |
| 5. Liberty Park | 10. Glover Park | 15. Great Trinity Forest Park (proposed) |

Source: NCTCOG



Finally, two schools located in the study corridor include recreational facilities that are available to the public. James Madison High School contains multi-purpose playing fields used for baseball, soccer, football, etc. Silberstein Elementary School also contains multi-purpose fields, as well as basketball courts.

3.10 ECOSYSTEMS

3.10.1 Waters of the U.S.

Waters of the U.S. are afforded protection under the Clean Water Act (CWA) and Executive Order 11990. Implementation of the CWA is the responsibility of the EPA and the U.S. Army Corps of Engineers (USACE). The USACE oversees permitting for discharges (i.e., impacts) of dredge and fill material into waters of the U.S. within its jurisdiction. These waters include rivers, perennial, intermittent and ephemeral streams, bogs, sloughs, lakes, ponds (including stock tanks) connected to jurisdictional waters, and wetlands.

Executive Order 11990, entitled "Protection of Wetlands," directs all Federal agencies to avoid destruction or modification of wetlands whenever there is a practical alternative. This Executive Order does not apply to permits issued to private parties by Federal agencies for activities involving wetlands located on non-Federal property. It instructs each Federal agency to avoid undertaking or aiding new construction in wetlands unless the head of the agency finds that there is no practical alternative to construction in the wetland and the proposed construction incorporates all possible measures to limit harm to the wetland. Agency heads should use economic, environmental, and other pertinent information when deciding whether or not to build in wetlands. The importance of public participation is also recognized by this Executive Order which directs each agency to have an early public review of plans for new construction in wetlands.

There are three indicators of a wetland: soils, vegetation, and hydrology. Wetlands, as used by the USACE and the EPA is defined as:

“...areas where the frequent and prolonged presence of water at or near the soil surface drives the natural system meaning the kind of soils that form, the plants that grow, and the fish and/or wildlife communities that use the habitat. Swamps, marshes, and bogs are well recognized types of wetlands.”

Fourteen jurisdictional waters of the U.S. (i.e., stream crossings) were observed along the proposed Build Alternative (LRT) alignment during surveys conducted by biologists and are listed from west to east in Table 3.21 (Figures 3.28-32). The jurisdictional limits of streams are set by the Ordinary High Water Mark (OHWM), which is defined as:

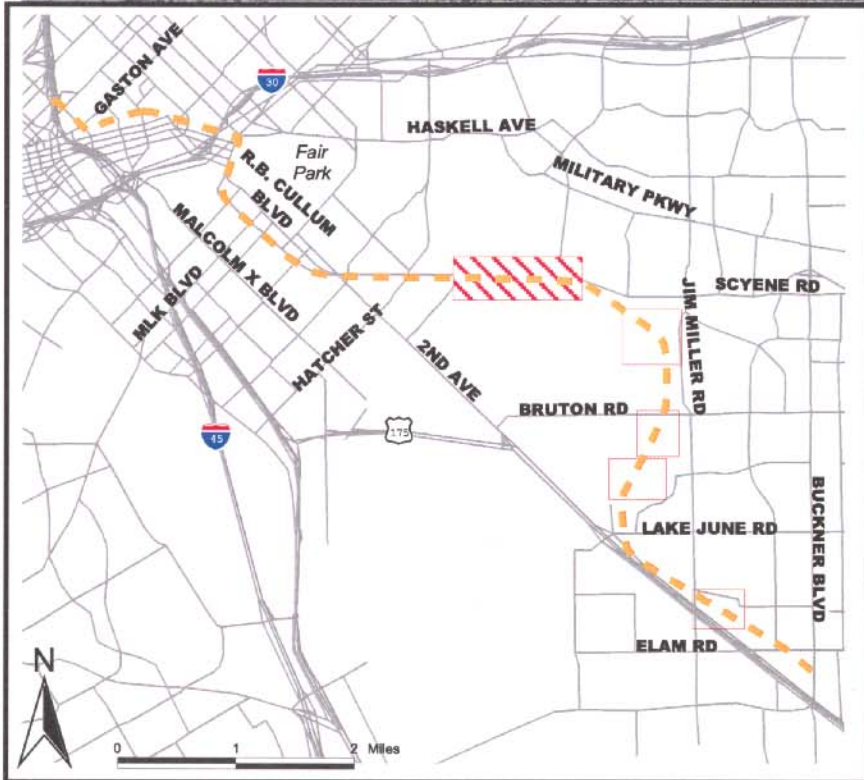
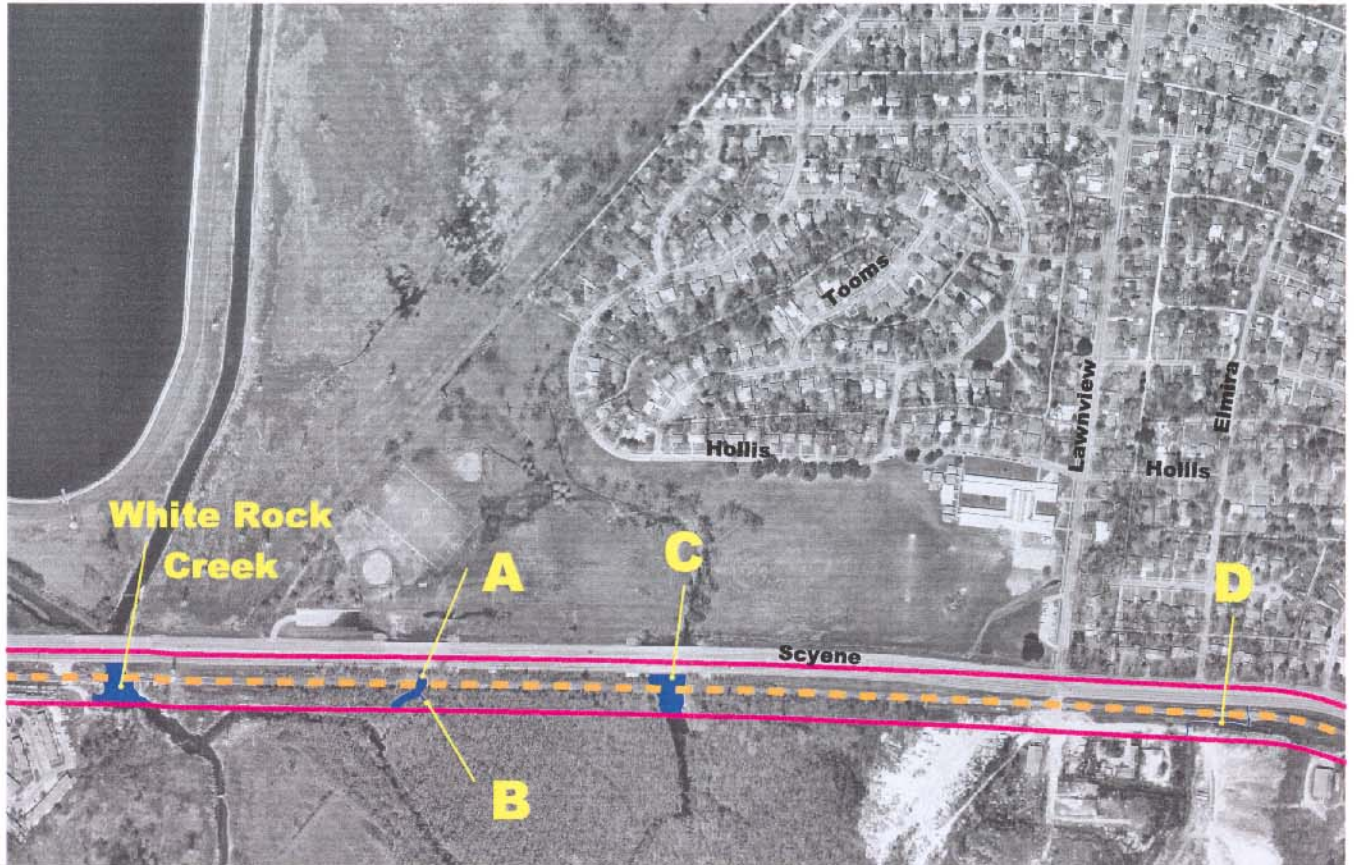
“...that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed in the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas (33 CFR 328.3).”

Table 3.21 Waters of the U.S. within the Study Corridor

Water	Location	Average OHWM	Description
White Rock Creek	0.6 mile east of Hatcher Street	95.0	Surrounded by maintained grass on both the east and west banks. Predominant vegetation included rye grass and other common grasses.
Tributary A	0.8 mile east of Hatcher Street	29.0	Surrounded by woods on both banks. Canopy species included cottonwood (<i>Populus deltoides</i>), black willow (<i>Salix nigra</i>), sugar hackberry (<i>Celtis laevigata</i>), and American elm (<i>Ulmus americana</i>). The understory was dominated by woodoats (<i>Chasmanthium</i> sp.)
Tributary B	1.0 mile east of Hatcher Street	8.5	Similar to Tributary A
Tributary C	0.3 mile west of Lawnview Road	104.0	Similar to Tributary A
Tributary D	0.1 mile east of Lawnview Road	3.1	This is a man-made channel that comes under Scyene Road in culverts, flows along the borrow ditch then crosses the existing tracks under culverts. Vegetation consists of maintained grasses and various species including dock (<i>Rumex</i> sp.) on both side of the crossing.
Tributary E	0.2 mile southwest of the intersection of Renda Drive and Lacywood Lane	4.3	Canopy species included sugar hackberry (<i>Celtis laevigata</i>), American elm (<i>Ulmus americana</i>), and red oak (<i>Quercus</i> sp.). Understory species included greenbrier (<i>Smilax</i> sp.), poison ivy (<i>Toxicodendron radicans</i>), and various grasses.
Tributary F	0.35 mile south of the intersection of Renda Drive and Lacywood Lane	23.0	Similar to Tributary E, but less dense.
Tributary G	0.35 mile south of the intersection of Renda Drive and Lacywood Lane	3.5	Similar to Tributary E
Tributary H	170 feet south of Bruton Road	2.7	Similar to Tributary E
Tributary I	250 feet south of Bruton Road	1.0	Similar to Tributary E
Tributary J	0.4 mile south of Bruton Road	3.17	Similar to Tributary E
Tributary K	0.5 mile south of Bruton Road	2.0	Similar to Tributary E
Tributary L	0.7 mile south of Bruton Road	7.2	Similar to Tributary E
Elam Creek	0.25 mile southeast of Jim Miller Road N.	16.5	This stream has very steep banks with grass on the west side and woods consisting primarily of black willow, hackberry, and cottonwood on the east side.

Source: Carter & Burgess, 2001

Figure 3.28
Waters of the U.S. Along Scyene Road



Legend





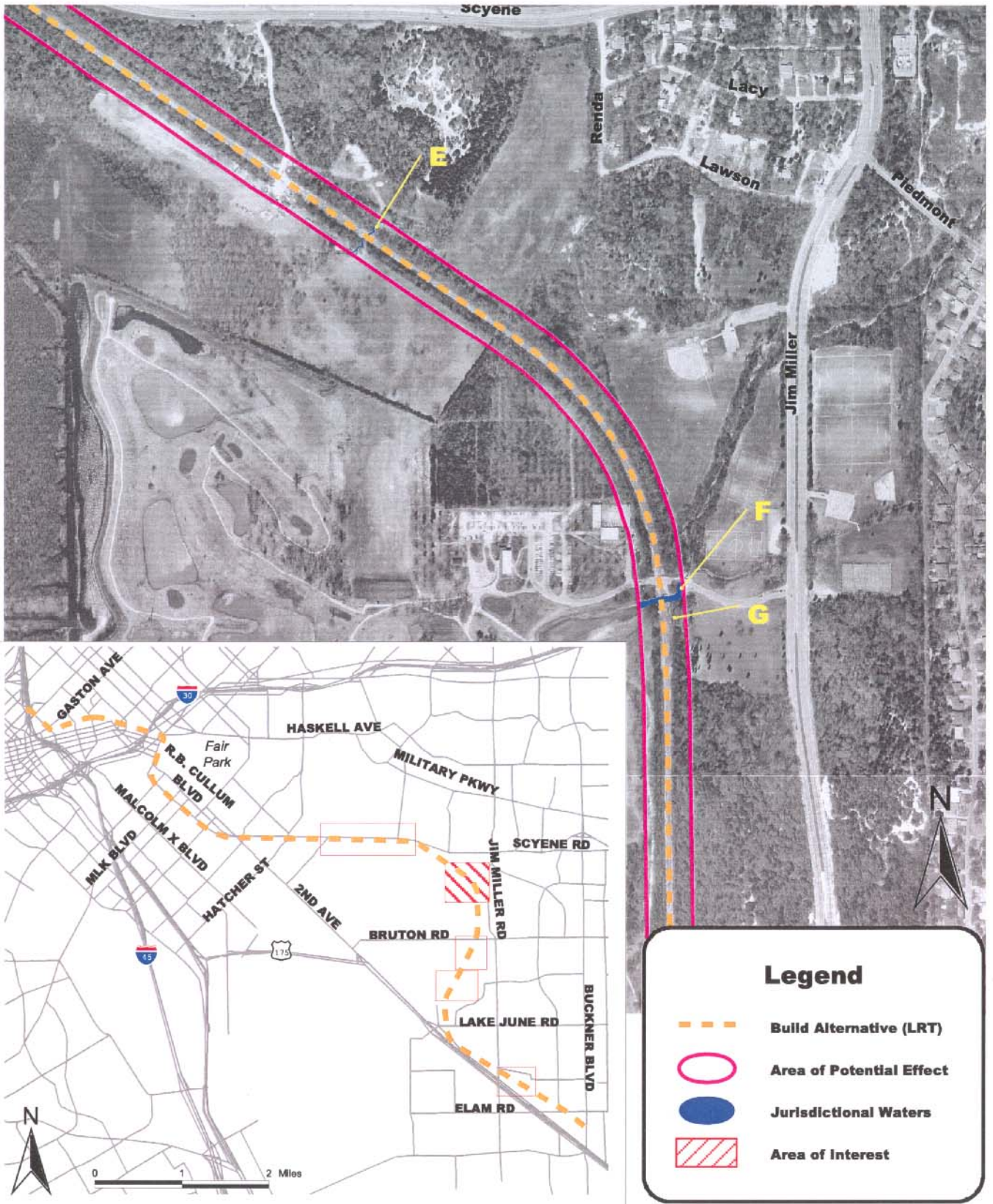
-  Build Alternative (LRT)
-  Area of Potential Effect
-  Jurisdictional Waters
-  Area of Interest

Figure 3.29

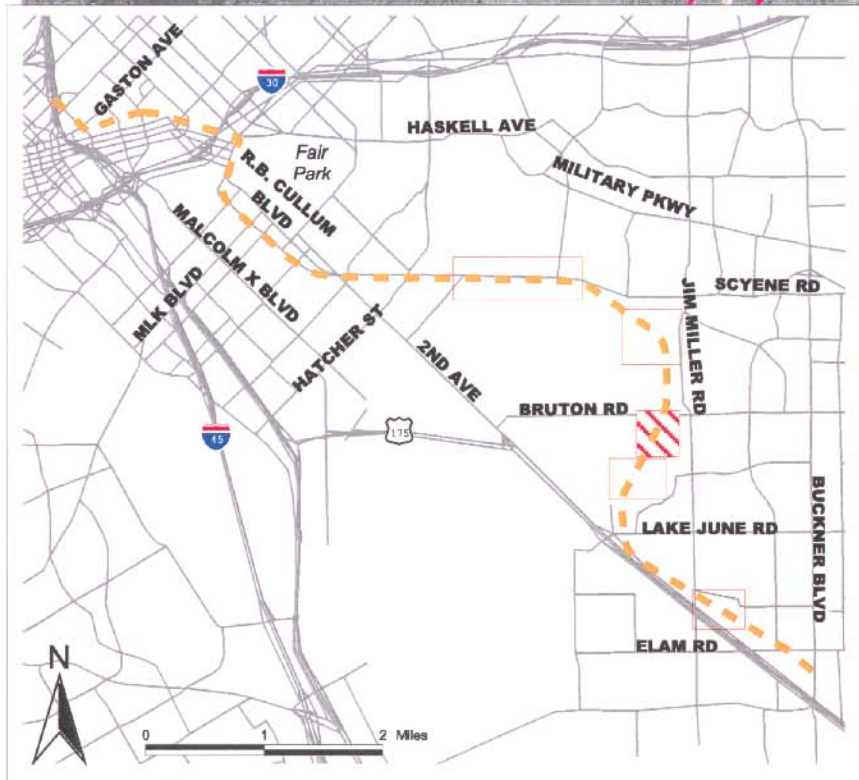
Waters of the U.S. Near Grover Keeton Golf Course



Legend

- - - Build Alternative (LRT)
- Area of Potential Effect
- Jurisdictional Waters
- ▨ Area of Interest

Figure 3.30 Waters of the U.S. South of Bruton Road



Legend


-  Build Alternative (LRT)
-  Area of Potential Effect
-  Jurisdictional Waters
-  Area of Interest



Figure 3.31 Waters of the U.S. North of Lake June Road



Legend





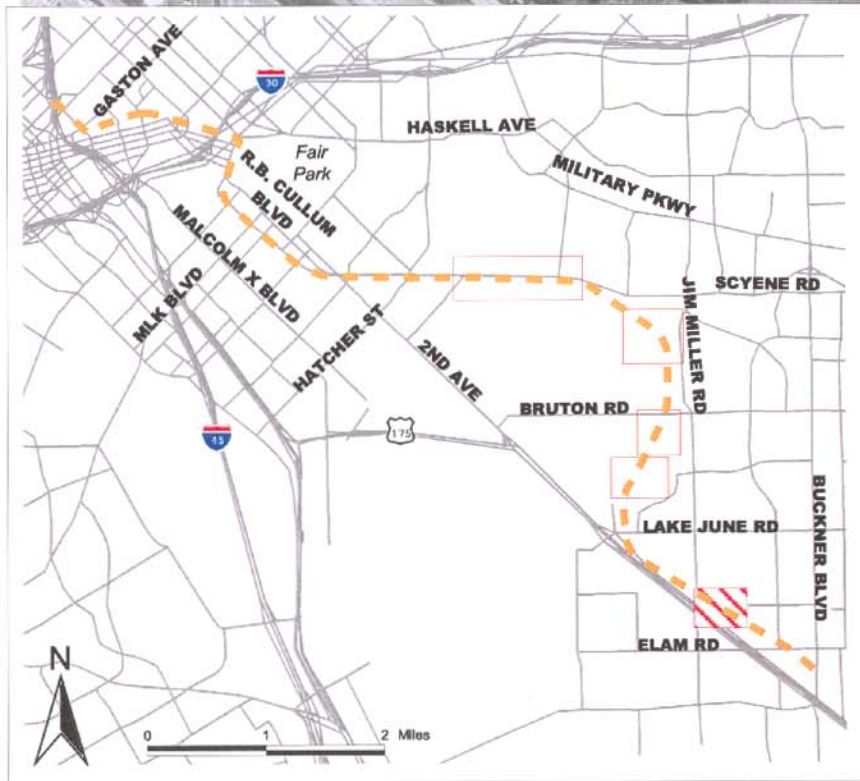
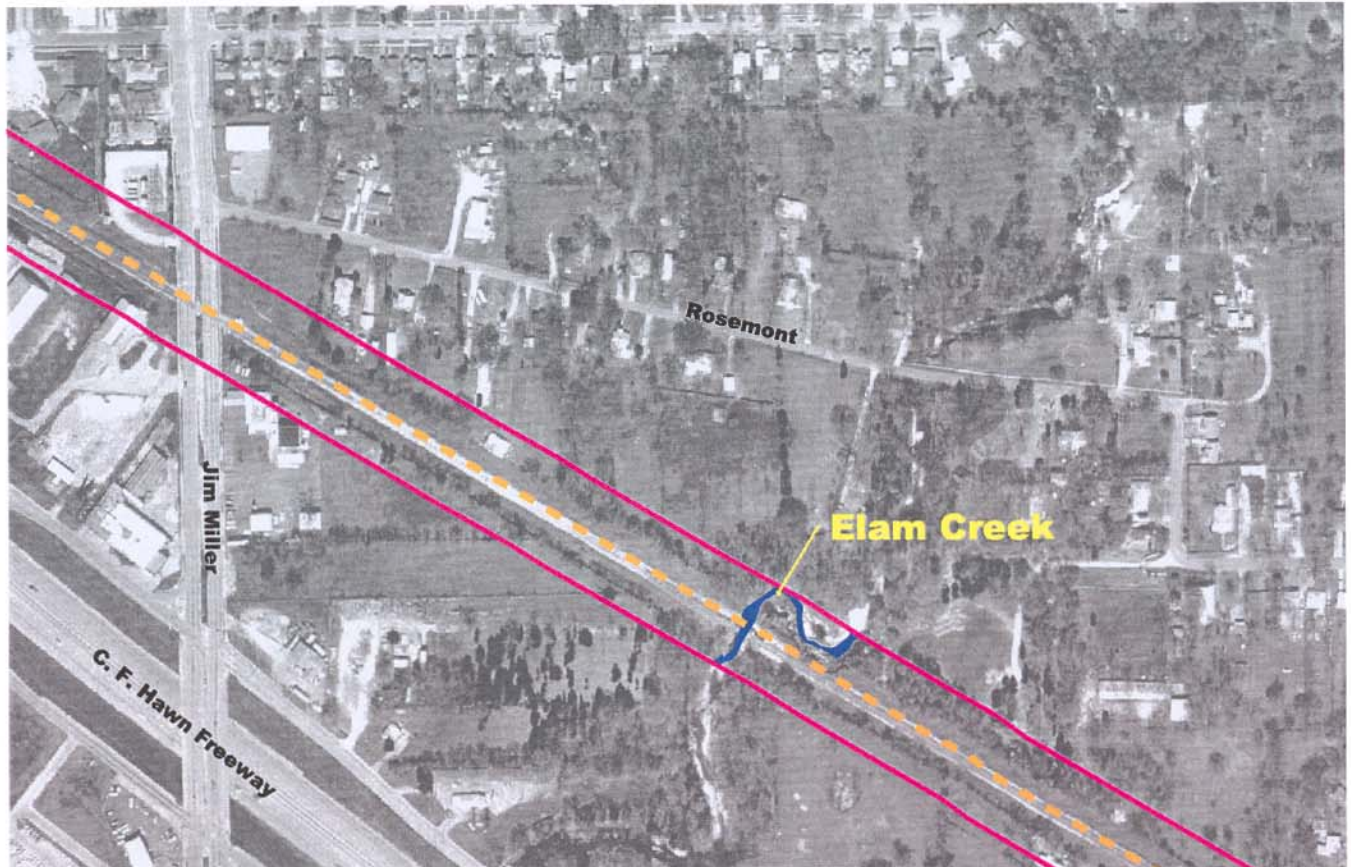




-  Build Alternative (LRT)
-  Area of Potential Effect
-  Jurisdictional Waters
-  Area of Interest

Figure 3.32 Waters of the U.S. East of Jim Miller Road



Legend

-  Build Alternative (LRT)
-  Area of Potential Effect
-  Jurisdictional Waters
-  Area of Interest



3.10.2 Vegetation

A site investigation was conducted to determine the type and composition of plant communities. The site investigation was also conducted to survey the corridor for the presence or absence of rare plants. Table 3.22 presents a list of plant species identified along the Build Alternative (LRT). No rare plant species or plant communities were observed within the corridor. Existing vegetation within the corridor varied from mowed urban grasses to wooded areas. Primarily, vegetation within the corridor was disturbed due to past maintenance of the existing right-of-way. In the areas just outside of the SP RR (DART) right-of-way near Grover Keeton Park and Gateway Park, there are areas of large mature trees and the proposed Great Trinity Forest covers much of the floodplain area south of the SP RR (DART).

Table 3.22 Plant Species

Common Name (Classification*)	Scientific Name
American Elm (T)	<i>Ulmus americana</i>
Black Willow (T)	<i>Salix nigra</i>
Bois d'Arc (T)	<i>Maclura pomifera</i>
Boxelder (T/S)	<i>Acer negundo</i>
Canada Wildrye (H)	<i>Elymus canadensis</i>
Cattail (H)	<i>Typha latifolia</i>
Cedar Elm (T)	<i>Ulmus crassifolia</i>
Chinaberry (T)	<i>Melia azedarach</i>
Coral-berry (S)	<i>Symphoricarpos orbiculatus</i>
Eastern Cottonwood (T)	<i>Populus deltoides</i>
Eastern Red Cedar (T)	<i>Juniperus virginiana</i>
Flameleaf Sumac (S)	<i>Rhus lanceolata</i>
Flowering Dogwood (T/S)	<i>Cornus florida</i>
Giant Ragweed (H)	<i>Ambrosia trifida</i>
Green Ash (T)	<i>Fraxinus pennsylvanica</i>
Greenbrier (V)	<i>Smilax sp.</i>
Honey Locust (T)	<i>Gleditsia triacanthos</i>
Johnson Grass (H)	<i>Sorghum halapense</i>
Mexican Plum (T/S)	<i>Prunus mexicana</i>
Pecan (T)	<i>Carya illinoensis</i>
Poison Ivy (S/V)	<i>Toxicodendron radicans</i>
Privet (S)	<i>Ligustrum sp.</i>
Red Oak (T) – Shumard's and S. Red	<i>Quercus sp.</i>
Redbud (T/S)	<i>Cercis canadensis</i>
Roughleaf Dogwood (S)	<i>Cornus drummondii</i>
Soapberry (T)	<i>Sapindus drummondii</i>
Southern Hackberry (T)	<i>Celtis laevigata</i>
Sunflower (H)	<i>Helianthus annuus</i>
Sycamore (T)	<i>Plantanus occidentalis</i>
Trumpet Vine (V)	<i>Campsis radicans</i>
Virginia Creeper (V)	<i>Parthenocissus quinquefolia</i>
Woodoats (H)	<i>Chasmanthium sp.</i>

Source: Carter & Burgess

*T=Tree, S=Shrub, V=Vine, H=Herbaceous

3.10.3 Wildlife

The Endangered Species Act of 1973 prohibits the destruction of habitats critical to the survival of federally listed species. A listed species is a species on the Secretary of the Interior's list of species that appear in danger of extinction across part or all of their range. The designation of "endangered" indicates that the entire species may be in danger of extinction. A designation of "threatened" indicates a species for which protective measures appear to be required in order to prevent it from becoming endangered.

Similar legislation has been passed by the State of Texas. The executive director of the Texas Parks and Wildlife Department has the responsibility of listing species within the state. Table 3.23 contains federal- and state-listed species that may occur in Dallas County. During site investigations by biologists, no listed animal (or plant) species were identified along the corridor. Table 3.24 contains a list of wildlife species observed along the corridor during surveys. Most of the wildlife habitat along the corridor is within or near Grover Keeton and Gateway parks. The Audubon Society has recognized Grover Keeton as a cooperative bird sanctuary.

Table 3.23 Federal/State Listed Species that Occur or May Occur in Dallas County

Common Name	Scientific Name	Federal Status	State Status
Arctic Peregrine Falcon	<i>Falco peregrinus tundrius</i>	--	T
Bald Eagle	<i>Haliaeetus leucocephalus</i>	T	T
Black-Capped Vireo	<i>Vireo atricapillus</i>	E	E
Golden Cheeked Warbler	<i>Dendroica chrysoparia</i>	E	--
Interior Least Tern	<i>Sterna antillarum athalassos</i>	E	E
Piping Plover	<i>Charadrius melodus</i>	T	--
Whooping Crane	<i>Grus americana</i>	E	E
Wood Stork	<i>Mycteria americana</i>	--	T
Texas Horned Lizard	<i>Phrynosoma cornutum</i>	--	T
Timber Rattlesnake	<i>Crotalus horridus</i>	--	T

Source: Texas Parks and Wildlife Department - Annotated County Lists of Rare Species and US Fish and Wildlife Service

T=Threatened

E=Endangered

Table 3.24 Wildlife Species Observed in the Vicinity of the Corridor

Common Name	Scientific Name
Birds	
American Crow	<i>Corvus brachyrhynchos</i>
American Kestrel	<i>Falco sparverius</i>
Barn Swallow	<i>Hirundo rustica</i>
Blue Jay	<i>Cyanocitta cristata</i>
Carolina Chickadee	<i>Parus carolinensis</i>
Cattle Egret	<i>Bubulcus alba</i>
European Starling	<i>Sturnus vulgaris</i>
Great Blue Heron	<i>Ardea herodias</i>
Great Egret	<i>Casmerodius albus</i>
Great-Tailed Grackle	<i>Quiscalis mexicanus</i>
Little Blue Heron	<i>Egretta caerulea</i>
Mourning Dove	<i>Zenaida macroura</i>
Northern Cardinal	<i>Cardinalis cardinalis</i>
Northern Harrier	<i>Circus cyaneus</i>
Northern Mockingbird	<i>Mimus polyglottos</i>
Red-Tailed Hawk	<i>Buteo jamaicensis</i>
Turkey Vulture	<i>Cathartes aura</i>
Mammals	
Eastern Cottontail	<i>Sylvilagus floridanus</i>
Fox Squirrel	<i>Sciurus niger</i>

Source: Carter & Burgess, 2001

3.11 HYDROLOGY/WATER QUALITY

Hydrology and water quality issues are divided into three areas: surface water quality, groundwater quality, and floodplains.

3.11.1 Surface Water Quality

Surface water resources consist primarily of the streams described in Section 3.10.1 (see Table 3.25 and Figures 3.28-32). These streams are located in Segment 0820 (Lake Ray Hubbard) of the Trinity River Basin. These water bodies are classified as “Water Quality Limited” and designated water uses include: contact recreation, high aquatic life, and public water supply.

3.11.2 Groundwater Resources

The primary source of groundwater for the upper Trinity River Basin (i.e., Dallas County) is supplied by the Trinity Group, a major aquifer composed of several formations. The three formations near the project corridor are the Antlers, Twin Mountains, and Paluxy formations. The Antlers Formation ranges from approximately 400 feet in thickness at the outcrops to about 900 feet. The Twin Mountains Formation is approximately 200 feet thick near the outcrops and ranges to about 1,000 feet at the downdip limit of fresh water. The Paluxy Formation outcrops in

Hood, Parker, Tarrant, and Wise Counties and ranges in thickness from approximately 400 feet in the northern part to less than 100 feet in the southern part. The water quality of the Trinity Group is acceptable for most municipal and industrial purposes and ranges from fresh to slightly saline with salinity increasing with depth. The aquifer has been overdeveloped in the metroplex and the water table is low, dropping as much as 1,200 feet below the surface. Generally, water supplied to the area comes from surface reservoirs built in the Trinity River watershed.

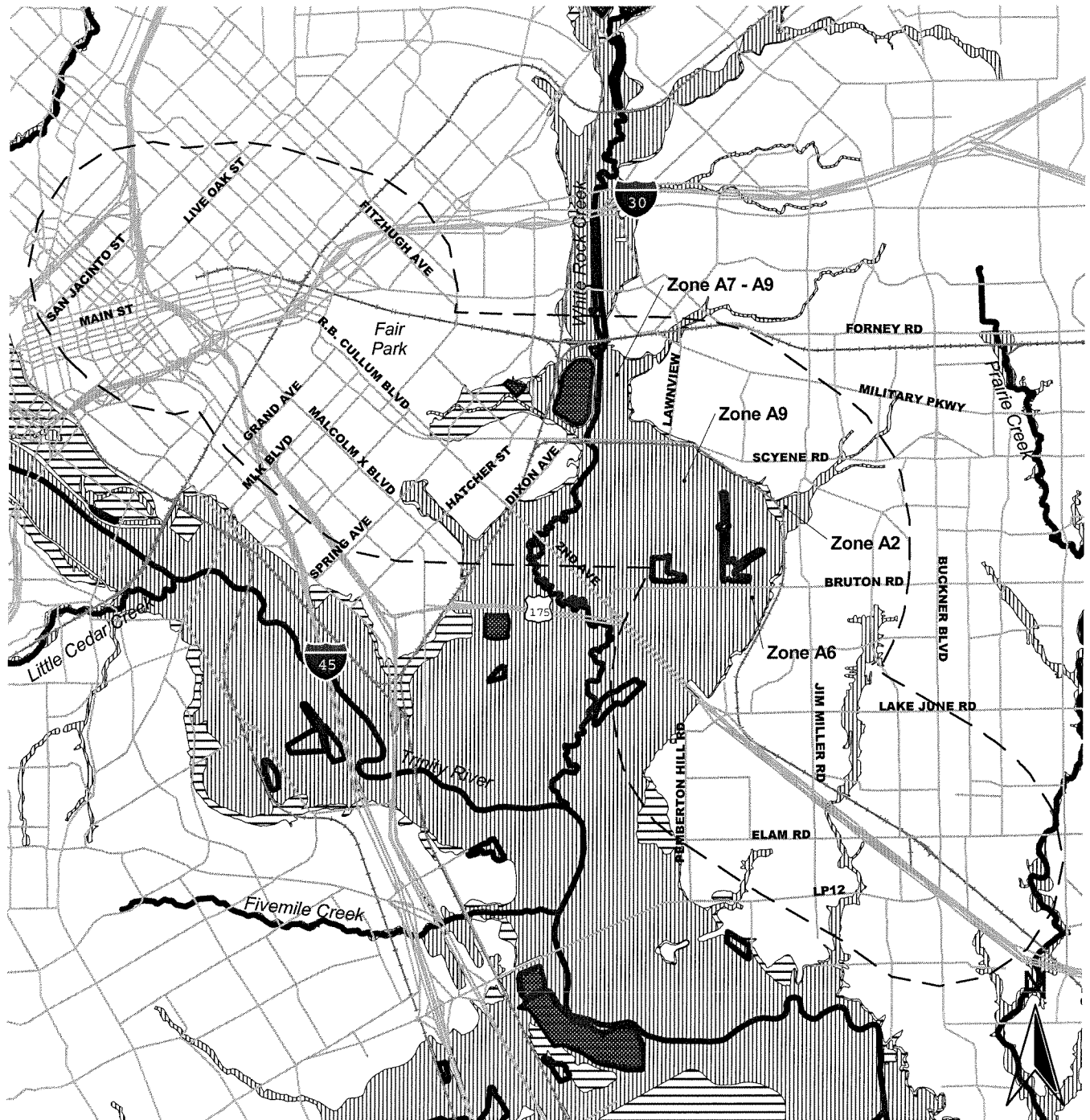
A minor aquifer, the Woodbine Aquifer, is also present within the study corridor. The project corridor runs over the downdip portion of this aquifer. This aquifer is approximately 600 feet thick and useable water is produced to approximately 2,000 feet. Water quality in this aquifer is relatively poor, with high dissolved solids and salinity.

3.11.3 Floodplains

The Federal Emergency Management Agency (FEMA) regulates alterations to, or development within, floodplains as mapped on FEMA Flood Insurance Rate Maps (FIRM). Executive Order 11988: Floodplain Management also prevents Federal agencies from contributing to the "adverse impacts associated with the occupancy and modification of floodplains" and the "direct or indirect support of floodplain development." In the course of fulfilling their respective authorities, Federal agencies "shall take action to reduce the risk of flood loss, to minimize the impact of floods on human safety, health and welfare, and to restore and preserve the natural and beneficial values served by floodplains." Before proposing, conducting, supporting or allowing an action in a floodplain, each agency is to determine if planned activities will affect the floodplain and evaluate the potential effects of the intended actions on its functions. Agencies shall avoid siting development in a floodplain "to avoid adverse effects and incompatible development in the floodplains."

In addition, the City of Dallas has its own floodplain ordinance. According to the FEMA FIRM for the project area, several mapped floodplain areas occur within the project corridor (Figure 3.33). Table 3.25 provides information on each mapped floodplain area within the project corridor.

Figure 3.33 Floodplain



Legend

	Study Corridor		Existing Railroads	FEMA Floodplain
	Lake		Stream	
				100 Year
				500 Year

Source: NCTCOG



Table 3.25 Mapped Floodplains

Flood Zone/Location	Flood Zone Description	Flood Zone Extent (Linear Distance/Acres)
White Rock Creek. Approximately 0.5 mile east of Hatcher Street.	Zone A7- A9: Areas of 100 year flood. The base flood elevation rangers from 405 to 406 feet.	4963-linear feet / 11.27 acre
White Rock Creek. Approximately 1,000 feet southwest of the intersection of Renda Drive and Lacywood Lane.	Zone A9: Areas of 100 year flood. The base flood elevation ranges from 405 to 410 feet.	1532-linear feet / 2.13 acre
Stream 5B1 branch of White Rock Creek. Approximately 1,500 feet south of the intersection of Renda Drive and Lacywood Lane.	Zone A2: Areas of 100 year flood. The base flood elevation ranges from 405 to 410 feet.	1592-linear feet / 1.70 acre
Elam Creek branch of Trinity River. Approximately 0.25 mile south of Jim Miller Road North.	Zone A6: Areas of 100 year flood. The base flood elevation ranges from 434 to 441 feet.	351-linear feet / 0.58 acre

Source: FEMA 1999

3.12 GEOLOGY

3.12.1 Geologic Setting

According to the Dallas Sheet of the Geologic Atlas of Texas, the project corridor is underlain by: Alluvium, Fluvatile terrace deposits, and Austin Chalk formations. Alluvium consists of floodplain deposits including indistinct low terrace deposits. Alluvium is composed of silt, sand, gravel, silty clay, and organic matter. These deposits are found in the White Rock Creek floodplain, near the midpoint of the project corridor. Fluvatile terrace deposits consist of gravel, sand, silt, and clay and exist in contiguous terraces of different ages. These deposits flank the Alluvium deposits described previously. Austin Chalk consists of light gray chalk (mostly microgranular calcite) with an average thickness of 300 to 500 feet, thinning toward the south. This formation occurs at the upper and lower ends of the project corridor (i.e., in the downtown area and south of Scyene Road).

3.12.2 Soil Types

According to sheets 32, 39, 40, and 47 of the Dallas County soil survey, there are 11 soil types in the project corridor. These soils, along with brief descriptions, are included in Table 3.26.

3.13 HAZARDOUS/REGULATED MATERIALS

This section identifies locations of potential contamination from hazardous/regulated materials within the study corridor.

Table 3.26 Soil Types within the Project Corridor

Soil Type	General Description
Bastil-Urban land complex (0 to 2% slopes)	Nearly level to gently sloping, well-drained soils, and areas of urban land. The surface layer is medium acid, brown fine sandy loam about 8 inches thick. These soils have moderate permeability and high available water capacity. Runoff is medium and hazard of erosion is moderate. Soils in this complex have a high potential for urban uses. They are corrosive to steel and have a low strength.
Dalco-Urban land complex (0 to 3% slopes)	Moderately deep, moderately well drained and nearly level to gently sloping soils and areas of urban land. The surface layer is moderately alkaline, black clay about 26 inches thick. Permeability is very slow and available water capacity is low. Runoff is medium and hazard of erosion is moderate. Low potential for urban uses. Main limitations are very high shrink-swell potential, corrosivity, and low strength.
Eddy-Brackett complex (8 to 20% slopes)	Strongly sloping to moderately steep, well-drained, very shallow soils overlying the Austin Chalk geologic formation. The surface layer is moderately alkaline, dark grayish brown clay loam 3 inches thick. Permeability is moderately slow, available water capacity is very low, runoff is rapid, and hazard of erosion is severe. These soils have medium potential for urban uses. Main limitations are shallowness, unstable slopes, corrosivity, and erosion hazard.
Frio silty clay, frequently flooded	Deep, well-drained, nearly level soil on flood plains. This soil is generally flooded one or more times each year. The surface layer is moderately alkaline, dark grayish brown silty clay 7 inches thick. Permeability is moderately slow, available water capacity is high, runoff is slow, and erosion hazard is slight. The soil has low potential for urban uses because of frequent flooding, low strength, and corrosivity.
Frio-Urban land complex	Deep, nearly level, well-drained soils and areas of urban land on the floodplains of smaller streams. The surface layer is a moderately alkaline, dark grayish brown silty clay approximately 7 inches thick. These soils have moderately slow permeability and high available water capacity. These soils have a low potential for urban and recreational uses due to flooding and clay content. This soil also has low strength, moderate shrink-swell potential, is corrosive to steel, and is limited for cut-and-fill slopes.
Houston Black-Urban land complex (0 to 4% slopes)	Deep, moderately well drained, nearly level to gently sloping soils and areas of urban land. The surface layer is a moderately alkaline, very dark gray clay approximately 6 inches thick. These soils have a very slow permeability and high available water capacity. Low potential for urban uses. Limitations include a very high shrink-well potential, corrosivity to steel, and moderate limitation for cut-and-fill slopes. Low potential for recreational uses due to the slow permeability and the clayey surface texture. Water and wind erosion potential is slightly above average.
Lewisville silty clay (3 to 5% slopes)	Deep, gently sloping to sloping, calcareous soils on stream terraces and areas that slope toward streams. The surface layer is a dark grayish brown, calcareous, light silty clay approximately 11 inches thick. These soils have a moderately slow permeability and a moderate available water capacity. Moderately suited for cultivation or pastureland. Limitations include moderate surface runoff, moderate hazard of erosion, corrosivity to steel, high shrink-swell potential and moderate limitation for cut-and-fill slopes.
Silstid-Urban land complex (0 to 6% slopes)	Nearly level, gently sloping to sloping soils and areas of urban land. The surface layer is neutral, brown loamy fine sand 10 inches thick. Permeability is moderate, available water capacity is low, and runoff is slow to medium. Water erosion potential is slight to moderate, while wind erosion is a severe hazard if soil is left bare. High potential for urban uses. Main limitations are corrosivity and sandy texture.
Trinity clay, frequently flooded	Deep, nearly level, poorly drained soil on floodplains. This soil is flooded two to three times in most years. The surface layer is moderately alkaline, dark gray clay 7 inches thick. Permeability is very slow, available water capacity is high, runoff is slow, and erosion hazard is slight. This soil has high potential for pasture and low potential for urban uses. Limitations are frequent flooding, wetness, corrosivity, high shrink-swell, and clayey texture.
Urban land	Extensively built-up areas where 75 percent or greater of the surface is covered with buildings or pavement.
Wilson-Urban land complex (0 to 2% slopes)	Nearly level to gently sloping, deep, poorly drained areas and urban land. Surface layer is mildly alkaline, dark grayish brown clay loam 5 inches thick. Permeability is very slow, available water capacity is high, runoff is slow, and hazard of erosion is slight. Medium potential for urban uses. Limitations include high shrink-swell potential, corrosivity, and low strength.

Source: USDA 1980

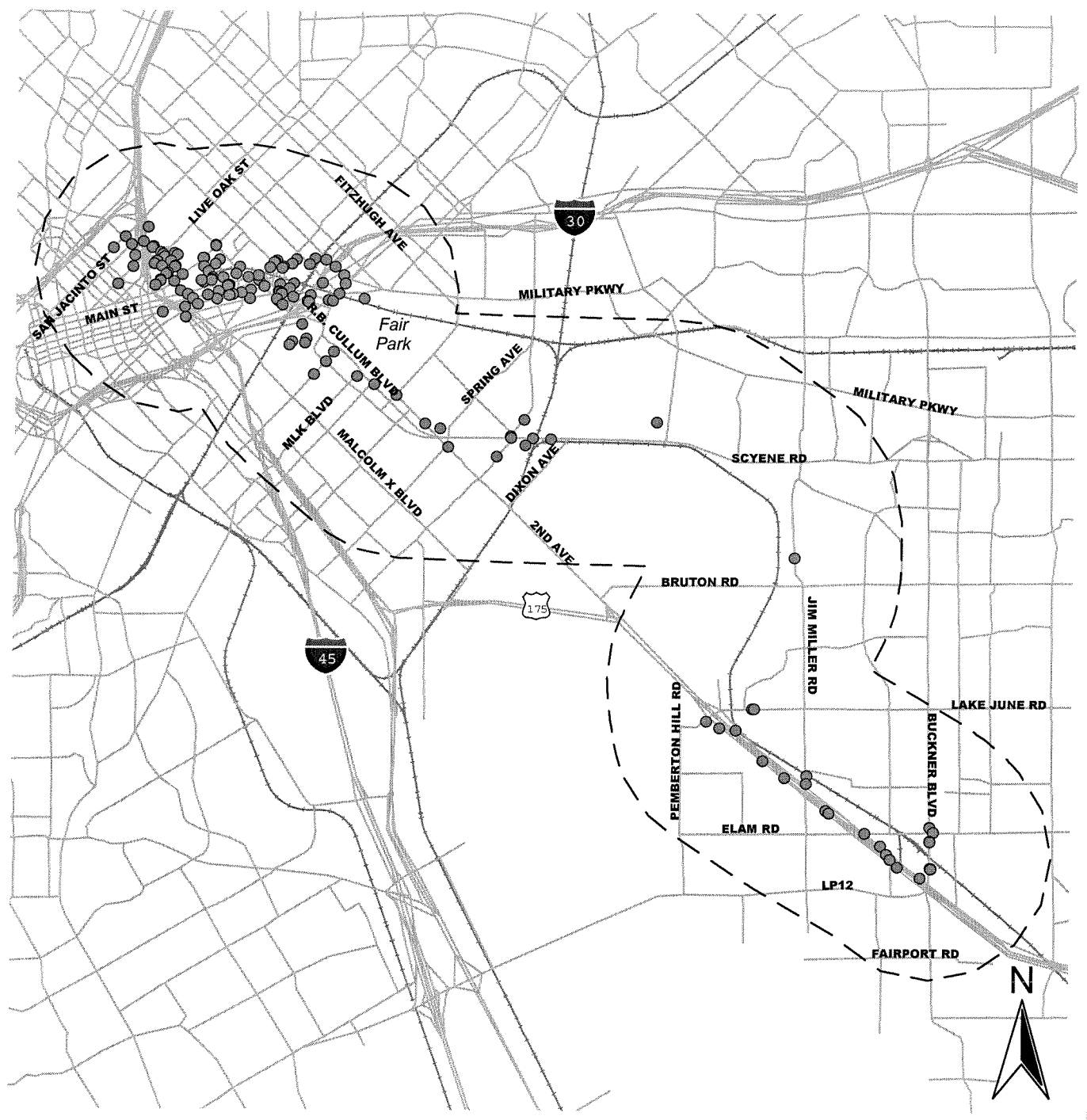
3.13.1 Methodology

A search of federal and state regulatory agency databases was performed to identify potential hazardous/regulated materials sites and facilities located within one-quarter mile either side of the Build Alternative (LRT). Environmental Data Resources, Inc. (EDR) supplied the data and facilities information. The locations of sites and/or facilities determined to be of a higher probability for the presence of contamination relative to right-of-way acquisition for or construction of the project were verified using the 2001 Dallas MAPSCO, EDR research, and aerial photography. This research is considered as an initial screening-type investigation to indicate areas of potential concern for further study or precautionary actions. These limitations should be recognized when consideration is given to various alternatives for future actions. The federal and state databases searched are listed in Appendix F.

3.13.2 Results of Regulatory Database Search

As a result of the database search, one Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) site; two Corrective Action Report (CORRACTS) sites; 40 Resource Conservation and Recovery Information System (RCRIS) sites; five Emergency Response Notification System (ERNS) sites; four Hazardous Materials Information Reporting System (HMIRS) incidents; one Toxic Chemical Release Inventory System (TRIS) site; three Federal Insecticide, Fungicide, & Rodenticide Act (FIFRA)/Toxic Substances Control Act (TSCA) Tracking System (FTTS) sites; five TNRCC Spills Database (SPILLS) sites; two TNRCC Voluntary Cleanup Program Sites (TX VCP) sites; 53 TNRCC Industrial and Hazardous Waste Database (TX IHW) sites; one TNRCC Aerometric Information Retrieval System (AIRS) site; 34 TNRCC Leaking Underground Storage Tank Incident Reports (LUST) sites; 49 TNRCC Registered Underground Storage Tanks (UST) sites; and one TNRCC Petroleum Storage Tank Database (AST) site were identified in the project area. The locations of the identified sites are shown in Figure 3.34.

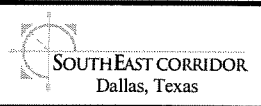
Figure 3.34 Sites Appearing on Regulatory Agency Data Bases



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● Listed Site	— Existing Railroads	- - - Study Corridor
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Note: All sites approximate



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CHAPTER 4 - TRANSPORTATION IMPACTS

This chapter describes the anticipated transportation impacts of the No-Build and Build Alternative (LRT). The alternatives are evaluated based upon the anticipated travel demand, transportation capacity, transportation performance measures, and impacts to the road network, parking, and freight delivery. This analysis was developed from 2025 travel demand forecasts for the Southeast Corridor using the NCTCOG regional travel demand model. Additionally, 1990 Census “Journey to Work” data was analyzed to determine current travel patterns and characteristics, and traffic counts were conducted in 1999. Where possible, quantitative and qualitative data are presented to show the relative performance measures and impacts of each alternative.

4.1 IMPACTS OF TRANSIT SERVICE AND RIDERSHIP

The Build Alternative (LRT) will include new LRT service in the Southeast Corridor from the existing downtown transit mall to a terminus at Buckner Boulevard (Loop 12). The Build Alternative (LRT) is described in detail in Chapter 2. Currently, the study corridor is served by 18 DART bus routes and one transit center at Lake June. The MLK Transit Center is currently under design with construction expected to begin in early 2003. The existing DART bus service in the corridor includes 12 local radial routes, three limited express routes, and three crosstown routes. These buses operate in mixed traffic on arterials and freeways in the corridor. According to the 1990 Census “Journey to Work” data, approximately 36 percent of the transit riders go to/from the CBD and approximately 65 percent go to/from suburban locations. The Build Alternative (LRT) will introduce fixed guideway transit service into the corridor to increase the reliability of transit service, particularly for commuters to the Dallas CBD and Medical/Market Center.

4.1.1 Transit Levels of Service

Current bus transit service in the corridor operates in mixed traffic and carries approximately eight percent of the total travel demand in the corridor. High transit dependency in this corridor is offset by the limited availability of crosstown transit service, the dispersed locations of employment and population centers in the corridor, and the inability of the current transit service to provide meaningful travel time savings. The No-Build Alternative will retain bus operations in mixed traffic on freeways and arterials in the corridor.

The Build Alternative (LRT) will provide an exclusive guideway that will connect to the existing DART LRT system to provide increased mobility to origins and destinations throughout the DART service area. Table 4.1 summarizes the projected daily performance measures for the year 2025. The DART transit system will experience increased ridership, increased passenger miles, and increased passenger hours with the Build Alternative (LRT) compared to the No-Build Alternative. These levels of service measures are commonly used to assess transit system performance.

Table 4.1 Transit System Performance Measures

Performance Measure	Year 2025	
	No-Build	Build Alternative (LRT)
Unlinked Transit Trips (Daily)		
1) Local Bus	194,000	191,900
3) Fixed Guideway	97,400	131,900
4) Total	291,400	323,800
Linked Transit Trips (Daily)		
1) Total	187,500	198,900
2) Added Transit Riders	NA	11,400
Daily Passenger Miles		
1) Total	1,655,000	1,721,400
2) Percent Change	NA	4.0%
Daily Passenger Hours		
1) Total	78,800	79,800
2) Percent Change	NA	1.3%
Daily Passenger Trips		
1) Total	291,400	323,800
2) Percent Change	NA	11.1%

Source: DART, 2001

NA = Not Applicable

Total system-wide passenger miles are estimated to increase from 1.66 million to over 1.7 million daily miles, an increase of approximately four percent with the Build Alternative (LRT). Total system-wide transit ridership will increase by 11,400 riders per day for linked trips and increase by 32,400 trips daily for unlinked trips, an increase of approximately six percent for linked trips and 11 percent for unlinked trips, respectively, with the Build Alternative (LRT). Linked trips provide an estimate of the number of people who use the transit system, while unlinked trips provide a measure of the number of persons using each route or mode of travel. Total system-wide passenger hours increase from 78,800 to 79,800 hours, an increase of 1.3 percent. Total unlinked passenger trips, on the other hand, increase from 291,400 to 323,800, an increase of 11 percent. This trend indicates an increased system-wide efficiency resulting

from the Build Alternative (LRT), since there are more passengers traveling longer distances with reduced travel times (i.e., the increase in unlinked trips exceeds the increase in service hours needed to provide those trips). The Build Alternative (LRT) will improve system-wide efficiency by 2025.

4.1.1.1 Geographic Coverage

The No-Build Alternative will not expand the geographic coverage of transit service beyond the area traversed by the 18 bus routes currently operating in the study area. The level of bus service will increase as the population of the corridor increases; however, anticipated increases in traffic congestion will make the bus transit service with the No-Build Alternative less reliable, regardless of capacity or route expansion. Furthermore, increasing roadway congestion will require additional resources to maintain current frequency and span of service on the existing bus network.

The Build Alternative (LRT) will expand the geographic coverage of fixed guideway transit service from the downtown transit mall to the Buckner Station along rights-of-way formerly owned by Southern Pacific and Union Pacific railroads. This will allow a continuous, high speed transit service along an exclusive guideway with eight LRT stations. These stations will be located at Deep Ellum, Baylor, Fair Park, MLK Transit Center, Hatcher Street, Lawnview, Lake June Transit Center, and Buckner. A feeder bus system, as described in Chapter 2, will bring transit riders to the LRT stations. The feeder bus service will expand the geographic coverage of the LRT system far beyond the effective range of the No-Build Alternative throughout the Southeast Dallas/Pleasant Grove area.

4.1.1.2 Hours and Frequency of Service

The Build Alternative (LRT) will have a peak-hour headway of ten minutes and an off-peak headway of 20 minutes. The LRT vehicles are capable of a maximum operating speed of 65 miles per hour; however, average speeds are much lower. The vehicles will have an average low-level platform station dwell time of 20 seconds. Table 4.2 shows the station-to-station travel times for the Build Alternative (LRT).

Table 4.2 Travel Distances and Time

Station	Distance from Station to Station (Miles)	Estimated Travel Time (Minutes)
Dallas CBD		
To Good Latimer	0.37	5.00
To Baylor	0.24	3.25
To Parry	1.15	2.38
To MLK	0.55	1.13
To Hatcher	1.69	2.49
To Lawnview	1.25	1.84
To Lake June	3.15	4.51
To Buckner	1.80	2.57
Total	10.2	23.18

Source: DART, 2001

Generally, two-vehicle trains will operate most of the day, with three-vehicle trains during the peak period, and single-vehicle trains during the evening hours of low usage. The operating hours for the Build Alternative (LRT) are from 5:30 a.m. until 12:30 a.m., seven days a week. Peak hour service will be provided between 6:00 a.m. and 9:00 a.m. Monday through Friday, and afternoon peak hour service will be from 3:00 p.m. to 6:00 p.m. This schedule is the same as the current schedule for DART's LRT services in other corridors.

Fares for service within the definition of the Build Alternative (LRT) will follow the adopted DART policy of matching LRT fares to local bus fares. On November 26, 2002 the DART Board voted to increase transit fares by 25 percent. This fare increase will go into effect on March 1, 2003. Regular one-way bus and train fares will be \$1.25 and transfers to a second bus or rail route will require a \$2.50 Day Pass. Station parking will be free and no fare zone boundary will be in effect within the Southeast Corridor. Existing LRT users within the CBD pay a LRT fare of \$0.50; express bus routes have \$2.00 one-way fares. Trinity Railway Express passengers pay \$1.00 for each of the fare zones through which they travel. A variety of options including monthly passes, multiple ride tickets, and day passes are available for use on the DART LRT system, DART and Fort Worth Transportation Authority buses, and the Trinity Railway Express.

Use of the Trinity Railway Express to Fort Worth and Fort Worth Transportation Authority buses from the DART service area will require purchase of a three-zone fare.

Special Event Operations

Fair Park hosts numerous cultural, entertainment, and athletic events. During the 2000 Texas State Fair (a 24-day event), attendance was over 3.5 million people. The Southwestern Bell Cotton Bowl Classic attracts 72,000 fans. The total estimated attendance at Fair Park in 2000 was 7.4 million people. According to the Master Plan for Fair Park, with continued expansion, facilities construction and active promotion as a year-round destination, annual visitation should exceed eight million in the future.

Fair Park venues coordinate event traffic management and control with the City of Dallas Police and Public Works/Transportation departments and TxDOT. DART currently operates a “Fair Park Flyer” bus service during the State Fair and concerts at the Cotton Bowl. Persons attending events at Fair Park could use LRT to arrive at the Fair Park or MLK stations. Changes to the LRT and bus schedules will be made to accommodate major special events. Feeder buses and extended LRT schedules will be made available during special events. Fees for special event additional services will be adjusted accordingly.

4.1.1.3 Travel Times

The Build Alternative (LRT) will provide reduced travel times along the study corridor to the Dallas CBD. Table 4.3 shows the difference in average travel times between selected stations for the No-Build and Build Alternative (LRT). For transit riders destined to or from the Dallas CBD, the Build Alternative (LRT) will save 8.73 minutes from the MLK Station, 16.59 minutes from the Lawnview Station, and 18.7 minutes from the Buckner Station over the No-Build Alternative. The Build Alternative (LRT) will account for 1,793,549 hours annually in travel time savings.

Table 4.3 Travel Times from Select Origins and Destinations

To the Dallas CBD From:	Transit Travel Time (minutes)	
	No-Build	Build Alternative (LRT)
Baylor Station	14.01	8.25
MLK Transit Station	20.50	11.77
Lawnview Station	32.69	16.10
Buckner Station	41.88	23.18

Source: DART, 2001

4.1.1.4 Transfers

The Build Alternative (LRT) will both use the DART bus network to transfer riders to and from the LRT system. With the No-Build Alternative, transit patrons will use the DART bus system for trips within the corridor. For trips outside the corridor, patrons could transfer to other DART bus routes at the Lake June, MLK, or downtown transit centers. Passengers could also transfer to the LRT system at the downtown transit mall or the Ledbetter Station (Blue Line) or to the Trinity Railway Express at Union Station. The No-Build Alternative will require an average of 1.55 transfers daily.

With the Build Alternative (LRT), many transit riders will use the feeder bus network to the eight proposed LRT stations. For the Build Alternative (LRT), there will be a slight increase in transfers over the No-Build Alternative because the feeder bus network will supply a large number of the transit riders to the expanded LRT system. Many of those riders may also transfer between LRT lines to reach other destinations. The Build Alternative (LRT) will require an average of 1.63 transfers daily, a difference of 0.08 from the No-Build Alternative.

The predominant mode of access to the LRT system will vary by each LRT station; however, most of the LRT riders will transfer from feeder bus services. Approximately 22 percent of LRT riders will access the system by walking, 25 percent will drive to LRT stations, and 42 percent will use local bus service to access the Build Alternative (LRT) in 2025.

4.1.1.5 Reliability

The No-Build Alternative uses the DART bus transit system on the existing corridor roadways under mixed-traffic travel conditions. Therefore, the bus system in the No-Build Alternative will be subjected to similar travel speeds and delays resulting from peak hour congestion on the Southeast Corridor roadways, as shown in Table 1.8 in Chapter 1, page 1-17. Several of the major arterials and freeways from the study area to the Dallas CBD operate at volume to capacity (V/C) ratios meeting or exceeding the upper limit of 0.9, an indication that traffic conditions are unacceptable during the peak hour. By 2025, however, most arterial streets and freeways in the study corridor will see a reduction in the LOS with many operating at LOS F. Section 4.2 discusses existing and future LOS on roadways in the study area. As a result, the buses operating in the mixed traffic environment generally will have decreased reliability and increased travel times.

The Build Alternative (LRT) will operate on an exclusive guideway and will not be subjected to traffic and signal delays on the major thoroughfares between the Dallas CBD and the Buckner Station. The LRT vehicles will be coordinated with the traffic signals at all grade crossings to ensure few, if any, delays. As shown by the decreased travel times of the Build Alternative (LRT) compared to the No-Build Alternative in Section 4.1.1.3, the Build Alternative (LRT) will provide transit riders with a significantly more reliable transit service than the No-Build Alternative. This is also reflected in the projected increase in the number of system-wide transit riders after implementation of the Build Alternative (LRT).

4.1.1.6 Comfort

The proposed Build Alternative (LRT) will provide enhanced comfort and convenience for transit riders on the DART system as compared to the No-Build Alternative. The LRT system will provide transit service to passengers with conveniently located stations and air-conditioned light rail vehicles. The Build Alternative (LRT) will be fully accessible for mobility-impaired patrons and will enhance regional mobility for transit-dependent populations. Additionally, the Build Alternative (LRT) will operate within an exclusive guideway on continuously welded rail with fewer of the stop-and-go movements associated with conventional bus transit service. The No-Build Alternative will provide few enhancements to the comfort and convenience of transit service in the corridor.

4.1.2 Transit Ridership

The transit trips anticipated for each alternative were estimated in terms of either “linked” or “unlinked” passenger trips. The forecast of linked passenger trips includes all travel from the point of origin to the point of that final destination as a single trip, regardless of whether or not there was a transfer from one mode to another such as bus to rail. Therefore, the linked trip counts all of the individual segments of travel as a trip. The forecast of unlinked trips counts each segment of a trip on an individual mode as a separate trip, regardless of transfer (e.g. a bus ride and a transfer to the rail system to reach a given destination equals two unlinked trips). Linked trips provide an estimate of the number of people who use the transit system, while unlinked trips provide a measure of the number of persons using each route or mode of travel. Thus, for the following analysis of transit patronage, both linked and unlinked passenger trips are used to describe estimated 2025 ridership characteristics for each alternative.

4.1.2.1 Total Transit Riders

To determine the total system-wide transit ridership for each alternative, the forecast of unlinked transit trips in 2025 was developed using the NCTCOG travel demand model. These unlinked transit trips include ridership by mode including local bus, express bus, and LRT, as shown in Table 4.1. The projected total daily unlinked transit trips ranges from 290,900 for the No-Build Alternative to 323,800 for the Build Alternative (LRT). This represents an increase of 32,900 unlinked transit trips system-wide by 2025 from the Build Alternative (LRT).

4.1.2.2 Ridership

The forecast of ridership for the Build Alternative (LRT) includes passengers who will access the LRT system at stations from automobiles, walking, and from bus transfers. This estimate was developed using linked trips to count only those riders using the LRT system and to prevent double-counting. This is done by eliminating the effect on the total number of system riders to account for the net increase in system ridership. As shown as in Table 4.1, the resulting forecast of 2025 linked trips produced by the NCTCOG model indicates that the system-wide LRT ridership will increase from 187,900 with the No-Build Alternative to 198,900 for the Build Alternative (LRT). This shows that approximately 11,000 new daily passengers will use DART due to the implementation of the Southeast Corridor LRT system in 2025.

4.1.2.3 Station Volumes and Boardings/Alightings

The stations proposed for the Build Alternative (LRT) were selected due to their proximity to population and employment centers, existing and planned major transportation facilities, and ease of access by bus, car, or by walking. Table 4.4 shows the anticipated 2025 daily volumes of transit passengers at each of the Build Alternative (LRT) stations.

The stations outside the Dallas CBD are anticipated to have the greatest passenger volumes are Lake June and Buckner. However, it is anticipated that several stations such as the Deep Ellum, Baylor, Fair Park, and MLK could experience significant passenger volumes that are not in the travel model because it does not attempt to capture sporadic or infrequent special generator trips. However, it is important to note the addition of LRT service can change the nature of these special generators, changing sporadic and infrequent trips into more frequent and regular activity-based trips to new economic markets.

Table 4.4 Daily LRT Alternative Station Volumes in 2025

Station	Boardings	Alightings	Total Station Volume	Total Station Riders	Parking Demand
Dallas CBD	784	14,474	15,258	7,629	0
Deep Ellum	366	392	758	379	0
Baylor	1,131	993	2,124	1,062	0
Fair Park	762	608	1,370	685	0
MLK	2,250	439	2,689	1,345	148
Hatcher	3,295	342	3,637	1,819	0
Lawnview	3,083	235	3,318	1,659	352
Lake June	4,017	354	4,371	2,186	154
Buckner	4,347	489	4,836	2,418	626
Total	20,035	18,326	38,361	19,182	1,280

Source: DART, 2001

The West End is an example of a special generator whose function has changed since the addition of LRT service. The existing DART LRT lines helped reinforce the popular West End as an entertainment and restaurant district. Not only did LRT ridership exceed projections, sales by businesses within the West End also increased. LRT service allowed the West End to become a popular weekday lunch destination for downtown employees and new restaurants serving this market have emerged. While visitors frequented the area on weekend nights before LRT service was introduced, the area now serves as an entertainment destination on weeknights as well. LRT service has also attracted other venues such as the successful Dallas World Aquarium in downtown Dallas. Several stations in the study corridor may experience similar changes.

The Build Alternative (LRT) will connect existing LRT service to another downtown entertainment district, Deep Ellum. Deep Ellum is different from the West End in several aspects. Whereas the West End has emerged purely as an entertainment district, Deep Ellum is an urban neighborhood. The Deep Ellum entertainment district is surrounded by dense residential neighborhoods, restaurants, retail, and commercial areas. LRT service which allowed West End to further develop as a destination market and LRT service is likely to reinforce the Deep Ellum entertainment venues. In Deep Ellum, LRT service will also become an integral part of an urban mixed-use neighborhood. While it is difficult to quantify increases in recurring ridership at non-

traditional times, it is likely that ridership at the Deep Ellum and Baylor Stations may follow similar night and weekend ridership trends as those at the West End Station.

The Fair Park station will serve Fair Park. To the north of the station is a business district that resembles the downtown of a small town. South of the station lies the entrance to Fair Park. The economic and development potential of these areas is beginning to emerge with new loft apartments, retail, restaurants, and entertainment. The MLK Station will also serve Fair Park and the surrounding neighborhood. New LRT service will likely foster development of numerous vacant tracts and buildings near both the Fair Park and MLK stations, continuing the transformation of the area into a vibrant neighborhood. Moreover, the LRT line will bridge the neighborhoods on both sides of IH 30 with downtown, reconnecting these neighborhoods across man-made barriers. Fair Park currently contains numerous cultural venues and hosts frequent special events.

While the LRT service and Fair Park may mutually benefit from ridership and new access to events, it is likely that Fair Park's daily venues may be the greatest beneficiary of LRT service. The National Women's Museum, for example, may see an increase in visitors. Likewise, Fair Park as an urban park may become more accessible for the enjoyment of residents beyond its traditional event role. As stated previously, the attendance at Fair Park in 2000 was estimated at over 7.4 million people and expected to exceed eight million in the future. LRT service could make the park more accessible to thousands of residents who might not otherwise desire or have access to these events.

Special event generators do not produce trips on a regular weekday basis throughout the year. Because the NCTCOG regional travel model does not address special event generators due to their infrequent, sporadic scheduling, it is especially important to consider the special generator ridership due to the high number of special events. The level of accuracy of the regional forecasting model in predicting rail ridership to special generator locations is limited. The regional model is calibrated to predict average daily travel and not necessarily designed to handle special events. As a result, the regional model tends to underestimate transit ridership destined to locations hosting special events.

4.2 HIGHWAY AND ROADWAY IMPACTS

The study area boundaries are generally formed by IH 45 to the west, IH 30 and US 80 to the north, IH 20 to the south, and IH 635 to the east. The Build Alternative (LRT) will connect to the existing downtown transit mall just west of IH 45 and Bryan Street. The alignment will also cross under IH 30, west of Haskell Avenue. US 175 bisects the corridor and is the principal means of freeway access within the corridor. Loop 12 also bisects the corridor in both north-south and east-west sections. The junction of these two sections of Loop 12 is located at US 175. The roads and highways in the corridor are discussed in Sections 1.3.1 and 3.4.2.

Significant levels of congestion currently occur along IH 30 in the northern portion of the corridor, as shown in Figure 4.1. Level-of-service is a qualitative rating system for roadways based on operating conditions, with “A” being best and “F” worst. IH 45 serves largely intercity traffic; local traffic is served by South Central Expressway (a portion of US 175 and SH 310). Traffic must exit southbound South Central Expressway where it meets US 175, making a sharp turn toward the east. The Trinity Parkway is planned to intersect at this junction, allowing improvements to the current substandard roadway design and relieving congestion SH 352 and 2nd Avenue. However, even with proposed transportation improvements, increasing congestion is expected in the corridor. Figure 4.2 shows the LOS on area roadways based on improvements included in *Mobility 2025 Update*.

4.2.1 Regional Impacts

Regional travel patterns in the study area were derived from the NCTCOG Travel Demand Model and the 1990 Census Journey to Work data and are summarized in Table 4.5. In 1990, the commuters of the study area generated 91,493 home-based work (HBW) trips daily.

Table 4.5 1990 Census Journey to Work Data

Place of:		Using Transit		All Modes		Transit Usage
Residence	Work	Workers	Percentage	Workers	Percentage	
Southeast Corridor	Dallas CBD	1,374	28.3%	6,274	10.8%	21.9%
Southeast Corridor	Southeast Corridor	259	5.3%	8,352	14.3%	3.10%
Southeast Corridor	Other	3,214	66.3%	43,625	74.9%	7.37%
Total		4,847	100%	58,251	100%	8.32%
Dallas CBD	Southeast Corridor	0	0%	0	0%	0%
Southeast Corridor	Southeast Corridor	259	30.0%	8,352	25.1%	3.10%
Other	Southeast Corridor	603	70.0%	24,890	74.9%	2.42%
Total		862	100%	33,242	100%	2.59%

Source: 1990 Census Report, US Census Bureau

Figure 4.1 1995 Level of Service



Legend

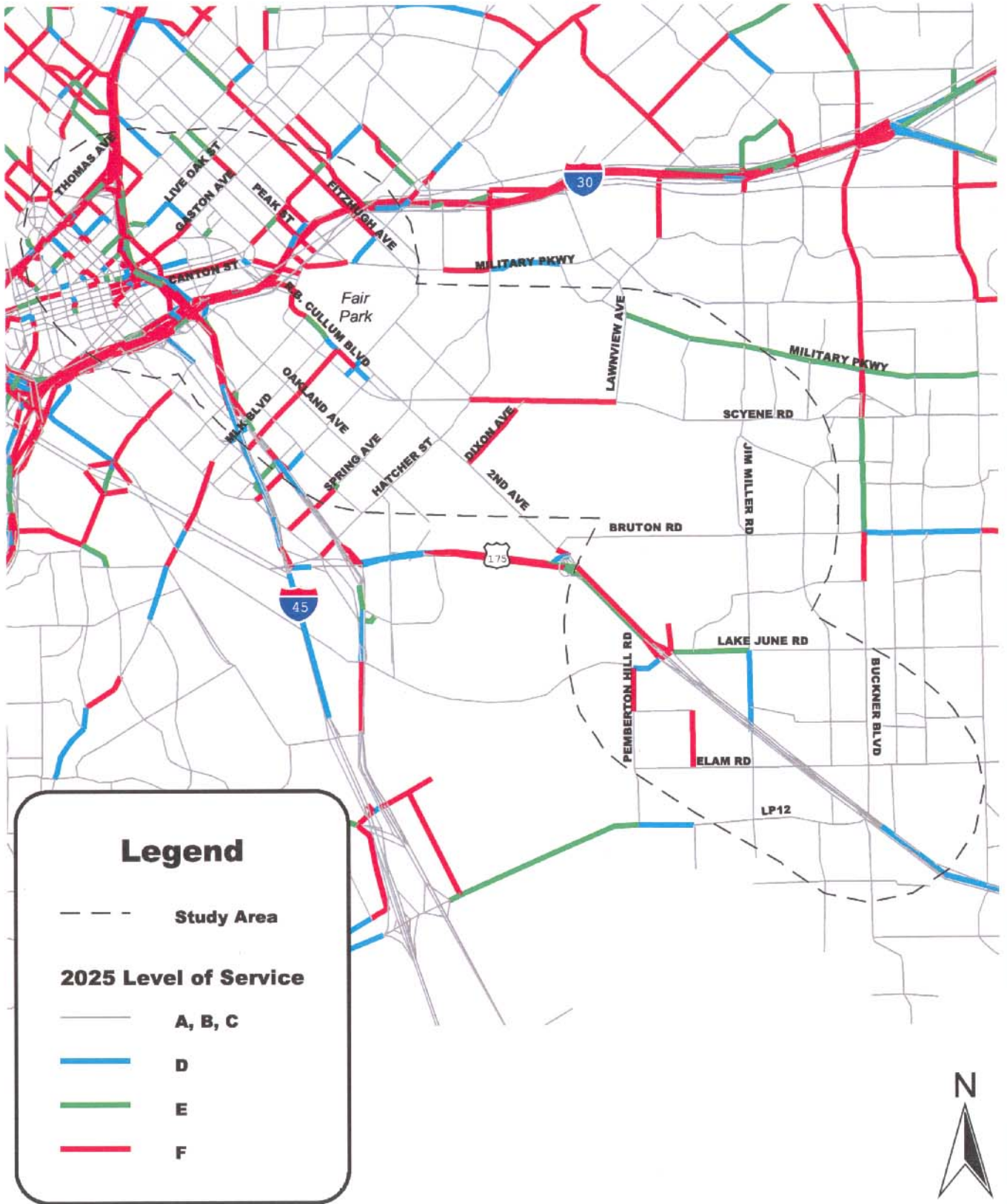
- Study Area
- 1995 Level of Service**
- A, B, C
- D
- E
- F



Source: NCTCOG



Figure 4.2 2025 Level of Service



Source: NCTCOG



This total number of trips includes both productions and attractions to and from sites within and outside the corridor. Of the 58,251 trip productions, 14 percent (8,352) were projected for locations within the corridor. This indicates that over 85 percent of the corridor's work force travels to areas outside of the corridor for employment purposes. Another 24,890 workers were attracted to locations within the corridor from areas outside the corridor. These patterns are expected to continue through 2025, except with additional traffic. Of the total number of workers, approximately six percent used public transit to reach their destinations. In 1990, 66 percent of the workers who used transit were bound for other areas outside the corridor or Dallas CBD, 28 percent were going to work in the Dallas CBD, and five percent were going to work within the Southeast Corridor study area.

The Build Alternative (LRT) is anticipated to have beneficial impacts to the regional transportation system by helping to reduce VMT, particularly compared to the No-Build Alternative. The Build Alternative (LRT) is anticipated to reduce VMT by 3,039,100 miles annually in 2025.

4.2.2 Local Impacts

The Build Alternative (LRT) will help lessen roadway congestion in the corridor. Some localized areas may experience limited increases in traffic congestion because of the introduction of gates at LRT grade crossings. The gates will create brief interruptions to the flow of traffic to allow for the safe crossing of LRT vehicles. These impacts are identified in the following sections. The addition of LRT service to Fair Park should result in significantly lower levels of congestion and higher attendance during major events.

4.2.2.1 Impacts on Roadways and Intersection Level of Service (LOS)

Freeway Impacts

The Build Alternative (LRT), park-and-ride lots, and feeder bus network will provide incentives for commuters to use transit and decrease auto travel on US 175 to the Dallas CBD. Table 4.6 shows the differences in average daily traffic (ADT) between the No-Build and the Build Alternative (LRT) in 2025 on US 175. The LOS on IH 45 in 1995 ranged from C to F and is projected to be LOS C to F in 2025. IH 30 currently operates at LOS F and despite planned improvements, is projected to operate at LOS F in 2025.

Table 4.6 2025 Roadway ADT for US 175

Location along US 175	No-Build Alternative (VPD)	Build Alternative (LRT) (VPD)	Change in Traffic Volumes (VPD)	Percent Change in Traffic Volumes (VPD)
Masters to St. Augustine	42,732	42,512	-220	-0.51%
St. Augustine to Prairie Creek	42,558	42,341	-217	-0.51%
Prairie Creek to Buckner Boulevard	43,014	42,784	-230	-0.53%
Buckner to Elam	41,451	40,950	-501	-1.21%
Elam to Jim Miller	37,844	37,345	-499	-1.32%
Jim Miller to Lake June	37,844	37,345	-499	-1.32%
Lake June to 2 nd Avenue	58,570	58,044	-526	-0.90%

Source: NCTCOG, DART

Major Arterial Impacts

Because of the growth in the study area, congestion delays are expected on many of the arterials even with the implementation of Build Alternative (LRT), as shown in Figures 4.1 and 4.2. The Build Alternative (LRT) will have minor benefits to arterial road system. The Build Alternative (LRT) will generally improve arterial traffic conditions in the study area compared to the No-Build Alternative.

Several arterials will serve as primary access roads to the LRT stations and park-and-ride lots, but no significant increases in ADT on these arterials is anticipated. In the Deep Ellum, Baylor, and Fair Park station areas, it is anticipated that roadway traffic will not increase around the stations because these are designed as destination and pedestrian stations with no parking. The MLK station, Lawnview, Lake June, and Buckner stations will include parking. However, MLK Boulevard, R.B. Cullum, Scyene Road, Lake June Road, and Buckner Boulevard currently are designed and operated as major arterials in the corridor.

At-Grade Crossings and Intersection Impacts

The Build Alternative (LRT) will use an existing railroad alignment and will cross several roadways in the corridor, as shown in Table 4.7. These roadways range in size from two-lane local streets to six-lane major arterials. A few roadways and freeways in the corridor are already grade-separated, including IH 45, IH 30, Bruton Road, and Lake June Road. A number of local streets will have at-grade crossings with the proposed Build Alternative (LRT). The light rail vehicles could create delays at the at-grade crossings because the railroad crossing gates will interrupt traffic flow, particularly during peak traffic periods. Bryan Street, Routh Street, Live Oak

Street, Florence Street, Swiss Avenue, and Gaston Avenue will include traffic signals and lights only and will not be gated. Eighteen streets, as listed on Table 4.7, will be closed as a result of the Build Alternative (LRT). These crossings will include provisions to permanently close the street, such as metal beam guard fences. Because no major roadway or intersection closures would be required to implement the Build Alternative (LRT), no school bus routes would be impacted.

The existing roadway in the area of each crossing was inventoried to identify lane configurations, queue storage capacities, and distances between intersections under study. The existing conditions were assumed to remain in place until 2025, except at locations where known improvements are planned. At these locations, the planned improvements were assumed to exist for the base case in 2025.

To assess the transportation impacts of the Build Alternative (LRT) on the local street network at the grade crossings and nearby intersections, a detailed analysis was conducted in accordance with Article IX “Traffic Mitigation Measures” of the Planning and Development Supplemental Agreement #1 to the DART/City of Dallas Interlocal Agreement (ILA). The DART/City of Dallas ILA outlines the analysis process to determine the level of impact caused by the proposed LRT Build Alternative on the individual existing street crossings. If one of two warrants are exceeded; (1) level of service or (2) queuing, then mitigation, such as a lane improvements or a light rail grade separation of the street crossing is required. The ILA also states the assessment of the LRT/street grade crossing “...ensures the presence of a mass transit fixed guideway light rail does not cause the level of service on streets adjacent to the rail line to drop two or more levels or cause the street to have a level of service of F.” If the street to be crossed by the proposed Build Alternative (LRT) currently has an existing level of service F, then mitigation such as a grade separation is not warranted. Thus, the introduction of LRT will not create a level of service F, because the condition will exist without LRT.

Table 4.7 Build Alternative (LRT) Crossings

Crossing Roadway	Number of Lanes	Existing Grade Separation?	Existing Crossing with Railroad?	Existing Control at Railroad Crossings	Proposed Control at LRT Crossing
IH 45	8	Yes	No	NA	Existing Grade-Separation
Bryan Street	4	No	No	NA	Gates, Lights, Signs
Routh/Good-Latimer Access Road	6	No	No	N/A	Gates, Lights, Signs
Live Oak Street	4	No	No	NA	Gates, Lights, Signs
Florence Street	2	No	No	NA	Gates, Lights, Signs
Swiss Avenue	2/4	No	No	NA	Gates, Lights, Signs
Gaston Avenue	4	No	No	NA	Gates, Lights, Signs
Good-Latimer Expressway	4	No	No	NA	Gates, Lights, Signs
Malcolm X Boulevard	4	No	Yes	None	Gates, Lights, Signs
Walton Street	2	No	Yes	None	Street Closure
Hall Street	4	No	Yes	Signs	Gates, Lights, Signs
Race Street	2	No	Yes	Signs	Street Closure
Fair Park Link (proposed)	4 (proposed)	No	No	None	Gates, Lights, Signs
Elm Street	2	No	Yes	Signs	Gates, Lights, Signs
Main Street	4	No	Yes	Lights & Signs	Gates, Lights, Signs
East Side Avenue N	2	No	Yes	None	Street Closure
East Side Avenue S	2	No	Yes	None	Gates, Lights, Signs
Willow Lane	2	No	Yes	None	Street Closure
GC & SF RR	N/A	No	Yes	None	Gates, Lights, Signs
IH 30	10	Yes	Yes	NA	Existing Grade-Separation
Ash Lane	2	No	Yes	None	Gates, Lights, Signs
Hill Avenue	2	No	No	N/A	Street Closure
Parry Avenue	6	No	Yes	Signs	Gates, Lights, Signs
Washington Avenue	2	No	No	N/A	Street Closure
First Street	2	No	No	N/A	Gates, Lights, Signs
Fair Park Access	2	No	No	N/A	Gates, Lights, Signs
R.B. Cullum (SH 352)	6	No	No	NA	Gates, Lights, Signs
Fourth Street	2	No	No	NA	Street Closure
Oak Lane	2	No	No	NA	Gates, Lights, Signs
Gunter Avenue	2	No	No	NA	Street Closure
Elihu Street	2	No	No	NA	Street Closure
Trunk Avenue	2	No	No	NA	Street Closure
Grand Avenue	4	No	Yes	None	Gates, Lights, Signs
South Boulevard	2	No	Yes	None	Street Closure
MLK Boulevard	6	No	Yes	None	Gates, Lights, Signs
Peabody Street	2	No	Yes	None	Street Closure
Pennsylvania Drive	4	No	Yes	None	Gates, Lights, Signs
Birmingham Avenue	2	No	Yes	None	Street Closure
Metropolitan Avenue	2	No	Yes	None	Gates, Lights, Signs
Borich Street/Tuskegee Street	2	No	Yes	None	Gates, Lights, Signs
Rutledge Street	2	No	Yes	None	Street Closure
Second Avenue	4	No	Yes	None	Gates, Lights, Signs
Pine Street	2	No	Yes	None	Gates, Lights, Signs
Reed Lane/Marshall Street	2	No	Yes	None	Street Closure
Carpenter Avenue	2	No	Yes	None	Street Closure

Crossing Roadway	Number of Lanes	Existing Grade Separation?	Existing Crossing with Railroad?	Existing Control at Railroad Crossings	Proposed Control at LRT Crossing
Bertrand Avenue	2	No	Yes	None	Street Closure
Driveway	2	No	Yes	None	Gates, Lights, Signs
York Street	2	No	No	N/A	Street Closure
Hatcher Street	6	No	Yes	None	Gates, Lights, Signs
Hancock Street	2	No	Yes	None	Gates, Lights, Signs
SP Railroad	N/A	No	Yes	Gates, Lights, Signs	Gates, Lights, Signs
Dixon Avenue	4	No	Yes	Signs	Gates, Lights, Signs
Entrance to Grover Keeton Golf Course	2	No	Yes	Lights & Signs	Gates, Lights, Signs
Bruton Road	6	Yes	Yes	NA	Existing Grade-Separation
Lake June Road	4	Yes	Yes	NA	Existing Grade-Separation
Jim Miller Road	6	No	Yes	Lights & Signs	Gates, Lights, Signs
Hillburn Drive	2	No	Yes	Signs	Gates, Lights, Signs
Elam Road	6	No	Yes	Gates, Lights, Signs	Gates, Lights, Signs

Source: Carter & Burgess, 2002

In accordance with the DART/City of Dallas ILA, a detailed analysis of 2025 street volumes, intersection capacity, and simulation of grade crossing movements of the Build Alternative (LRT) was performed. This analysis of the proposed LRT grade crossings began with the identification of study areas and development of projected 2025 peak hour traffic volumes. Turning movement volumes were developed for each study intersection for the morning and evening peak hours.

Traffic volumes that were collected in 1999 were projected to 2025 to simulate future conditions with and without the LRT system. The corridor was divided into three sections that included crossings between IH 45 and IH 30, between IH 30 and north of Bruton, and between Lake June and Buckner Boulevard. Growth rates were estimated for streets along the LRT Alignment. Growth rates were determined separately for north/south and east/west roads for each of the three sections using the 2025 roadway network. These growth rates were applied to the 1999 tube counts and turning movement counts and projected to the year 2025. The 2025 projected turning movement volumes were then compared with NCTCOG's capacity volumes, at 750 vehicles per hour per lane. Where the projected volumes were greater than the NCTCOG volumes for roadway capacity, the projected volumes were reduced to the limits of capacity for the roadway. These numbers were used in the detailed grade crossing analysis.

The initial queue analyses were conducted using the projected 2025. The following equation gives a reasonable estimate of the 95th percentile queue length. That is, queues that will not be

exceeded 95 percent of the time. The analysis indicated that the following crossings might experience operational difficulties with the LRT system under 2025 traffic conditions: Live Oak, Florence, Swiss, Malcolm X, Hall, Main, Parry, R.B. Cullum, Pennsylvania, 2nd Avenue, Hatcher, and Dixon.

Because the conservative preliminary queue analysis indicated that adjacent signalized intersections might experience operational problems with the Build Alternative (LRT), detailed analyses were conducted. This more detailed analysis focused on the impact the LRT system will have on these intersections. These proposed LRT crossings generally are within approximately 500 feet of a signalized intersection.

To analyze the anticipated conditions at intersections, the 2025 LOS was determined for the major grade crossings in the corridor. LOS is a qualitative measure describing the vehicle operating conditions at an intersection or segment of roadway during any given period. LOS is determined by the V/C ratio of a street or intersection and corresponding average vehicle delays. LOS A, B, and C generally are considered acceptable, and LOS D is often considered acceptable in more densely populated and traveled portions of various urban areas. LOS E represents traffic volumes close to full capacity of a street or intersection and resulting congestion and slow traffic. LOS F generally represents stop-and-go, near breakdown traffic conditions.

The detailed analyses determined the expected LOS and queue lengths in 2025 with and without the Build Alternative (LRT). Assumptions of the analysis included a traffic signal cycle length of 100 seconds, train headway of five minutes, and gate-down time of 50 seconds to provide a conservative analysis. The analyses incorporated four conditions for train arrival and averaged the results. The first condition simulated the train arriving at the initial point in the cycle where intersection queuing will be at a minimum. The remaining conditions offset train arrival by 25 percent, 50 percent, and 75 percent of cycle length to simulate train arrival during phases of the cycle where queuing will be more intense. Improvements were recommended where the analysis indicated operational problems might occur at the signalized intersections. The recommended improvement was analyzed as well to ensure adequate operation. The results of the analysis and recommended improvements are shown in Table 4.8. At intersections where the Build Alternative (LRT) will reduce the LOS, intersection improvements were considered.

Table 4.8 Roadway Improvements

Intersection	AM Peak LOS		PM Peak LOS		Intersection Improvements
	No-Build	Build Alternative (LRT)	No-Build	Build Alternative (LRT)	
Good-Latimer/Live Oak, Florence, and Swiss	F	F	F	F	None Required
Malcolm X Boulevard	B	C	C	D	None Required
Hall Street	B	C	B	B	Addition of a 200-foot right turn lane in northbound direction
Main Street	F	F	F	F	None Required
Parry Avenue	B	B	B	B	Modify one through lane to provide an exclusive right turn movement
R.B. Cullum/(SH 352)	A	A	A	A	Pending Coordination with the City of Dallas
Pennsylvania Avenue	B	C	F	F	None Required
Second Avenue	B	B	B	B	Addition of an eastbound right turn lane on Scyene
Hatcher Street	B	B	C	C	Addition of an eastbound right turn lane on Scyene
Dixon Street	B	A	D	D	Addition of an eastbound right turn lane on Scyene

Source: Carter & Burgess, 2001

The preliminary queue analysis indicated that the following crossings are not expected to experience operational difficulties with the Build Alternative (LRT) under 2025 traffic conditions: Gaston, Walton, Race, Elm, East Side (north), East Side (south), Willow, Parry, R.B. Cullum, Grand, South, Peabody, MLK, Metropolitan, Tuskegee, Rutledge, Pine, Marshall, Carpenter, Bertrand, Driveway east end of Bertrand, Hancock, entrance to Grover Keeton Park, Jim Miller, Hillburn, or Elam. Because the conservative preliminary queue analysis indicated there would not be operational problems at these grade crossings, the basic analysis focused on the operations at the crossings only and did not include adjacent intersections. These crossings generally do not have signalized intersections within approximately 500 feet. These crossings are expected to carry low traffic volumes, and the queues created by the proposed LRT will not impact adjacent intersections. For the R.B. Cullum crossing, DART is coordinating with the City of Dallas to improve traffic conditions at this complicated at-grade crossing.

In 2025, Live Oak, Florence, Swiss, Main, and Pennsylvania (p.m. only) will have a LOS F under the No-Build and Build Alternative (LRT). The Build Alternative (LRT) will not cause the poor LOS at these intersections. Based on the ILA previously mentioned, DART is not required to provide mitigation at intersections that are projected to be at LOS F without LRT. Therefore, no mitigation is proposed at these intersections.

The LOS for Malcolm X, Hall, and Pennsylvania (a.m. only) will be reduced by one level during at least one of the peak periods as a result of the Build Alternative (LRT) due to the interruption of the flow of traffic by lowering of the crossing gates to permit the safe crossing of the LRT vehicles. While this is a drop in LOS, it was determined that there will be no safety hazard or queuing problems at these grade crossings and the nearby intersections. The LOS for intersection at Dixon will improve by one level during at least one of the peak periods as a result of the Build Alternative (LRT). Improvements at this and nearby intersections as a result of the Build Alternative (LRT) will improve 2025 traffic conditions.

Local and Residential Streets

Eighteen residential streets will be closed as a result of the Build Alternative (LRT): Walton Street, Race Street, East Side Avenue N., Willow Lane, Hill Avenue, Washington Avenue, Fourth Street, Gunter Avenue, Elihu Street, Trunk Street, South Boulevard, Peabody Street, Birmingham Avenue, Rutledge Street, Reed Lane, Carpenter Avenue, Bertrand Avenue and York Avenue.

Walton Street will be closed south of the Build Alternative. Race Street will be closed on the west and east sides adjacent to the track with metal beam guard fence as a barrier. East Side Avenue N. will be closed on the west side of the track with a metal beam guard fence. The east side of the track will be closed at Washington Avenue. Willow Lane will be closed on the west side of the track with a metal beam guard fence, and eastside at Washington Avenue.

Hill Avenue will be closed on the north side with a metal beam guard fence and south side will close at Parry Avenue. Only one parcel will be affected, all other properties are accessed from Haskell Avenue. This residential parcel will still be accessible from Hill Avenue through Ash Lane.

Washington Avenue will be closed on the east side of the Build Alternative. Fourth Street will be closed on the west and east side of the Build Alternative. Gunter Avenue will be closed on the west side at Fourth Avenue, east side at Malta Street. An unpaved roadway within the DART owned railroad right-of-way along the SP RR (DART) from Gunter Street to Grand Avenue will also be closed. This roadway is not considered a City of Dallas street; it is an informal roadway. This roadway will be closed because the right-of-way will be used for the LRT alignment. At the

end of Elihu Street, a cul-de-sac will be constructed to prevent vehicles from accessing the SP RR (DART) right-of-way. No change in property access or traffic patterns will occur with the closing of this roadway.

Trunk Street will be closed at Grand. At South Boulevard, a new roadway will be constructed to connect South Street to Trezevant on the west side of the tracks. Peabody Street will be closed at Trunk Avenue. Birmingham will be closed south of the Build Alternative. Rutledge Street will be closed on the west side at Trunk Avenue. Reed Lane will be closed on the west side with a metal beam guard fence. Carpenter Avenue will be closed on the west side with a metal beam guard fence. Bertrand Avenue will be closed on the west side with a metal beam guard fence. York Avenue currently terminates west of the LRT alignment and will be closed using a metal beam guard fence which will separate the street from the LRT right-of-way.

Under Good-Latimer Option B, one additional street closing will be required. Swiss Avenue between the proposed new one-way roadway and Good-Latimer will be closed. All property with access to Swiss at this location will be purchased for the project. Properties west of Deep Ellum Station will have to access the Good-Latimer from Florence.

Street closures will not substantially impact access and traffic circulation. All street closures will be coordinated with the City of Dallas.

4.2.2.2 Transit Station/Park-and-Ride Lot Access

Several Build Alternative (LRT) stations will include park-and-ride facilities. These stations will include the MLK Transit Center with 208 parking spaces, 356 spaces will be available at the Lawnview Station, 474 spaces at the Lake June Transit Center, and 536 spaces at the Buckner Station with the room to add 105 more spaces, if needed. In addition to generating automobile traffic related to park-and-ride facilities, most stations will have bus traffic resulting from feeder bus service. There should be few, if any, station area access problems that will impact the surrounding road network LOS beyond those determined for the grade crossing analysis. The LRT stations and park-and-ride lots are not anticipated to have significant impacts to traffic flow on the roadways which will provide access for the feeder bus and automobile traffic to the Build Alternative (LRT). Below is a description of the vehicle access to be provided at each LRT station and park-and-ride lot.

- Deep Ellum Station – Access to the Deep Ellum Station, a destination station, will be restricted to pedestrians. Bus service will be provided on Gaston but no long-term parking.
- Baylor Station – Access to the Baylor Station will be provided from Malcolm X Boulevard and the CBD Fair Park Link near Junius but no long-term parking.
- Fair Park Station – Access to the Fair Park Station will be provided on Parry Street at Exposition for bus passengers and pedestrians but the station will not include parking.
- MLK Transit Center – Bus access to the MLK Transit Center will be provided from Martin Luther King, Jr. Boulevard along Fourth Avenue and Trunk Street. Auto access to the MLK Transit Center will be provided from Fourth Avenue and Trezevant Street.
- Hatcher Station – Bus access to the Hatcher Station will be provided from Scyene. No long-term parking will be available at this station.
- Lawnview Station – Bus and vehicle access to the Lawnview Station will be provided from a driveway at the intersection of Scyene and Lawnview.
- Lake June Transit Center – Bus and vehicle access to the Lake June Transit Center will be provided from Lake June Road at Gillette Street.
- Buckner Station – Access to the Buckner Station will be provided from Elam at Roland and Buckner at Kipling.

None of the proposed LRT stations and park-and-ride lots are anticipated to create traffic impacts on the access roads. If any impacts are identified during operations, changes will be made to signal timing and turn lanes where necessary.

The Deep Ellum, Baylor, Fair Park, and Hatcher stations will not include parking. These stations are considered destination stations and thus, parking will not be included in the station layout. Many transit riders who will use the Hatcher Station will probably walk to the station. A kiss-and-ride facility will also be available at the Baylor and Hatcher stations. Parking will be provided at the other LRT stations.

4.2.2.3 Safety Impacts

The Build Alternative (LRT) will improve safety in the study corridor primarily by improving pedestrian access to transit. The high transit ridership in the corridor remains underserved by pedestrian infrastructure. Pedestrian enhancements at LRT stations will include signalized

crosswalks, signage, lighting, and sidewalks. All new facilities will be accessible in accordance with the Americans with Disabilities Act of 1990 (ADA).

In accordance with DART Policy, fencing will be provided along the right-of-way in areas where the operating speed of the LRT will be 45 miles per hour or greater. Locations of fencing and other safety and security elements are discussed in Section 5.17 of this document.

4.2.2.4 Parking Impacts

Existing parking on DART-owned railroad right-of-way will be removed. JPI Properties and Dal-Tile entered into a lease agreement with DART for interim parking and was made aware of possible construction of LRT within the right-of-way. There are approximately 325 marked spaces south of the Gaston Yard Apartments within the area leased by JPI Properties.

Approximately 70 of these are near Good-Latimer and available free of charge. Another 195 of the 325 marked spaces are near Malcolm X Boulevard and used as a commercial parking lot. Near Dal-Tile, there are approximately 180 marked parking spaces within DART right-of-way that will be removed. This parking area is used by employees of Dal-Tile. Near Baylor, it appears that persons associated the construction at Baylor HCS and/or the CBD/Fair Park Link project are parking within the DART-owned right-of-way. Any illegal parking on DART right-of-way will also be eliminated.

In addition, several other areas currently used for parking will be acquired for the alignment or station. Approximately 25 percent of the parcel along Gaston Avenue, west of Good-Latimer is used for parking. The parking area contains 45 spaces but is not directly associated with a business or building. Good-Latimer Option A will eliminate 32 parking spaces from this lot while Good-Latimer Option B will eliminate all of the parking. Other parking areas will also be acquired but are directly associated with a business or residence that will also be acquired for the project; thereby, eliminating the purpose of the parking.

At Fair Park, the parking lot entrance near the National Women's Museum will be closed. The existing gates will be permanently locked and the entrance to the parking lot relocated to Haskell Avenue. The amount of parking spaces will not be reduced.

As described in Section 4.2.2.2, parking will be supplied at park-and-ride lots proposed at several transit stations. DART's policy of providing free parking should encourage transit

patrons to use the DART park-and-ride lots rather than parking on local streets or utilizing nearby accessory use parking.

The Build Alternative (LRT) will reduce the available parking in the study corridor near the Deep Ellum area and Dal-Tile. However, the majority of the parking being eliminated is within property owned by DART and leased to others for parking or persons illegally parking on DART owned property. The lease agreements DART established included language notifying the leasee of the use was temporary and the land could possibly be used for an LRT alignment.

4.2.2.5 Mitigation Measures

The Build Alternative (LRT) will operate within an exclusive right-of-way on a fixed guideway. Patrons who desire to park at stations will be encouraged to use those park-and-ride facilities. If off-site parking demand should develop around stations without parking, DART will work with the city and affected property owners to implement measures restricting transit patron parking at non-DART parking facilities during business hours or for long periods of time. In most cases, however, existing parking around proposed DART stations is already restricted to employee access or paid lots.

Anticipated roadway and grade crossing impacts will be localized and will be mitigated using engineering improvements such as changing signalization and other traffic engineering strategies. Proposed road closures would include mitigation measures which include metal beam guard fences to ensure safety. The addition of right turn lanes will be necessary at five intersections as shown in Table 4.7. Mitigation measures will be further refined during the final design stage of project development.

4.3 IMPACTS ON MOVEMENT OF FREIGHT

The Build Alternative (LRT) will operate on an exclusive right-of-way through the Southeast Corridor; therefore, the impacts to freight movements will be minor.

4.3.1 Freight Railroads

The existing DGNO shortline freight service to Dal-Tile will be maintained in the corridor. To avoid conflicts between freight and LRT service, a grade separated crossing is proposed over the UP RR main line. At the Lawnview, Lake June, and Buckner Stations, there will be a

dedicated freight only line south of the LRT platform. In each station, dedicated pedestrian crossings will be constructed across the freight track. The existing right-of-way width is sufficient to maintain the existing freight tracks and add two additional tracks for LRT service along the portion of the alignment where freight service must be maintained. Freight volumes are limited to several low speed movements each week, resulting in little to no interaction between the two operations. East of Hatcher, the freight and LRT tracks will cross five streets at-grade. Gates and signals will be provided at these shared crossings for use with both freight and LRT operations.

4.3.2 Trucking and Deliveries

Trucking and delivery movements through the Southeast Corridor will not be impacted by construction or operation of the Build Alternative (LRT). Several industries in the corridor receive large commodities by rail, and truck shipments generally access these industries from IH 30, IH 45, or US 175 and will not cross the LRT tracks. Under Good-Latimer Option A, truck access to properties near Good-Latimer and Gaston and into Deep Ellum will be significantly improved. With Good-Latimer Option B, truck access to properties near Good-Latimer and Gaston will be unchanged. The existing tunnel has limited horizontal and vertical clearance, which limits the size and type of trucks.

4.4 IMPACTS ON NON-MOTORIZED CIRCULATION

Pedestrian circulation facilities in the study corridor consist of sidewalks adjacent to area streets. Specific pedestrian circulation system elements have not been developed by the City of Dallas. The Build Alternative (LRT) will include provisions for perimeter sidewalks and internal walkways at each station, complementing any existing sidewalks and providing direct pedestrian access to each station.

Three stations are well served by existing sidewalks outside the station areas: including Deep Ellum, Baylor, and Fair Park. All three of these stations are expected to generate significant pedestrian activity related to daily ridership and events. Passengers will access these stations primarily from connecting bus routes and as kiss-and-ride passengers. Areas outside other stations have limited sidewalk availability, and the Lake June Transit Center is largely isolated from the surrounding auto-oriented land uses. Good-Latimer Option A will provide better pedestrian access from the surrounding area than Option B.

While walkways will be provided within the DART LRT station sites, some of the areas around the stations lack sidewalks. For adjacent sites, this should pose little difficulty as direct access to the sites is generally available from the transit system. For more remote locations, patrons will likely use the buses serving each station to make the final link in their trips.

Though currently there are no formal trails or paths from the neighborhoods to Grover Keeton Park and Gateway Park, residents have indicated that an unimproved gravel driveway from Scyene to a storage/maintenance area north of Grover Keeton Park is used for pedestrian access into the parks and several other informal crossings of the railroad.

Although the City of Dallas has no formal master plan for Lower White Rock or Devon-Anderson parks, the classification the Park Department has assigned to the property governs the use and potential use. The park area is classified as "Conservancy/Linkage," a National Park and Recreation Association (NPRA) recognized classification. The NPRA definition is the protection and management of the natural/cultural environment and use for passive recreation. Recreation use might include viewing and studying of nature/wildlife habitat and nature trails. NPRA does not have any specific acreage or size standards for this classification other than they should be sufficient to protect the resource and provide appropriate usage.

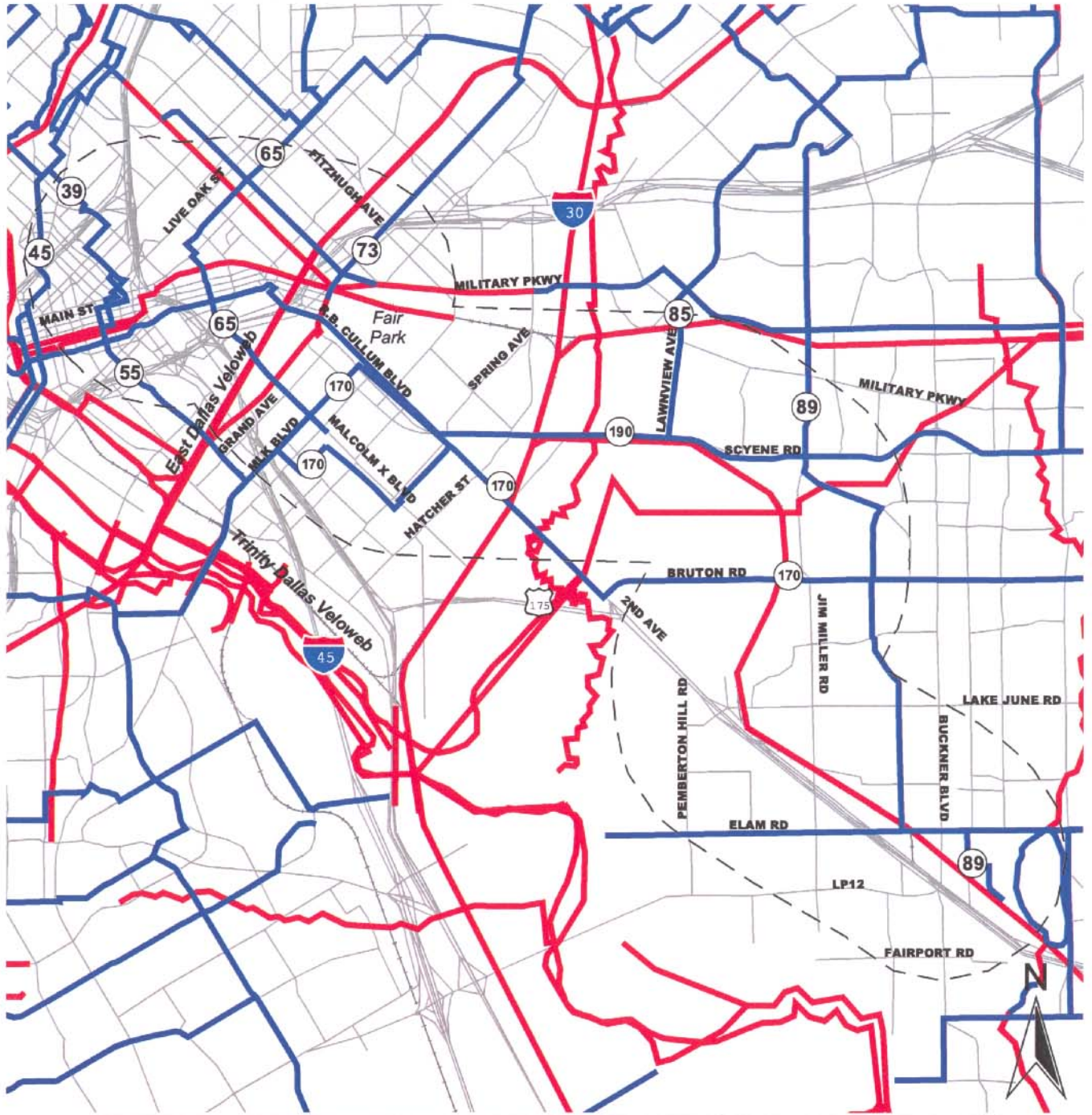
The introduction of safety fencing in areas near Grover Keeton Park, Gateway Park, Lower White Rock Creek Greenbelt, and Devon-Anderson Park where informal crossings of the alignment may be located would impact the ability of persons to cross the alignment at will. Except for the access road to the maintenance area and Grover Keeton Road, there are no licensed or authorized crossings of the railroad between the parks. To accommodate access between and into parks along the alignment, three crossings will be included to provide recreational and maintenance access. Two will be at-grade and one under the LRT. The at-grade crossings at the Grover Keeton Road and the improved gravel driveway from Scyene to a storage/maintenance area north of Grover Keeton Park will remain. A pedestrian under crossing just south of Bruton Road along the creek crossing will be added. The LRT bridge over the stream will be widened and a bench created to provide an informal, natural passage under the LRT. These crossings have been sited at locations consistent with DART's safety and design policies.

Existing bicycle routes are shown in Figure 4.3. Plans for bicycle circulation facilities have developed by the City of Dallas and NCTCOG as part of the regional veloweb. The LRT system will cross bicycle route 65 near the Baylor station where the bike route crosses the existing railroad right-of-way on Oakland Street. Bicycle route 65 continues north along Swiss, Matilda, and Fair Oaks and terminates just south of the transit station. Bicycle route 73 begins at the Fair Park station and continues north along Lindsey, Westshore, and Sperry to White Rock Creek Trail. From West Dallas, bicycle route 190 crosses downtown to 2nd Avenue, where it crosses the LRT Alignment just east of the Fair Park Station. Bicycle route 190 continues along 2nd and Scyene parallel to the LRT Alignment passing the MLK, Hatcher Street, and Lawnview Stations.

Bicycle route 85 begins at the Lawnview Station, running north along the east side of White Rock Lake to the vicinity of Audelia and IH 635. Route 170 runs from Southwest Dallas to Southeast Dallas crossing the proposed LRT Alignment only at Bruton, the location of an existing grade separation over the LRT Alignment. Route 170 also runs near the Hatcher Street Station. An alternate routing for bicycle route 170 will cross the alignment at Scyene and R.B. Cullum and at Forest near the MLK Transit Center. Route 89 runs north from Samuel-Elam/Crawford Park to Plano Road/IH 635 through East Dallas. A small portion of Route 89 crosses the existing freight track twice near Hillburn and Elam near the Buckner Station. Bicycle routes 39 and 45 cross existing LRT tracks on the transit mall in the CBD where the Build Alternative (LRT) connects to the existing LRT system.

All of the bikeway crossings are associated with streets and will be given the same crossing warning devices as those streets. No parallel bike trail within the LRT right-of-way is proposed. Where appropriate, DART will provide bicycle racks or lockers at LRT stations. In addition to existing bicycle routes maintained by the City of Dallas and planned by NCTCOG, the City of Dallas has proposed a series of bicycle trails along the Trinity River in southeast Dallas. These trails will provide extensive coverage of this area of the city but will generally lie some distance to the south of the Build Alternative (LRT). None of these trails will cross the Build Alternative (LRT); however, these trails offer the opportunity to connect bicycle commuters to the LRT system via connecting trails maintained by the City of Dallas and planned by NCTCOG.

Figure 4.3 Existing/Future Bicycle Routes



Legend							
	Study Corridor		Existing Bicycle Routes		Future Bicycle Routes		Existing Railroads
	Bicycle Route Number						

Source: NCTCOG



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CHAPTER 5 - ENVIRONMENTAL CONSEQUENCES

This chapter presents the potential environmental consequences of the transportation alternatives being considered for the Southeast Corridor. Environmental consequences for the Build Alternative (LRT) have been compared to the No-Build Alternative. Descriptions of both the No-Build Alternative and the Build Alternative (LRT) are contained in Chapter 2. For the purposes of evaluation, the area within one mile of the Build Alternative (LRT) has been defined as the study corridor.

5.1 LAND USE IMPACTS

The analysis of potential land use impacts relies upon an understanding of the relationships between existing land uses, established policies and regulations, and market conditions. In addition, land use is closely tied to the availability and efficiency of infrastructure and public services in the community, including transportation. Therefore, the extent to which each alternative enhances transportation availability, efficiency, and capacity will in part determine the type, nature, and magnitude of its land use impacts.

The alternatives under consideration will have varying impacts on land use in the study corridor. Introduction of a major infrastructure investment in the corridor will enhance the value of many of the properties that can benefit from the new service that will be provided. The benefits to the corridor will be realized through improved mobility and reduced travel time within the corridor and throughout the DART service area.

TEA-21 places emphasis on a project's effect on land use. TEA-21 has given support and momentum to the integration of major transit developments with existing and future land use policies and development actions. Therefore, the effectiveness of an alternative will be dependent upon the successful integration of the transit elements with both existing and future development in the corridor.

5.1.1 Regional Land Use and Development Impacts

With issues such as rapid population and employment growth and a disproportionate growth in VMT, the region faces continuing, worsening air quality and congestion problems and a funding shortfall for maintenance and expansion of the roadway system. These issues have led the region, through the NCTCOG, to adopt policies supporting sustainable development.

NCTCOG's *Mobility 2025 Update* addresses sustainable development: strategic urban development, integrated land use planning/urban design, transit oriented development, and access management.

At the regional level, NCTCOG has established "Sustainable Development" policies for both "Regional Action Steps" and "Local Action Steps." Two of the ten "Regional Action Steps" related to transit include supporting service providers in areas with recommended rail service and expediting rail projects. Two of the five "Local Action Steps" focused on transit are developing activity/transit area station plans and targeting capital investments in infrastructure around mixed-use activity centers/transit stations.

No-Build Alternative

The No-Build Alternative would have no effect on regional land use and development. This alternative would not support policies for sustainable development developed by NCTCOG. Existing land development patterns, dominated by suburban development would continue.

Build Alternative (LRT)

Although the Build Alternative (LRT) may shift some types of new development and redevelopment from outlying areas to transit station areas, the Build Alternative (LRT) is not expected to have a major impact on regional development, as a whole. Several companies have located major corporate offices in Dallas, citing the availability of light rail as one of many factors influencing these decisions. Investment in real estate and property values around existing LRT stations has increased, indicating greater demand for transit-oriented development where transit facilities exist. Expansion of the light rail system should improve quality of life and mobility for residents, allowing the region to be attractive to companies considering to locate within the region. As the Southeast Corridor Build Alternative (LRT) and other LRT lines and expansions are built, it is expected that LRT and other regional transit and land use initiatives will increasingly shape the region's development. The Build Alternative (LRT) supports the policies for sustainable development as outlined by NCTCOG.

5.1.2 Corridor-Level Land Use and Development Impacts

There is great variety in the types of land uses in the study corridor. Residences and office developments are within walking distance of many proposed station sites. Most development,

however, is suburban in character. Population and job growth in much of the study corridor has remained static and is not projected to increase through 2025. Therefore, market conditions for major land use changes may not be present throughout a large portion of the corridor.

However, the northwestern portion of the corridor near the Dallas CBD includes an urban commercial and industrial district that has been rapidly redeveloping over the last ten years. In this area, there is already demonstrated significant market demand for new housing, retail, and office space. Some of the development in the Deep Ellum and Fair Park areas appears to be occurring in anticipation of LRT service.

Population, employment, and the price of housing and commercial space in other rail corridors has been increasing dramatically. Likewise, there is demand for new types of development that is pedestrian-oriented and enhances access to LRT stations. This development has occurred primarily in central Dallas along the DART LRT Starter System rail transit lines, but most suburban cities are planning aggressive new pedestrian-oriented town centers along the rail transit lines that will open over the next ten years.

Such growth in residential, office, and retail development can be seen near three proposed stations: Deep Ellum, Baylor, and Fair Park. Other portions of the Southeast Corridor present opportunities for additional affordable housing and enhanced access to jobs. Several community-based organizations such as Habitat for Humanity and Intercity Community Development Corporation have on-going in-fill housing programs. Development of new single-family residential housing in the Pleasant Grove area occupies some of the last remaining large in-fill tracts available, providing new housing below the average market rate found in the region.

No-Build Alternative

With the No-Build Alternative, current land use trends in the study area would most likely continue. This would mean limited opportunities for dense, urban development in the existing pattern of low-density suburban development that dominates the corridor. The areas around Deep Ellum and Baylor stations include historic, pedestrian-oriented commercial areas. Areas around the Deep Ellum and Baylor stations are in active redevelopment and include housing, retail, restaurants, entertainment, and offices. Population and employment densities around these stations could support a high level of transit ridership. The areas around the Fair Park

Station have begun to emerge as a historic, pedestrian-oriented area but have been slow to develop. Areas around the remaining stations would likely continue slower growth of low-density residential and commercial development, while retaining existing industrial development. The No-Build Alternative would not include the transportation infrastructure needed to focus development into more transportation-efficient patterns that included high densities and mixed uses. The No-Build Alternative would not increase demand for in-fill development in the corridor.

Build Alternative (LRT)

The presence of a major and highly accessible transit service will have long-term impacts on the distribution and density of land uses in the area. The land use effects of the Build Alternative (LRT) will attract new development, employment, and residents into the corridor. This anticipated development might otherwise locate to a corridor where land development patterns do not support transit, resulting in increased traffic congestion in the region. The Build Alternative (LRT) will introduce fixed LRT station facilities and services. These facilities and services will stimulate and attract development that depends on long-term, stable transportation services. The impact that stations have on adjacent, existing land use characteristics will be dependent on market forces occurring near the station and the land use controls in place to guide development and redevelopment. Transit stations or transit centers are not expected to create new markets, but serve as catalysts and focal points for development and redevelopment that would, without the transit investment occur elsewhere in the region.

Recent experience along other DART light rail lines indicates that developers have been willing to invest in higher density, transit-oriented development near light rail stations. Land use controls, market trends, and patterns of land ownership near many of the proposed stations in the study corridor are favorable to development or redevelopment. The flow of transit users into the areas around stations presents a potential market for various commercial interests. Over the long-term, economic interaction between station areas can establish stronger nodal development opportunities and strengthen the economic basis of the study corridor. Proposed transportation improvements are to be expected to reduce travel times and even travel distances, if land use patterns respond to the availability of high-capacity transit services. A major transit investment will be viewed as having a positive impact on land uses and property values. Land use and area development decisions will be influenced by LRT. The most influential land use component of the Build Alternative (LRT) is the number of stations, which will

be the focus of transit user activity. The City of Dallas is currently beginning a Station Area Planning process for the Good Latimer, Baylor, and MLK Stations. The purpose of the study is to develop transit responsive land uses around these stations, which have the highest economic development potential. The study will lead to modification of land use plans and zoning if the community supports the revised plans.

5.1.3 Consistency with Land Use Plans

An evaluation of land use was performed to determine the consistency of each alternative with the local land use plans and policies. As described in Section 3.1.3, the City of Dallas has implemented its *Growth Policy Plan* as a long-range planning tool. This plan calls for the preparation of station area plans to address the linkage of DART stations to employment centers and residential areas, site layout and design (including access improvements, urban design features and impact mitigation measures), and where appropriate, development policies such as density bonuses necessary to support higher levels of development.

No-Build Alternative

The No-Build Alternative would not be consistent with the City of Dallas' *Growth Policy Plan* because it would not support the recommended increased development potential of the corridor.

Build Alternative (LRT)

The Build Alternative (LRT) will be consistent with the City of Dallas' *Growth Policy Plan* because it will capitalize on the development potential stimulated by LRT stations. The *Growth Policy Plan* acknowledges that increased density and height is appropriate near many stations but may be inappropriate for others, such as those in residential areas. Areas of higher development intensity, or "growth nodes," include mid- and high-density residential and/or commercial and industrial development. Furthermore, development around LRT stations in low-density residential areas should not encourage incompatible commercial development.

5.1.4 Neighborhood Integrity

This assessment of transportation impacts on neighborhoods focuses on the physical integrity of the neighborhood and community cohesion.

5.1.4.1 Neighborhoods

Neighborhood integrity generally refers to sustaining the physical boundaries of an area defined by an identifiable set of common values, features, or characteristics.

No-Build Alternative

The No-Build Alternative would impose no additional barriers to social interaction or community functions. However, the No-Build Alternative would not increase mobility or decrease traffic congestion, especially near Fair Park during major events, thereby reducing the quality of life of the nearby neighborhoods.

Build Alternative (LRT)

Build Alternative (LRT) will serve all of the neighborhoods identified in Section 3.2.2 to varying degrees. Because the alignment uses former railroad rights-of-way through residential areas, it does not introduce a new boundary between neighborhoods, but reinforces an existing boundary that pre-dates the development of the adjacent neighborhoods. While the operational characteristics of the alignment will change with the introduction of LRT service, the alignment already forms a defined rail corridor separating adjacent neighborhoods. New safety fencing will be placed along both sides of the LRT right-of-way in areas where the trains will operate in excess of 45 miles per hour. The locations of safety fencing are discussed in Section 5.17 Safety and Security of this EIS. Fencing will be designed to formalize pedestrian crossings rather than to prohibit access. The placement of safety fencing and the increased frequency of rail operations associated with LRT service are not expected to result in adverse impacts related to neighborhood integrity or social interaction.

5.1.4.2 Community Cohesion

Community cohesion generally refers to the perceived unity of an area, which often is based on the day-to-day interaction of the area's residents.

No-Build Alternative

The No-Build Alternative represents a "status quo" position with respect to the overall social, economic, and environmental setting of the neighborhoods in the study corridor.

Build Alternative (LRT)

Build Alternative (LRT) will concentrate travel along the alignment. Concentrating trips along the LRT alignment will alter the pattern of social and economic interaction within the study corridor. The LRT stations will become focal points of transit travel in the study corridor. The increased accessibility of the station areas will introduce a new activity center to the surrounding communities, but it will not impede the existing day-to-day interactions of study area residents.

5.1.5 Station Vicinity Impacts on Land Use

This section describes the land use impacts near the stations as a result of the alternatives.

No-Build Alternative

The No-Build Alternative represents a “status quo” position in terms of land use. The Lake June Transit Center opened February 2002 and the MLK Transit Center is being designed. However, most of the land uses in these areas would likely not change as a result of the transit centers.

Build Alternative (LRT)

Both direct and indirect effects to land use near the stations will occur with the implementation of the Build Alternative (LRT). Direct effects will occur in relation to acquisitions and displacements resulting from the construction of LRT stations and related access facilities (i.e., bus bays, park-and-ride lots), which are discussed in detail in Section 5.3 and Section 4.2.2.2, respectively. Indirect effects will occur as land development or redevelopment actions take place in response to the presence and availability of LRT service. Direct effects on land use are readily identified with the station location. Indirect effects on land use generally can only be defined through assumptions about the capacity for change; generally, these effects are assumed to occur within 1,500 feet of the station. In most cases, the Build Alternative (LRT) will support the existing land use or land use changes currently going on or planned in the study corridor. The following describes the potential effects near each station.

Deep Ellum Station: The area around this station was once fully developed and served primarily as a warehouse and industrial district. The area fell into decline for decades. Renewed interest in the area has led to redevelopment of these warehouses into lofts, retail, and office space. The proximity to downtown, Baylor HCS, and the emergence of Deep Ellum as a popular entertainment district have been a catalyst for growth in this area. Several historic buildings

have been rehabilitated and most vacant buildings and lands in the immediate area of the station are already in various stages of planning and development. The popularity of this area has attracted recent development as well as the possibility of LRT service. It is likely that this area will be fully redeveloped as a pedestrian-oriented, mixed use neighborhood within several years after completion of the Build Alternative (LRT). The Build Alternative (LRT) will support the changes in land uses that are occurring in this area.

Good-Latimer Option A will require the minor acquisition of some properties. This option will require the tunnel at Good-Latimer and Gaston to be filled in. Good-Latimer will be raised to intersect Gaston at-grade. By doing this, the station area and surrounding properties will have increased access by transit and automobile providing incentives for development fronting the intersection. Because of increased access and visibility, this option will be more favorable to mixed-use development and land uses anticipated around an urban LRT station. Good-Latimer Option B would require acquisition of property, including approximately eight residences and seven businesses. Access to the station area and adjacent properties would be limited near Good-Latimer and Gaston, as it is today.

Baylor Station: The area around this station was once fully developed, primarily as a warehouse and industrial district. The main entrance to Baylor HCS Hospital is within two blocks of the station and a new Cardiovascular Center is under construction across the street from the proposed station. This station will provide increased accessibility of the Baylor HCS complex.

Development of this station will require acquisition of three vacant properties. Much of the property has been altered by the CBD/Fair Park connector roadway project. Several buildings near the station have been rehabilitated into retail and lofts. Significant demand for housing in this area has led to development of condominiums, lofts, and numerous apartment buildings. Vacant land adjacent to the station is already under construction and development as lofts due to the popularity of this area. It is likely that this area will be fully redeveloped as a pedestrian-oriented, mixed use neighborhood within several years after completion of the Build Alternative (LRT). The Build Alternative (LRT) will support the changes in land uses that are occurring in this area.

Fair Park: Some redevelopment improvements have been made west of Fair Park. Renewed interest in the area has led to some redevelopment of the buildings and warehouses into lofts,

retail, and office space. This station entrance to Fair Park is at the historic ceremonial entrance leading to the main esplanade of the park. The station will recreate the historical main entrance, which had a trolley station in the 1930's. The Music Hall and National Women's Museum are located at either end of the station. Inside Fair Park, many buildings have been renovated. The Build Alternative (LRT) could be the catalyst both for the neighborhood and for the underutilized public facilities at Fair Park. The Build Alternative (LRT) will support the land use changes that are already occurring in the area and encourage a pedestrian-oriented, mixed-use neighborhood.

MLK Station: The area around the MLK Station has seen little new development until the last several years. Once a single-family residential neighborhood characterized by bungalow-style homes, apartments were later developed on some lots. Many lots are now vacant, and the commercial corridors have emerged as auto-oriented fast food and retail. The recent addition of a bank, a grocery store, and other retail uses to the area are indicators of renewed interest in commercial development in the area.

The local community has identified the area as a commercial redevelopment zone, which will be addressed in the Station Area Plan being studied by the City of Dallas. However, the community is concerned about losing their neighborhood to commercial and retail development. Land use changes in the area could occur because of the Build Alternative (LRT) but should be carefully planned to serve and maintain the integrity of the neighborhood.

Hatcher Station: The area around the Hatcher Station is a mix of single-family residential and light industrial uses. This area is fully developed as low-density residential. To minimize the displacement of the homes and avoid displacing one of the few opportunities for skilled employment available to residents in that area, a station alternative was developed that included the LRT station without a parking facility. This station alternative will maintain service to the transit-dependent neighborhood and provide access to employment opportunities without an impact on existing land uses. Because the area is already developed, few land use changes or redevelopment opportunities are likely at this station.

Lawnview Station: The area around the Lawnview Station includes single-family residential to the northeast, an elementary school to the northwest, and automobile-related businesses at the site of the LRT station. The transit station and related facilities will be separated from the school

and the residential neighborhood by Scyene Road, a major high-speed, high-capacity arterial. Scyene, along with the existing railroad, serves as both a buffer and a barrier to the existing land uses. The Lawnview Station will primarily serve as a park-and-ride commuter station. The transit station will remove several businesses. The existing businesses, which include a salvage yard, are not supportive of transit and are inconsistent with the surrounding residential and educational land uses.

Lake June Station: The Lake June Transit Center, approved as a stand-alone facility separate from the LRT alignment, opened February 2002. This facility includes a major bus transit center and a park-and-ride lot; the Build Alternative (LRT) includes only the addition of the LRT platform adjacent to the bus transit center. Therefore, the LRT station will only enhance operations of the transit center which, as a stand-alone facility, serves as a major bus transfer and park-and-ride facility. Land uses adjacent to the Lake June Transit Center are primarily commercial. Across Lake June Road, lies a single-family neighborhood. Along the Build Alternative (LRT) alignment, the businesses are primarily auto-oriented and are located along the frontage road of US 175. Most of the land uses will likely not change as a result of the Build Alternative (LRT). The commercial area could become more retail oriented to serve transit patrons.

Buckner Station: The Buckner Station will be the terminal station on the Build Alternative (LRT). This station includes parking, a bus transit center, and the LRT station. Automotive, retail, and industrial land uses dominate station area land uses at this location. Single-family residential land uses are north of the station. In the long-term, some land uses may transition to transit-oriented development or, at a minimum, business uses that cater to transit patrons. DART encourages the development of transit supported land uses around DART LRT station. DART has initiated discussion with the development community in order to facilitate appropriate transit supportive projects. DART also works with the City of Dallas to advocate proper zoning so that projects that encourage both transit ridership and economic development are implemented. DART offers education and information to member cities as well as the development community about transit supportive/oriented development and guidance regarding the implementation of these projects.

5.2 SOCIAL IMPACTS

The alternatives under consideration will have varying social impacts in the study corridor. Providing essential services for transportation-disadvantaged residents has always been a primary national and local concern. Effects or impacts on the transportation-disadvantaged population are, therefore, of particular interest. This group includes low-income households, persons/households without automobiles, minorities, elderly, young, and mobility-impaired individuals. As shown in Table 5.1, when compared to the whole of Dallas County, the study corridor includes a significant percentage of transportation-disadvantaged people based on those above the age 65, those under 18, households without an automobile, and those below the poverty level.

Table 5.1 Transportation-Disadvantaged Persons

Transportation-Disadvantaged Persons	Dallas County		Study Area	
	Population	Percent	Population	Percent
Poverty	245,395	13.24%	26,629	35.34%
Under 18	520,448	28.09%	23,619	31.34%
Over 64	99,108	5.35%	6,221	8.26%
Households with No Vehicle	57,073	8.11%	7,516	16.36%
Median Household Income	\$31,605		\$15,832	
Median Age	27		32	

Source: 1990 Census Report, U.S. Census Bureau

According to the 1990 Census, 16.36 percent of the households within the study area do not own a vehicle, almost two times more than the percentage for Dallas County. The majority of the households within the study corridor that are without a vehicle are located west of Dixon. In Dallas County, only 8 percent of the households do not own a vehicle. As previously shown in Table 1.1, page 1-7, 7.67 percent of the population in the study area relies on public transit as means of transportation to work, compared to only 4.33 percent for Dallas County relies. Conversely, the corridor provides limited job opportunities, in terms of both existing jobs and projected job growth. Table 5.2 shows a comparison of employment to population in Dallas County, City of Dallas, and the study area. The study area is well below the county and city with respect to employment opportunities. In 2025, it is estimated that there will be 30 jobs per 100 persons within the study area. In 2025, the City of Dallas is projected to have 70 jobs available per 100 persons and Dallas County will have almost 73 jobs available per 100 persons.

Table 5.2 1990 and 2025 Employment versus Population

Area	Employment from NCTCOG*		Population from NCTCOG*		Employment to Population Ratio	
	1990	2025	1990	2025	1990	2025
City of Dallas	865,280	1,320,101	1,112,406	1,897,498	77.8 jobs per 100 persons	69.6 jobs per 100 persons
Study Area	109,568	183,616	250,052	619,614	43.8 jobs per 100 persons	29.6 jobs per 100 persons
Dallas County	1,249,953	2,057,457	1,761,971	2,804,607	70.9 jobs per 100 persons	73.4 jobs per 100 persons

Source: NCTCOG Demographic Forecast Information

Note: The 2025 population estimates are based on the NCTCOG Traffic Analysis Zones which are different from the census tracts in the 1990 Census Report by the US Census Bureau. In some cases, these districts are extended beyond the US Census tract areas.

5.2.1 Title VI and Environmental Justice

The planning of the transportation improvements for the Southeast Corridor has been sensitive to concerns relating to minority and low-income populations in the study area. Some aspects of the environmental justice issue have been discussed in other sections of this document. However, additional examination is needed for specific potential impacts to the particularly sensitive populations of the community such as low-income, minority, and children.

As provided in Executive Order 12898, entitled “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,” Federal agencies are required to identify and address as appropriate, adverse, and disproportionate impacts of their programs, policies, and activities on the health or environment of minority communities and low-income populations. However there is no specific definition of “populations” or “communities,” and the manner by which such an assessment is to be carried out has not been specified. The acquisition and displacements (Section 5.3), land use and neighborhood (Section 5.1), economic impacts (Section 5.4), air quality (Section 5.6), noise (Section 5.7), and visual (section 5.8) analyses were reviewed to assist in assessing disproportionate impacts to low-income and minority populations that may occur as a result of implementing the Build Alternative (LRT). For purposes of this assessment, 1990 Census data has been used to identify impacts to areas with high-minority and low-income communities that will be disproportionately greater than those expected to be experienced by other areas within the corridor.

Social and demographic data for the census tracts comprising the study area were examined and analyzed to provide a basis for determining those tracts that will be considered high minority and low-income within the context for the corridor’s general population characteristics. This was

done by comparing the proportion for the minority population and the median household income reported for census tracts in the study corridor with the overall proportions for the City of Dallas and Dallas County. For the purposes of evaluation, the area within one mile on either side of the Build Alternative (LRT) has been defined as the study corridor. Data utilized includes the portion of the census tract within the study corridor.

As shown in Table 5.3, the proportion of minority populations in the City of Dallas is 52 percent and in Dallas County is 40 percent. The percent of minority population in census tracts within the study corridor is 76 percent. To establish criteria for high-minority concentrations in the corridor, the percentage of population in the study corridor was compared against the percentages for the City of Dallas and Dallas County. Census tracts, which have a proportion of minority population equal to or greater than 40 percent, were considered high-minority concentrations for the purposes of this assessment. Of the 46 census tracts within the study area listed in Table 5.4, 37 census tracts have a higher percentage of minority population than the average for Dallas County with 16 tracts having minority populations equal to or greater than 90 percent.

Table 5.3 Analysis of Ethnicity and Income

Area	1990 Population	Median Income	1990 White Population	Percent (White)	Percent Minority (Non-White)
Dallas County	1,852,810	\$31,605	1,118,840	60%	40%
City of Dallas	1,006,831	\$27,489	482,194	48%	52%
Study Corridor	75,356	\$15,832	17,955	24%	76%
80% of Dallas County		\$25,284			
Study Corridor		\$15,832			

Source: 1990 Census Report, US Census Bureau

According to the 1990 Census data listed in Table 5.3, the median household income in Dallas County was \$31,605. In the City of Dallas, the median income was \$27,489. The 1990 median income in the study corridor was \$15,832. The Department of Housing and Urban Development defines low-income household as one where income is 80 percent, or less, of the county median. Therefore, low-income for Dallas County is \$25,284.

As a result of the analysis of median income levels, 35 census tracts were determined to have low-income residents. Census tracts 8, 13.02, 15.02, 15.03, 15.04, 16, 19, 22.01, 22.02, 24, 25, 27.01, 27.02, 28, 29, 33, 34, 35, 36, 37, 38, 39.01, 39.02, 40, 83, 84, 85, 91.01, 92.02, 93.01,

93.03, 93.04, 115, 116.01, and 116.02 in the study area were determined to have a high representation of low-income households. The locations of these census tracts are listed in Table 5.4. As shown on Figure 3.9, page 3-19, low-income households are located throughout the study corridor.

Table 5.4 Analysis of Population, Income, and Race by Census Tract

Census Tracts within Study Corridor	1990 Population	Median Income	1990 White Population	Percent (White)	Percent Minority (Non-White)
8	55	\$20,612	12	21%	79%
13.02	658	\$20,594	234	36%	64%
15.02	3,846	\$15,289	761	20%	80%
15.03	1,427	\$13,031	149	10%	90%
15.04	1,786	\$14,712	505	28%	72%
16	2,226	\$ 8,875	448	20%	80%
17.01	0	NA	NA	NA	NA
17.02	312	\$34,844	154	49%	51%
18	155	\$35,657	116	75%	25%
19	145	\$ 5,898	29	20%	80%
21	0	NA	NA	NA	NA
22.01	981	\$ 7,058	702	72%	28%
22.02	401	\$ 5,532	27	7%	93%
24	2,188	\$18,281	279	13%	87%
25	2,848	\$16,670	116	4%	96%
27.01	4,683	\$ 6,635	26	1%	99%
27.02	2,141	\$11,228	42	2%	98%
28	422	\$10,865	64	15%	85%
29	1,074	\$ 9,266	5	0%	100%
31.01	2,160	\$25,565	702	32%	68%
31.02	96	\$26,250	0	0%	100%
32.01	333	NA	111	33%	67%
33	488	\$20,882	48	10%	90%
34	260	\$ 8,687	0	0%	100%
35	1,880	\$13,880	12	1%	99%
36	1,026	\$ 5,133	23	2%	98%
37	4,000	\$ 9,681	8	0%	100%
38	2,718	\$11,361	0	0%	100%
39.01	2,084	\$ 7,034	15	1%	99%
39.02	316	\$12,500	0	0%	100%
40	28	\$ 8,973	1	4%	96%
83	697	\$21,544	535	77%	23%
84	4,958	\$23,845	2,704	55%	45%
85	970	\$23,220	640	66%	34%
91.01	4,144	\$20,408	1,671	40%	60%
91.02	6,304	\$28,650	2,720	43%	57%
92.01	4	\$25,757	2	69%	31%

Census Tracts within Study Corridor	1990 Population	Median Income	1990 White Population	Percent (White)	Percent Minority (Non-White)
92.02	2,656	\$23,261	1,622	61%	39%
93.01	3,194	\$21,968	1,702	53%	47%
93.03	2,474	\$17,769	359	15%	85%
93.04	4,486	\$13,899	410	9%	91%
115	2,591	\$ 5,568	3	0%	100%
117	1,149	\$26,402	610	53%	47%
118	13	\$27,308	6	49%	51%
116.01	600	\$22,833	109	18%	82%
116.02	378	\$20,840	271	72%	28%
Study Corridor Average		\$16,936		26%	74%

Source: 1990 Census Report, US Census Bureau

Notes: Data reflects the portion of the census tract within the study corridor (within one-mile either side of the LRT). See Figure 3.9, page 3-19.

NA = Not Available

5.2.2 Impacts to Children

Executive Order 13045, entitled “Protection of Children from Environmental Health Risks and Safety Risks,” mandates that Federal agencies identify and assess environmental health and safety risks that may disproportionately affect children as a result of the implementation of Federal policies, programs, activities, and standards (62 Federal Register 19883-19888, April 23, 1997). Currently, there are numerous schools and parks in the corridor, which require children to cross streets or the LRT tracks.

In the South Dallas/Fair Park area, there are several schools within 0.25 miles of the Build Alternative (LRT) including Madison High School, Daniel “Chappie” James Learning Center, South Dallas Learning Center, and Wheatley Elementary School. Also in this same area, Liberty Park will be adjacent to the Build Alternative (LRT) alignment. Some children could cross the LRT alignment to attend school or go to the park. Lawnview Park and Silberstein Elementary School are located north of Scyene Road near Lawnview, approximately 250 feet north of the LRT alignment. However, there are no neighborhoods south of the park or school that will require children to cross the LRT alignment. The Build Alternative (LRT) alignment is also adjacent to Grover Keeton Park, Gateway Park, Lower White Rock Creek Greenbelt, and Devon-Anderson Park. The only designated entrance to Grover Keeton Park is from the entrance roadway from Jim Miller Road. There are no designated access points from the adjacent neighborhoods or Devon-Anderson Park into Grover Keeton Park.

5.2.3 Public Participation

Extensive public information activities have been undertaken to inform residents and provide the opportunity for participation in project evaluation, project planning, alternative development, station locations, development actions, and environmental issues. Public presentations have been given to community groups, civic organizations, municipal officials, and regional, state, and federal agencies. Appendix C summarizes public and agency activities, meetings, and presentations to the community. The community was consulted throughout the study process. As a result of community involvement, numerous design decisions were made. For example, the Hatcher Station was designed without a park-and-ride facility in order to minimize displacements to a minority, low-income, and elderly community. Additionally, the crossing of R.B. Cullum Boulevard is proposed at-grade instead of a grade-separation to avoid introducing a physical and visual barrier in the community.

To develop direct contacts with the community, DART established a Community Work Group. With the help of the community, DART identified potential stakeholders and interest groups, including the persons from minority and low-income communities, for participation in this group. This work group was comprised of residents and representatives from organized interest groups and represents the diverse interests in the study area. These persons acted as liaisons between the study team and their representative organizations to offer input on issues and potential solutions on behalf of their organization. The Community Work Group also assisted with public outreach efforts by disseminating information and bringing to the process information from their friends and neighbors.

While the Community Work Group members serve as broad-based representatives of the community, the public also had numerous other opportunities to participate in the planning process through public meetings and workshops, which were scheduled at major milestones in the project. In addition, numerous methods were used to make the community aware of the study and provide opportunities for input such as: creation of a mailing database; distribution of brochures, flyers, and postage-paid comment card; advertising public meetings in local newspapers; placing information at public libraries within the study area and on the DART web site; and publishing newsletters in both English and Spanish.

During the MIS, DART conducted 21 public meetings/workshops and made numerous presentations to local officials and interested groups. DART continued this effort during the EIS by conducting nine public meetings and four public hearings. Public meetings and hearings were held at various locations within the community with multiple meeting dates to make it easier and more convenient for the public to attend. Information about the study has been presented both graphically and verbally. Questions and comments have also been solicited through self-mailing comment cards given to attending participants. Written comments were also accepted throughout the study process. Information about the study was also placed at three public libraries within the study area. Six newsletters have been published and distributed.

Through these public involvement efforts, equity issues related to the South Dallas neighborhood and the Fair Park area have been identified. It is perceived by the neighborhoods that the needs of the community have been overshadowed or set aside for the economic benefit of Fair Park. Fair Park has expanded several times since its establishment in 1936. Many times residences were purchased by the city to accommodate the expansion. Additionally, special events at the park's numerous venues can create traffic problems and congestion in the neighborhoods. In the Pleasant Grove area, equity issues related to transit service have been identified. Many residents perceive the Southeast Corridor is the last to receive LRT service it has been promised. However, DART services and the concept of LRT in the corridor are widely supported. The LRT alternatives are seen as providing better transit service and a catalyst for economic development.

The public was allowed to comment for a period of 45-days following publication and distribution of the DEIS. Comments received regarding the DEIS have been addressed in Chapter 6 of this FEIS. DART will endeavor to keep residents, elected officials and federal and state agencies informed about the project's status during the course of the process.

Area residents and business owners have been involved in meetings with DART to provide them the needed relevant data to make an informed decision on replacement housing opportunities. Business owners in the study area also reflect the diversity found in the City of Dallas population. The amount of redevelopment in the area means increased opportunities to find relocation housing in the general area. In addition, the introduction of light rail will provide greater access and introduce a premium transit service for residents of the area.

5.2.4 Conclusion

Residents and households in the Southeast Corridor include higher proportions of minority and lower income households than found in the City of Dallas or Dallas County. Moreover, the Southeast Corridor includes fewer jobs per resident than found in the city or county, and fewer households have automobiles available. Given these facts, both the No-Build Alternative and the Build Alternative (LRT) would impact residents in the corridor. The implementation of the Build Alternative (LRT) will not adversely impact the ability of DART to continue its current system-wide rail and bus operations.

No-Build Alternative

The No-Build Alternative would not significantly increase transit service or a major transit investment. The major impact of the No-Build Alternative would be to maintain the “status quo,” with limited efficient access to employment opportunities and regional destinations for residents in the corridor. Less investment in transportation in the Southeast Corridor would disproportionately impact minority and low-income populations in the region. There are more minority and lower income households in this corridor than in others. Moreover, unemployment rates are higher and employment opportunities are fewer in this corridor than in most other DART corridors. Failure to invest major capital in transit infrastructure and transit service may therefore disproportionately impact residents of the Southeast Corridor, in comparison to other corridors in the DART service area. Furthermore, the No-Build Alternative would not provide the same type of transit service as other corridors. The No-Build Alternative would not result in any displacements, therefore, no disproportionate displacement impacts would occur.

Build Alternative (LRT)

The Build Alternative (LRT) will add a major transit investment and implement new transit service in a corridor with a higher percentage of minority population and lower household incomes than found in the region, the county, or the city, as a whole. The Build Alternative (LRT) will also link the Southeast Corridor, an area lacking substantive employment opportunities, to other corridors with high employment demand. The introduction of light rail will improve the means of transportation to many people who rely on public transportation. With notable job opportunities along other LRT corridors, completion of this LRT line will provide residents in this corridor with greater access to regional job opportunities.

The Build Alternative (LRT) represents an opportunity for residents of the study corridor to improve their overall quality of life. The LRT will require acquisition and displacement of a limited number of vacant lots, residences, and businesses, which are described in Section 5.3. However, due to the higher population of minority and low-income households throughout the study corridor, the analysis concludes that implementing the proposed Build Alternative (LRT) will not disproportionately adversely impact minority and/or low-income populations.

The positive impacts of the Build Alternative (LRT) include greater access to regional employment opportunities and other regional destinations. Lower household incomes in the corridor result in a greater percentage of household incomes spent on transportation, and the Build Alternative (LRT) represent an opportunity for residents in the corridor to improve mobility with an affordable transportation option that gives residents an opportunity to reduce household transportation costs. The Build Alternative (LRT) represents an opportunity for residents of the study corridor to improve their overall quality of life. It will also provide the same type of transit service as other corridors served by DART.

The Build Alternative (LRT) will minimize any impacts that result from acquisition of property, construction of transit facilities, and operation of transit service. Although there will be impacts resulting from the construction and operation of light rail service, these impacts will not be any greater to residents of the Southeast Corridor than the construction and operation of light rail service has been to residents of other corridors. The addition of light rail service has been designed to minimize acquisition of occupied residences and businesses. Since the LRT will be operated largely within former railroad rights-of-way, construction and operation of LRT service will take place primarily within right-of-way with existing freight rail service. The Build Alternative (LRT) will not place any greater demand on residents of the study corridor than are faced by residents of other corridors through the design, construction, and operation of light rail service.

In some areas, the Build Alternative (LRT) will be near several schools and adjacent to several parks, which are prime locations for children. Fencing at the right-of-way boundary will be constructed from MLK Boulevard to Hatcher Street and from west of Dixon to Lake June Road. The purpose of the safety fencing will be to ensure safe access is provided at controlled intersections and to discourage unauthorized use of the right-of-way. The introduction of safety fencing will limit the ability of children to cross the alignment at will. All cross streets and driveways along the alignment will remain open and allow for pedestrian movements across the

alignment. Safety measures are also discussed in Section 5.17. No disproportionate environmental health and safety impacts to children are anticipated as a result of the implementation of the proposed Build Alternative (LRT). During construction, it is standard practice for equipment staging areas and construction sites to be secured to prevent entry by unauthorized personnel for safety and liability reasons. Such practices are part of DART standard contract requirements.

The entire DART system is accessible to the mobility-impaired, another group of transportation-disadvantaged persons. The Build Alternative (LRT) will extend their access alternatives through its interconnections with the balance of the DART system. The Build Alternative (LRT) will meet the requirements of ADA for passenger loading at station platforms using an automatic load leveling system, which will prevent a vertical deflection between the floor elevation of the vehicle and the station platform. The system will permit level boarding without the need for ramps, lifts, or doorway extensions.

The analysis concludes that implementing the proposed build alternative will not disproportionately adversely affect any racial, ethnic, or socio-economic under represented group.

5.3 ACQUISITIONS AND DISPLACEMENT/RELOCATION IMPACTS

The alternatives under consideration could require acquisition of private properties and relocation of businesses and persons residing in the study corridor.

No-Build Alternative

The No-Build Alternative would not require acquisition of property or displacement of households or businesses. Therefore, there would be no impacts due to acquisitions or displacements.

Build Alternative (LRT)

The Build Alternative (LRT) will minimize acquisition and displacement of homes and businesses by constructing LRT facilities primarily within the former railroad rights-of-way. However, the Build Alternative (LRT) will require acquisition and displacement of a limited number of vacant lots, residences, and businesses. These displacements will not disproportionately affect low or

minority populations. Mitigation for displacements will be in compliance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act.

Table 5.5 and the following sections describe the displacements expected for the alignment and stations. While there will be residential displacements in the Parry/Trunk Street area, the potential to be relocated does not represent a disproportionate impact to this population. Persons identified for displacement are representative of the diversity found in the study area population.

Table 5.5 Potential Acquisitions and Displacements

Location	Current Property Use	Approximate Acreage Impacted/ % of Parcel be Impacted/ Easement (E) or Acquisition (A)	Occupied / Number of Relocations	Number of Structures Displaced
LRT Alignment Right-of-Way				
Good-Latimer Option A				
814 Good-Latimer	Commercial	0.02 acres / 4% / E	Yes / 0	0
2601 Live Oak Street	Commercial	0.01 acres / 4% / E	Yes / 0	0
2501 & 2515 Live Oak Street	Parking	0.01 acres / 17% / E, A	Yes / 0	0
2502 Live Oak Street	Multi-Family Residential	0.01 acres / 1% / E, A	Yes / 0	0
710 Good-Latimer	Latino Cultural Center	0.1 acres / 16% / E, A	Yes / 0	0
624 Good-Latimer	Commercial	0.03 acres / 5% / E, A	Yes / 0	0
615 Good-Latimer	Commercial	0.1 acres / 11% / A	Yes / 0	0
2519 Swiss Avenue	Commercial	0.2 acres / 100% / A	Yes / 1 Business	1
2601 Swiss Avenue	Commercial	0.02 acres / 1% / E, A	Yes / 0	0
2752 Gaston Avenue	Multi-Family Residential	0.01 acres / 1% / A	Yes / 0	0
2606 Gaston & 2510 Pacific	Parking	0.8 acres / 67% / E, A	No	0
Good-Latimer Option B				
814 North Good-Latimer	Commercial	0.02 acres / 2% / E	Yes / 0	0
2601 Live Oak Street	Easement	0.01 acres / 1% / E	Yes / 0	0
2501 & 2510 Live Oak Street	Parking	0.01 acres / 1% / E, A	Yes / 0	0
2502 Live Oak Street	Multi-Family Residential	0.01 acres / 1% / E, A	Yes / 0	0
710 Good-Latimer	Latino Cultural Center	0.1 acres / 16% / E, A	Yes / 0	0
624 Good-Latimer	Commercial	0.03 acres / 5% / E, A	Yes / 0	0
615 Good-Latimer	Commercial	0.05 acres / 100% / A	Yes / 6 Businesses	1
2519 Swiss Avenue	Commercial	0.2 acres / 100% / A	Yes / 1 Business	1
2511 Swiss Avenue	Multi-Family Residential	0.4 acres / 100% / A	Yes / 8 Residences	1
505 Good-Latimer	Vacant	0.3 acres / 100% / A	No	1
2516 Miranda	Vacant	0.5 acres / 100% / A	No	0
2606 Gaston & 2510 Pacific	Parking	0.8 acres / 67% / E, A	No	0
LRT Alignment Right-of-Way				
3808 Willow Street	Vacant	0.1 acres / 6% / A	No	1
723 & 817 S. Haskell Street	Commercial	0.2 acres / 25% / A	Yes / 1 Business	1
821 Haskell Street	Parking	0.3 acres / 100% / A	No	0
901, 903 & 907 4 th Avenue	Vacant	0.2 acres / 100% / A	No	0
3227 Gunter	Vacant	0.1 acres / 100% / A	No	0
3224 Gunter	Vacant	0.2 acres / 100% / A	No	0

Location	Current Property Use	Approximate Acreage Impacted/ % of Parcel be Impacted/ Easement (E) or Acquisition (A)	Occupied / Number of Relocations	Number of Structures Displaced
3220 Gunter	Vacant	0.2 acres / 100% / A	No	0
3216 Gunter	Vacant	0.2 acres / 100% / A	No	0
3212 Gunter	Single-Family Residence	0.2 acres / 100% / A	Yes / 1 Residence	1
3215 Elihu	Vacant	0.2 acres / 100% / A	No	0
3209 Elihu	Single-Family Residence	0.2 acres / 100% / A	Yes / 1 Residence	1
3205 Elihu	Vacant	0.2 acres / 100% / A	No	0
3201 Elihu	Vacant	0.2 acres / 100% / A	No	0
3320 Elihu	Vacant	0.2 acres / 100% / A	No	0
2814 Medill Street	Vacant	0.02 acres / 4% / A	No	0
3305 Trunk Street	Vacant	0.1 acres / 13% / A	No	0
4002 & 4008 Hatcher	Vacant	0.2 acres / 51% / A	No	0
4527 Scyene	Commercial	0.4 acres / 100% / A	Yes / 1	1
4721 & 4771 Scyene	Commercial	0.14 acres / 100% / A	No	1
440 Hillburn	Single Family Residence	0.01 acres / 4% / A	Yes / 0	0
Baylor Station Right-of-Way				
3000 Junius	Vacant	1.7 acres / 100% / A	No	0
MLK Station Right-of-Way				
3127 South	Vacant	0.1 acres / 100% / A	No	0
3128 South	Vacant	0.1 acres / 100% / A	No	0
Hatcher Station Right-of-Way				
4001 Hatcher	Single-Family Residence	0.2 / 100% / A	Yes / 1 Residence	1
4007 Hatcher	Commercial	0.14 acres / 100% / A	Yes / 1 Business	1
Lawnview Station Right-of-Way				
5900 Scyene	Commercial / Industrial	1.4 acres / 100% / A	No	1
5800 & 6000 Scyene	Truck Storage	4.4 acres / 15% / A		2
6010 Scyene	Vacant	0.2 acres / 100% / A	No	1
6018 Scyene	Commercial / Industrial	0.8 acres / 100% / A	Yes / 2 Business	9
6026 Scyene	Commercial	0.6 acres / 100% / A	Yes / 1 Business	1
6200 Scyene	Vacant	0.2 acres / 100% / A	No	0
3590 & 3592 Claypool	Vacant	11.2 acres/ 90% / A	No	0
3594 Claypool	Vacant	1.4 acres / 100% / A	No	0
Buckner Station Right-of-Way				
405 Buckner	Commercial	1.1 acres / 100% / A	Yes / 1 Business	1
415 Buckner	Commercial	0.7 acres / 100% / A	Yes / 1 Business	1
435 Buckner	Commercial	0.2 acres / 100% / A	Yes / 2 Businesses	2
441 Buckner	Commercial	0.4 acres / 100% / A	Yes / 1 Business	4
443 Buckner	Commercial	0.2 acres / 100% / A	Yes / 1 Business	1
7916 Elam	Single-Family Residence	0.3 acres / 100% / A	Yes / 1 Residence	1
8012 Elam	Commercial	0.2 acres / 100% / A	Yes / 1 Business; 1 Residence	2
8028 Elam	Vacant	0.1 acres / 100% / A	No	0
Construction Staging and Noise Mitigation				
3200 Gunter	Vacant	0.1 acres / 100% / A	No	0
3204 Gunter	Vacant	0.1 acres / 100% / A	No	0
3215 & 3221 Gunter	Multi-Family Residence	0.2 acres / 100% / A	Yes / 2 Residences	2
3225 Gunter	Multi-Family Residence	0.1 acres / 100% / A	Yes / 2 Residences	1
3228 Gunter	Single-Family Residence	0.1 acres / 100% / A	Yes / 1 Residence	1

Location	Current Property Use	Approximate Acreage Impacted/ % of Parcel be Impacted/ Easement (E) or Acquisition (A)	Occupied / Number of Relocations	Number of Structures Displaced
3232 & 3234 Gunter	Multi-Family Residence	0.1 acres / 100% / A	Yes / 2 Residences	1
3236 Gunter	Vacant	0.1 acres / 100% / A	No	0
Traction Power Substations				
TPSS #3/1800 Trunk	Vacant	0.1 acres / 0.01% / A	No / 0	0
TPSS #4/LRT at Scyene Intersection	UP RR right-of-way	0.01 / N/A / A	No / 0	0
TPSS #7/6610 Sarah Lee	Vacant	0.1 acres / 10% / A	No	0
TPSS #8/ 7122 Rosemont	Single-Family Residence	0.2 acres / 0.1% / A	Yes / 0	0

Note: E = Easement portion of the parcel will be acquired
A = Portion or complete parcel will be acquired

Source: Carter & Burgess, 2002

5.3.1 Alignment Impacts

The LRT alignment will require right-of-way, easements, and displacement of structures in several areas. With the selection of Option A in the Good-Latimer area, 31 parcels and 4.9 acres of land will be need to be acquired for the LRT alignment. In the Good-Latimer area, the two options under consideration varied in the amount of parcels to be acquired and relocations. Option A will require minor amounts of right-of-way from nine parcels, 100% acquisition of one parcel displacing one business, and a large portion of one vacant parcel currently used for parking. The Good-Latimer Option B would have required minor acquisition from six parcels, a large portion of one vacant parcel, and 100% acquisition of five parcels, which would displace eight residences and seven businesses.

As the alignment transitions from the former UP RR to Parry Avenue near Fair Park, the alignment swings slightly to the east to allow a larger turning radius and minimize the impact to park property. This requires partial acquisition of one commercial property along Haskell and displacement of one commercial building. The alignment section from Parry Avenue to the SP RR will impact 12 parcels and two homes will be displaced. One of the homes is currently vacant and the other home is rented and occupied. One business south of Scyene will be displaced because the LRT will remove access to their property. West of Hatcher Street along Scyene and Hancock, one property will be acquired; the building on this property is currently vacant.

In addition to right-of-way required for the LRT alignment, some right-of-way will also be required for TPSS and will be placed within existing DART right-of-way when possible. These power

stations are usually spaced one to 1.5 miles apart, depending on topography. Proposed locations of TPSS are shown in Appendix D. The TPSS footprint is typically 70 feet by 40 feet, which includes three or four buildings and fencing around the perimeter. In areas of constrained right-of-way (i.e., in areas of parkland), the footprint will be modified accordingly. The TPSS locations will impact four parcels and will require approximately 0.4 acres of additional right-of-way (Table 5.5). The parcel on Trunk is currently vacant. The parcel on Rosemont is currently used for a single-family residence, however, the portion of the land which will be acquired is currently outside of the area fenced around the existing home. No additional displacements will be required for the TPSS.

5.3.2 Station Impacts

Displacements are expected to occur at the Hatcher, Buckner, and Lawnview Stations. The LRT platform location at the MLK Transit Center/LRT Station will require the acquisition of two parcels but will not require any displacements. A total of 21 parcels and approximately 25.6 acres will be needed for the stations. The location of the Hatcher Station will require the acquisition of one home and one business, a furniture store. The Buckner Station will require acquisition of seven businesses (several automotive-related or retail businesses and a bingo hall), two residences, and vacant parcels.

The placement of parking, bus lanes, and the rail platform at the Lawnview Station will require the acquisition of one business and one parcel used for truck storage. Three additional properties with active businesses will be acquired at the Lawnview Station. The signalized intersection of Lawnview Avenue and Scyene Road provides the single point of access to these three businesses and the LRT station. This access will cross the two light rail tracks and a freight rail line. DART has safety concerns about mingling the station bus and automobile traffic with the frequent truck traffic that serves these three additional businesses. Because of this concern and the need for a construction staging area DART has identified all five properties as station acquisitions. Upon completion of the project, the vacant property could be used for future parking expansion, tree replacement mitigation, a cell tower relocation plus a trail head and joint development/eco-tourism associated with the proposed Great Trinity Forest Park. The City of Dallas is also considering the site as a potential candidate for the Great Trinity Forest Interpretive Center.

5.3.3 Construction Staging and Noise Mitigation Impacts

Additionally property in two areas will be required to establish construction staging areas for the Build Alternative (LRT). The area along Gunter was selected because the impacts to the neighborhood, noise, and visual impacts will be minimal. Seven parcels and seven residences will be displaced. A second construction staging area discussed in Section 5.3.2 will be adjacent to the site of the Lawnview Station.

5.3.4 Mitigation Measures

During the circulation of FEIS, area residents will be involved in informational meetings with DART to provide them the needed relevant data to make an informed decision on replacement housing opportunities. Property owners will be paid fair market value for property acquired. Relocation procedures for displaced persons and businesses will be guided by the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (49 CFR Part 24), as amended. Within the framework of this Act, it is necessary to determine the availability of adequate, decent, safe, and sanitary housing for displaced residents and suitable locations and/or facilities for displaced businesses. All new locations must be available on an open occupancy basis and at costs affordable by those displaced. DART will be responsible at the local level for administering the Act. The following summarizes the relocation benefits applicable to displacements.

- Residential Relocations – Federal law requires that comparable replacement dwellings be available before residential displacements occur. Local real estate professionals have determined that comparable replacement housing will be available. Moving expenses will be reimbursed for all actual and related costs incurred in moving. This assistance is available to persons renting or leasing a residence that will be acquired.
- Business and Non-Profit Organizations – Moving expenses will be reimbursed for all actual and related costs incurred in moving. Most businesses are service-oriented or commercial businesses and could be readily relocated.

In cases where relocation will be necessary for right-of-way acquisition for stations, a decision on relocation will be reviewed with each business owner in order to ensure that they are aware of all of the opportunities. There are comparable facilities for relocation existing in the general area. In addition, the public infrastructure investment represented by the light rail investment should

support business development and create a benefit through the provision of high capacity transit in the corridor, thereby improving access to these businesses. It has been determined that a sufficient, comparable, safe and sanitary housing supply exists for displaced residents, and acceptable replacement sites for displaced businesses are available.

5.4 ECONOMIC IMPACTS

The alternatives under consideration would have varying economic impacts in the study corridor. Changes in land use and transportation services would both have significant impacts on the study corridor economy.

No-Build Alternative

The No-Build Alternative represents a “status quo” position in terms of land use, development, and transportation. This alternative would have little or no change to current economic conditions and trends. As previously noted, however, the Southeast Corridor is characterized by households with lower incomes and fewer automobiles available, fewer employment opportunities, higher unemployment, and larger minority populations than the other parts of the region. This is significant in that the No-Build Alternative would maintain these conditions, potentially depriving this community of convenient access to jobs within the corridor that might be created along the LRT alignment and to new and existing jobs elsewhere in the region. These factors combined and considering LRT investments in other corridors may result in a perception of unequal access to transit and economic opportunities in the Southeast Corridor.

Build Alternative (LRT)

The potential economic impacts of the Build Alternative (LRT) are related to the degree to which mobility and accessibility are enhanced and the degree to which infrastructure within the corridor encourages new development. Considering the low availability of automobiles and high unemployment rates in study area households, the Build Alternative (LRT) would provide residents of the study area greatly enhanced access to employment opportunities throughout DART’s extensive LRT and commuter rail network that will be in place by 2010.

In addition to the mobility enhancements, DART stations are generally viewed as community and neighborhood assets. Stations are attractive and include public art projects designed to complement individual neighborhoods. One indicator of market demand is frequently seen in

real estate advertisements that include proximity to a DART station as a property benefit. Market studies have also shown that both residential and commercial properties near light rail stations have increased in value at a much faster rate than those properties in the region not located near a DART station.

Direct economic impacts will also have a multiplier effect in the local economy. New transportation investments in the corridor provide potential for economic development actions at stations. Improved employment rates among Southeast Corridor residents further increases the potential for station area development within the study corridor. The following addresses potential impacts associated with station areas on economic development.

Deep Ellum Station: Renewed interest in this area has led to redevelopment of warehouses into high value lofts, retail, and office space. The proximity of this station to downtown, Baylor HCS, and the Deep Ellum entertainment district will be a catalyst for further growth in this area. Several historic buildings have been rehabilitated, and most vacant lands in the immediate vicinity of the station are already in various stages of planning and development. The addition of LRT service will likely be a catalyst for continued economic growth and redevelopment as a pedestrian-oriented mixed-use neighborhood within several years after completion of the Build Alternative (LRT). This new development is enhancing residential and commercial property values and retail sales in the area, adding tax revenues to the local tax base. Additionally, the Good-Latimer tunnel has served as an impediment to new development in the area. DART's proposal to eliminate the tunnel to accommodate the station and alignment will also eliminate this deterrent.

Baylor Station: The area around this station was once fully developed, primarily as a warehouse and industrial district. The main entrance to Baylor HCS is within two blocks of the station. This station lies near the Deep Ellum entertainment district, another major catalyst for growth in this area. Significant demand for housing within walking distance of this area has led to development of condominiums, lofts, and numerous apartment buildings. Vacant land adjacent to the station is already under construction and development due to the popularity of this area. This area is already a pedestrian-oriented mixed-use neighborhood and will likely be largely redeveloped before the completion of the Build Alternative (LRT). Much of the economic development potential in this corridor related to LRT may have already been realized.

Fair Park Station: Notable streetscape improvements have been made around this station, and those improvements will be enhanced by the facilities planned for the Fair Park Station. At present, IH 30 creates a formidable visual and psychological barrier between the Deep Ellum district and Fair Park that has had a long-term economic impact on the Parry/Exposition area. Modest levels of both public and private investments have been taking place, and the Build Alternative (LRT) could be the catalyst, which bridges the IH 30 barrier both for the neighborhood and for the underutilized public facilities at Fair Park. Addition of LRT service could result in increasing economic development of underutilized properties and buildings in this area.

MLK Station: The area around the MLK Transit Center and station has had minimal development until recent years. Many lots near the proposed station are now vacant and the commercial corridors have emerged as auto-oriented fast food and retail. Within two blocks to the east is the primary vehicle entrance to Fair Park on R. B. Cullum, a high-capacity, high-speed arterial street. The recent addition of a bank, pharmacy, and a grocery store to the area are indicators of renewed interest in commercial development in the area. The local community has identified the area as a commercial redevelopment zone, which will be addressed in the Station Area Plan being prepared by the City of Dallas. Several vacant lots, apartment buildings, and commercial buildings could benefit from increased economic development of underutilized properties and buildings in this area.

Hatcher Station: The area around the Hatcher Station is a mix of single- and multi-family residential and light industrial uses. This area is fully developed at a low-density. While the area may experience minor redevelopment as a result of the introduction of LRT service, the new service will benefit primarily existing development and have little effect on economic development.

Lawnview Station: The area around the Lawnview Station includes single-family residential to the northeast, an elementary school to the northwest, and automobile-related businesses at the site of the LRT station. The transit station and related facilities will be separated from the school and the residential neighborhood by Scyene Road, a major high-speed, high-capacity arterial. Scyene, along with the existing railroad, serves as both a buffer and a barrier to the existing land uses. Even with pedestrian improvements planned as part of the station, Scyene will serve as a deterrent for some pedestrians; thus, the Lawnview Station will primarily serve as a park-and-

ride station. The transit station will remove several businesses. The existing businesses, which include a salvage yard, are not supportive of transit, nor are they consistent with the existing surrounding residential and educational land uses. LRT service could result in increasing economic development of underutilized properties. Additionally, this station could provide an opportunity for eco-tourism with the development of the Great Trinity Forest Park immediately to the south. The City of Dallas is including a site adjacent to the Lawnview Station as a candidate site for the Great Trinity Forest Interpretive Center.

Lake June Station: The Lake June Transit Center, approved as a stand-alone facility separate from the LRT alignment, became operational February 2002. This facility includes a major bus transit center and a park-and-ride lot; the Build Alternative (LRT) includes only the addition of the LRT platform adjacent to the bus transit center. Therefore, the LRT station will only enhance operations of the transit center which, as a stand-alone facility, will serve as a major bus transfer and park-and-ride facility. With the Build Alternative (LRT), the park-and-ride services are enhanced by the LRT service. Land uses adjacent to the Lake June Transit Center are primarily commercial. Along the LRT alignment, the businesses are primarily auto-oriented and are located along the frontage road of US 175. The addition of LRT service could result in increasing economic development of underutilized properties and buildings in this area.

Buckner Station: The Buckner Station will be the terminal station for the Build Alternative (LRT). This station includes parking, a bus transit center, and the LRT station. Automotive, retail, and industrial land uses dominate station area land uses at this transfer location and park-and-ride terminal. Some destination riders may use the facility to reach employment at Dal-Tile or other nearby businesses; however, the nature of these businesses is generally not transit-supportive and introduction of transit services is not anticipated to have any notable impact on these businesses. The addition of LRT service could result in increasing economic development of underutilized properties and buildings in this area. In the long-term, some land uses may transition to transit-oriented development or, at a minimum, business uses that cater to transit patrons.

5.4.1 Economic Development Opportunities

Economic development initiatives present the opportunity to add private-sector investment to transit stations and can notably increase transit system ridership.

No-Build Alternative

The No-Build Alternative would include no new transit facilities other than two transit centers at MLK and Lake June in the Southeast Corridor. Without a major investment in transit service, market demand around existing transit facilities would not likely result in any significant economic development opportunities in most portions of the study corridor. Continued development in the Deep Ellum area is likely. The Fair Park and MLK areas may not realize their full economic potential without a major transit investment.

Build Alternative (LRT)

The Build Alternative (LRT) will add both a major capital investment and new transit services to the Southeast Corridor. These two elements are critical elements of a successful economic development project. Many of the larger LRT stations, however, are proposed in areas that currently exhibit less market demand for intense, transit-oriented development. Stations without parking facilities generally have been located in areas that are active and evolving pedestrian-oriented neighborhoods with high market demand. These “urban neighborhood” stations offer fewer opportunities for economic development, since there is little, if any, land available for joint development outside of that which is needed to support the transit system. The transit facility at the Baylor Station, however, may eventually allow for modest economic redevelopment. The small size of the transit parcel may require combination with an adjacent parcel or significant vertical development to achieve a successful economic development project. Opportunities for transit related retail are feasible at the Buckner Station on a residual parcel adjacent to the station.

The economic analysis, including economic and secondary development, indicates that implementing the Build Alternative (LRT) may result in increased property values and land use intensity. The results will vary according to the local market and the availability of financing.

DART staff develops and maintains long-range strategies to encourage and enhance economic development opportunities adjacent to and around DART transit facilities. DART will continue to work with the City of Dallas and the development community to facilitate the development of appropriate transit supportive projects.

5.5 TRANSPORTATION IMPACTS

This section addresses the transportation impacts as a result of the alternatives.

No-Build Alternative

The No-Build Alternative would not impact transit or traffic operations. However, travel conditions would not improve as a result of this alternative. Chapter 4 describes, in detail, the changes to traffic and transit operations that would result from the No-Build Alternative.

Build Alternative (LRT)

The Build Alternative (LRT) will effect both transit and traffic operations. Chapter 4 describes, in detail, the expected changes to traffic and transit operations. The following sections summarize the transportation impacts.

5.5.1 Transit Impacts

The Build Alternative (LRT) will provide a seamless connection to the existing DART LRT system, providing increased mobility to residents in the corridor with service to origins and destinations throughout the DART service area. This new investment in transit infrastructure will allow Southeast Corridor transit riders to save 18.7 minutes traveling from Buckner to the Dallas CBD. This significant improvement in transit service will allow the DART transit system to capture 11,000 new weekday transit riders by the year 2025. In addition to regular weekday ridership, the Build Alternative (LRT) will serve major activity centers, such as Deep Ellum, Baylor HCS, and Fair Park. A summary of transit performance indicators for the No-Build Alternative and the Build Alternative (LRT) are shown in Table 5.6.

Table 5.6 Transit Performance Indicators

Performance Measure	No-Build Alternative	Build Alternative (LRT)	Difference
Transit Travel Time (Buckner at Elam to Dallas CBD)	41.88 minutes	23.18 minutes	-18.7 minutes
System-wide Passenger Trips, All Modes	82,086,000 passengers	85,712,000 passengers	+4.4% passengers

Source: DART, 2001

5.5.2 Traffic Impacts

The Build Alternative (LRT) alignment will affect the LOS at numerous intersections throughout the Southeast Corridor. In some cases, light rail trains crossing near major intersections will create minor delays. At a number of intersections, traffic projections require modification of

turning and through lanes to prevent queuing traffic from blocking light rail trains and to prevent traffic stopping for the LRT from blocking adjacent intersections. Section 4.2.2.1 of this document describes in more detail the impact on roadways and LOS in the corridor.

5.5.3 Rail Freight Impacts

No-Build Alternative

The No-Build Alternative would maintain existing freight mobility in the corridor. No impacts to existing or future rail freight traffic are expected.

Build Alternative (LRT)

The Build Alternative (LRT) will maintain existing rail freight mobility in the study corridor. A grade separation will be constructed for the Build Alternative (LRT) over the UP RR main line freight tracks and no impact to existing or future rail freight traffic is anticipated. The existing DART-owned freight railroad will continue short-line operations to Dal-Tile, the only freight rail customer along the route. Freight traffic will continue to operate on dedicated tracks within the LRT right-of-way but will not be shared by LRT vehicles. Short-line freight operations will occur during non-revenue hours of transit operations per FRA regulations. There will be no crossing between LRT and freight rail tracks; therefore, no impact to short-line operations is anticipated.

5.6 AIR QUALITY IMPACTS

This section addresses the air quality impacts as a result of the alternatives. Table 5.7 shows the changes in criteria pollutant emissions for the region for the No-Build and Build Alternative (LRT).

Table 5.7 2025 Criteria Pollutant Emissions

Measure	No-Build Alternative (tons per year)	Build Alternative (LRT) (tons per year)	Percent Change from No-Build
CO	196,673	196,657	-0.008%
NOx	49,119	49,161	0.086%
HC/VOC	27,533	27,530	-0.011%

Source: DART and Carter & Burgess, 2001

No-Build Alternative

The No-Build Alternative would not help improve air quality. It would not be in compliance with the SIP for the Dallas-Fort Worth area and other TCM measures would have to be included in the SIP if LRT is not built.

Build Alternative (LRT)

Based on the overall improvements in traffic level of service, slight reductions in CO and HC/VOC are projected. A slight increase in NO_x is anticipated because of the increase in travel speeds from improved levels of service. Vehicle miles traveled will be reduced by 3,039,100 miles annually in 2025 as a result of the addition of light rail service and the induced development will be in a more centrally located transit-friendly urban environment. The emissions reductions relative to the project are minimal on a regional scale, but can have the health benefits associated with the reduction of the criteria pollutants. No exceedances of the CO or other criteria pollutants will result from the Build Alternative (LRT) project.

The Build Alternative (LRT) is included in the revised SIP as a TCM. The revised SIP for the Dallas-Fort Worth area was adopted by TNRCC on April 19, 2000. The revised plan included an evaluation of a wide range of TCM commitments such as a high occupancy vehicle lanes, corridor management, park-and-ride lots, bicycle/pedestrian, commuter rail, light rail, intersection improvements, and signal improvements. The proposed light rail project will be a significant element in contributing to the fulfillment of the SIP attainment requirements.

This project has also been identified in both the NCTCOG *Mobility 2025 Plan Update* and the DART *Transit System Plan* as a priority for a transportation investment. The *Transit System Plan* and *Mobility 2025 Plan Update* both recommended light rail as the appropriate technology for the Southeast Corridor. The implementation of this project is not expected to cause or contribute to new air quality violations, increase the frequency or severity of existing violations, or delay timely attainment of the NAAQS but will result in a slight decrease in the emission of criteria pollutants.

5.7 NOISE AND VIBRATION

This section presents the analysis of potential noise and vibration impacts due to the alternatives and discusses mitigation measures to minimize adverse impacts.

5.7.1 Noise Impact Assessment

This section discusses the noise impact assessment methodology, projected sound levels, and mitigation for the alternatives under consideration.

5.7.1.1 Noise Impact Assessment Methodology

Noise levels in the study corridor were projected based on the DART LRT vehicle noise specification, the proposed Operating Plan for the Build Alternative (LRT) and the prediction model specified in the FTA guidance manual. The following summarizes the significant factors and assumptions:

- Based on the DART vehicle noise specification, the predictions assume that a single 93-foot long vehicle operating at 40 mph on ballast and tie track with continuous welded rail (CWR) generates a maximum noise level of 76 dBA at a distance of 50 feet from the track centerline.
- The operating times of the Build Alternative (LRT) will be between 5:30 a.m. and 12:30 a.m. The operating plan for LRT service specifies a peak-hour headway of ten minutes, an off-peak base period headway of 15 minutes and an evening headway of 20 minutes. Two-car trains will operate most of the day, with some three-car trains in peak periods and single-car trains in the evenings.
- Peak hour operations will occur between 6:00 a.m. and 9:00 a.m. and between 3:00 p.m. and 6:00 p.m. Evening operations will occur between 8:30 p.m. and 12:30 a.m., and base service will occur during all other time periods. The average number of cars per train will be 2.5 cars during peak hours, two cars during base service, and one car during evening service. Vehicle operating speeds are based on the Train Performance Calculation (TPC) Simulations. The speed limits range from ten miles per hour to 65 miles per hour along the corridor.
- The projections near grade crossings include noise from train whistles and crossing bells. Based on DART audible warning signal equipment and policy, the estimates assume that the whistles generate a noise level of 78 dBA at 50 feet from the track for a five second period

as trains approach each crossing. The bells are estimated to generate a noise level of 72 dBA at 50 feet for 20 seconds prior to and ten seconds following each train. These operating parameters are consistent with current practice on the DART LRT System and were designed to minimize community noise exposure to the greatest extent possible within the constraints of safe operations. However, to account for the intrusive character of the whistles and bells, a five dBA penalty is applied to noise levels from these sources in accordance with FTA procedures.

5.7.1.2 Projected Sound Levels

No-Build Alternative

The No-Build Alternative is not expected to result in any change in noise levels or noise impacts.

Build Alternative (LRT)

For the Build Alternative (LRT), detailed comparisons of the existing and future noise levels are presented in Table 5.8 and Table 5.9. Table 5.8 includes results for the Category 2 receptors along the alignment with both daytime and nighttime sensitivity to noise (e.g. residences, hotels, and hospitals). Table 5.9 is a listing of all Category 3 receptors along the alignment, consisting of institutional sites that are not sensitive to noise at night (e.g. schools, places of worship, parks, and medical offices). In addition to the civil station, distance to the near track and proposed LRT speed, each table includes the existing noise level, the projected noise level from LRT operations and the impact criteria for each receptor or receptor group. Based on a comparison of the predicted project noise level with the impact criteria, the impact category is listed, along with the predicted total noise level and projected noise increase due to the introduction of LRT service. Table 5.8 also includes an inventory of the number of impacts and severe impacts at each sensitive receptor location.

Table 5.8 Noise Impacts for Land Use with both Daytime and Nighttime Sensitivity

Location	Civil Station	Distance to Near Track (ft)	Speed (mph)	Exist. Noise Level ¹	Project Noise Level ¹			Impact Category	Total Noise Level ¹	Noise Level Increase ¹		
					Predicted ² (rounded to nearest decibel)	Impact Criteria					Impact	Severe
						Impact	Severe					
Good-Latimer Expressway (Bryan Street to Gaston Avenue)	112	38	36	71	68	66	71	Impact	73	1.6	30	0
Good-Latimer Expressway to Parry Avenue	135	90	35	63	60	60	66	Impact	65	1.9	19	0
Fair Park (Parry Avenue)	194	100	30	63	64	60	66	Impact	67	3.7	4	0
Trunk Avenue – Parry Avenue to 2 nd Avenue	245	36	35	61	65	59	65	Severe Impact	66	5.3	91	11
Scyene Road – 2 nd Avenue to Hatcher Street	295	50	65	61	65	59	65	Severe Impact	67	5.7	10	4
Scyene Road – Hatcher Street to White Rock Creek	343	80	58	66	63	62	68	Impact	68	1.6	72	0
Scyene Road – White Rock Creek to Glover Street	391	200	55	66	48	62	68	None	66	0.1	0	0
Bruton Road to Lake June Road	518	70	56	55	57	56	62	Impact	59	4.4	3	0
Lake June Road to Buckner Boulevard	612	90	50	59	65	58	64	Severe Impact	66	7.1	28	3
Total											257	18

Source: HMMH, 2001

Note: The alignment stationing is shown on the plan and profile drawings in Appendix D. The stationing numbers references to the location on the engineering drawings and not to passenger station locations.

- Noise levels are based on Ldn and are measured in dBA.
- Predicted levels include a 5 dBA penalty applied to audible signal noise, where applicable.

Table 5.9 Noise Impacts for Institutional Land Use with No Nighttime Sensitivity

Location	Civil Station	Distance to near track (ft)	Speed (mph)	Exist. Noise Level ¹	Project Noise Level ¹			Impact Category	Total Noise Level ¹	Noise Level Increase ¹
					Predicted ² (rounded to nearest decibel)	Impact Criteria				
						Impact	Severe			
Latino Cultural Center	109+00	40	26	71	63	71	76	None	72	0.7
St. James AME Temple	112+00	46	36	71	67	71	76	None	72	1.3
Fireman's Museum	197+00	110	30	63	49	65	71	None	63	0.2
Women's Museum	196+00	45	30	63	55	65	71	None	64	0.6
Fair Park Music Hall	205+00	90	10	63	47	65	71	None	63	0.1
Greater Christian Love Missionary Baptist Church	248+00	71	35	57	55	62	68	None	59	1.9
Memorial Missionary Baptist Church	273+00	176	65	57	48	62	68	None	58	0.4
Church	296+00	120	65	57	56	62	68	None	60	2.5
St. Joseph's Baptist Church	301+00	50	62	61	61	64	70	None	64	2.8
Funeral Home	313+00	150	20	66	44	67	73	None	66	0.0
Grover C. Keeton Golf Course	460+00	170	48	48	58	58	65	Impact	58	10.4

Source: HMMH, 2002

Note: The alignment stationing is shown on the plan and profile drawings in Appendix D. The stationing numbers references to the location on the engineering drawings and not to passenger station locations.

- Noise levels are based on Peak Hour Leq and are measured in dBA.
- Predicted levels include a 5dBA penalty applied to audible signal noise, where applicable.

The results in Table 5.8 project noise impact for a total of 275 residences, 18 with severe impact and 257 with impact. The following are summaries of each impacted Category 2 land use area.

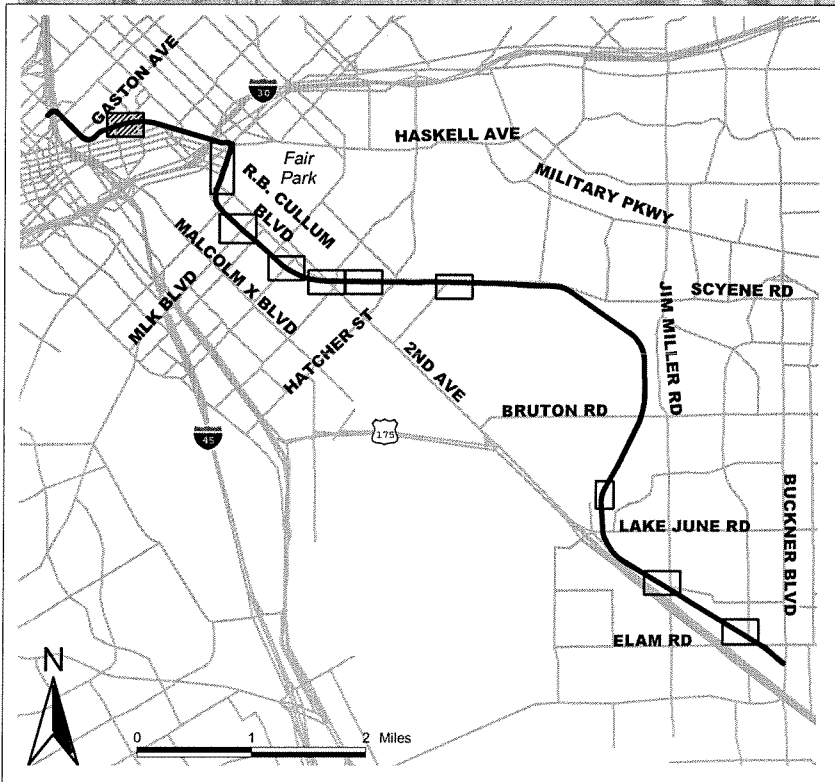
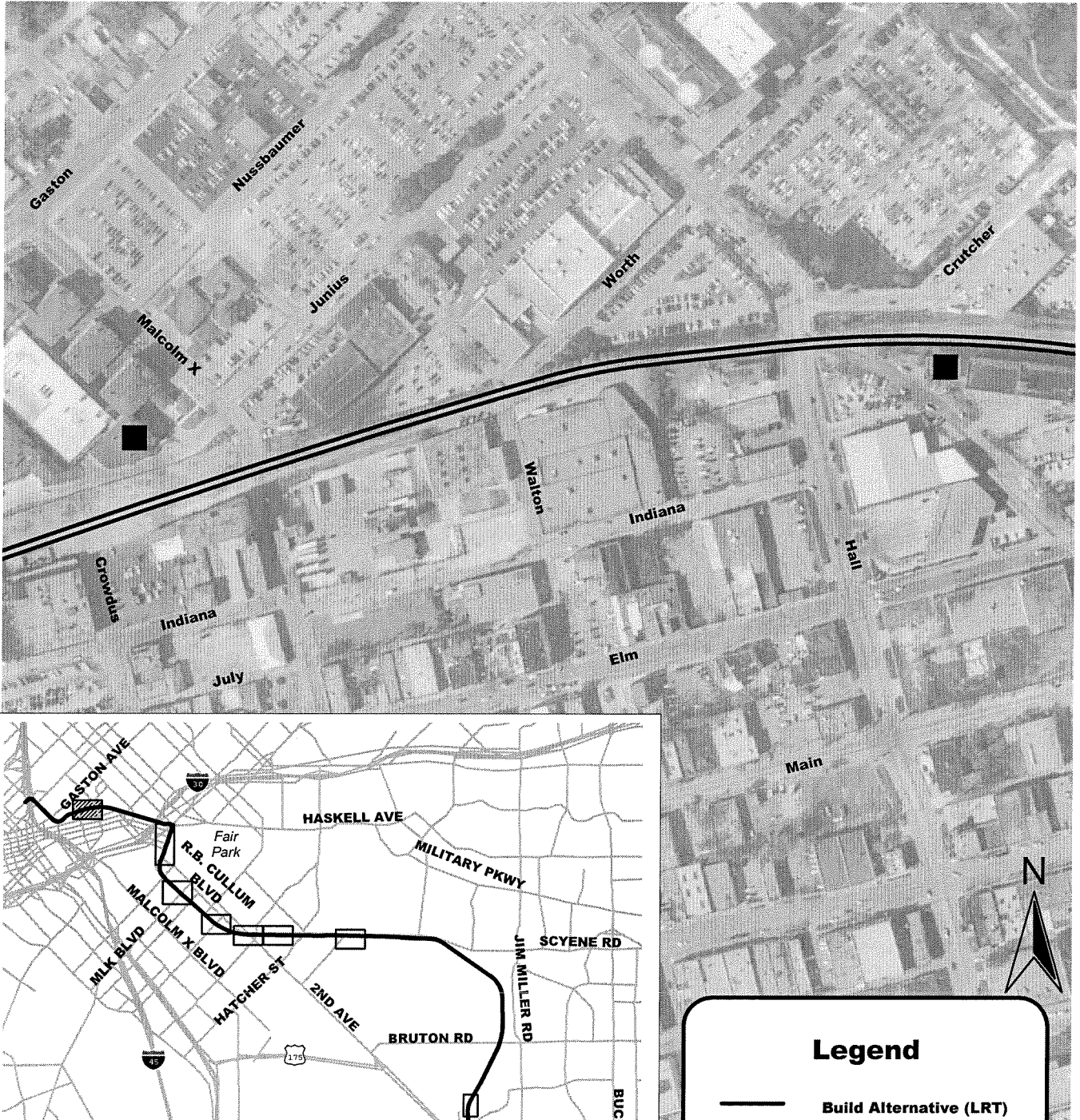
Good-Latimer Expressway (Bryan Street to Gaston Avenue): Moderate noise impact is predicted for 30 residential units at the Live Oak Lofts due to a crossover near this building.

Good-Latimer Expressway to Parry Avenue: Moderate noise impact is predicted for one building in the Gaston Yard Apartment complex (Figure 5.1) as well as one building with a loft east of Hall Street, primarily due to noise from audible warning devices.



Fair Park (Parry Avenue): Moderate noise impact is predicted at four lofts at 3809 Parry Avenue located on the south side of the alignment on the corner of Parry and the alignment (Figure 5.2). The impact is primarily due to the audible warning devices at the intersection.

Trunk Avenue (Parry Avenue to 2nd Avenue): Along this segment, severe noise impact is predicted at 11 residences and moderate impact is predicted at 91 residences; the severe impacts are primarily due to the audible warning devices at grade crossings. Impact is

Figure 5.1 Noise Impacts: Malcolm X Boulevard



Legend

-  Build Alternative (LRT)
-  Area of Interest

Noise Impact



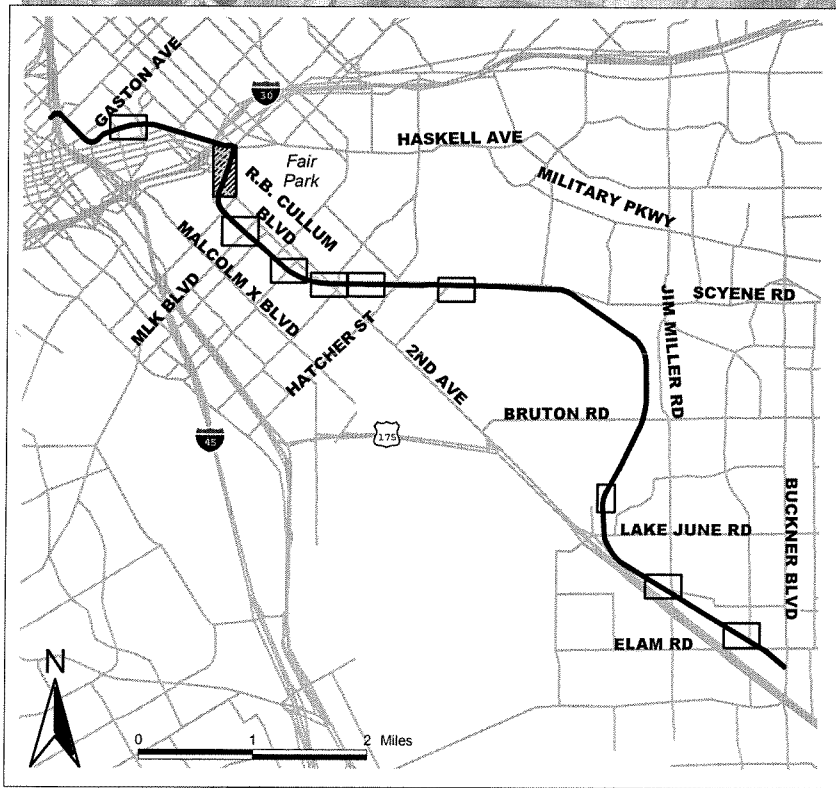
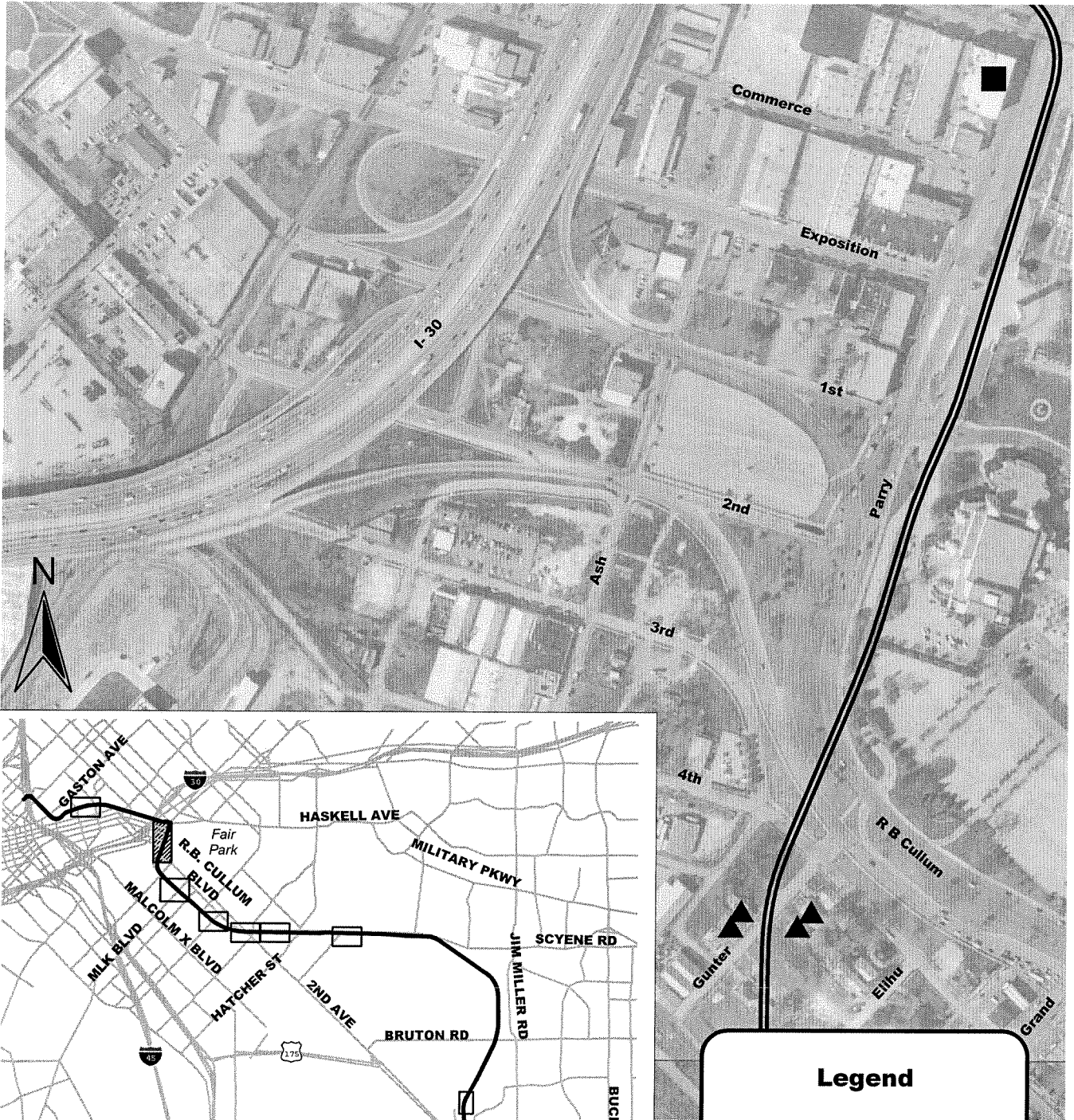


-  Moderate
-  Severe





Figure 5.2
Noise Impacts: Parry Avenue

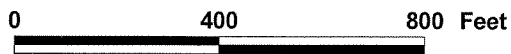


Legend

-  Build Alternative (LRT)
-  Area of Interest

Noise Impact

-  Moderate
-  Severe



predicted at the multi-family building on the south side of the alignment just southwest of Grand Avenue, due to its proximity to the tracks (44 feet) and to a crossover (Figure 5.2). Furthermore, impact is projected at three single-family residences on the south side of the alignment near the intersection of Trunk and Pennsylvania (Figure 5.3). Due to the distance (less than 110 feet) from the alignment and the noise from audible warning devices, impact is also projected at the multi-family apartment buildings on the north side of the alignment between Carl and Tuskegee (Figure 5.4). Impact is projected at single-family residences on the south side of the alignment between Rutledge and Spring and from Harmon to Tuskegee, primarily due to noise from the audible warning devices (Figures 5.4 and 5.5).

Scyene Road (2nd Avenue to Hatcher Street): Four severe and ten moderate noise impacts are predicted at residences located on the south side of the tracks between Pine and Todd Streets (Figures 5.5 and 5.6). Projected impacts are primarily due to noise from audible warning devices.

Scyene Road (Hatcher Street to White Rock Creek): An apartment complex is located to the south of the alignment and projected impacts are solely due to noise from audible warning devices (Figure 5.7).

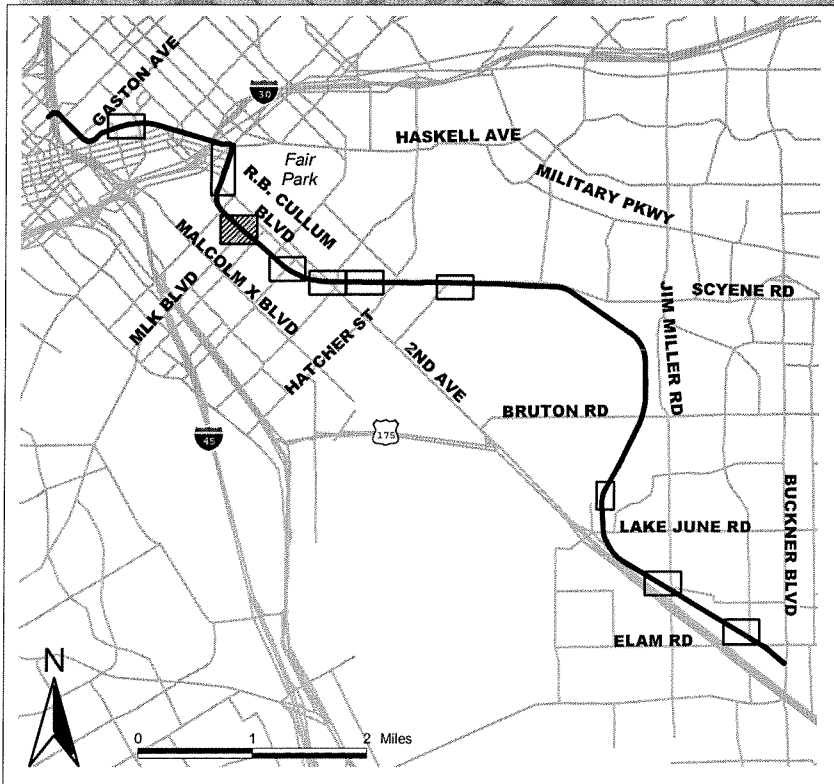
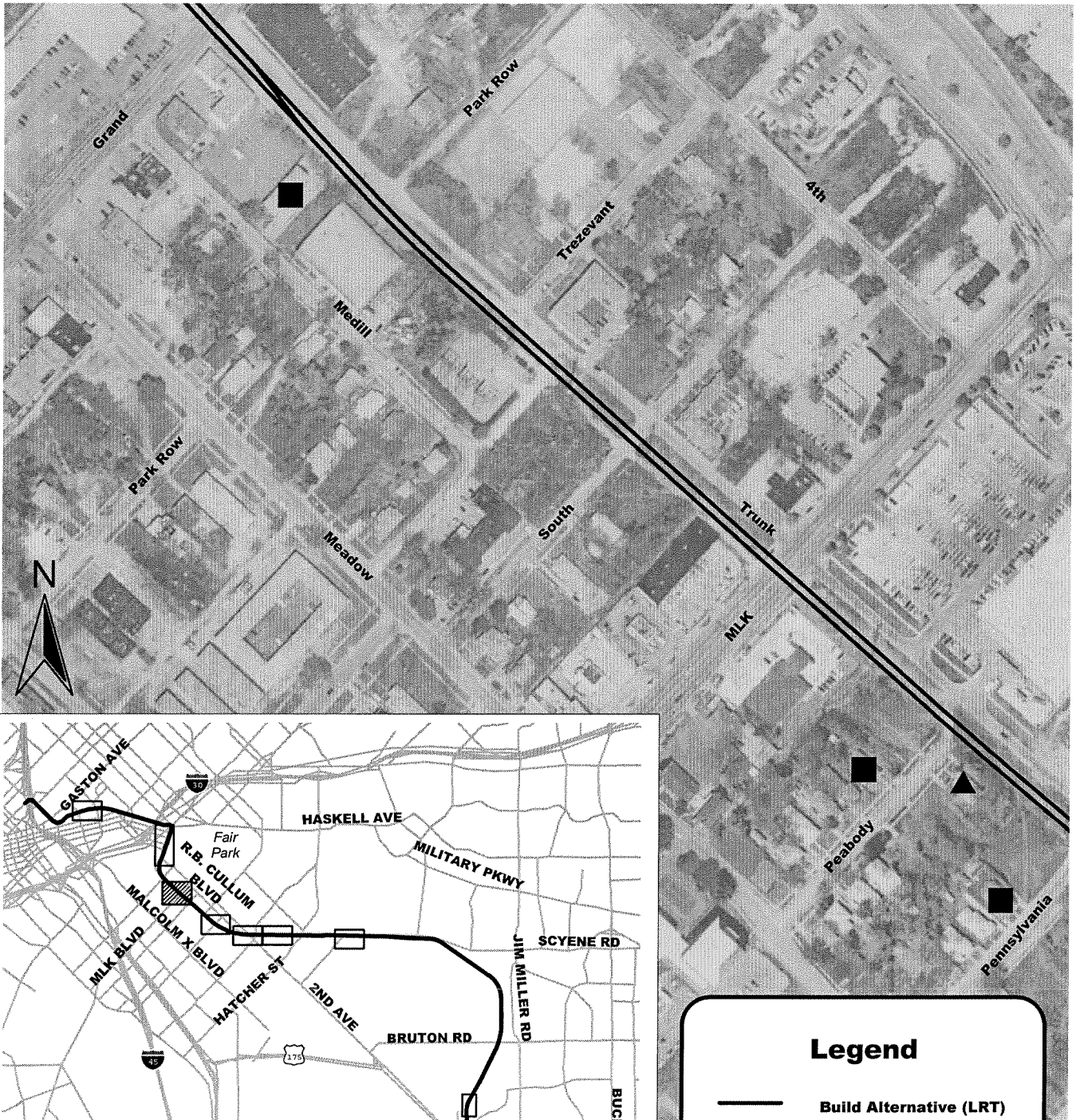
Bruton Road to Lake June Road: Moderate noise impact is predicted at three residences located on Brockham Circle, just north of Lake June Road, 70 to 100 feet north of the alignment (Figure 5.8).

Lake June Road to Buckner Boulevard: Three severe and 28 moderate noise impacts are predicted at residences located at the south end of the corridor, primarily on the north side of the alignment, near Jim Miller Road and Hillburn Drive (Figures 5.9 and 5.10). The projected impact at these locations is primarily due to audible warning devices, i.e., the whistle on the LRT and the bells at the grade crossings.

Similar to the Category 2 analysis, an assessment of noise impact for Category 3 receptors was also conducted. This assessment was based on a comparison of the existing ambient noise level with the predicted project noise levels in terms of the peak transit hour Leq. The results predict only marginal impact at the first hole green at the Grover C. Keeton Golf Course.

Figure 5.3

Noise Impacts: Martin Luther King Boulevard



Legend

- Build Alternative (LRT)
- Area of Interest
- Noise Impact**
- Moderate
- Severe

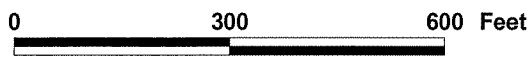
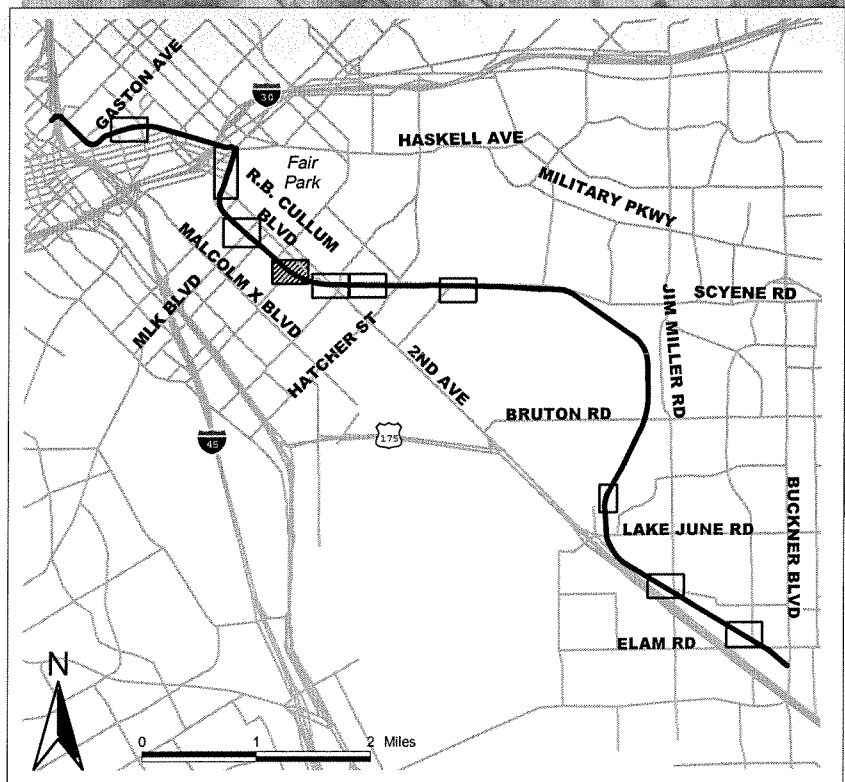
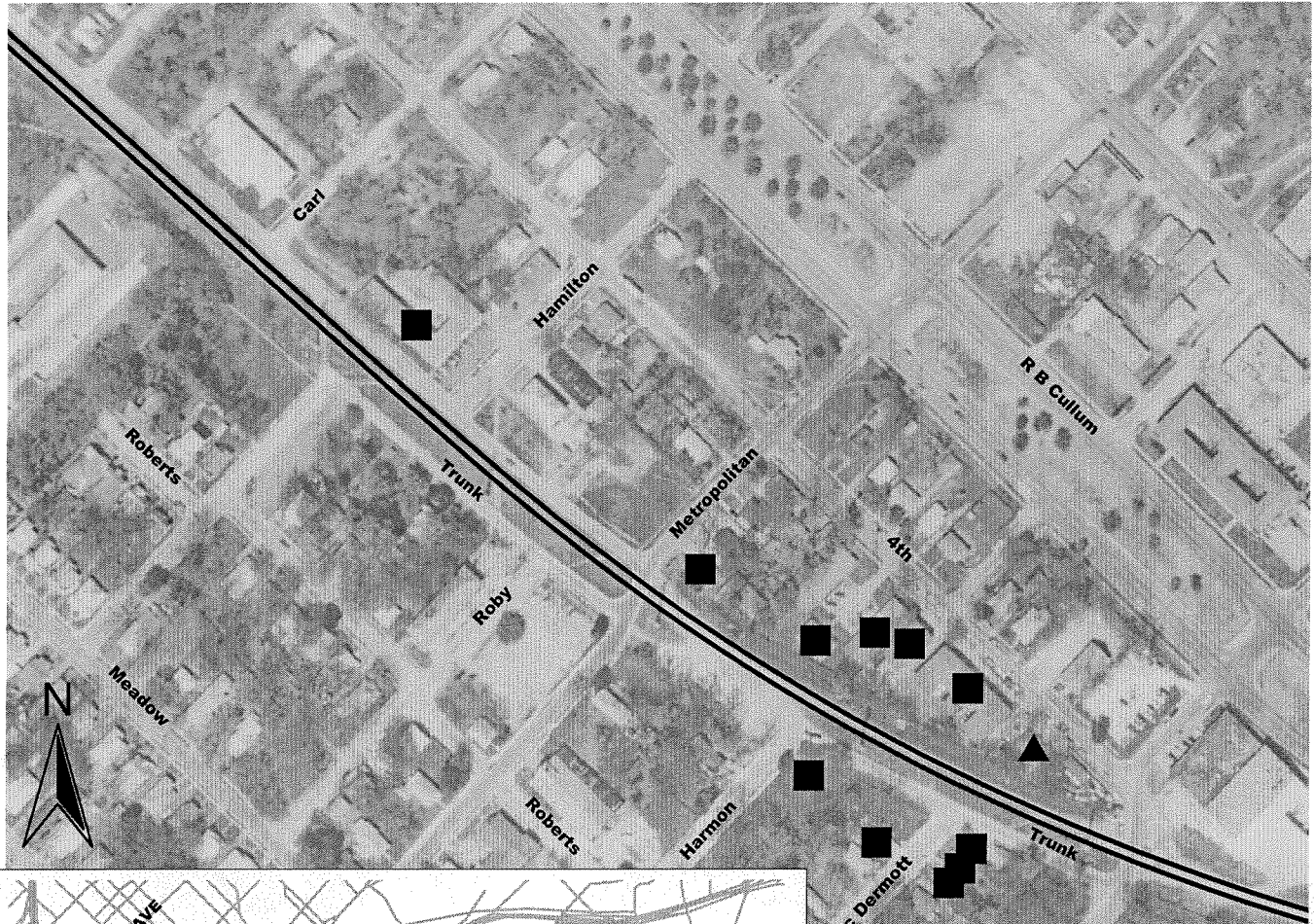


Figure 5.4 Noise Impacts: Trunk Avenue



Legend

- Build Alternative (LRT)
- Area of Interest

Noise Impact

- Moderate
- Severe

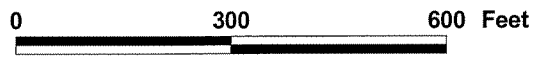
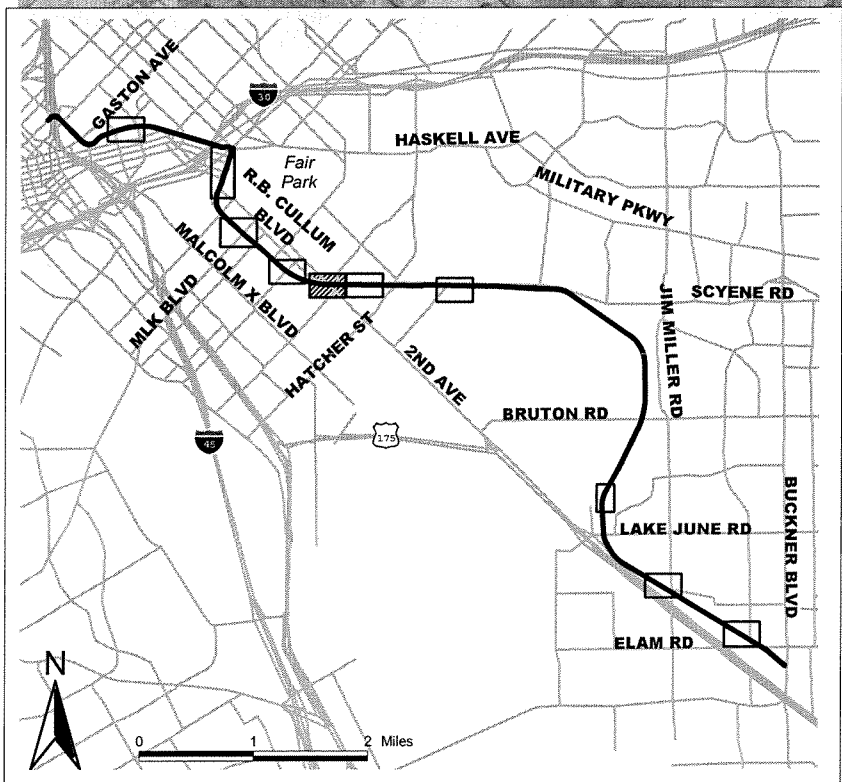
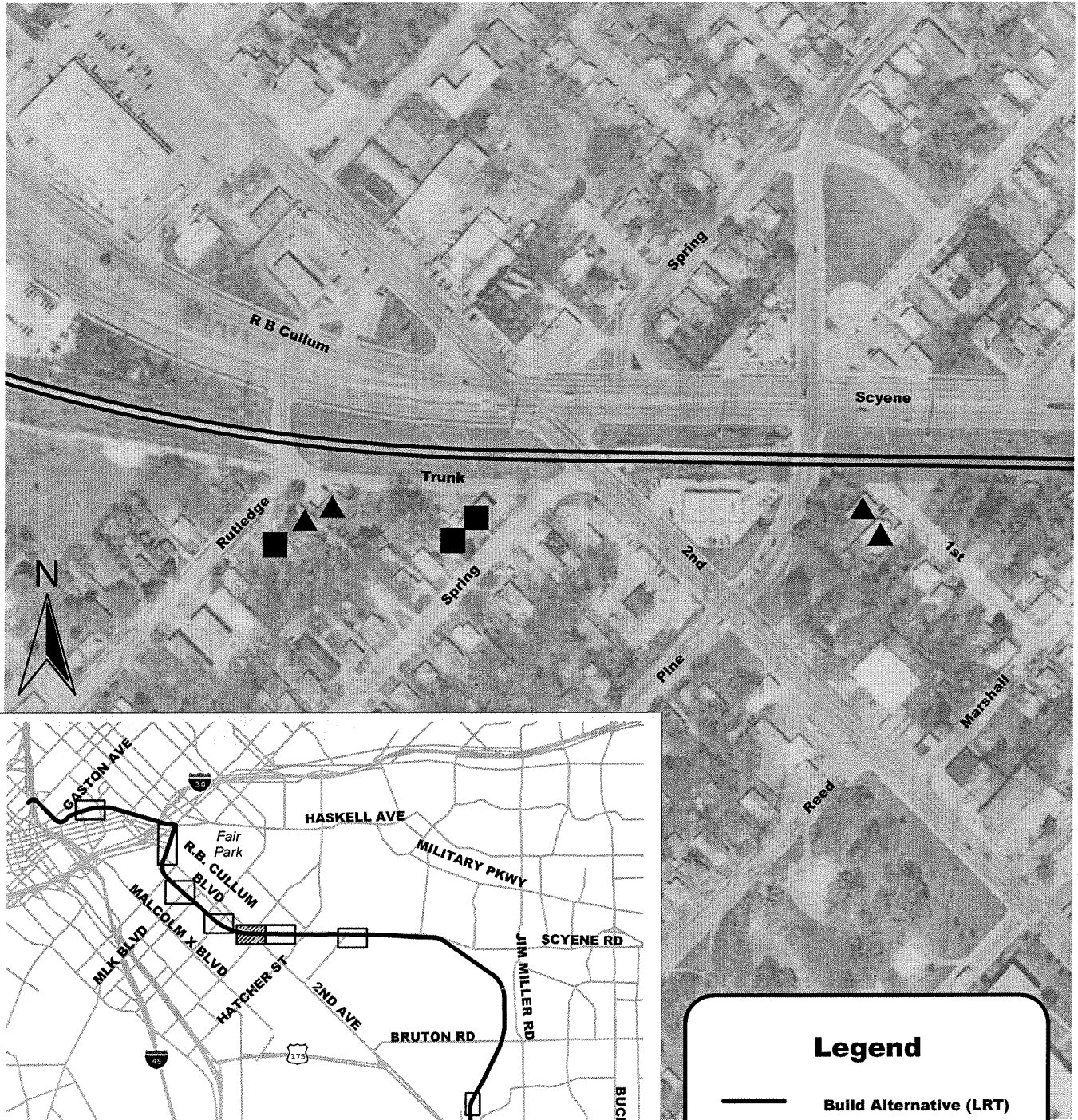






Figure 5.5 Noise Impacts: 2nd Avenue



Legend

-  Build Alternative (LRT)
-  Area of Interest
- Noise Impact**
-  Moderate
-  Severe

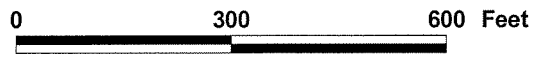
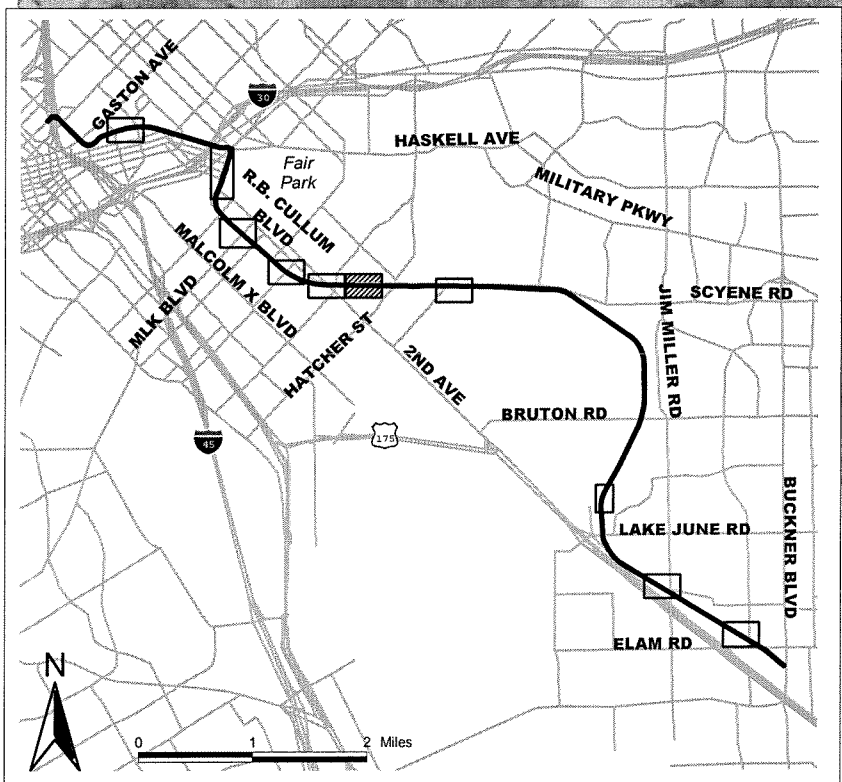
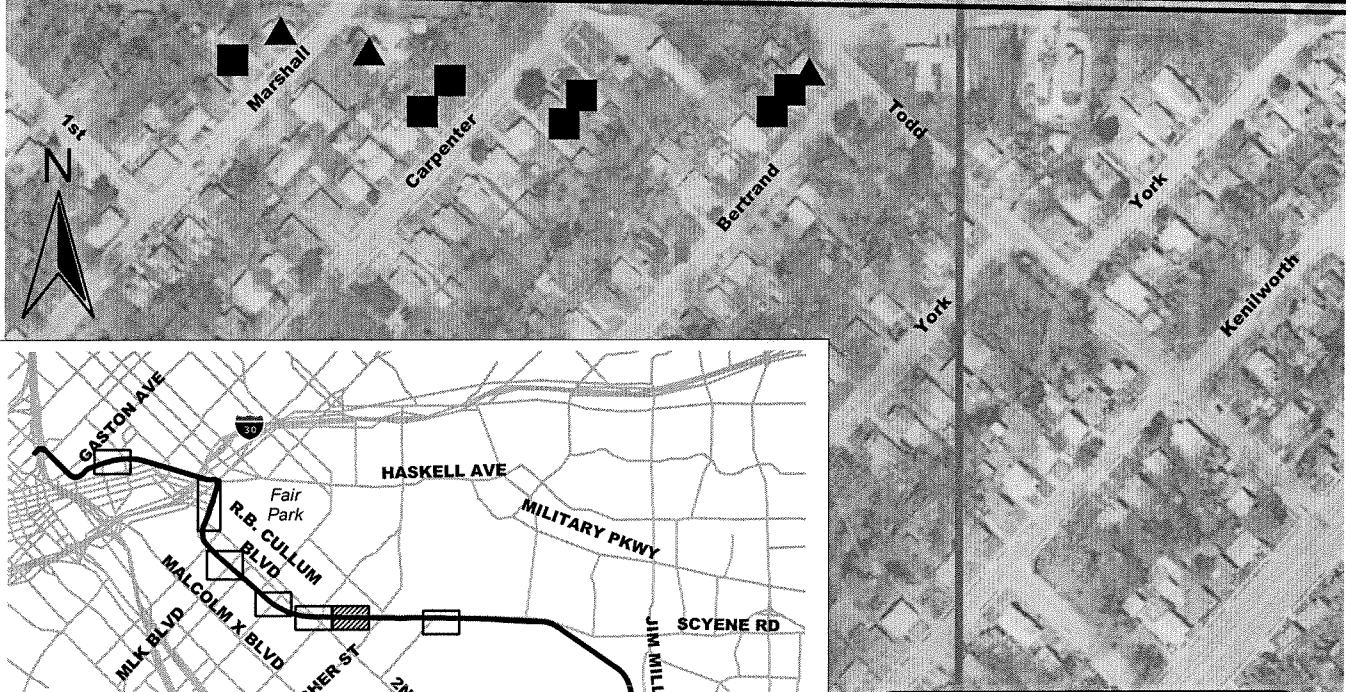


Figure 5.6 Noise Impacts: Scyene Road



Legend

- Build Alternative (LRT)
- Area of Interest
- Noise Impact**
- Moderate
- Severe

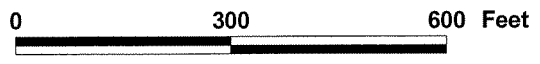
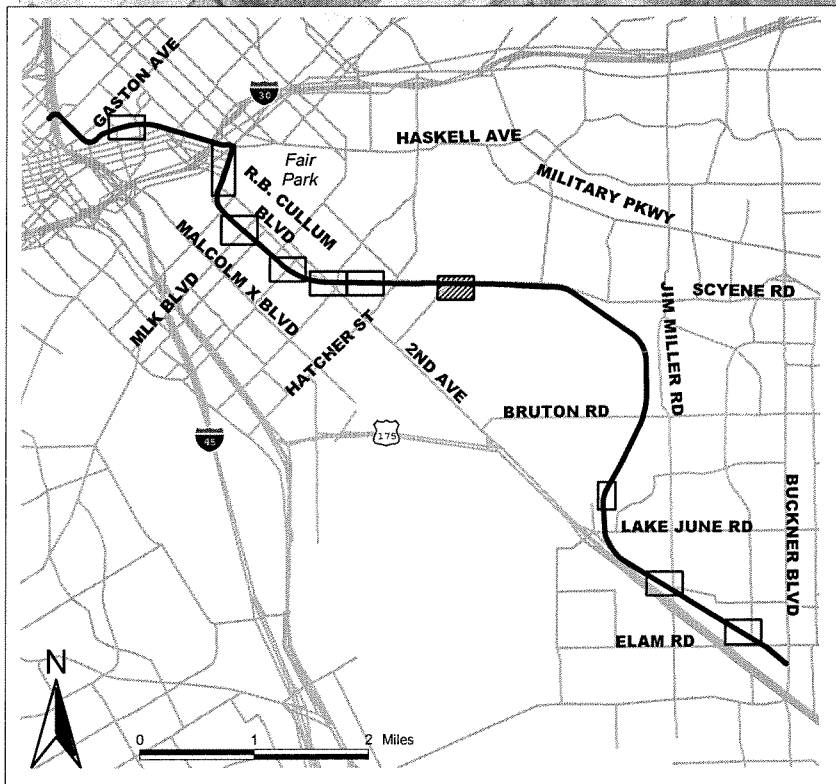
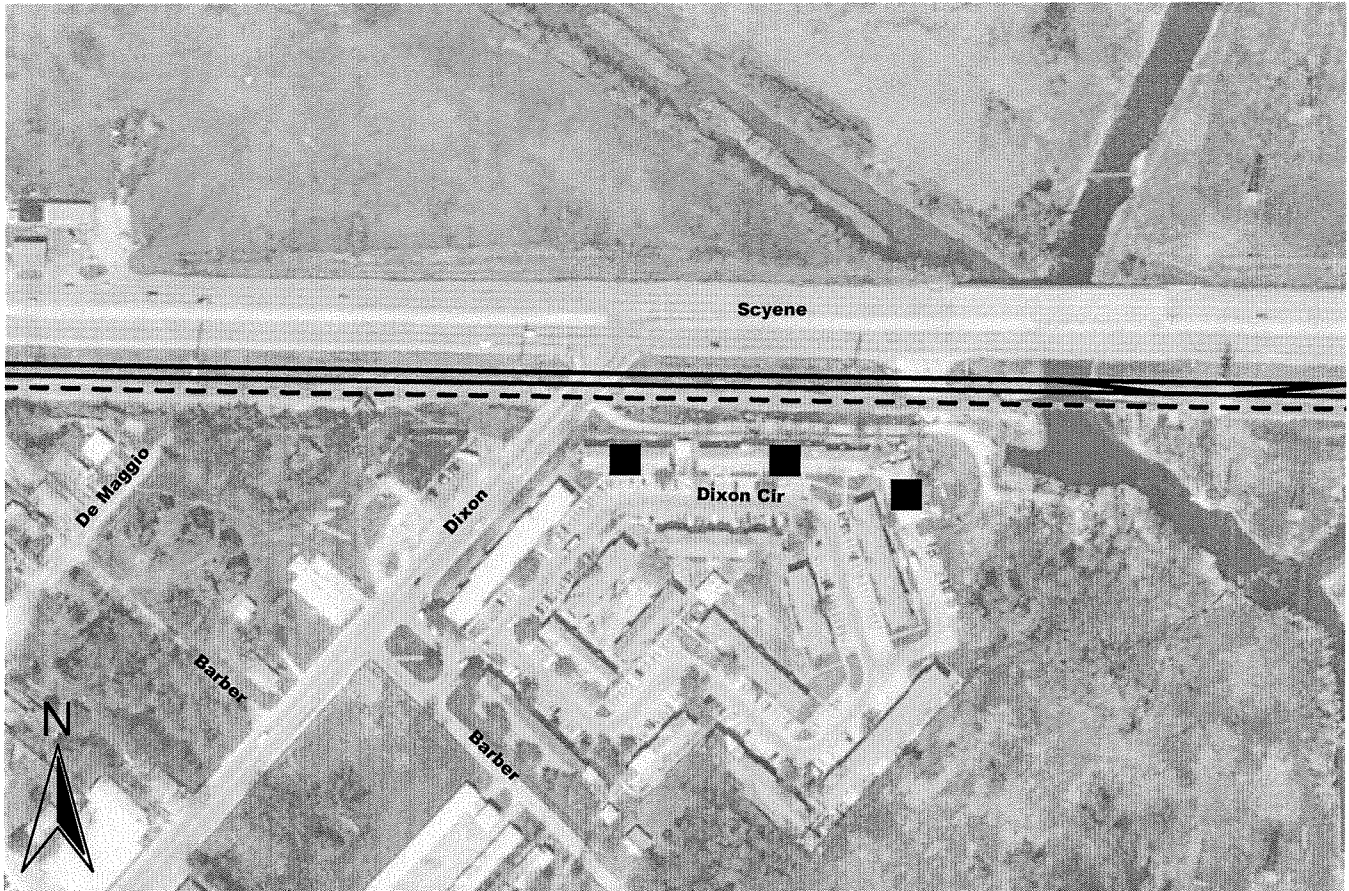





Figure 5.7
Noise Impacts: Dixon Circle



Legend

-  Build Alternative (LRT)
-  Freight Track
-  Area of Interest

Noise Impact



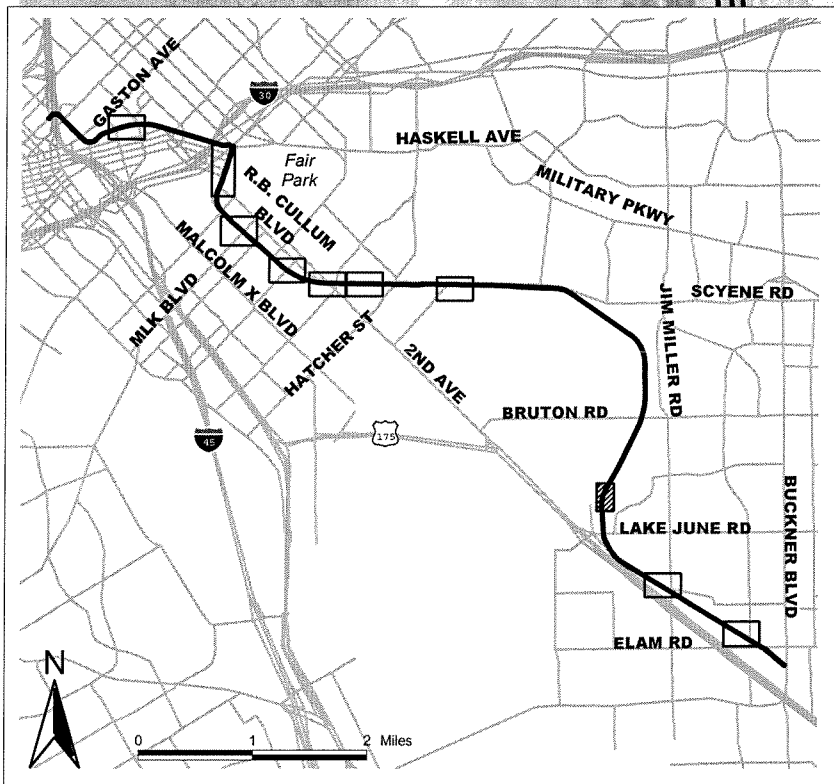
-  Moderate
-  Severe



Figure 5.8 Noise Impacts: Brockham Circle



Legend

- Build Alternative (LRT)
- Freight Track
- Area of Interest

Noise Impact

- Moderate
- Severe

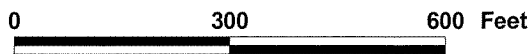
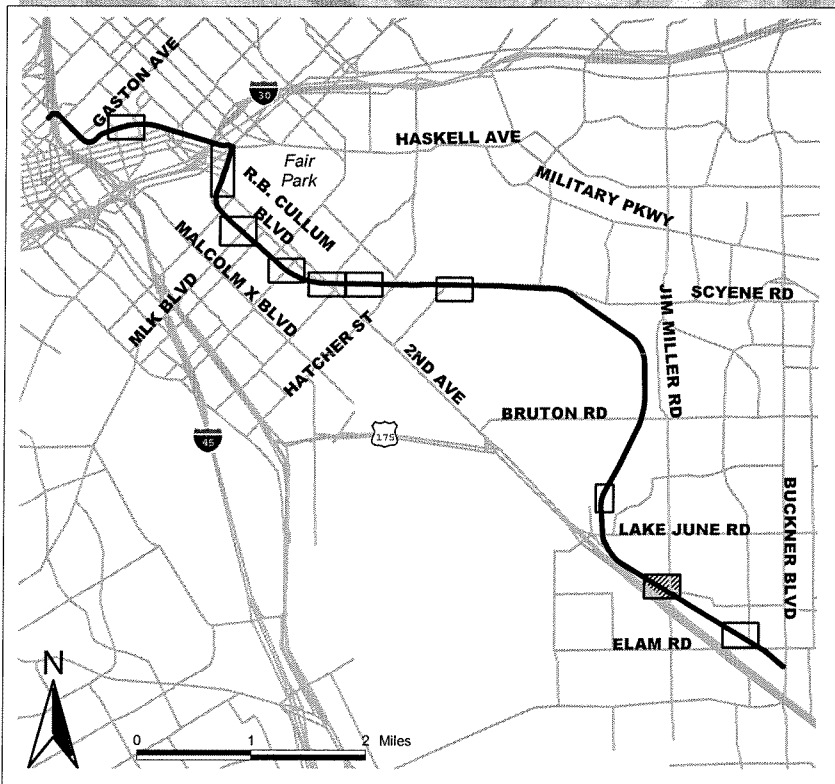


Figure 5.9 Noise Impacts: Jim Miller Road



Legend

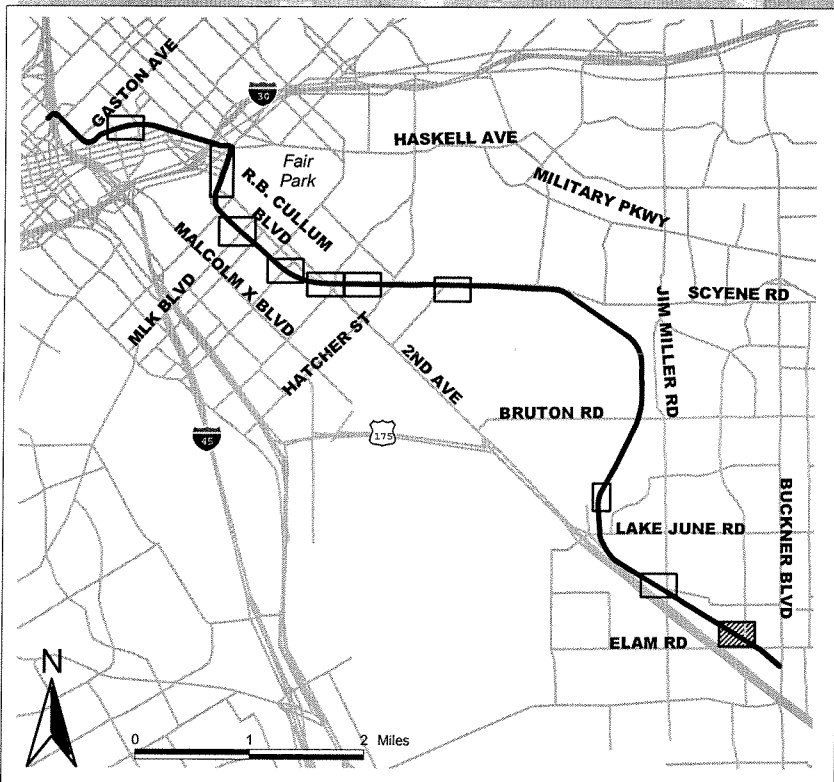
- Build Alternative (LRT)
- Freight Track
- Area of Interest

Noise Impact

- Moderate
- Severe



Figure 5.10
Noise Impacts: Hillburn Drive

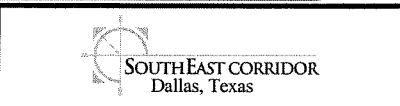
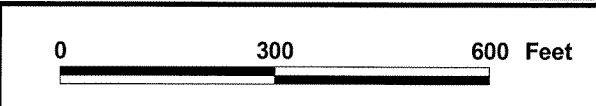


Legend

- Build Alternative (LRT)
- Freight Track
- Area of Interest

Noise Impact

- Moderate
- Severe



5.7.2 Noise Impact Mitigation

This section describes the range of potential mitigation measures for reducing noise impacts from LRT operation and the actual mitigation that is proposed by DART.

5.7.2.1 Range of Potential Mitigation Measures

Potential mitigation measures for reducing noise impacts considered by DART include: noise barriers, building sound insulation, special track work, street closures, and speed reduction.

Noise Barriers

This is a common approach to reducing noise impacts from surface transportation sources. The primary requirements for an effective noise barrier are that (1) the barrier must be high enough and long enough to break the line-of-sight between the sound source and the receiver, (2) the barrier must be of an impervious material with a minimum surface density of four pounds per square foot, and (3) the barrier must not have any gaps or holes between the panels or at the bottom. Because numerous materials meet these requirements, the selection of materials for noise barriers is usually dictated by aesthetics, durability, cost, and maintenance considerations. Depending on the proximity of the barrier to the tracks and on the track elevation, transit system noise barriers typically range in height from between four and eight feet.

Building Sound Insulation

Sound insulation of residences and institutional buildings to improve the outdoor-to-indoor noise reduction has been widely applied around airports and has seen limited application for transit projects. Although this approach has no effect on noise in exterior areas, it may be the best choice for sites where noise barriers are not feasible or desirable, and for buildings where indoor sensitivity is of most concern. Substantial improvements in building sound insulation (on the order of five to ten dBA) can often be achieved by adding an extra layer of glazing to the windows, by sealing any holes in exterior surfaces that act as sound leaks, and by providing forced ventilation and air-conditioning so that windows do not need to be opened.

Special Trackwork at Crossovers

Because the impacts of LRT wheels over rail gaps at track crossover locations increases LRT noise by about six dBA, crossovers are a major source of noise impact when they are located in sensitive areas. If crossovers cannot be relocated away from residential areas, another approach is to use moveable point frogs in place of standard rigid frogs at turnouts. These

devices allow the flangeway gap to remain closed in the main traffic direction for revenue service trains.

Street Closures

The closing of streets can eliminate the need for other mitigation means in areas of where noise impacts result from audible warning devices. Typically street closures are not used only for noise reduction but improved safety or in areas where crossings can be eliminated without substantially impairing access and circulation.

LRT Speed Reductions in Sensitive Areas

Speed reductions will always lower community noise levels, but they are not often implemented for noise control because of the negative impact on the LRT operating schedule. Thus, their impact on the operating schedule will need to be evaluated with respect to their potential noise mitigation benefits. Additionally speed reduction is often not enforced thus its use is discouraged by FTA as a mitigation measure. The primary noise mitigation measure will include sound barrier walls.

5.7.2.2 Mitigation Proposals

As discussed in Section 3.6.1, FTA states that in implementing noise impact criteria, severe impacts should be mitigated unless there are no practical means to do so. At the moderate impact level, more discretion should be used, and other project-specific factors should be included in the consideration of mitigation. These other factors can include the predicted increase over existing noise levels, the types and number of noise-sensitive land uses affected, existing outdoor-to-indoor sound insulation and the cost-effectiveness of mitigating noise to more acceptable levels. For this project, mitigation will be provided for all severe noise impacts, and for noise impacts at the moderate level when the projected noise level increase is 3 dBA or more; such an increase is generally required before most people will notice a marked difference in overall noise exposure. However, due to the marginal exceedance of the impact criterion and limited exposure to LRT pass-bys at the first hole green at the Grover C. Keeton Golf Course, noise mitigation is not considered to be cost effective and will not be provided at this site.

Based on the results of the noise assessment, mitigation measures have been identified. The primary mitigation measure will include the construction of sound barrier walls to shield areas

where impact is projected. Table 5.10 indicates the noise barrier locations, lengths, and side of track as well as the number of moderate and severe impacts that will be reduced. However, because barriers will not be practical for shielding receptors near grade crossings from the train and warning signal noise, sound insulation will be applied to such residences.

Table 5.11 indicates the residences identified as candidates for sound insulation. Street closures will eliminate the need for sound insulation in areas where noise due to audible warning devices typically would otherwise warrant sound mitigation. Several streets between MLK Boulevard and Hatcher (see Table 4.7, page 4-17) will be closed which will eliminate the need for an audible warning devices and for noise mitigation in some areas.

Other measures considered included moveable point frogs for the crossovers near stations 110+00 and 227+50, as well as speed reductions for the areas between stations 258+50 and 265+00 and between stations 290+00 and 305+50. Although LRT wheel squeal is not anticipated at the curves near Gaston Avenue and near the intersection of Parry and Haskell, it may be necessary to provide some type of wheel/rail friction modification or lubrication after the project is completed if this turns out to be a problem.

At the 1st Avenue signalized crossing into Fair Park, DART has committed to maintaining the lowest possible audible setting for the signal bells to avoid a constructive use to the adjacent Fair Park Music Hall. Additionally, DART has agreed to a train whistle ban at this intersection. On-going coordination with Fair Park and the Music Hall may limit this whistle ban to Music Hall events.

The Comanche Nation did not identify noise as a concern in the coordination and consultation regarding the Storytelling Place. The LRT trains running adjacent to the Storytelling Place will operate on a straight, flat section of rail without any nearby special trackwork or at-grade crossings. This will result in an extremely quiet rail segment. Any noise impact introduced by light rail at the Storytelling Place will be mitigated by the retaining wall that will be constructed at the Storytelling Place. The retaining wall will be significantly higher than typical sound walls and sufficiently wide enough to function as an effective noise barrier. The design of the LRT will not result in a noise impact to the Comanche Storytelling Place. Noise generated by the LRT line will not substantially interfere with the use of the site.

Table 5.10 Noise Barrier Mitigation Treatment

Segment	Side of Track	Civil Station	Length (Feet)	Impacts		Total
				Moderate	Severe	
Trunk Avenue – Parry Avenue to 2 nd Avenue	SB	242+50 to 246+00	350	1	1	2
	NB	265+00 to 273+00	800	29	2	31
	SB	270+00 to 272+00	200	2	0	2
	SB	283+50 to 285+50	200	1	0	1
Scyene Road – 2 nd Avenue to Hatcher Street	SB	290+50 to 293+00	350	0	2	2
	SB	294+50 to 296+50	200	1	1	2
	SB	297+50 to 299+50	200	2	1	3
	SB	302+00 to 303+50	150	2	1	3
Bruton Road to Lake June Road	NB	515+00 to 520+00	500	3	0	3
Lake June Road to Buckner Boulevard	NB	601+00 to 615+00	1400	16	0	16
	NB	616+00 to 618+50	250	1	1	2
Total			4600	58	9	67

Source: HMMH, 2002

Note: The alignment stationing is shown on the plan and profile drawings in Appendix D. The stationing numbers references to the location on the engineering drawings and not to passenger station locations.

Table 5.11 Sound Insulation Mitigation Treatment

Segment	Side of Track	Civil Station	Impacts		Number of Residences
			Moderate	Severe	
Good-Latimer Expressway to Parry Avenue	SB	194+00	4	0	4
Scyene Rd – Hatcher Street to 2 nd Avenue	SB	291+00 to 292+00	0	2	2
Lake June Road to Buckner Boulevard	NB	615+50 to 617+00	0	2	2
Total			4	4	8

Source: HMMH, 2002

Note: The alignment stationing is shown on the plan and profile drawings in Appendix D. The stationing numbers references to the location on the engineering drawings and not to passenger station locations.

In some cases, where noise due to audible warning devices would typically warrant sound insulation, street closures would eliminate the need for sound mitigation.

DART has been tracking the proposed FRA Rule on the Use of Locomotive Horns. This proposed rule would implement a statutory requirement that locomotive horns sound at each rail grade crossing unless certain exceptions are met. While DART prefers the safety afforded by the whistle, these intersections will be designed with unmountable median barriers so as not to preclude the community seeking to establish quiet zones in the future.

5.7.3 Ground Vibration Impact Assessment

This section discusses the vibration impact assessment methodology, projected vibration levels, ground-borne noise impact assessment, and mitigation for the alternatives under consideration.

5.7.3.1 Vibration Impact Assessment Methodology

The potential vibration impact from LRT operation was assessed on an absolute basis using the FTA criteria. The same representative sensitive receptors identified in Tables 3.14, page 3-59 and 3.15, page 3-60, were considered for the vibration impact assessment. The following factors were used in determining potential vibration impacts:

- Vibration source levels were based on measurements previously conducted on vehicles operating on the existing Starter System.
- Vibration propagation tests were conducted at seven sites along the corridor near sensitive receptors. These tests measured the response of the ground to an input force. The results of these tests were combined with the vibration source level measurements to provide projections of vibration levels from vehicles operating on the Southeast Corridor.
- Vehicle operating speeds are based on the TPC Simulations for the Southeast Corridor. The speed limits range from ten miles per hour to 65 miles per hour along the corridor.

5.7.3.2 Projected Vibration Levels

No-Build Alternative

The No-Build Alternative is not expected to result in any ground-borne vibration impacts. Traffic, even heavy trucks and buses, rarely creates perceptible ground-borne vibration unless vehicles are operating very close to buildings or there are irregularities, such as potholes or expansion joints, in the roadway. The pneumatic tires and suspension systems of normal automobiles, trucks and buses are sufficient to eliminate most ground-borne vibration forces.

Build Alternative (LRT)

With regard to the Build Alternative (LRT), the estimated RMS velocity levels (VdB re 1 micro-inch per second) for sensitive receptors at representative distances are provided in Tables 5.12 and 5.13. These tables summarize the results of the analysis in terms of anticipated exceedances of the FTA criteria for “frequent events” (defined as more than 70 events per day). The criteria are discussed in more detail in Section 3.6.2.

Table 5.12 Land Use Category 2 Vibration Impacts

Location	Civil Station	Distance to Near Track (ft)	Speed (mph)	Project Vibration Level ¹	Vibration Impact Criterion ¹	# of Residential Impacts
Good-Latimer Expressway (Bryan Street to Gaston Avenue)	112+00	38	36	73	72	30
Good-Latimer Expressway to Parry Avenue	124+00	50	35	69	72	0
Fair Park (Parry Avenue)	191+00	40	30	73	72	1
Trunk Avenue – Parry Avenue to 2 nd Avenue	266+00	36	65	83	72	65
Scyene Road – 2 nd Avenue to Hatcher Street	297+00	50	65	77	72	3
Scyene Road – Hatcher Street to White Rock Creek	343+00	80	58	69	72	0
Scyene Road – White Rock Creek to Glover Street	391+00	200	55	50	72	0
Bruton Road to Lake June Road	518+00	70	56	72	72	0
Lake June Road to Jim Miller	567+00	52	56	75	72	2
Jim Miller Road to Buckner Boulevard	610+00	64	50	73	72	3
Total						104

Source: HMMH, 2002

Note: The alignment stationing is shown on the plan and profile drawings in Appendix D. The stationing numbers references to the location on the engineering drawings and not to passenger station locations.

1. Vibration levels are measured in VdB referenced to 1 µin/sec.

Table 5.13 Land Use Category 1 and 3 Vibration Impacts

Location ¹	Land Use Category	Civil Station	Distance to Near Track (ft)	Speed (mph)	Project Vibration Level ²	Vibration Impact Criterion ²	# of Impacts
Latino Cultural Center	3	109+00	40	26	78	75	1
St. James AME Temple	3	112+00	46	36	70	75	0
Fireman's Museum	3	197+00	110	30	58	75	0
Women's Museum	3	196+00	45	30	70	75	0
Fair Park Music Hall	3	205+00	90	10	52	72	0
Greater Christian Love Missionary Baptist Church	3	248+00	71	35	68	75	0
Memorial Missionary Baptist Church	3	273+00	176	65	53	75	0
Church	3	296+00	120	65	60	75	0
St. Joseph's Baptist Church	3	301+00	50	62	77	75	1
Funeral Home	3	313+00	150	20	45	75	0
Total							2

Source: HMMH, 2002

Note: The alignment stationing is shown on the plan and profile drawings in Appendix D. The stationing numbers references to the location on the engineering drawings and not to passenger station locations.

1. Assessment is for vibration-sensitive buildings only; parklands are not included.

2. Vibration levels are measured in VdB referenced to 1 µin/sec.

Vibration-sensitive locations along the alignment are listed in Table 5.12 for Category 2 land use and in Table 5.13 for Category 1 and 3 land uses. Each table lists the locations, the civil station, the distance to the near track, and the projected LRT speed at each location. In addition, the predicted project vibration level and the impact criterion level are indicated along with the number of impacts projected for each receptor or receptor group. Table 5.12 indicates that there are 104 residences with potential vibration impact. A discussion of each impacted receptor group follows.

Good-Latimer Expressway (Bryan Street to Gaston Avenue): Marginal vibration impact is predicted for 30 residential units in the Live Oak Lofts due to a crossover near this building.

Fair Park (Parry Avenue): Vibration impact is predicted at one single-family residence located 40 feet to the north of the alignment near the curve at Parry Street (Figure 5.11).

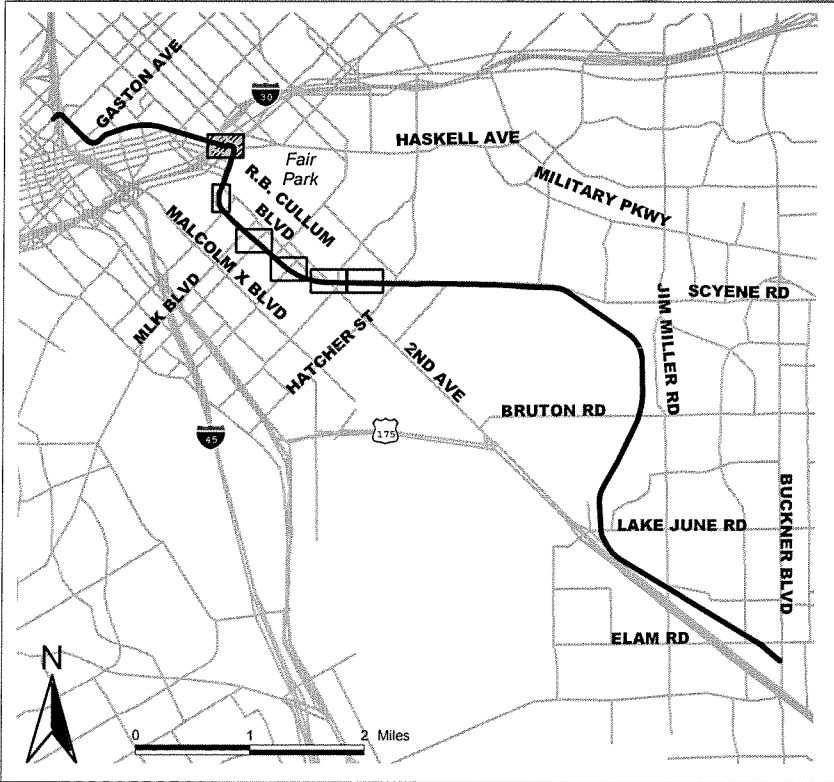
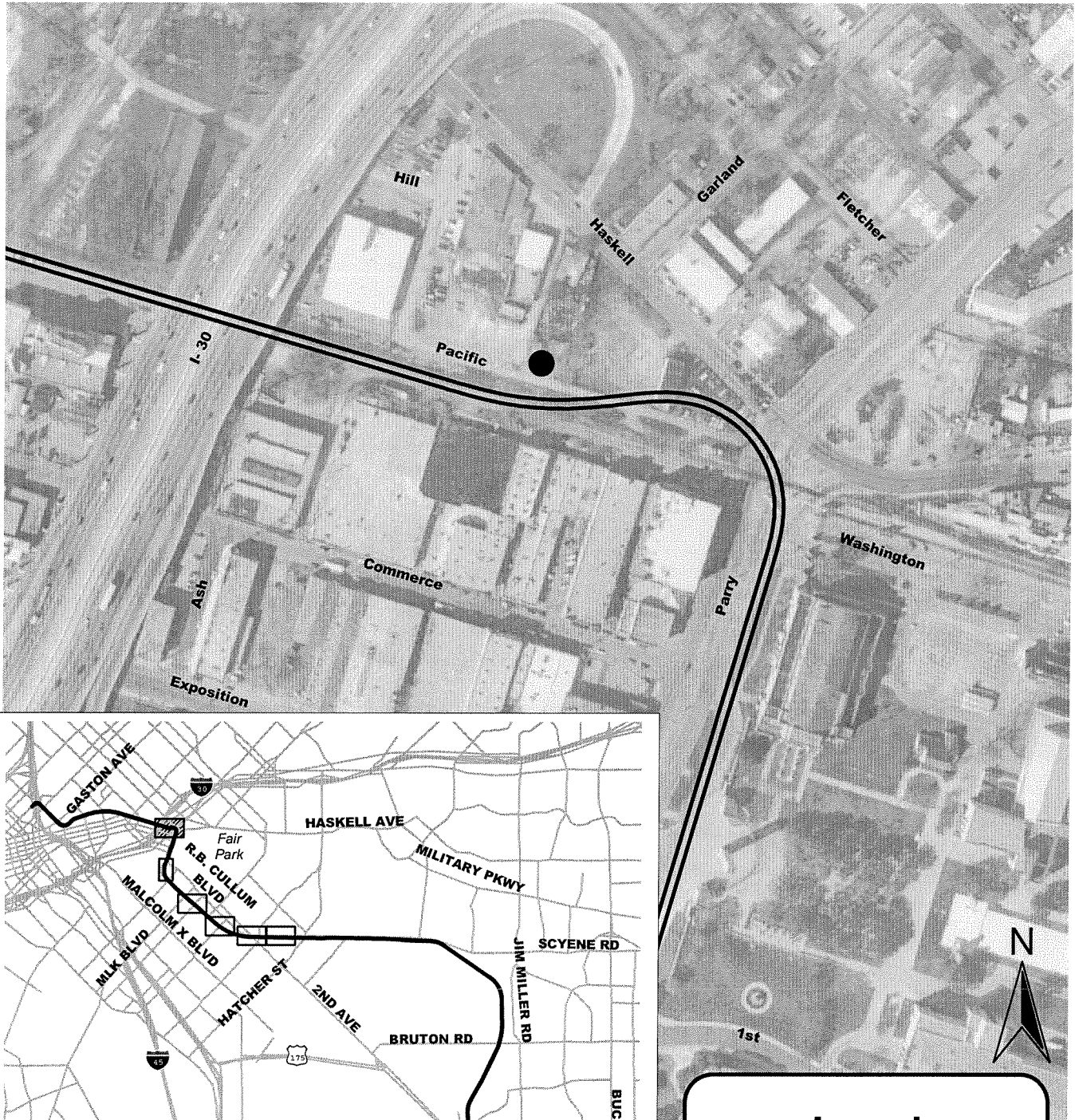
Trunk Avenue (Parry Avenue to 2nd Avenue): Vibration impact is predicted at 65 residences along this segment. These include: two single-family residences located one on either side of the intersection of the alignment and Gunter between 30 and 40 feet from the tracks (Figure 5.12) one single-family residence south of the tracks to the west of the intersection of Trunk Avenue and Peabody (Figure 5.13), two residences within 70 feet of the tracks on the south side of the alignment between Rutledge and Spring, eight buildings between Hamilton and Tuskegee, including four single-family residences, two duplexes, and two apartment buildings (28 units total) within 36 to 80 feet from the tracks on both the north and south sides; plus a apartment building with 24 units located immediately to the west of Hamilton, 58 feet to the north of the alignment (Figure 5.14).

Scyene Road (2nd Avenue to Hatcher Street): Vibration impact is predicted at three residences between Carpenter and Pine within 68 feet south of the alignment (Figures 5.15 through 5.16).




Lake June Road to Jim Miller Road: Vibration impact is predicted at two residences at the end on Annabelle Lane within 52 feet of the alignment (Figure 5.17).

Jim Miller Road to Buckner Boulevard: Vibration impact is predicted at three residences near the end of Rilla Avenue within 64 feet of the alignment (Figure 5.18).

Figure 5.11
Vibration Impacts: Pacific Avenue



Legend

-  Build Alternative (LRT)
-  Area of Interest
-  Vibration Impact

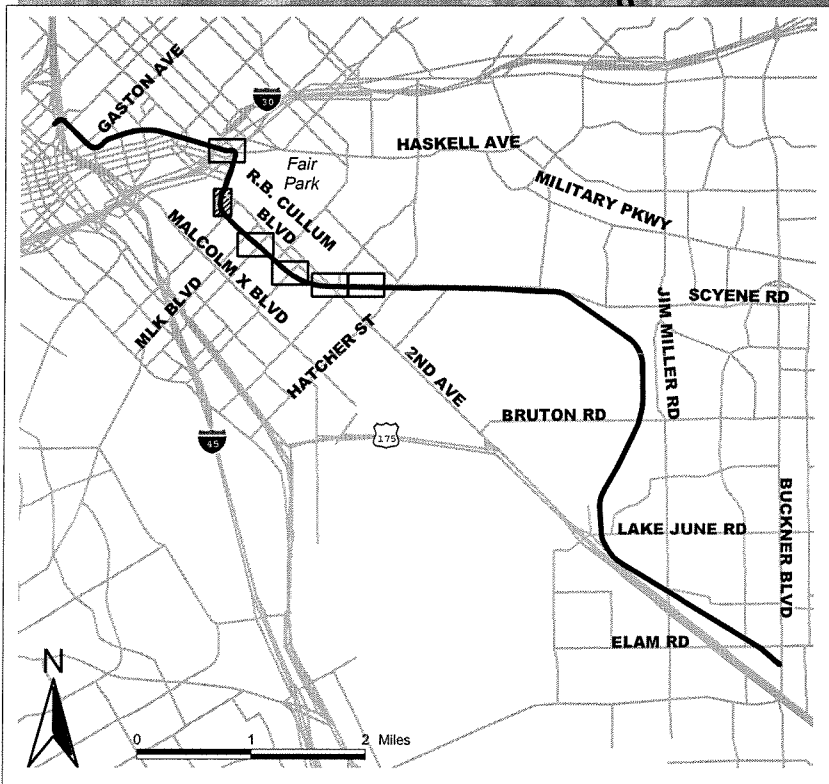
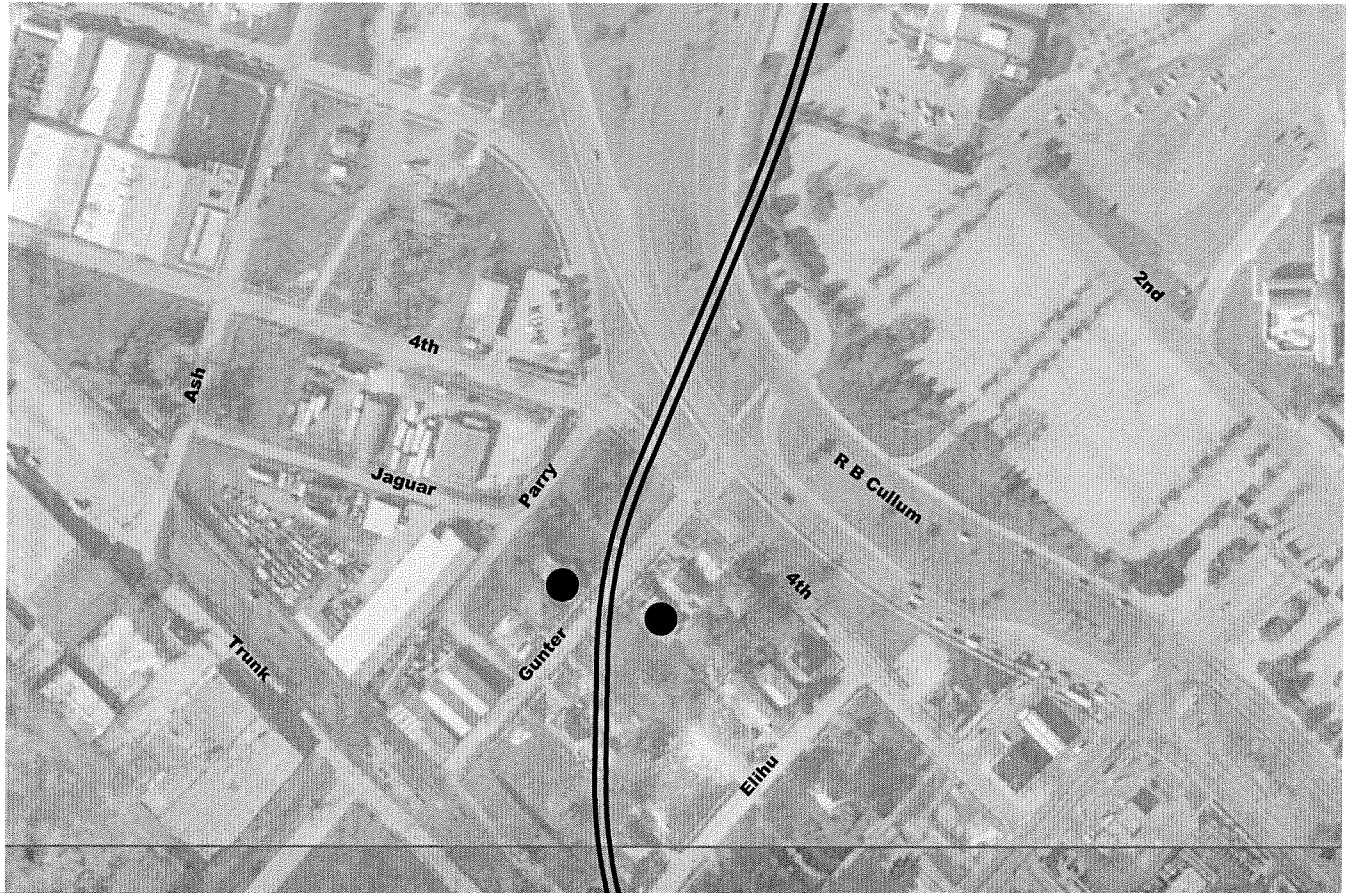


0 1 2 Miles




0 300 600 Feet



Figure 5.12
Vibration Impacts: Gunter Avenue



Legend

-  Build Alternative (LRT)
-  Area of Interest
-  Vibration Impact

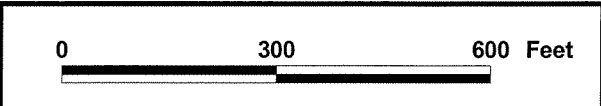
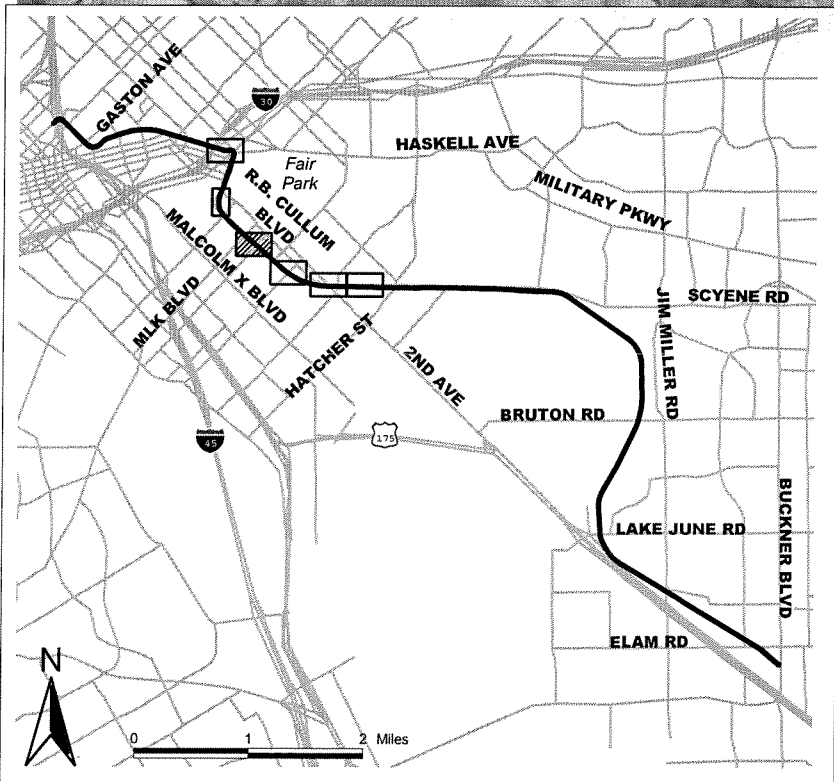
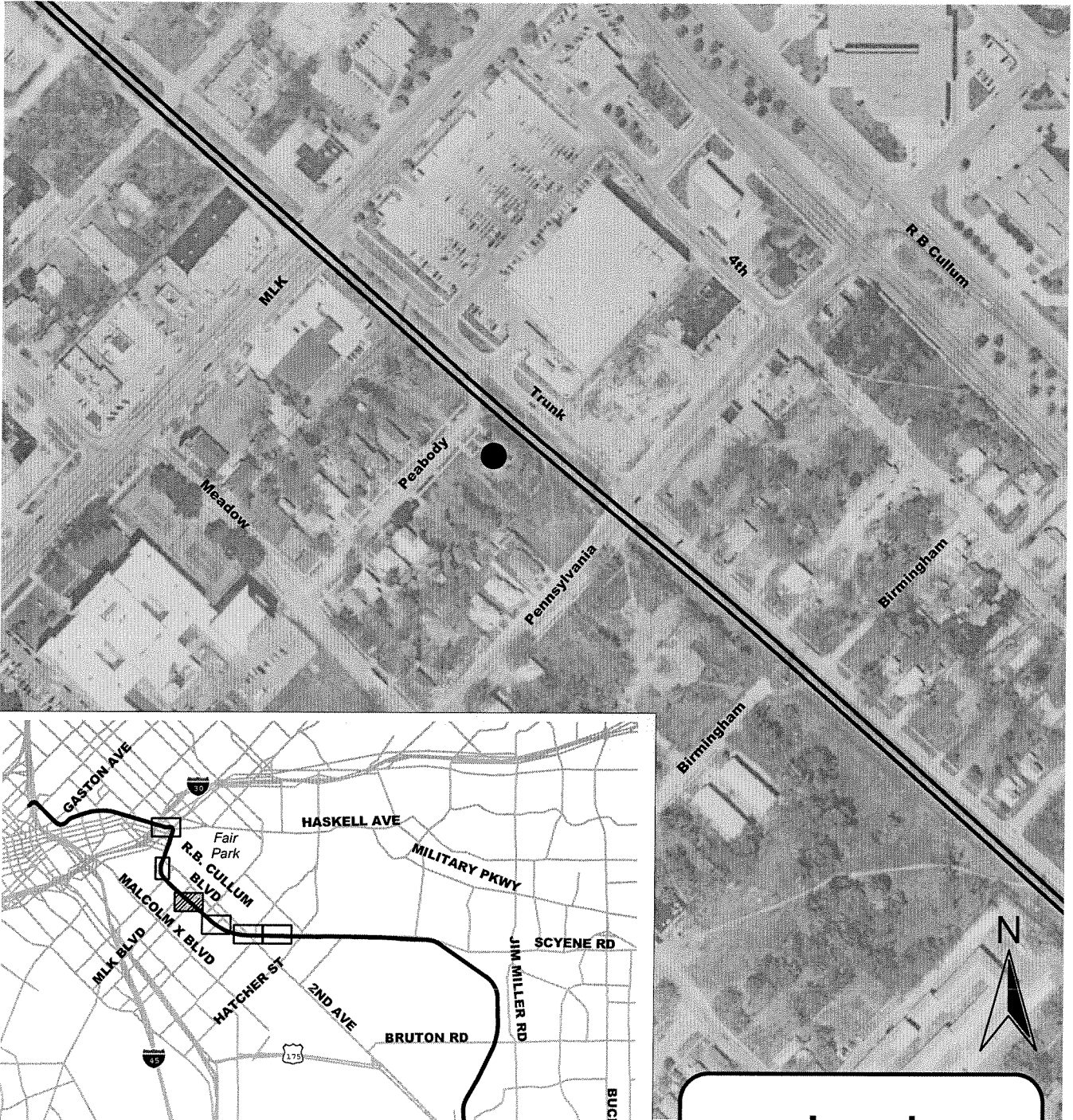





Figure 5.13
Vibration Impacts: Peabody Avenue



Legend

-  Build Alternative (LRT)
-  Area of Interest
-  Vibration Impact

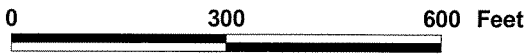
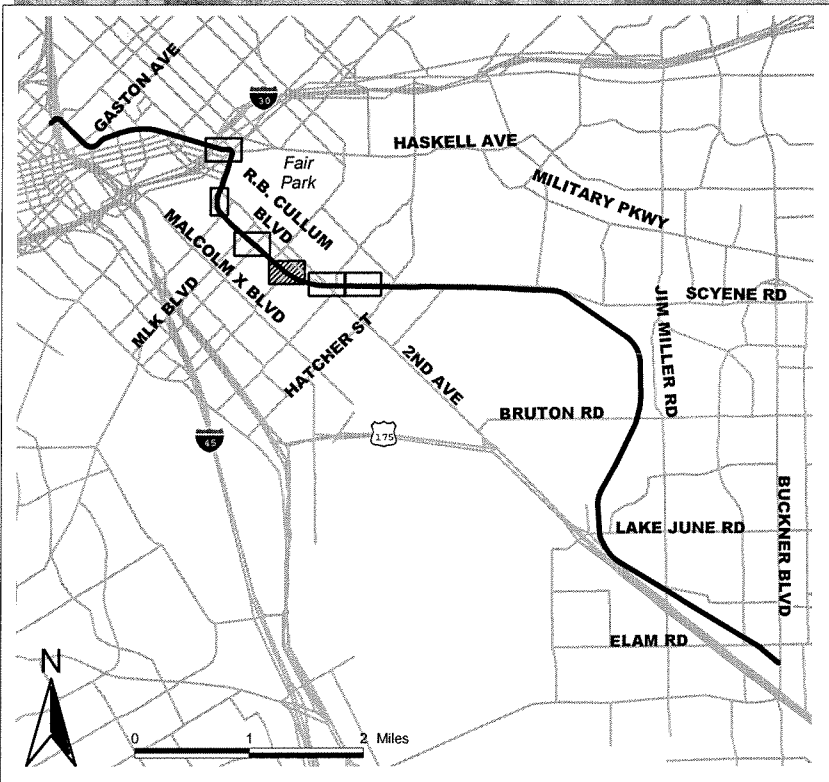
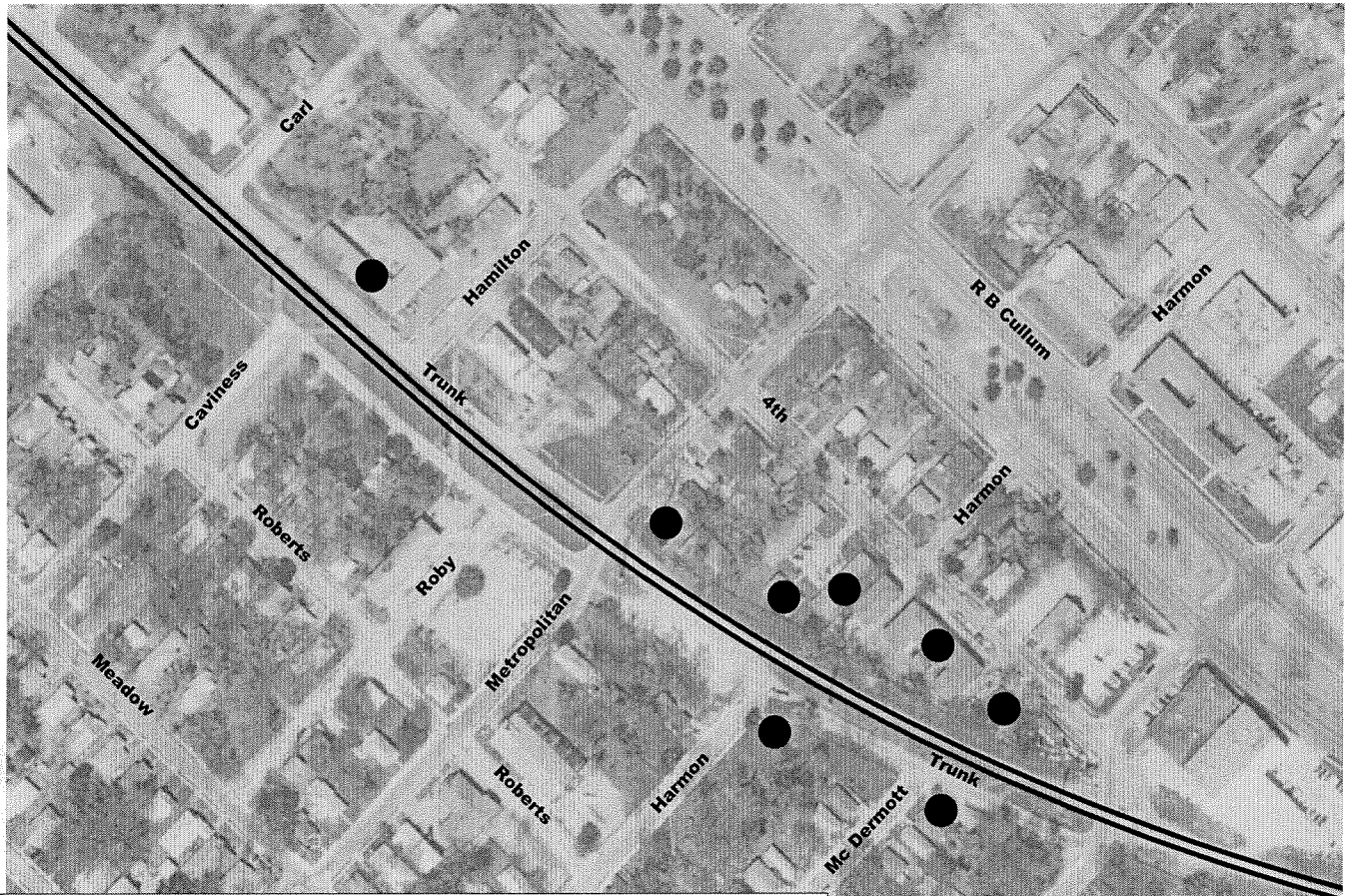





Figure 5.14 Vibration Impacts: Trunk Avenue



Legend

-  Build Alternative (LRT)
-  Area of Interest
-  Vibration Impact

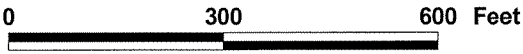
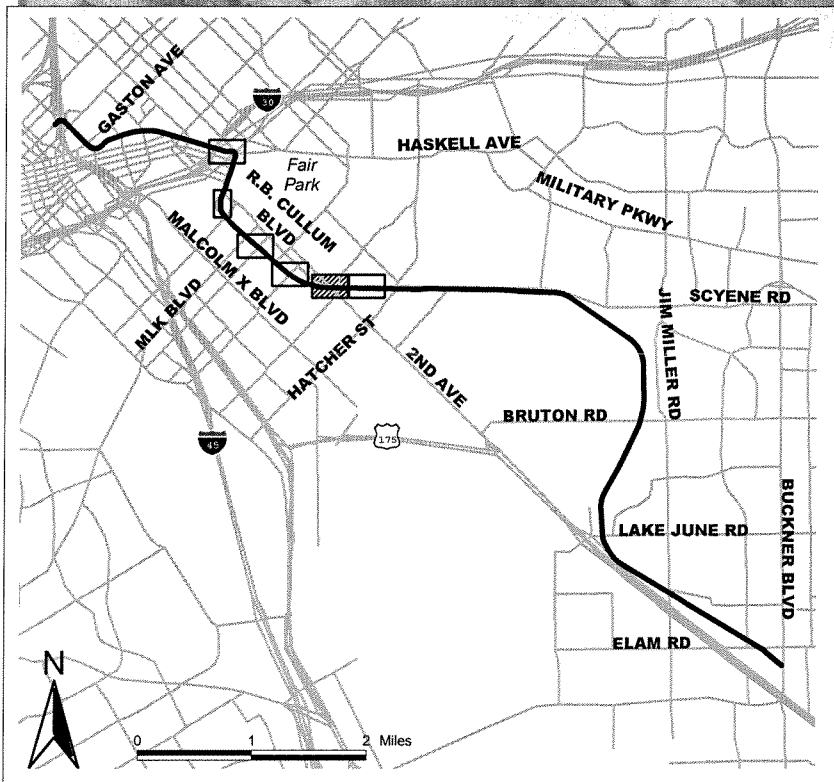
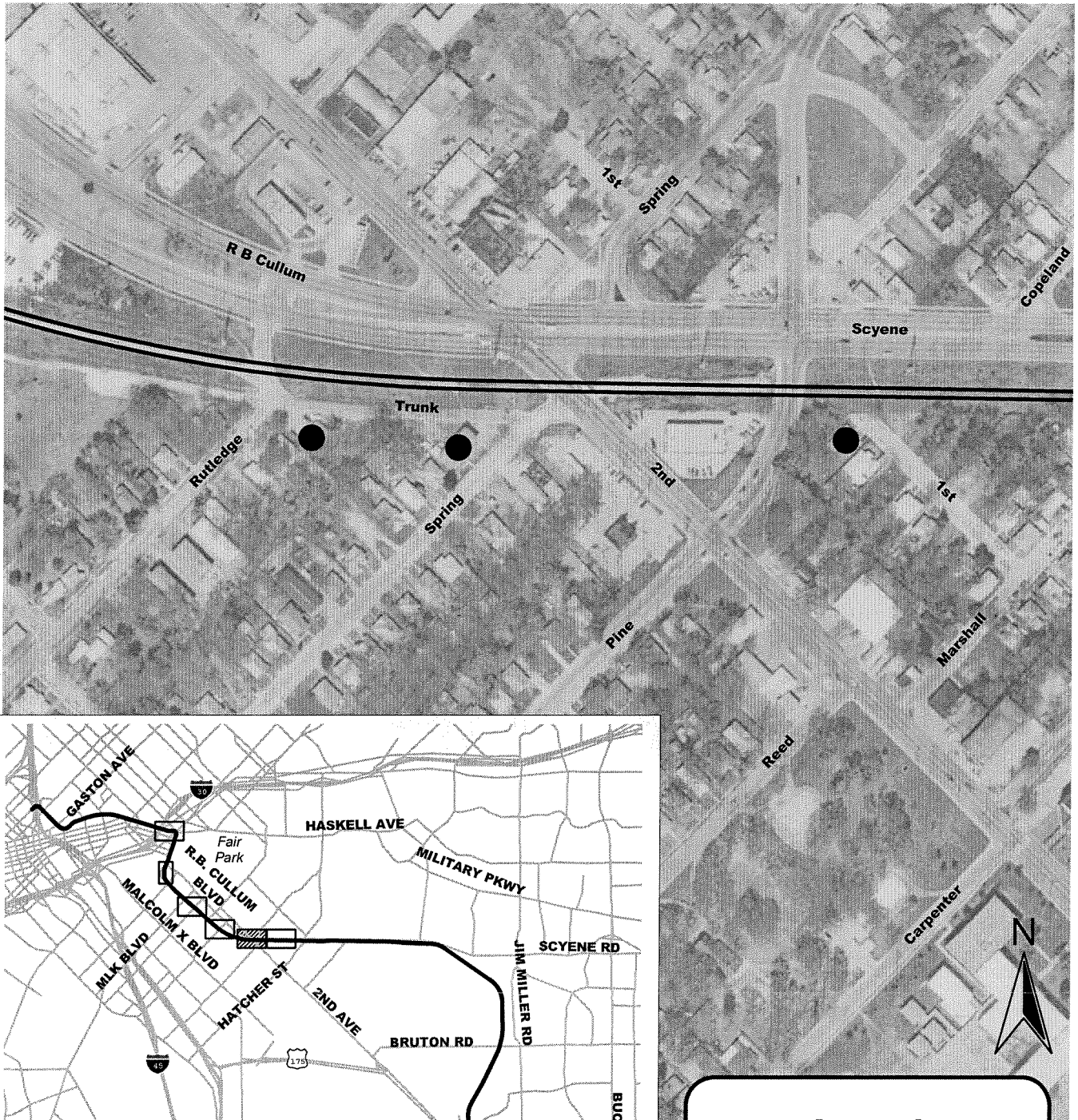





Figure 5.15 Vibration Impacts: 2nd Avenue



Legend

-  Build Alternative (LRT)
-  Area of Interest
-  Vibration Impact

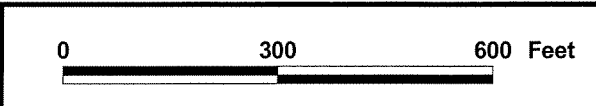
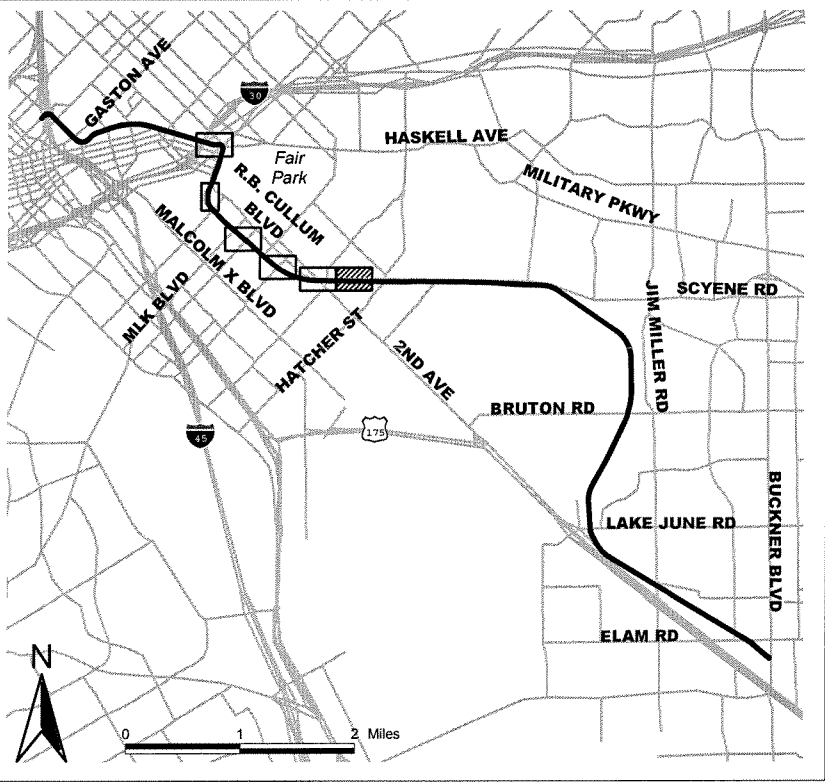
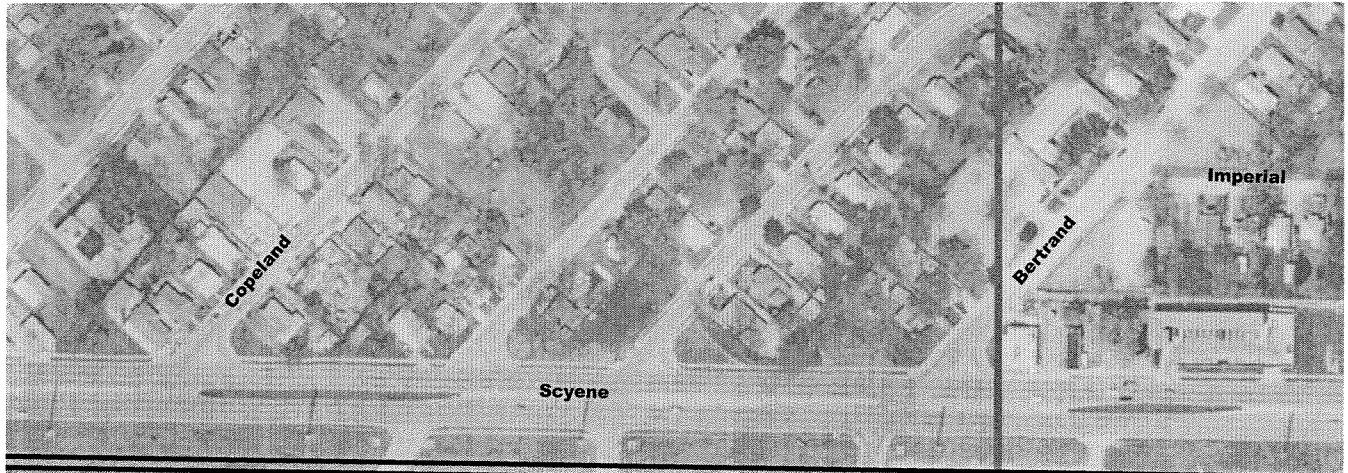





Figure 5.16 Vibration Impacts: Scyene Road



Legend

-  Build Alternative (LRT)
-  Area of Interest
-  Vibration Impact

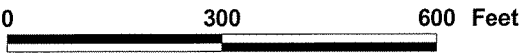
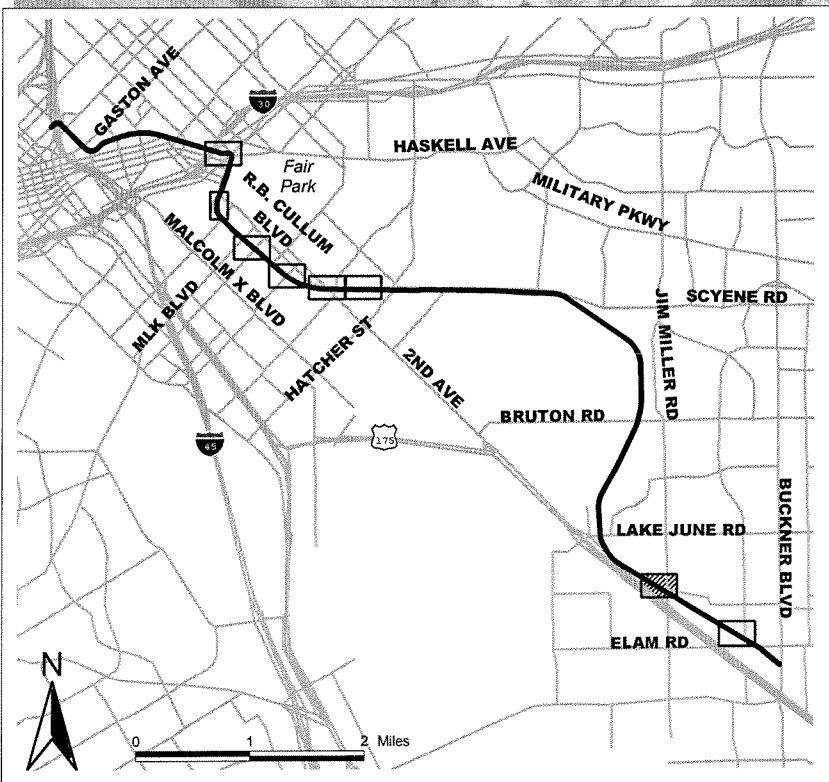
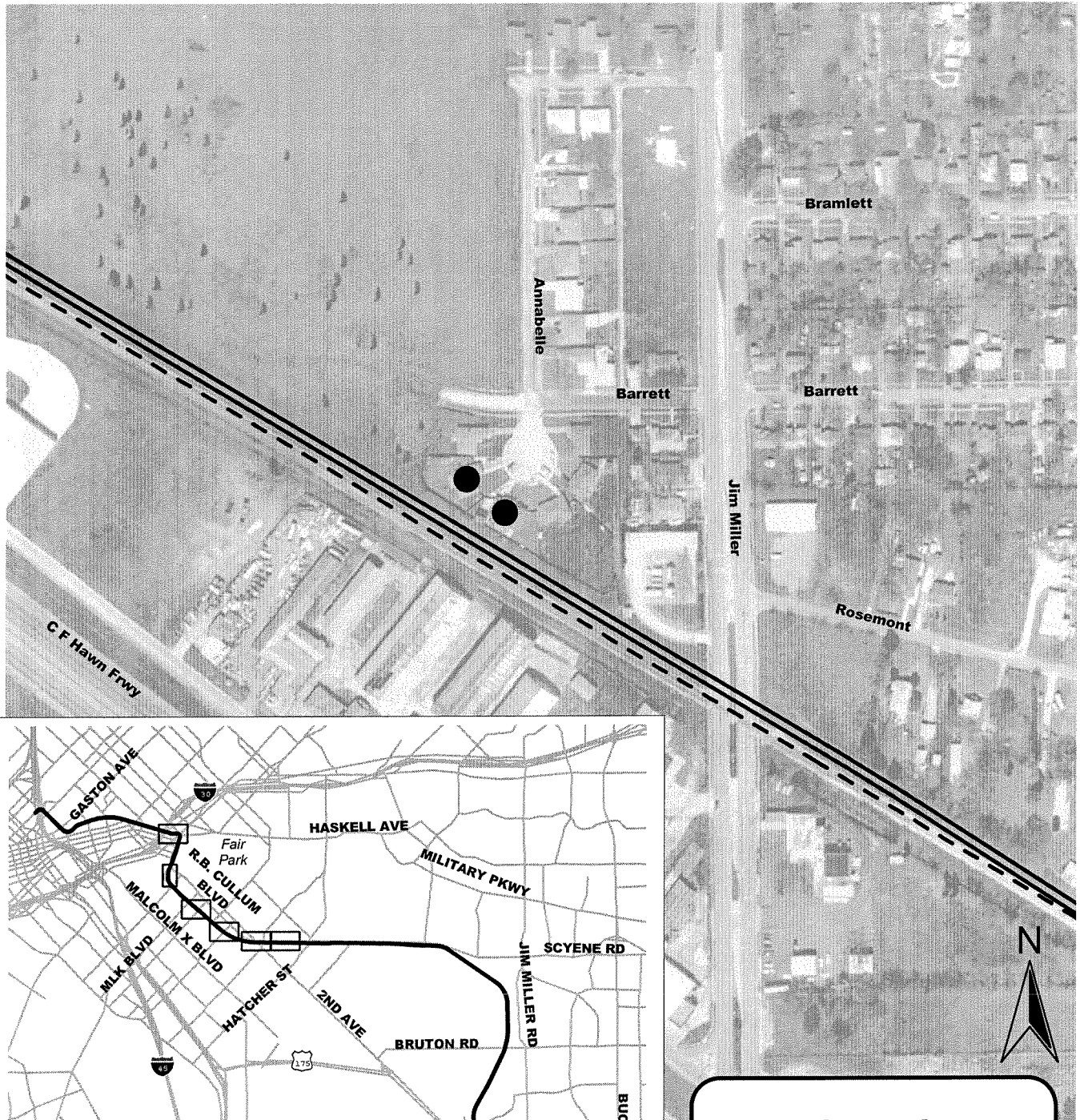





Figure 5.17
Vibration Impacts: Jim Miller Road



Legend

-  Build Alternative (LRT)
-  Area of Interest
-  Vibration Impact

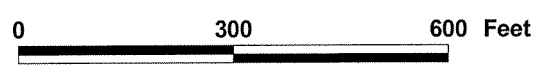
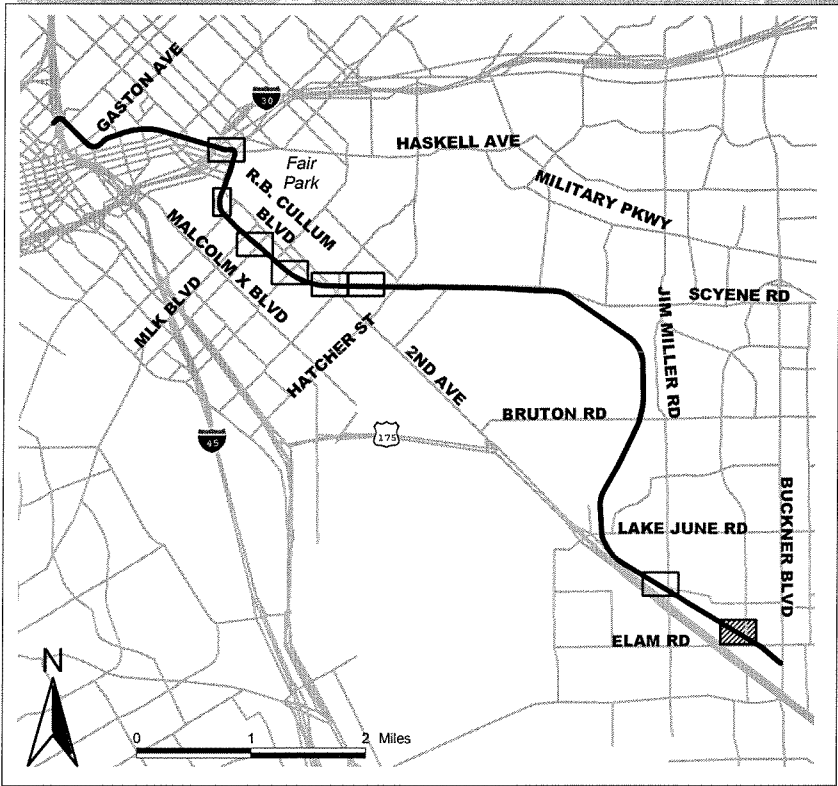
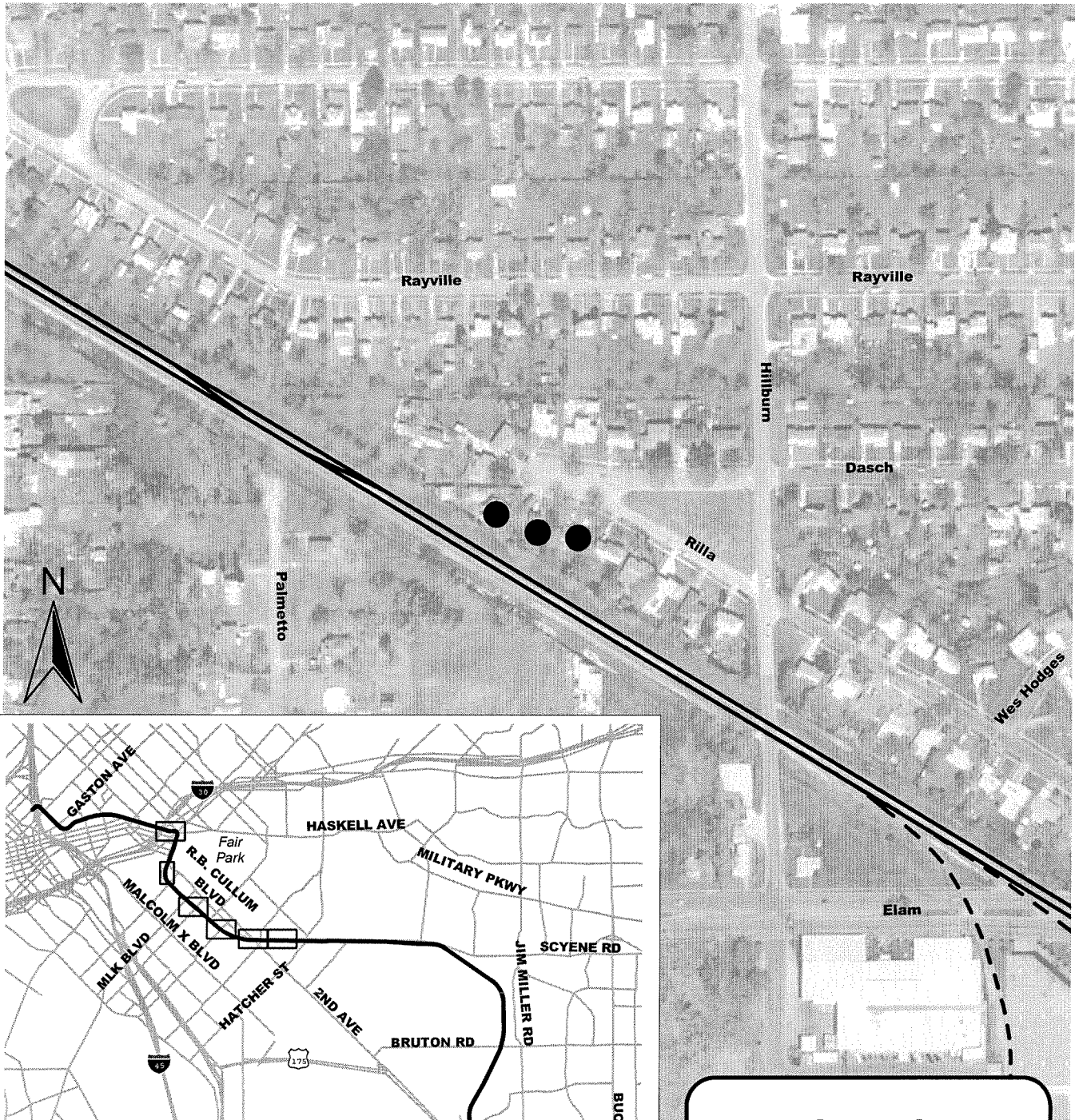
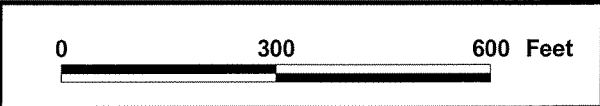


Figure 5.18 Vibration Impacts: Hillburn Drive



Legend

- Build Alternative (LRT)**
- Area of Interest**
- Vibration Impact**



Similar to the Category 2 analysis, an assessment of vibration impact for Category 1 and 3 receptors was also conducted. Potential impacts were identified at the Latino Cultural Center and at the St. Joseph’s Baptist Church. The cultural center is located across from the Live Oaks Lofts and near a planned crossover. The church is located east of Carpenter on the south side of the alignment 50 feet from the tracks.

There are no structures associated with the Comanche Storytelling Place. Thus the design of the LRT will not result in a vibration impact at this site.

5.7.4 Ground-Borne Noise Impact Assessment

Ground borne noise is determined by the vibration level at a receptor, the frequency content of the vibration and the characteristics of the building foundation and construction. As indicated in Section 3.6.2, the assessment of ground-borne noise impact for surface rail systems is generally focused on well-insulated buildings that are especially noise sensitive (e.g. auditoriums and museums). An assessment of potential ground-borne noise impact at such locations along the study corridor is given in Table 5.14. This table indicates the projected ground-borne vibration level at each sensitive receptor, based on location and LRT speed, as well as the projected ground-borne noise level. The noise levels were obtained by adjusting the vibration levels for vibration frequency, ground-to-building coupling loss and building resonances, based on the FTA guidance manual procedures.

Table 5.14 Ground-Borne Noise Impact Assessment

Location	Civil Station	Distance to near track (ft)	Speed (mph)	Project Vibration Level ¹	Ground-Borne Noise Level ²	Ground-Borne Noise Impact Criterion ²	# of Impacts
Latino Cultural Center	109	40	26	78	45	40	1
Women’s Museum	196	45	30	58	19	40	0
Fair Park Music Hall	205	90	15	52	24	30	0

Source: HMMH, 2002

Note: The alignment stationing is shown on the plan and profile drawings in Appendix D. The stationing numbers references to the location on the engineering drawings and not to passenger station locations.

1. Vibration levels are measured in VdB referenced to 1 µin/sec.
2. Noise Levels measured are in dBA.

Comparing the resulting noise projections with the appropriate impact criteria indicates potential ground-borne noise impact at only the Latino Cultural Center.

5.7.5 Ground-Borne Vibration Mitigation

The assessment assumes that the LRT vehicle wheels and track are maintained in good condition with regular wheel truing and rail grinding. Beyond this, there are several approaches to reduce ground-borne vibration from LRT operation.

5.7.5.1 Range of Mitigation Measures

Potential mitigation measures for reducing vibration impacts considered by DART include: LRT speed reductions in sensitive areas, ballast mats, floating slabs and property acquisitions or easements.

LRT Speed Reductions in Sensitive Areas

Speed reductions will always lower ground-borne vibration levels, but they are not always a feasible vibration control measure because of the negative impact on the LRT operating schedule. Thus, their impact on the operating schedule will need to be evaluated with respect to their vibration mitigation benefits.

Ballast Mats

A ballast mat consists of a pad made of rubber or rubber-like material placed on an asphalt or concrete base with the normal ballast, ties and rail on top. The reduction in ground-borne vibration provided by a ballast mat is strongly dependent on the frequency content of the vibration and design and support of the mat.

Floating Slabs

Floating slabs consist of thick concrete slabs supported by resilient pads on a concrete foundation; the tracks are mounted on top of the floating slab. Most successful floating slab installations are in subways, and their use for at-grade track is rare. Floating slabs are designed to provide vibration reduction at lower frequencies than ballast mats.

Property Acquisitions or Easements

Additional options for avoiding vibration impacts (and noise impacts also) are for the transit agency to purchase residences likely to be impacted by train operations or to acquire easements for such residences by paying the homeowners to accept the future train vibration conditions.

These approaches are usually taken only in isolated cases where other mitigation options are either infeasible, impractical, or too costly.

5.7.5.2 Mitigation Proposals

Vibration impacts that exceed FTA criteria are considered to be significant and to warrant mitigation, if reasonable and feasible. Table 5.15 indicates the stations along the corridor where mitigation will be required to reduce the vibration levels. At a minimum, mitigation will require the installation of ballast mats. However, more extensive measures (e.g. floating slabs or property acquisition) may be required to mitigate impacts at some locations. Other measures that can be considered include movable point frogs for the crossovers near stations 110+00 and 227+50, as well as speed reductions for the areas between stations 258+50 and 265+00 and between stations 290+00 and 305+50.

Table 5.15 Locations for Vibration Mitigation

Segment	Civil Station	Length (Feet)	LRT Speed (mph)		Impacts
			NB	SB	
Good-Latimer Expressway (Bryan Street to Gaston Avenue)	108+00 to 112+00	400	35	36	31
Fair Park (Parry Avenue)	190+00 to 192+00	200	30	30	1
Trunk Avenue – Parry Avenue to 2 nd Avenue	227+00 to 229+00	200	25	25	16
	215+00 to 218+00				
	242+50 to 244+50	200	35	35	1
	258+50 to 262+00	350	65	52	24
	265+00 to 273+00	800	65	61	23
Scyene Road – 2 nd Avenue to Hatcher Street	283+50 to 285+00	150	65	65	1
	281+00 to 285+50				
	290+00 to 292+00	200	60	65	1
	294+50 to 298+00	350	55	65	2
	300+00 to 302+50	250	47	62	1
300+50 to 304+50					
Lake June Road to Jim Miller Road	565+00 to 568+50	300	40	56	2
Jim Miller Road to Buckner Boulevard	608+00 to 611+00	300	50	20	3
Total		3700	Total		106

Source: HMMH, 2002

Note: The alignment stationing is shown on the plan and profile drawings in Appendix D. The stationing numbers references to the location on the engineering drawings and not to passenger station locations. In addition, the mitigation length refers to the double-track segment length along the corridor.

5.8 VISUAL AND AESTHETIC IMPACTS

This section addresses the visual and aesthetic impacts as a result of the alternatives. The visual quality assessment determines if the LRT components will be compatible with the visual

character of the setting into which they will be introduced. The impact assessment also takes into consideration the existing railroad and historical use of this right-of-way as a transportation corridor. Visual impacts are discussed in terms of the effect of the new physical elements associated with the project of the following:

- Landform Quality – The existing natural or man-made landform
- Visual Resources – The physical resources, including native vegetation, introduced landscaping, and the built environment, that make up the character of the area.
- Visual Intrusion/Privacy – The creation of direct views from the LRT trains into previously private spaces.

Federal and state regulations requires visual impacts to be addressed for Section 106 and Section 4(f) properties. There are no specific federal or state visual regulatory requirements that apply to properties that are not designated historic, and/or eligible for listing in the National Register, or parkland. However, the City of Dallas will review development plans to ensure compliance with zoning or development code requirements. These requirements relate to open storage, landscaping, lighting, screening, neighborhood protection, and signage. Public input regarding visual intrusion and privacy impacts comments were also considered in the assessment of impacts.

5.8.1 Mitigation Warrants

In accordance with DART policies, mitigation is generally warranted where the proposed project will result in the following:

- Removal of features that are important to a community's visual character, such as a mature landscaping or historic structures;
- Disruption of a locally or regionally significant view such as the view from a residence towards the skyline or a park;
- Placement of the rail project opens up undesirable view or opens views from the trains into previously private spaces;
- Disruption of a community activities view or setting such as activities at adjacent parklands for nearby schools; and
- Project design features do not conform to city zoning ordinances.

5.8.2 Visual Impacts

Visual intrusion or privacy impacts of the LRT on adjacent properties were assessed using several criteria: horizontal distance, existing screening, time of exposure, and vertical distance.

5.8.2.1 Methodology

To assess visual and aesthetic impacts, each of the Corridor Assessment Units described in Section 3.7.3 were analyzed. Each sensitive receptor/asset was assessed to determine which project characteristics would potentially have an impact. The characteristics of the project that could have a visual/aesthetic impact on the resource include station areas, elevated structures/bridges, and other vertical elements such as catenary poles, LRT vehicles in operation on track, LRT stations, TPSS, and light standards. The finalized locations of the TPSS will be determined at the completion of PE. The proposed TPSS sites have been selected to minimize acquisition and visual/aesthetic impacts. Visual screening and/or architectural treatments could be used to mitigate the visual/aesthetic impacts, if needed.

5.8.2.2 Impact Assessment

No-Build Alternative

The No-Build Alternative would have no effect on visual and aesthetic quality of the area.

Build Alternative (LRT)

The Build Alternative (LRT) will affect the aesthetics in the study corridor. It is assumed that impacts from existing projects have been previously mitigated. Primary viewers include arterial motorists, single-family residents, multi-family residents, recreational users, commercial/office tenants, industrial tenants, pedestrians, and others who may be affected by the LRT.

Generally, this assessment identified changes in visual resources and the affect of such changes on the experience of the primary viewers. The potential impact of each of the project characteristics was rated as either significant, possibly significant or generally not significant based on the sensitive receptors/assets. It was assumed that the design and construction of the Build Alternative (LRT) will be consistent with DART design standards. These ratings are summarized in Table 5.16.

Table 5.16 Visual and Aesthetic Impacts

Unit	Name	Sensitive Receptors/Assets	Primary Viewers	Station Areas	Elevated Structures/ Bridges	Elevated Stations	Other Vertical Elements															
Option A																						
1	Good-Latimer	Live Oak Lofts	C	N/A	N/A	N/A	○															
		Latino Cultural Center	D	N/A	N/A	N/A	○															
		St. James AME Temple	H	N/A	N/A	N/A	○															
		Commercial buildings	E	N/A	N/A	N/A	○															
2	Deep Ellum	Good-Latimer Tunnel	G, A	●	●	N/A	○															
		Gaston Yard Apartments	C	○	N/A	N/A	○															
		Knights of Pythias Temple	N/A	◐	○	N/A	◐															
		Yahoo redevelopment site	E	N/A	N/A	N/A	○															
		Deep Ellum Historic District	C, D, E, G	N/A	N/A	N/A	○															
Option B																						
1	Good-Latimer	Live Oak Lofts	C	N/A	N/A	N/A	○															
		Latino Cultural Center	D	N/A	N/A	N/A	○															
		St. James AME Temple	H	N/A	N/A	N/A	○															
		Commercial buildings	E	N/A	●	N/A	○															
2	Deep Ellum	Good-Latimer Tunnel	G, A	○	●	N/A	○															
		Gaston Yard Apartments	C	○	●	N/A	○															
		Knights of Pythias Temple	N/A	◐	●	N/A	●															
		Yahoo redevelopment site	E	N/A	N/A	N/A	○															
		Deep Ellum Historic District	C, D, E, G	N/A	N/A	N/A	○															
3	Baylor HCS	Baylor HCS	E, G, H	○	N/A	N/A	○															
		Continental Gin Building	A	○	N/A	N/A	○															
		Historic Structures	A	○	N/A	N/A	○															
4	Fair Park	South Dallas/Park Row Neighborhood	B	N/A	N/A	N/A	○															
		Fair Park	D, G	◐	N/A	N/A	○															
		Historic Structures	A	○	N/A	N/A	○															
		Museums	D	○	N/A	N/A	○															
5	South Dallas	Phyllis Wheatley Neighborhood	B, C	N/A	N/A	N/A	○															
		Rose Garden Neighborhood	B, C	N/A	N/A	N/A	◐															
		Southeast Dallas Neighborhood	B, C	N/A	N/A	N/A	○															
		Churches	H	N/A	N/A	N/A	○															
6	Hatcher	Parkdale Heights Neighborhood	B, C	●	○	N/A	○															
		Church	H	○	N/A	N/A	○															
		White Rock Creek Greenbelt	D, H	○	○	N/A	○															
		Lawnview Park	D, A	○	N/A	N/A	○															
7	Grover Keeton Golf Course	Lower White Rock Creek Greenbelt	D	N/A	○	N/A	○															
		Grover Keeton Golf Course	D	N/A	○	N/A	◐															
		Gateway Park	D	N/A	○	N/A	○															
		Escarpment (north of Bruton Road)	D	N/A	N/A	N/A	◐															
8	Pleasant Grove	Pemerton Neighborhood	B	○	○	N/A	○															
		Bruton Street Subdivision	B	○	○	N/A	○															
		Texas National Guard Facility	H	N/A	N/A	N/A	○															
		Devon-Anderson Park	D	○	N/A	N/A	◐															
		Lower White Rock Creek Greenbelt	D	○	○	N/A	○															
9	Buckner	Comanche Storytelling Place	D, H	○	○	N/A	●															
		Waterwood Subdivision	B	N/A	○	N/A	◐															
		Natural Areas	D	N/A	○	N/A	○															
<table style="width: 100%; border: none;"> <tr> <td style="width: 30%;">Primary</td> <td style="width: 30%;">Impacts</td> <td style="width: 40%;"></td> </tr> <tr> <td>A = Arterial Motorists</td> <td>E = Commercial/Office</td> <td>● = Significant</td> </tr> <tr> <td>B = Single Family Residents</td> <td>F = Industrial Tenants</td> <td>◐ = Possibly Significant</td> </tr> <tr> <td>C = Multi-Family Residents</td> <td>G = Pedestrians</td> <td>○ = Not Significant</td> </tr> <tr> <td>D = Recreational Users</td> <td>H = Others</td> <td>N/A = Not Applicable</td> </tr> </table>								Primary	Impacts		A = Arterial Motorists	E = Commercial/Office	● = Significant	B = Single Family Residents	F = Industrial Tenants	◐ = Possibly Significant	C = Multi-Family Residents	G = Pedestrians	○ = Not Significant	D = Recreational Users	H = Others	N/A = Not Applicable
Primary	Impacts																					
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C = Multi-Family Residents	G = Pedestrians	○ = Not Significant																				
D = Recreational Users	H = Others	N/A = Not Applicable																				

Source: Carter & Burgess, 2001

The nature of the impacts identified as either significant or possibly significant are described in following paragraphs. The impact assessment recognized that much of the Build Alternative (LRT) alignment follows an abandoned railroad right-of-way. Along Parry Avenue, the Build Alternative (LRT) follows the right-of-way used by the interurban and streetcar system. The Build Alternative (LRT) generally utilizes rights-of-way that historically were used for rail or transit purposes.

Unit 1: Good-Latimer: This unit includes the Live Oak Lofts, Latino Cultural Center, St. James AME Temple, and commercial buildings. The structures within this unit are located in an urban area and near an existing elevated freeway. The visual impact of the LRT in Option A on this unit is generally not significant. The LRT will introduce new visual elements, however, the LRT will be at-grade, and have minimal visual impact to this unit. The visual impact of the LRT in Option B on this unit is more significant. Option B introduces new visual elements, including a more visible elevated structure. The Good-Latimer Option B would impact different buildings because displacements would occur along the alignment.

Unit 2: Deep Ellum: This unit includes the Good-Latimer tunnel, Gaston Yard Apartments, Knights of Pythias Temple, Yahoo! redevelopment site, and the Deep Ellum historic district. The visual impact of the Good-Latimer Option A on the Good-Latimer tunnel will be significant. Option A will include razing the tunnel and the area will be filled in to bring the roadway to the same level as the surrounding roadways and properties. The Good-Latimer tunnel serves as a gateway entry to Deep Ellum. Option A includes a new gateway entry to Deep Ellum that is significantly altered from the current entryway. Good-Latimer Option B would allow the tunnel to remain. Option B would still have significant visual impacts because an elevated structure would be introduced. Views of the south side of the tunnel from northbound Good-Latimer would be altered. Option B would also require demolition of buildings that form the western boundary of Good-Latimer.

Both Option A and Option B could have a possible visual impact on the Knights of Pythias Temple. Option B, with its proximity to the building and the introduction of an aerial structure, represent a more significant visual impact than Option A. The elimination the Good-Latimer Tunnel in Option A will alter the visual setting of the Knights of Pythias Temple; however, since the temple predates the tunnel, Option A reestablishes the original at-grade, visual setting. Near the Knights of Pythias Temple, both options transition into an abandoned railroad corridor and

reintroduce a past element. Option B at this point is on an aerial structure, which significantly alters the visual setting. With either option, the LRT catenary will introduce a new visual element along the backside of the building. The Knight of Pythias structure is currently vacant, having no primary viewer from this building at his time. In a letter dated March 5, 2002, the current owners of this nationally eligible structure have expressed a preference for Option A. Aesthetics and visual impacts were cited as reasons for this preference.

For Option A, the visual impact on Gaston Yard Apartments is not significant. The catenary of the LRT and the TPSS will introduce new visual elements, however, these elements will be within DART right-of-way, along the backside of the apartments in an area that is currently occupied by parking and dumpsters. The LRT will reintroduce a past element to this abandoned railroad corridor. Option B would include an elevated structure, which would have a significant impact on Gaston Yard Apartments. Option A will not have this new element.

Unit 3: Baylor HCS: This unit includes the Baylor HCS, Continental Gin District, and other listed historic structures such as the National Biscuit Company and the John E. Mitchell Co. Plant. The visual impact to this unit is not significant. The catenary of the LRT and TPSS will introduce new visual elements. The LRT alignment will run within DART right-of-way, on an abandoned rail right-of-way, and reintroduce a past element. The TPSS will be located along an industrial/commercial area and will not have a significant visual impact. The station, located at Malcolm X Boulevard, could improve the visual aesthetics of the area. Many existing structures in the vicinity have recently been razed as part of hospital redevelopment and a new roadway project.

Unit 4: Fair Park: This unit includes the South Dallas Boulevard/Park Row Neighborhood, Fair Park, historic structures, and museums. Fair Park is listed on the National Register and the Old Tige Museum and the Howard Wolfe Building and Garage are potentially eligible for listing in the Register.

The visual impact of the Build Alternative (LRT) on this unit is generally not significant. The catenary of the LRT will reintroduce past visual elements. Along a portion of this unit, the LRT alignment, will run within DART right-of-way, on the abandoned rail right-of-way, and reintroduce a past element. Visual elements adjacent to Fair Park will be reintroduced by the implementation of LRT, which is consistent with the trolley/interurban system that was adjacent

to the park in the 1930's. Due to this historic precedent, catenary poles will be consistent with the aesthetic character of park amenities and the surrounding area. The Dallas Landmark Commission, Friends of Fair Park, Dallas Park Board, Preservation Dallas, and numerous local groups agree that the station or other elements of the LRT system will not create a negative visual impact if the station were designed to be consistent with the aesthetic character of the park. These groups have been and will continue to be consulted on the design of the station to ensure its compatibility with existing structures.

Unit 5: South Dallas: This unit includes places of worship and the neighborhoods of Phyllis Wheatley, Rose Garden, and Southeast Dallas. The visual impact of the Build Alternative (LRT) on this unit is generally not significant. The catenary of the LRT and TPSS will introduce new visual elements. The TPSS could possibly visually impact the surrounding residential housing within the Rose Garden neighborhood. The LRT alignment will run within DART right-of-way, an abandoned rail right-of-way, and reintroduce a past element in the area where LRT is on the abandoned railroad right-of-way. In addition, the catenary will blend in with the existing transmission towers along a portion of the alignment in this unit.

Unit 6: Hatcher: This unit includes the Parkdale Heights Neighborhood, White Rock Creek Greenbelt, and Lawnview Park. The visual impact of the Build Alternative (LRT) will be significant to the adjacent properties at the Hatcher Station area in the Parkdale Heights Neighborhood where new elements will be introduced. The station facilities will be consistent with other stations in the DART system and could be considered more visually appealing than the two existing structures that will be removed. This no-parking station will be placed along DART right-of-way between the backyard of several residential properties and a six-lane divided roadway. Several station options were developed and presented to the neighborhood. The selected concept was deemed the most acceptable to the community. East of the Hatcher Station, the LRT will run within DART right-of-way where the existing track is currently being used for freight service. The catenary will introduce a new visual element, which will not be significant except along the station area. However the catenary will blend in with the existing transmission lines along this portion of the alignment. There will be two TPSS locations within this unit, one will be located immediately east of the UP RR crossing and the other south of Brisbee. Both are isolated from residential areas and neither will have a significant visual impact to the surrounding areas.

Unit 7: Grover Keeton Golf Course: This unit includes the lower White Rock Creek Greenbelt, Grover Keeton Golf Course, and Gateway Park. The visual impact of the Build Alternative (LRT) on these resources is not significant. The LRT will run within DART right-of-way where the existing track is currently being used for freight service. The catenary will introduce a new visual element to recreational users; however, the impact will not be significant. The catenary is not any more visually obtrusive than the existing transmission towers and lines that transverse the area. Trees and other vegetation will generally obstruct views of the LRT from the park. A scenic overlook from the escarpment near Bruton Road was identified during the DEIS public comment period as a significant view. This overlook is approximately 50 feet above the top of rail. The views from this overlook are generally out and over the treetops. Trees and other vegetation obstruct most downward views. The LRT and catenary will not have a significant visual impact to the scenic overlook. A TPSS will be located within DART right-of-way, directly adjacent to Bruton Road, approximately 20 feet below the scenic overview. TPSS spacing and access requirements severely limit location options that do not necessitate the direct use of parkland. The TPSS will require some fill and clearing of trees and other vegetation for the facility and access road. The TPSS will be visible from the scenic overview but the primary view will continue to be out and over the treetops, therefore over the top of the TPSS structure. Additionally, the TPSS, which will be located between the overlook and Bruton Road, will only obstruct the view of this major, six-lane divided arterial.

Unit 8: Pleasant Grove: This unit includes the Bruton Street subdivision, Pemberton neighborhood, the Texas National Guard Facility, and the Lower White Rock Creek Greenbelt. The Bruton Street subdivision is under construction. The visual impact of the Build Alternative (LRT) on these resources is not significant. The LRT will run within DART right-of-way where the existing track is currently being used for freight service. The catenary and TPSS will introduce a new visual element to residents, recreational users, and adjacent industrial area; however, the impact will not be significant.

A scenic overlook from the escarpment ridgeline within Devon-Anderson Park, adjacent to the DART right-of-way, was identified during the DEIS public comment period as a significant view. A portion of this escarpment was also identified during the comment period as a Comanche Storytelling Place. Figure 5.21 identifies the location of the Comanche Storytelling Place. LRT elements including catenary wire, catenary poles, fencing and a retaining wall will introduce a new visual element to recreational users at this location. The impact of these elements is

potentially significant. Although the view from the scenic overlook is generally out and over the top of the LRT line, visual impacts are closely associated to the Comanche Storytelling Place which is discussed in greater detail in Section 5.9.

Unit 9: Buckner: This unit includes the Waterwood neighborhood and natural areas. The visual impact of the Build Alternative (LRT) on the Waterwood neighborhood and the wooded areas parallel to the existing railroad right-of-way between Jim Miller and Old South is not significant. The LRT will run within DART right-of-way where the existing track is currently being used for freight service. The catenary will introduce a new visual element to neighborhood residents, however, the impact will not be significant. There will be two TPSS located within this unit, one will be within the Waterwood neighborhood and the other at the Buckner LRT station. The TPSS will also introduce a new visual element and could possibly visually impact the adjacent homes in the Waterwood neighborhood.

5.8.2.3 Station Area Impacts

In addition to visual impacts previously described, each station area will include lighting. Lighting will comply with City of Dallas Development Code lighting standards for all zoning districts. Parking lot lighting standards will not exceed 25 feet in height and will include shielded fixtures with cut-off shields at the perimeter of all residential adjacencies. All lighting sources will be indirect, diffused, or covered by shielded type fixtures, installed to reduce glare and the consequent interference with boundary streets and adjacent properties. The intensity of spillover light on neighboring residential lots, measured at a point five feet inside the residential lot line and five feet above the ground surface, will not exceed 0.1 foot-candle. Lighting sources will not be visible from property that is occupied by a residential use and located within 600 feet of the light source.

5.8.2.4 Conclusion

The visual analysis indicated that the Build Alternative (LRT) will introduce new visual elements within a modern urban setting. These new elements are predominantly located along Good-Latimer and in a railroad right-of-way, a portion of which is abandoned (Good-Latimer to Hatcher), a portion of which is active (Hatcher to Buckner). Both Option A and B along Good-Latimer would have visual impacts to the area. Mitigation for Option A will provide a new gateway, which will provide a new visual asset. Option B would include an elevated structure on single columns to minimize its appearance. A small section of the LRT alignment passes the

main entrance to Fair Park, a national historic landmark. This area had extensive streetcar/interurban service in the 1930's. The proposed LRT system reintroduces elements that were part of Fair Park's original setting. The design of the Hatcher Station in Parkdale Heights is the result of a neighborhood consensus. The more visually obtrusive station concepts have been eliminated. As the view from the Bruton Road scenic overlook, is out and over the treetops, DART will have minimal visual impact to this resource. DART has reached an agreement with the Comanche Nation on reducing the impact of the LRT on the Comanche Storytelling Place and the Devon-Anderson scenic overlook. The visual impact of TPSS structures on residential neighborhoods will be minimized through mitigation. The TPSS structure near the Bruton scenic overlook will also require some mitigation. In general no adverse effects to any population or resources are anticipated. In some areas along the LRT alignment, the introduction of light rail could improve the aesthetics of the current conditions.

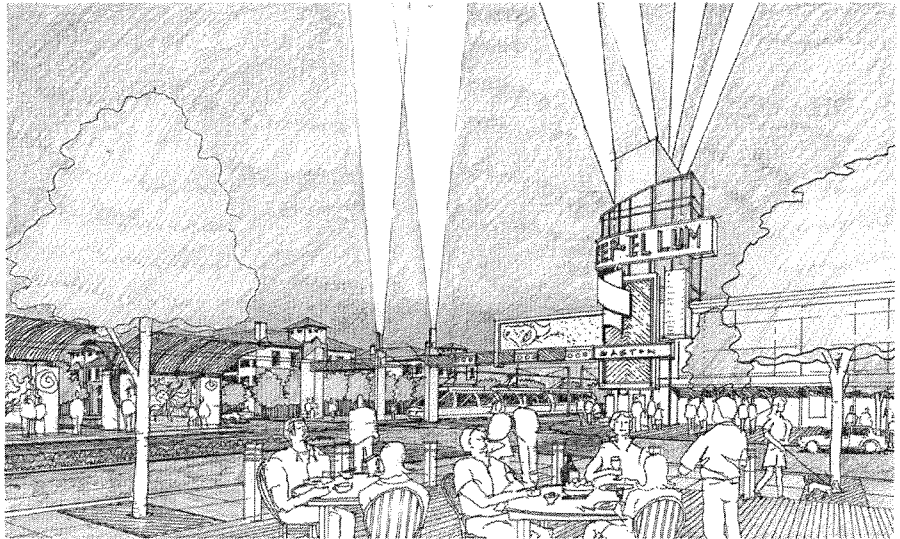
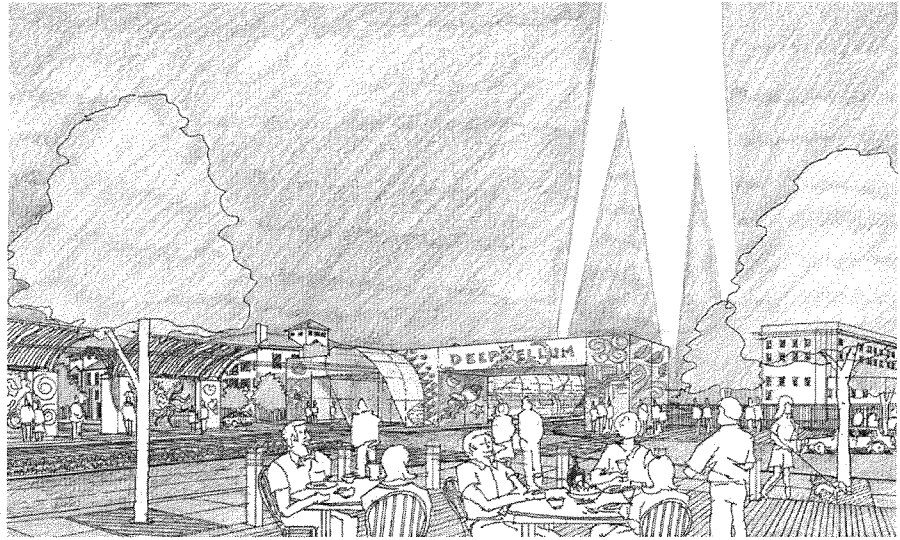
5.8.2.5 Mitigation Treatments

Potentially significant visual impacts resulting from the new alignment could occur along Good-Latimer (Figure 5.19). Option A will require the removal of the Good-Latimer tunnel, significantly changing the visual aesthetics of the area. Mitigation measures for Option A will include the construction of a new gateway into Deep Ellum, including a new pallet for local artists to display art. This new gateway could provide a new visual asset to the area. As a commitment to the Deep Ellum community for mitigation, the DART Board recently allocated \$1.5 million of the project's budget for a new Deep Ellum gateway, if Option A is selected.

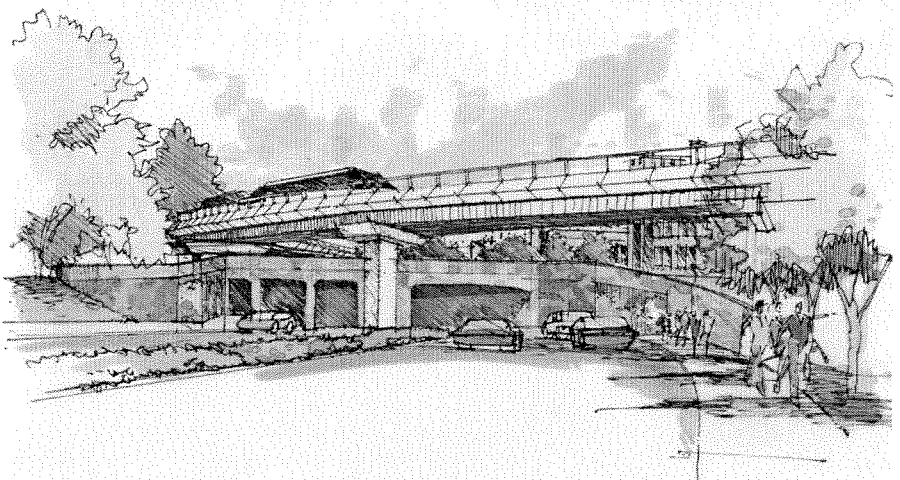
The new gateway will be developed through a community committee and will be separate from the standard art and design program for the Deep Ellum Station. Additionally, if practicable, DART will attempt to retain significant pieces of the tunnel fabric for placement in a local and public setting with appropriate interpretation. The selection of Option A also minimizes the visual impact to the Knights of Pythias. Option B would have visual impacts to the area because it would require an elevated structure to span across the entrance/exit of the south side of the Good-Latimer tunnel. This elevated structure would also have a visual impact on the Knights of Pythias, the Gaston Yard Apartments and obstruct views of the tunnel from the south side of the tunnel. The structure would be supported by single-columns to minimize the appearance of the structure.

Figure 5.19 Good-Latimer Visual Concepts

*Option A
Streetscaping Examples
Looking Southbound
along
Good-Latimer*



*Option B
Looking
Northbound on
Good-Latimer*



DART will continue to consult with the Dallas Landmark Commission, the Friends of Fair Park, Dallas Park Board, Preservation Dallas, and the SHPO to ensure that the design of the Fair Park Station and rail alignment is compatible with existing structures and the aesthetic character of the park. In order to minimize the visual impact of the Hatcher Station on the Parkdale Heights Neighborhood the station will be an at-grade, no parking station located along Scyene Road. All bus activity will be limited to Hatcher Street and Scyene Road. Only two properties will be acquired and visual screening wall will be placed between the station platform and the neighborhood.

In order to minimize any potential visual impacts to the scenic overlook at the Comanche Storytelling Place, from Station 504+00 to Station 508+00 DART will coat the fence opposite the overlook with a black vinyl material to blend in with the background. Catenary poles will be spaced as far from the view from the overlook as practically possible and DART will attempt to minimize the pole height. DART has reached an agreement with the Comanche Nation regarding mitigation of the visual impact of the Comanche Storytelling Place in Devon-Anderson Park. Mitigation for the Comanche Storytelling Place and the Devon-Anderson scenic overlook is described in detail in Section 5.9.6 of this document.

At TPSS No. 6, which will be located below the Bruton scenic overlook, DART will minimize tree removal to the greatest extent practical, use vinyl coated fencing, and use vegetative screening. During final design, DART will seek additional mitigation measures, as well alternative locations that may minimize the visual impact. The visual impact of the TPSS No. 3 and TPSS No. 9, which will be located in residential neighborhoods, will be mitigated through vegetative screening.

5.8.3 Visual Intrusion/Privacy

Visual intrusion relates the creation of direct views from LRT trains into previously private spaces.

5.8.3.1 Impact Assessment

Potential visual intrusion impacts were assessed for residential areas within 100 feet of the Build Alternative (LRT). The following discussion provides an assessment for various segments along the alignment.

Live Oak and Grand: The following multi-family homes are within 100 feet of the alignment: Live Oak Lofts, residences between Florence and Swiss, Gaston Yard Apartments, 232 Trunk, apartments within the Continental Gin District, and Elm Street Lofts. The homes on Gunter and Elihu within 100 feet of the alignment will be displaced, thus not visually impacted. Good-Latimer Option B would displace the residences between Florence and Swiss thus not visually affecting the residents. There are no direct views from the LRT train into 232 Trunk Street, apartments within the Continental Gin District and Elm Street Lofts. The landscaping adjacent to the Live Oak Lofts along Good-Latimer will be maintained and replaced, as necessary. An iron fence borders the Gaston Yard Apartments and will maintain privacy from direct views from the LRT passengers. Impacts in this segment are thus considered to be less than significant and do not require mitigation.

Grand and Pennsylvania: Potential visual intrusion impacts are limited to the homes on both sides of the LRT alignment in the Phyllis Wheatley neighborhood. This includes the single and multi-family homes immediately adjacent to the LRT on Medill and along Trunk between Peabody and Tuskegee. The LRT is generally level with the adjacent land uses. Vegetation and trees in this segment are sparse. To minimize exposure time from LRT trains toward private homes, vegetation will be used to mitigate impacts. The noise wall between MLK Boulevard and Pennsylvania will also serve to mitigate visual intrusion of the homes on Peabody.

Pennsylvania and Dixon: Potential visual intrusion impacts are limited to the single and multi-family homes adjacent to the LRT alignment within the Rose Garden neighborhood. This includes the homes adjacent to the LRT alignment along Trunk on Rutledge, Spring, 1st, Marshall, Carpenter, Bertrand, Todd, York, Kenilworth, and DeMaggio. Visual mitigation measures for the homes adjacent to Hatcher Station will include a solid eight foot screening wall which will serve as both visual and noise mitigation. Proposed noise walls between Carl and Hamilton, Metropolitan and Tuskegee, Rutledge and Spring, Pine and Carpenter, and Carpenter and Bertrand will also aid in mitigation of visual intrusion. Where vegetation is sparse, vegetation will be used to minimize exposure time from LRT trains toward private homes.

Dixon and Lake June: Potential intrusion impacts are limited to homes within the Pemerton Hill neighborhood, immediately south of the LRT alignment. This includes the multi-family apartment complex on Dixon and homes adjacent to the LRT between Lake June and Bruton Road along Brockham and Seco. Currently, some vegetation separates the homes and the alignment. The

proposed noise walls along Scyene at Dixon and behind the homes along Brockham will aid in visual mitigation. Mitigation for visual privacy impacts along Seco will consist of vegetation. During final design, DART will work with affected residents to finalize the type of mitigation which will be used for the homes along Seco.

Lake June and Buckner: Visual intrusion impacts are limited to the pockets of areas within the Waterwood neighborhood, abutting the alignment, on Annabelle Circle and between Jim Miller and Elam, along Southeast Drive, Rayville Drive and Rilla Street. The LRT alignment is generally above the level of the homes in this segment. Existing vegetation is located outside of the right-of-way on private property. Thus, some homes are in direct view of the LRT trains. These homes are within 100 feet of the proposed track and may require additional screening to minimize exposure time and break up direct views from the LRT trains. Where vegetation is sparse, clusters of landscaping are will be placed to minimize exposure time from LRT trains toward private homes. The noise walls along the south end of the homes on Annabelle Circle, Rayville and Rilla will also act as a visual screen to mitigate visual intrusion.

5.8.3.2 Conclusion

In summary, potentially significant visual intrusion impacts are present in the following areas:

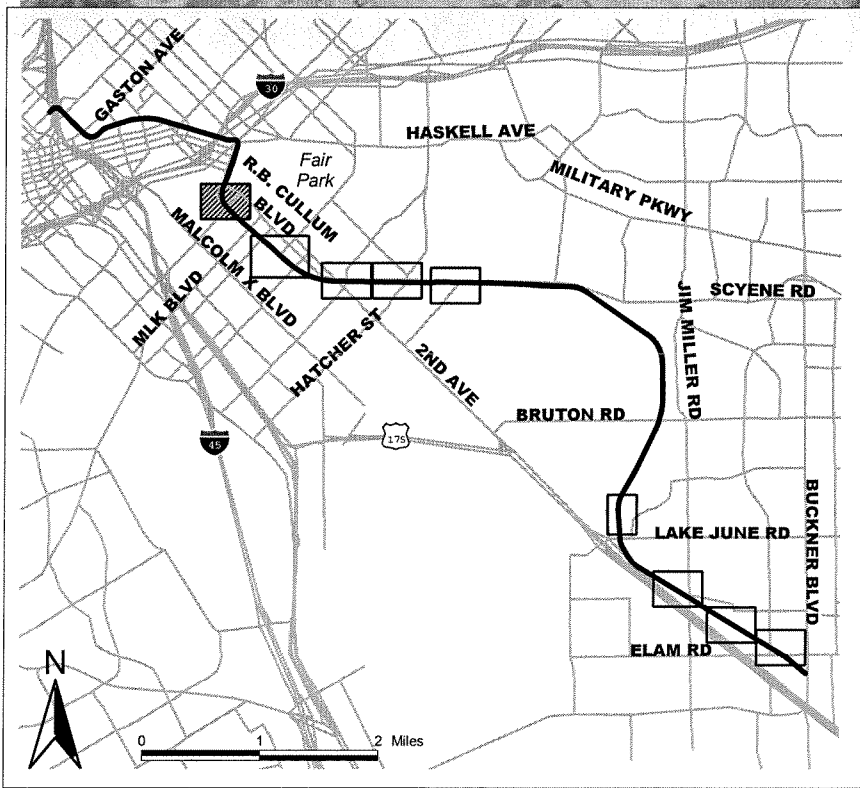
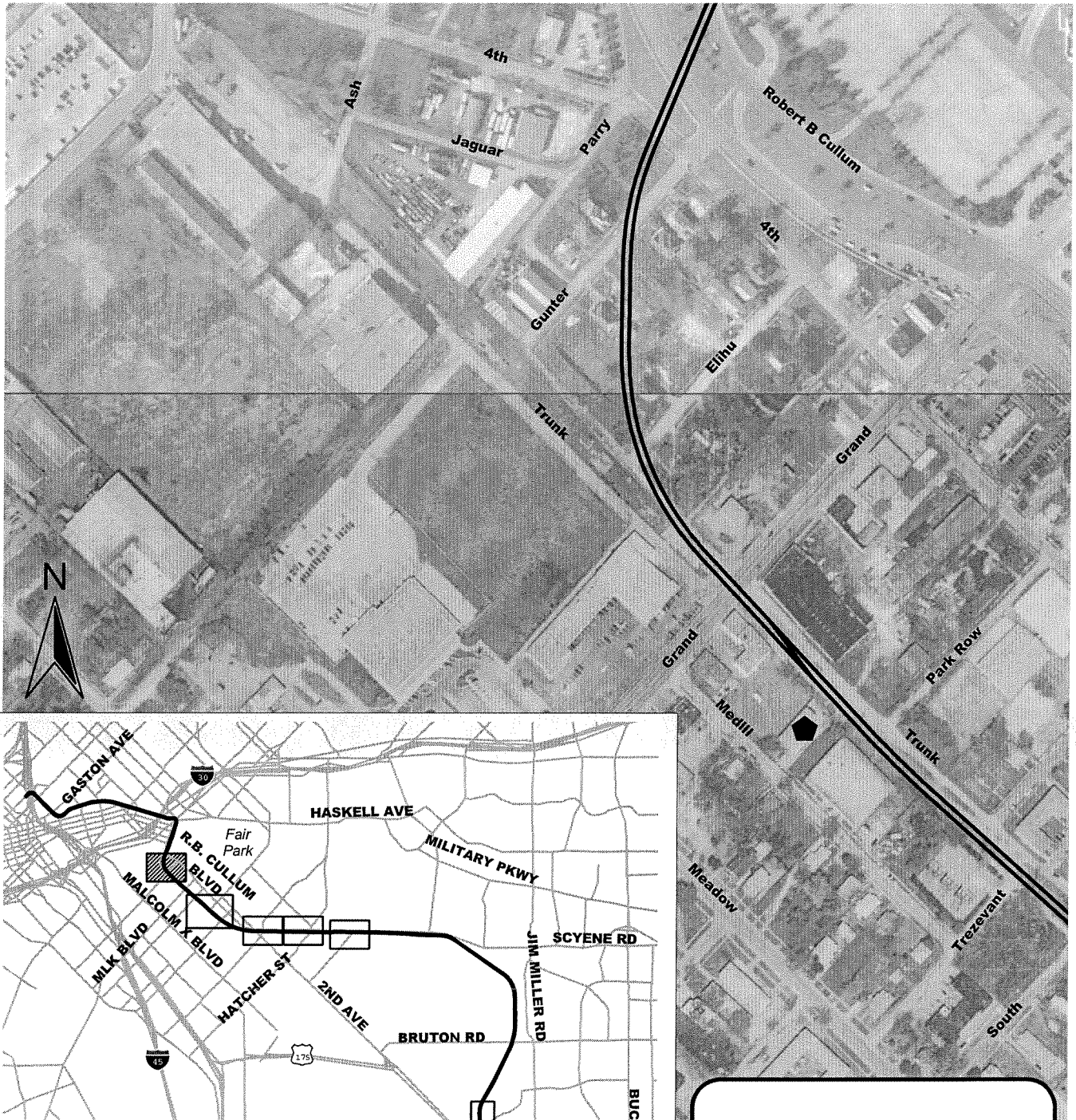
Grand and Pennsylvania: Homes adjacent to the LRT along Trunk between Peabody and Tuskegee (Figures 5.20 through 5.22).

Pennsylvania and Dixon: Homes adjacent to Hatcher Station and along Trunk, 1st, Marshall, Carpenter, Bertrand, Todd, York, Kenilworth, and DeMaggio (Figure 5.23).

Dixon and Lake June: Apartment complex at Dixon and homes adjacent to the LRT between Lake June and Bruton Road along Seco and Brockham (Figures 5.24 and 5.25).

Lake June and Buckner: Homes adjacent to the LRT on Annabelle Circle and between Jim Miller and Elam along Southeast Drive, Rayville Drive, and Rilla Street (Figures 5.26 through 5.28).

Figure 5.20 Visual Impacts: Grand Avenue



Legend

- Build Alternative (LRT)**
- Area of Interest**
- Visual Impact**

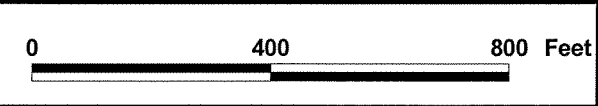
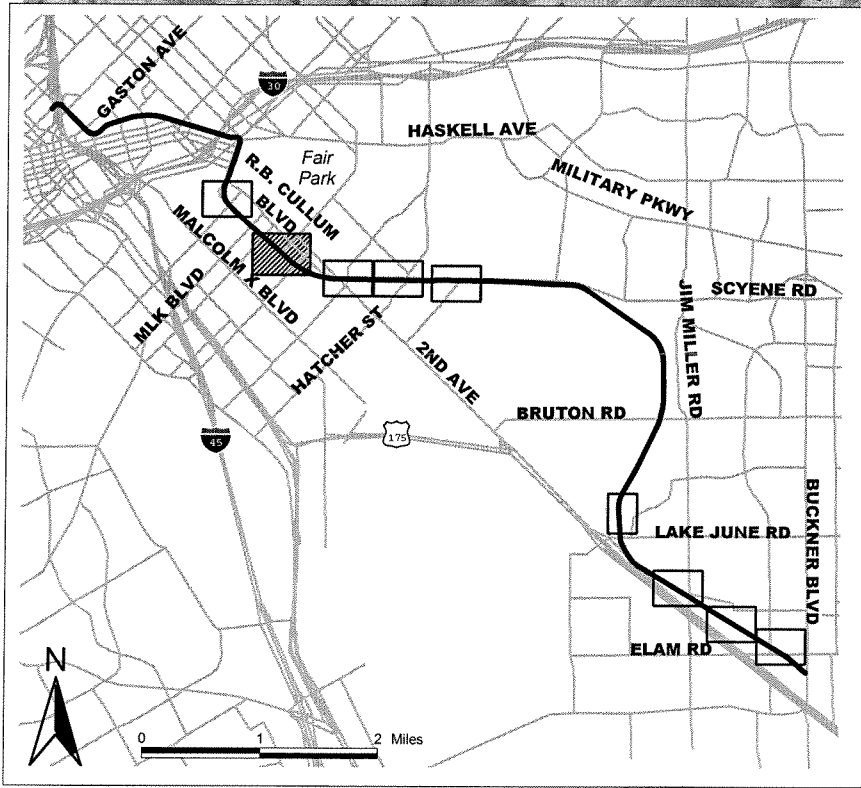
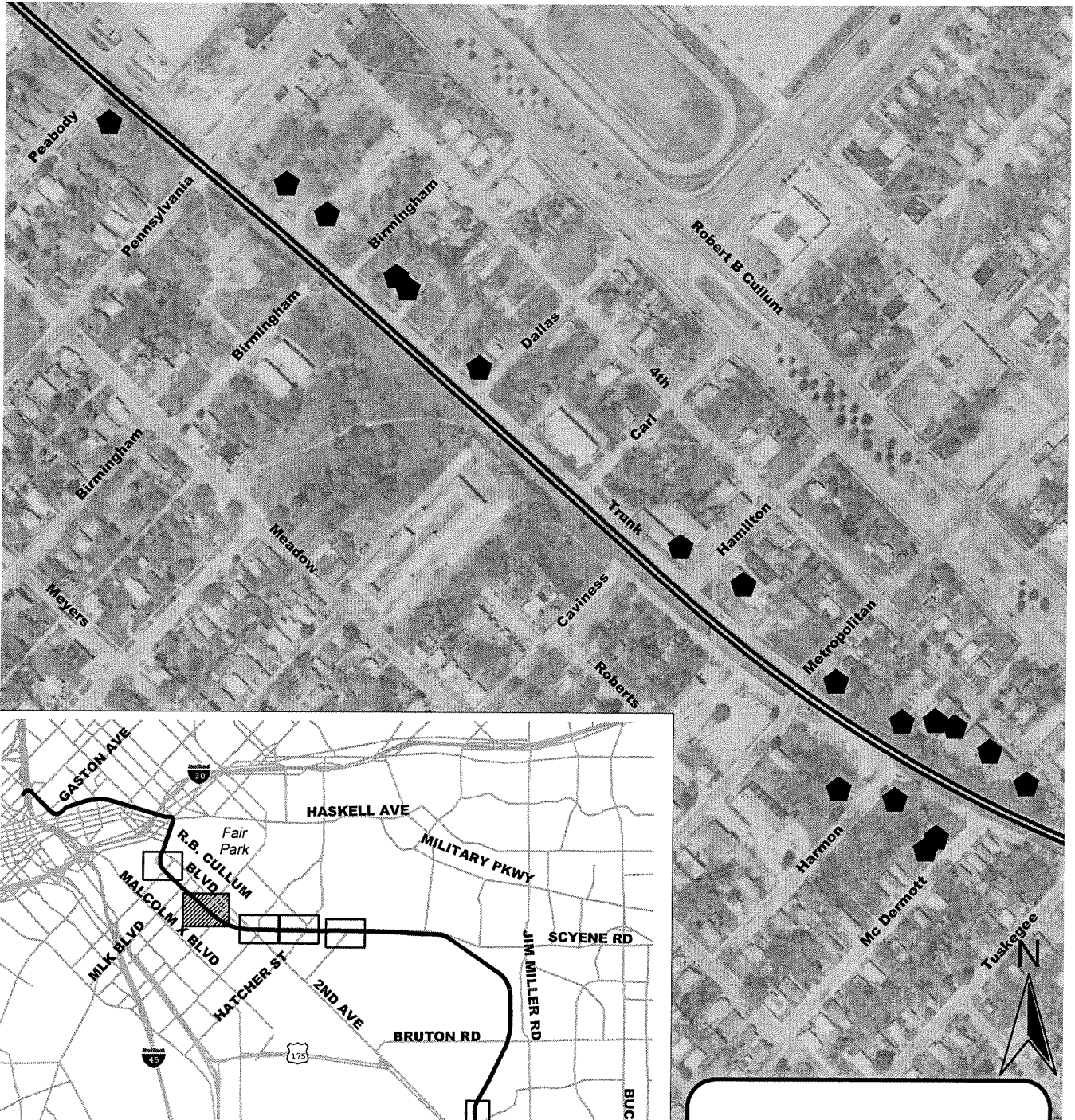


Figure 5.21 Visual Impacts: Trunk Avenue



Legend

- Build Alternative (LRT)**
- Area of Interest**
- Visual Impact**

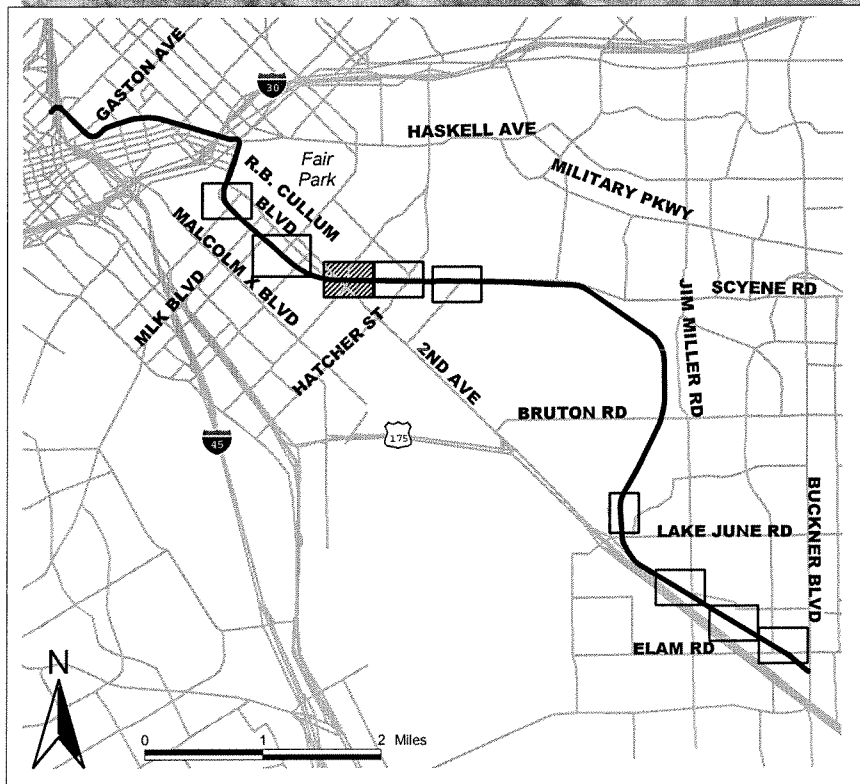
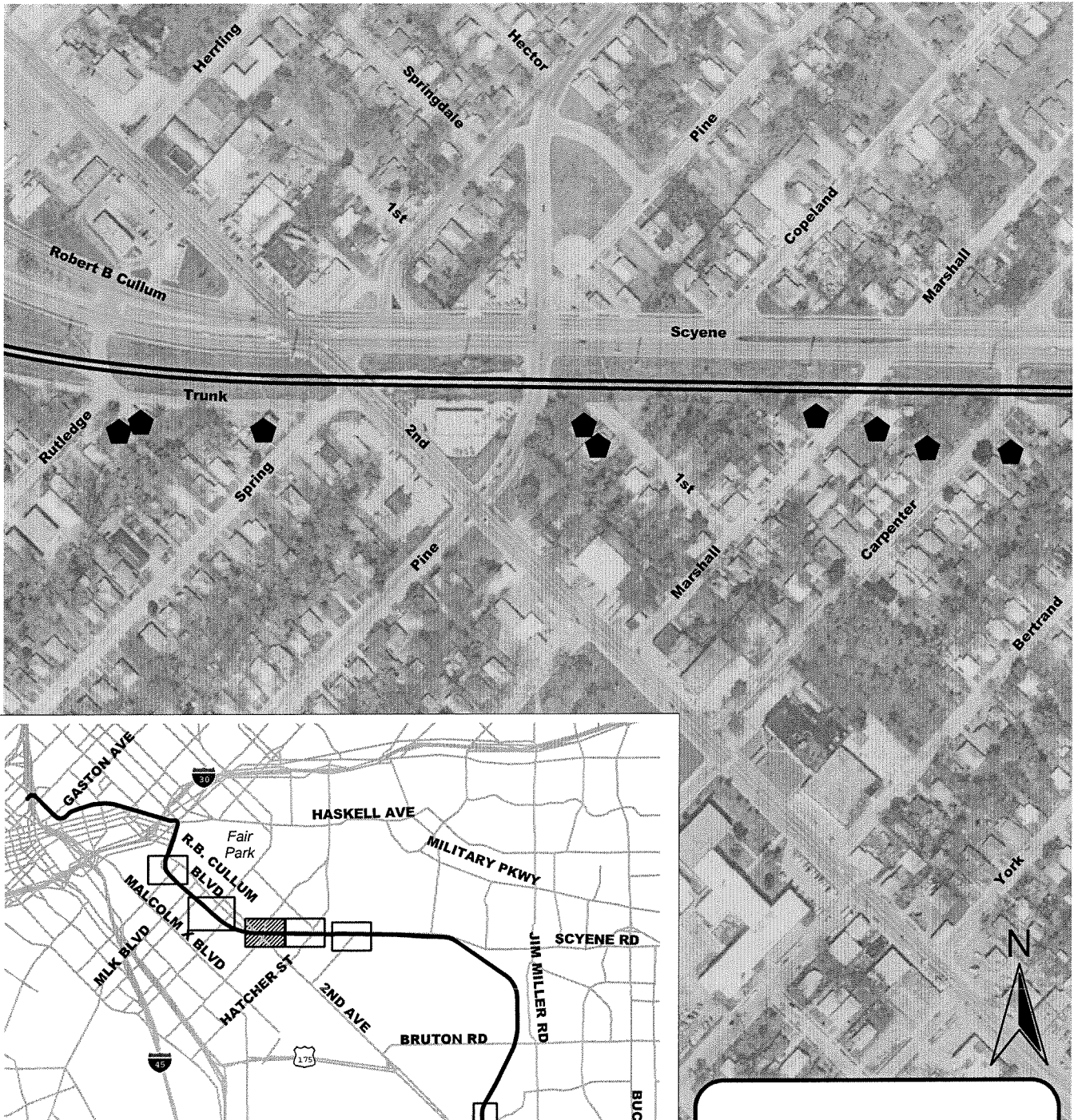


0 400 800 Feet






Figure 5.22

Visual Impacts: 2nd Avenue



Legend

-  Build Alternative (LRT)
-  Area of Interest
-  Visual Impact

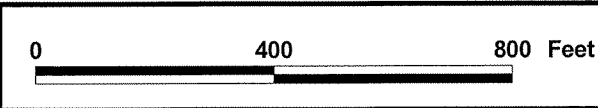
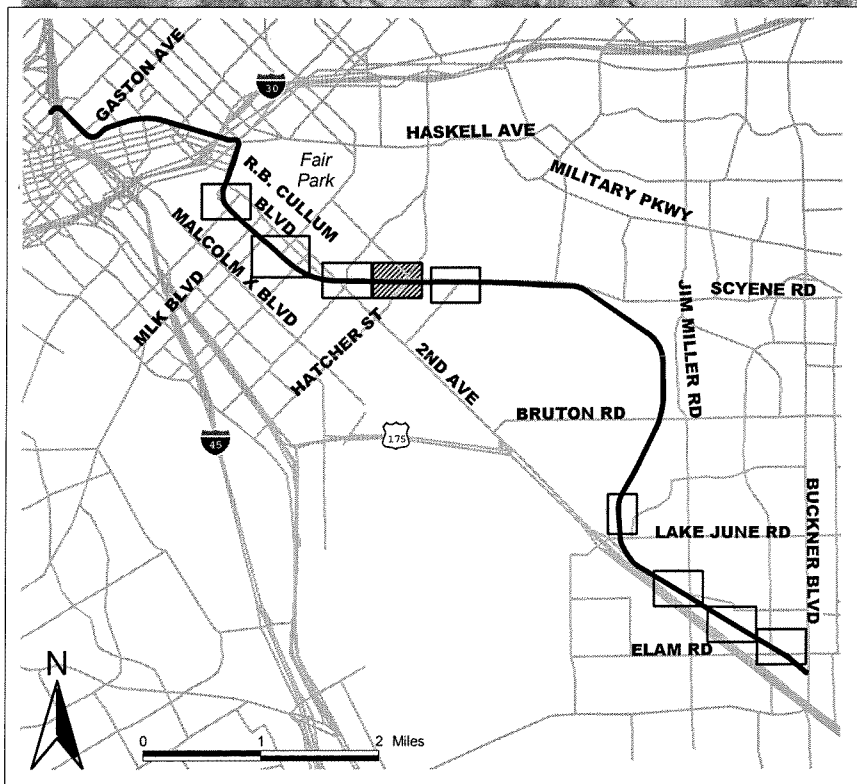
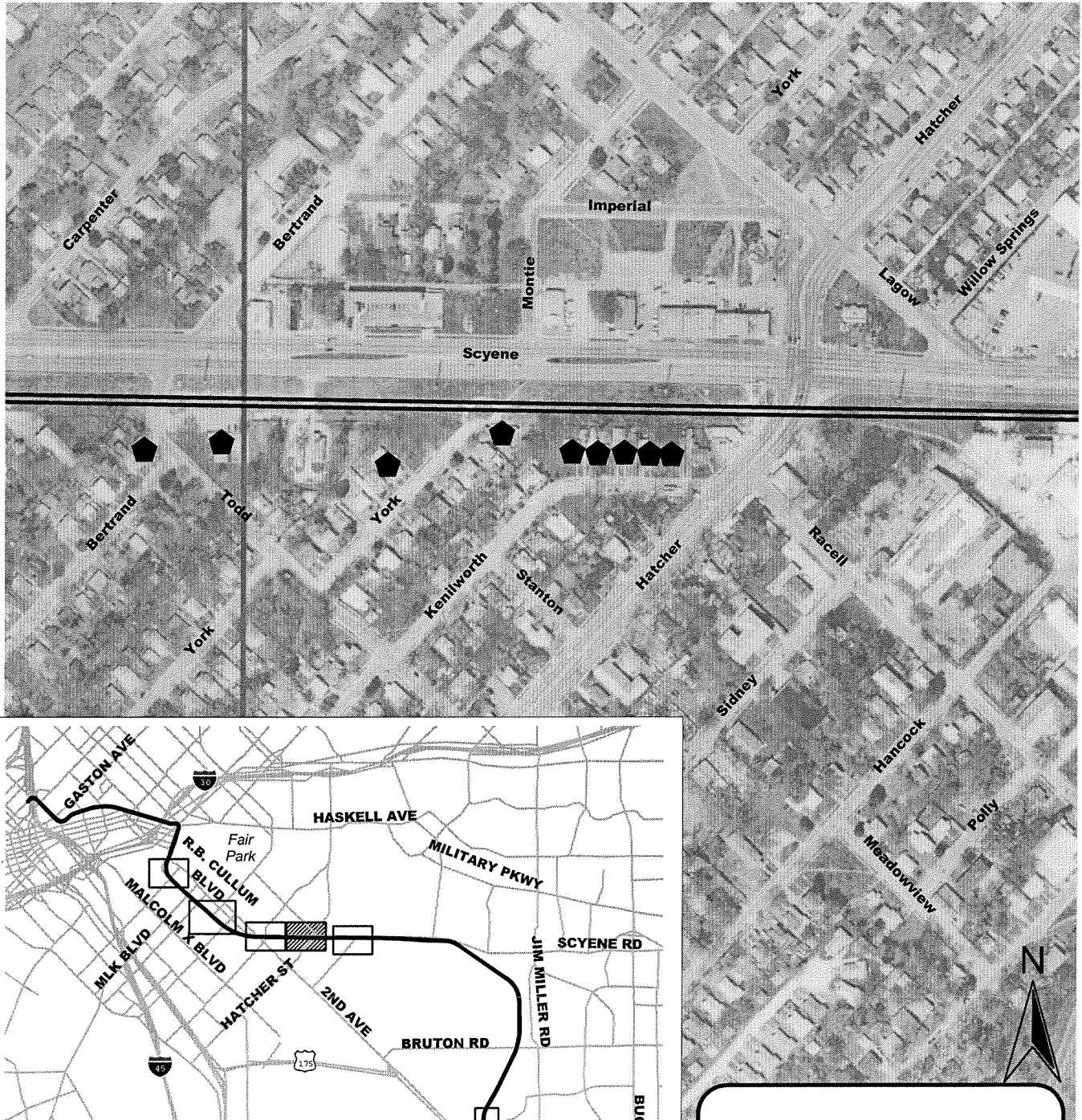


Figure 5.23 Visual Impacts: Hatcher Street



Legend




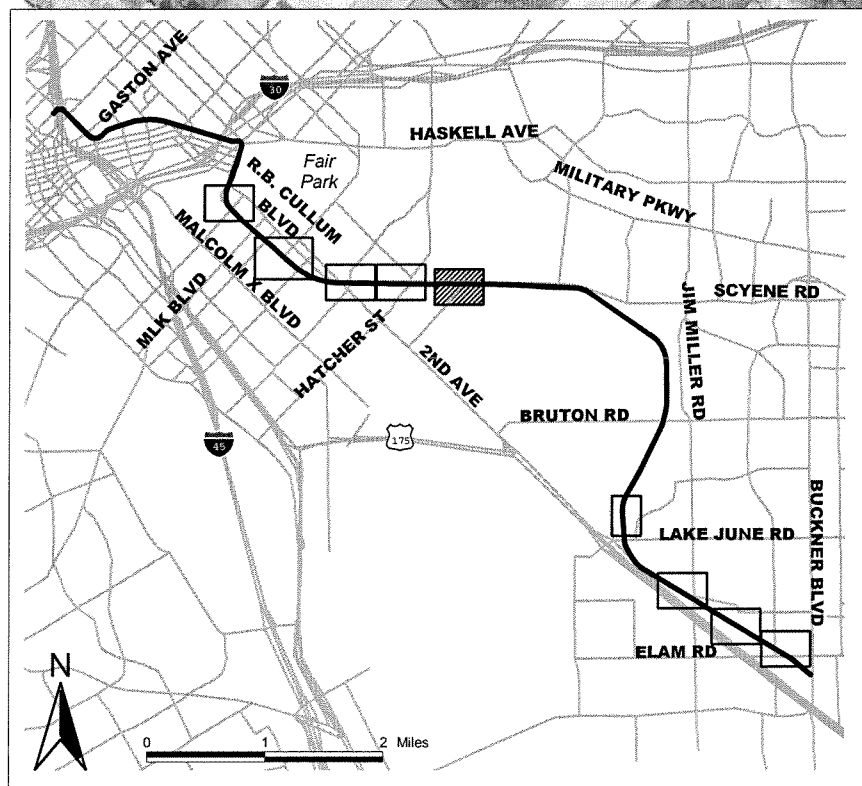
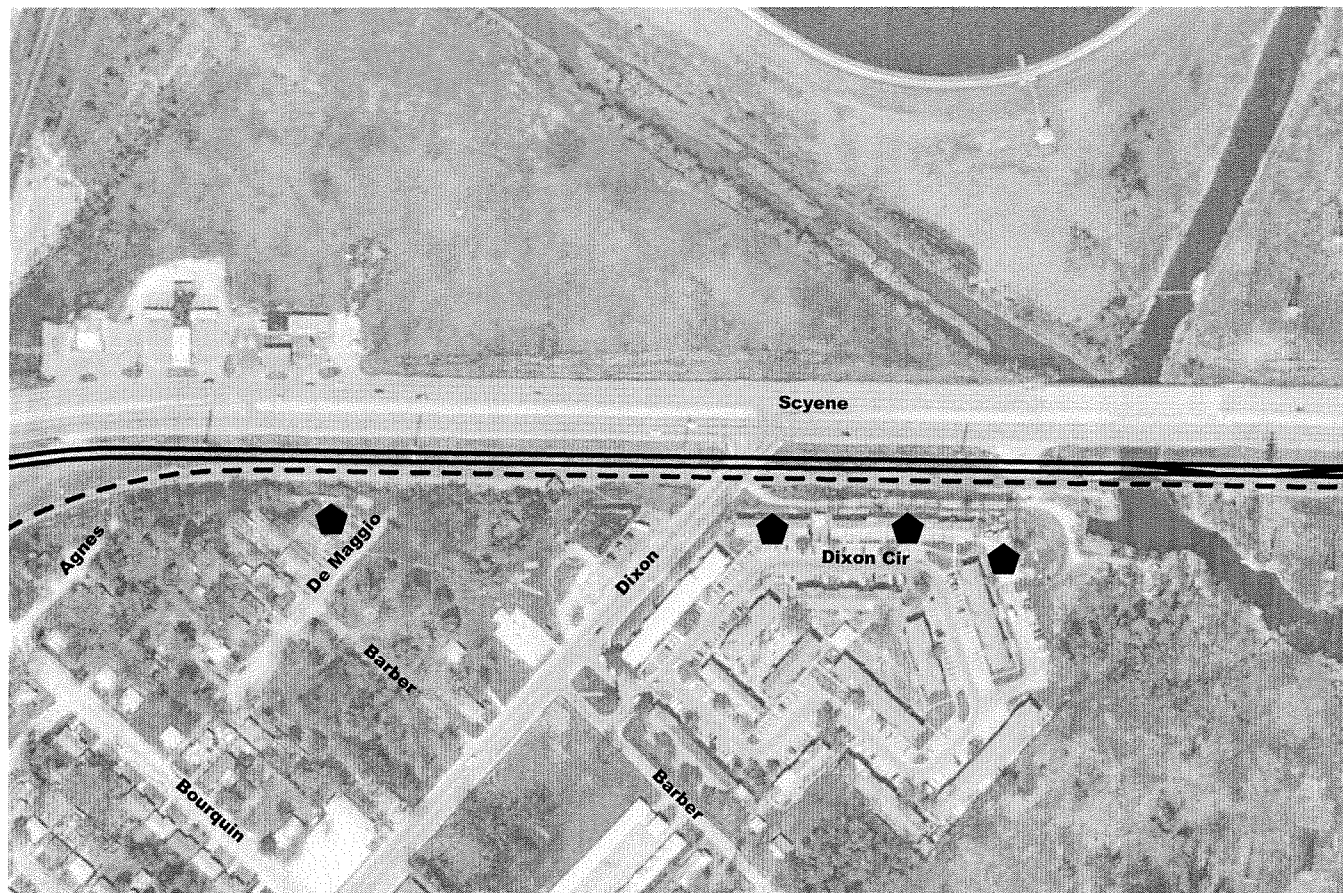




-  Build Alternative (LRT)
-  Area of Interest
-  Visual Impact



Figure 5.24
Visual Impacts: Scyene Road



Legend

-  Build Alternative (LRT)
-  Freight Track
-  Area of Interest
-  Visual Impact

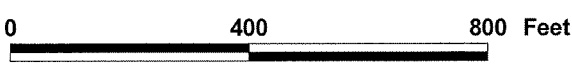
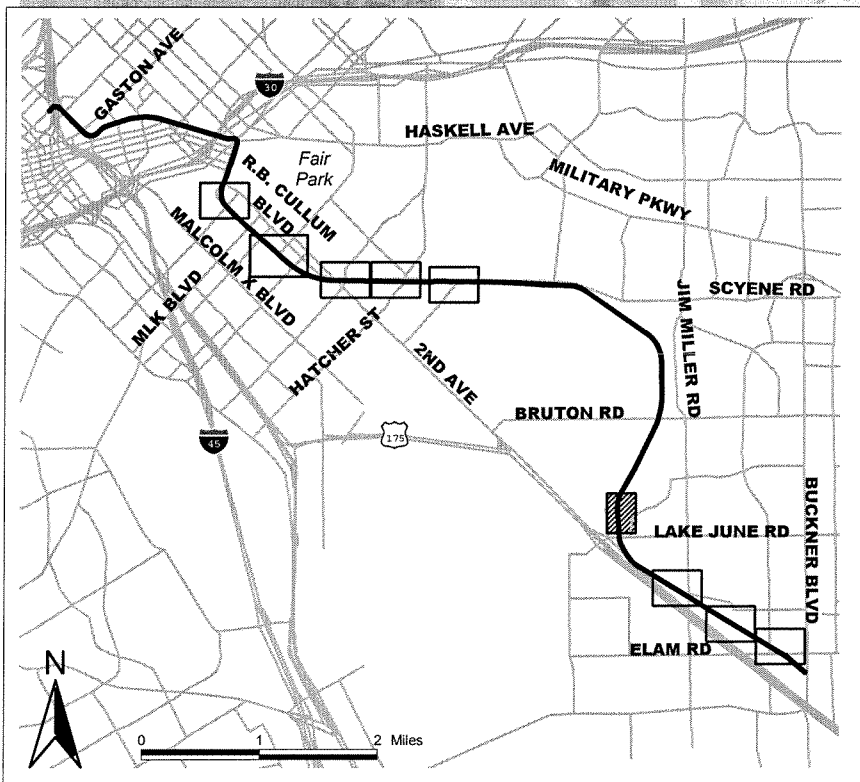






Figure 5.25
Visual Impacts: Brockham Circle



Legend

-  Build Alternative (LRT)
-  Freight Track
-  Area of Interest
-  Visual Impact

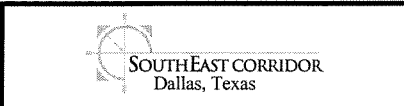
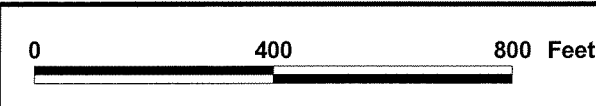
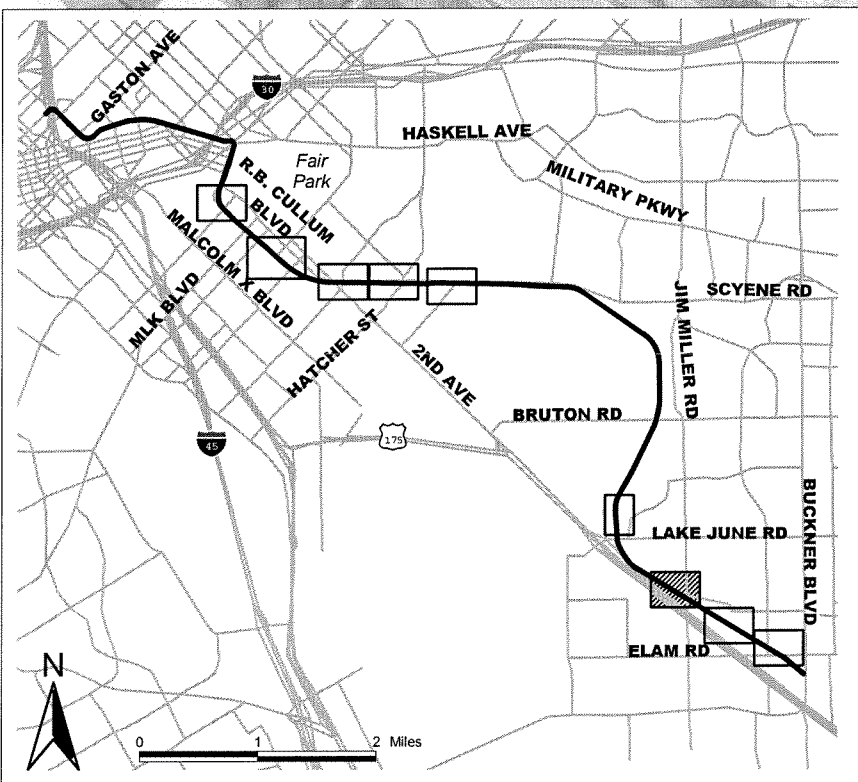
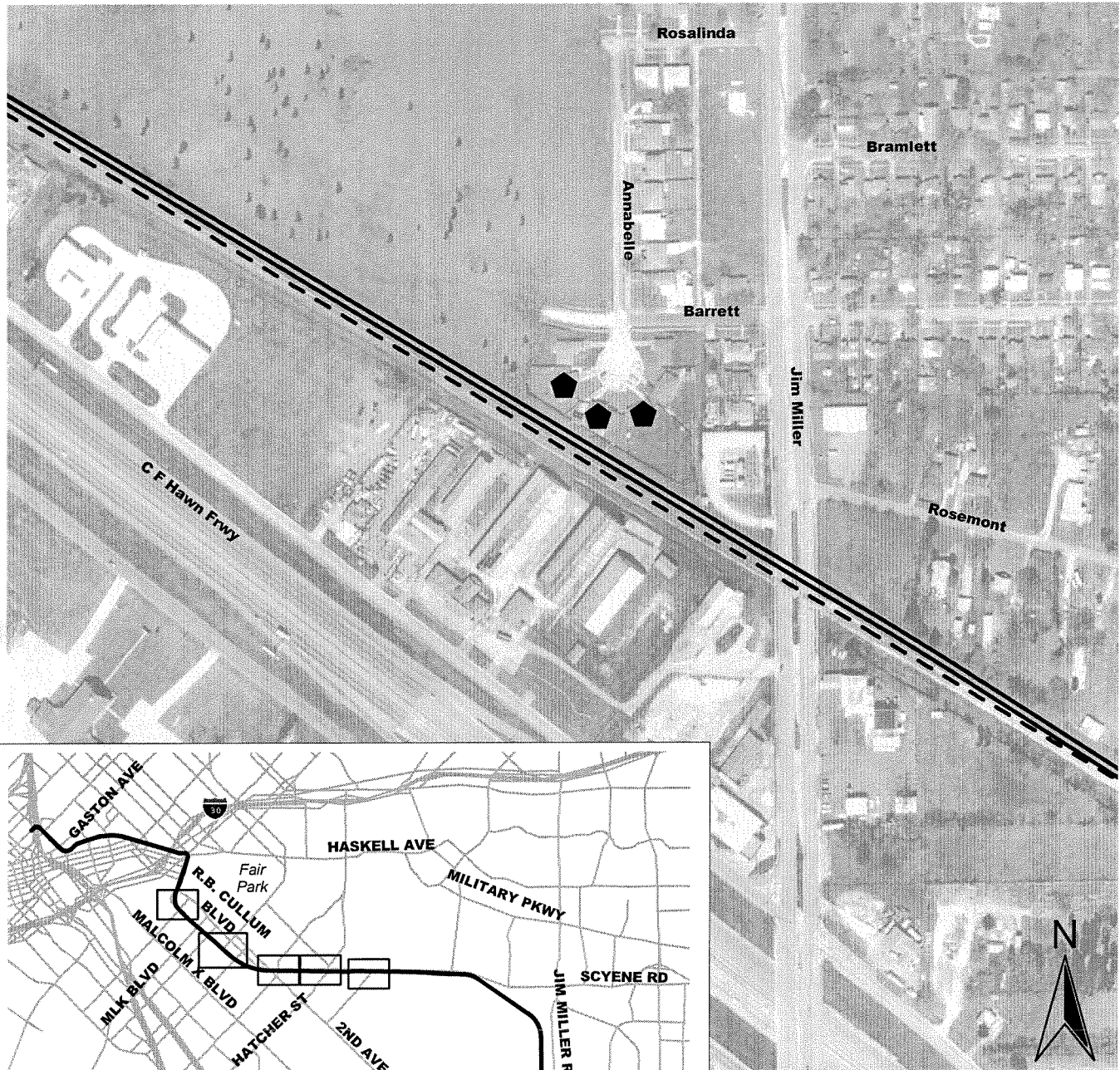






Figure 5.26
Visual Impacts: Jim Miller Road



Legend

-  Build Alternative (LRT)
-  Freight Track
-  Area of Interest
-  Visual Impact

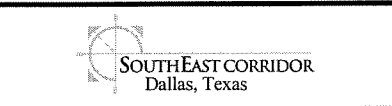
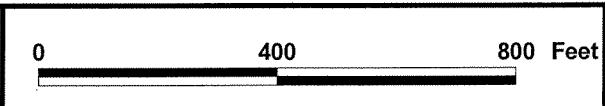
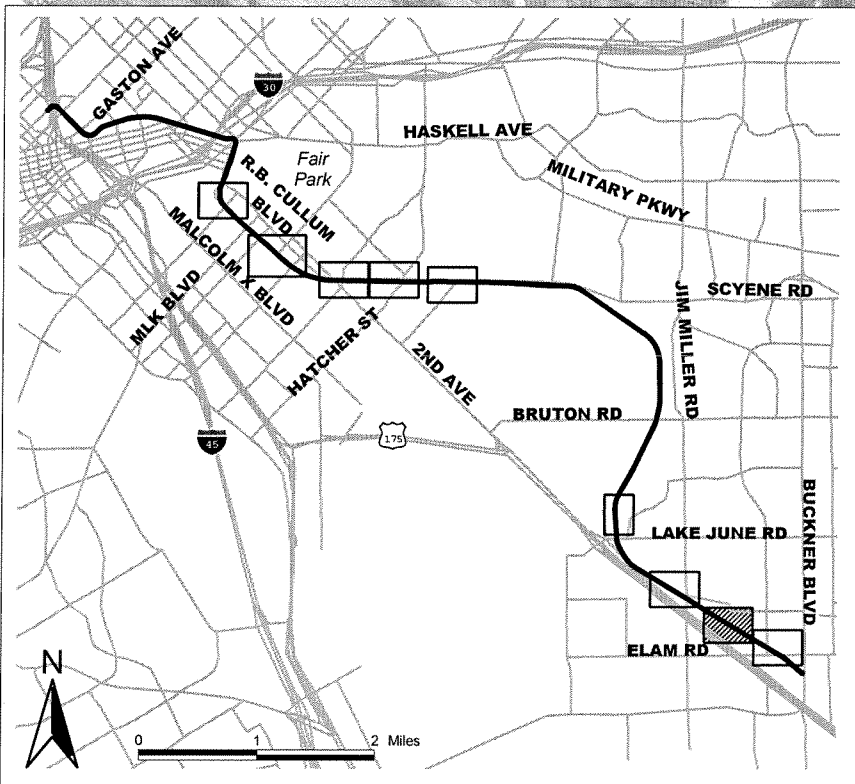
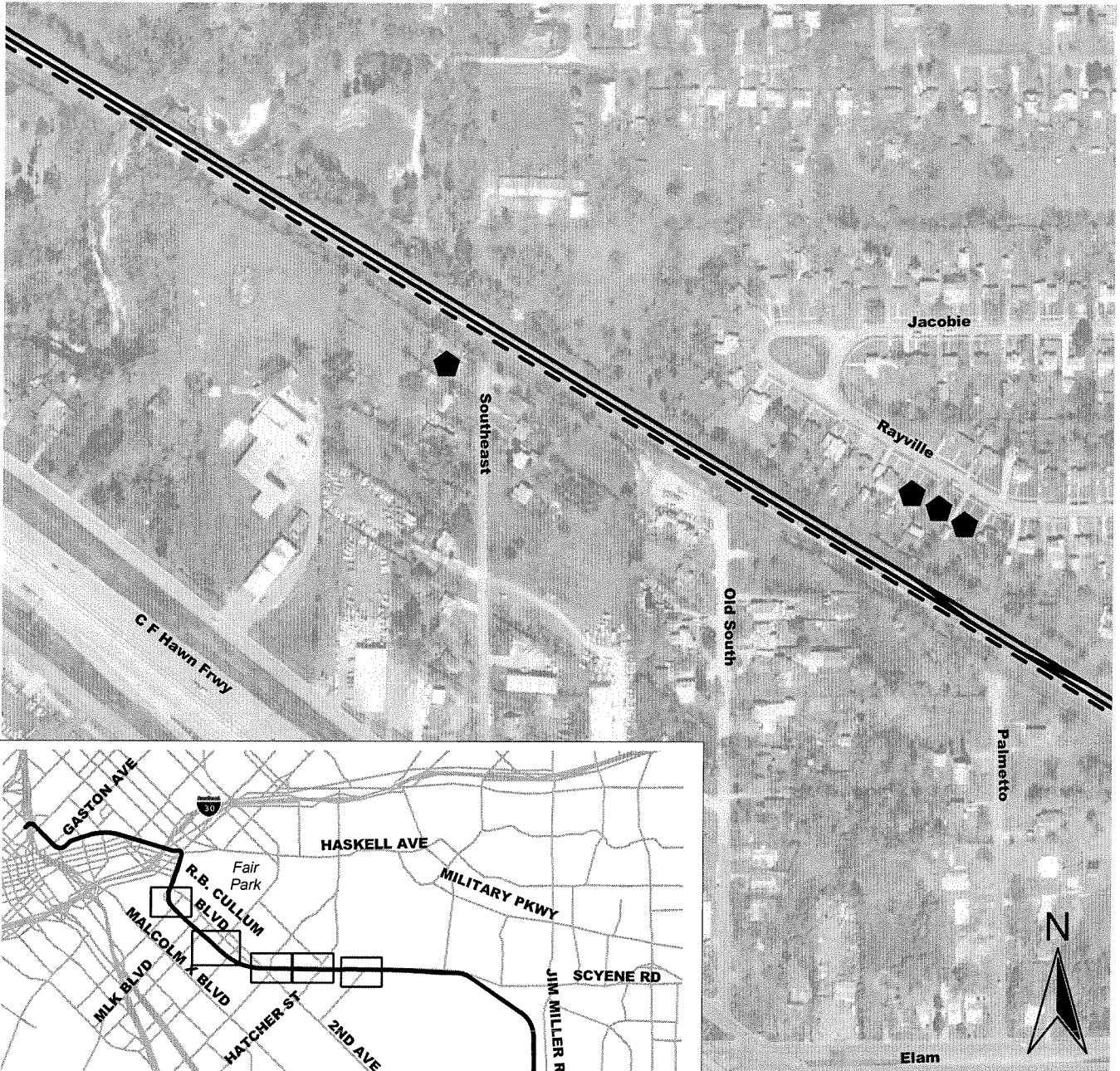


Figure 5.27
Visual Impacts: Rayville Drive



Legend





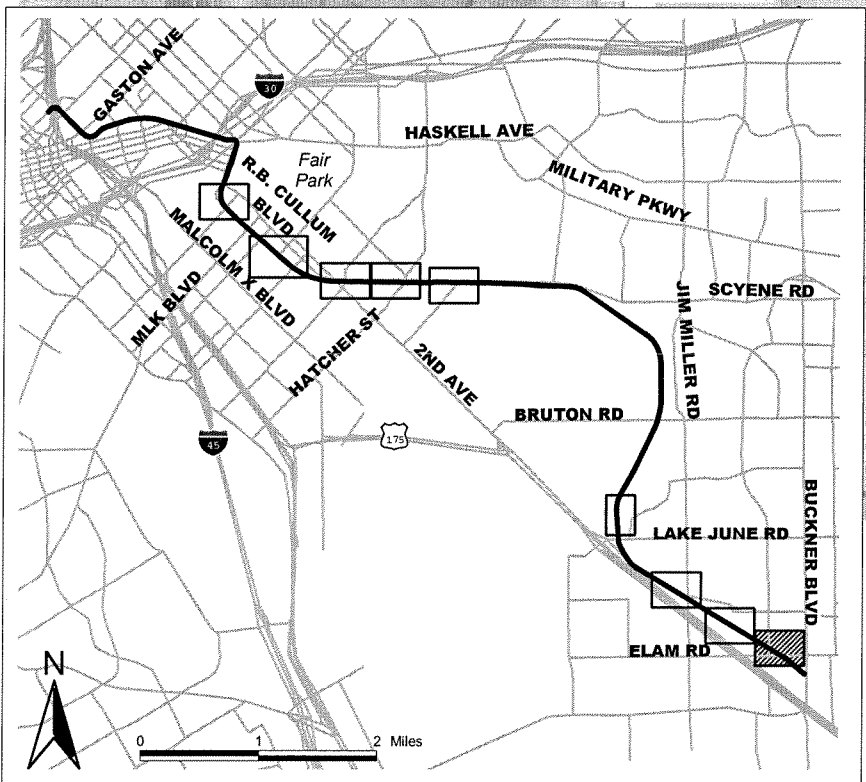
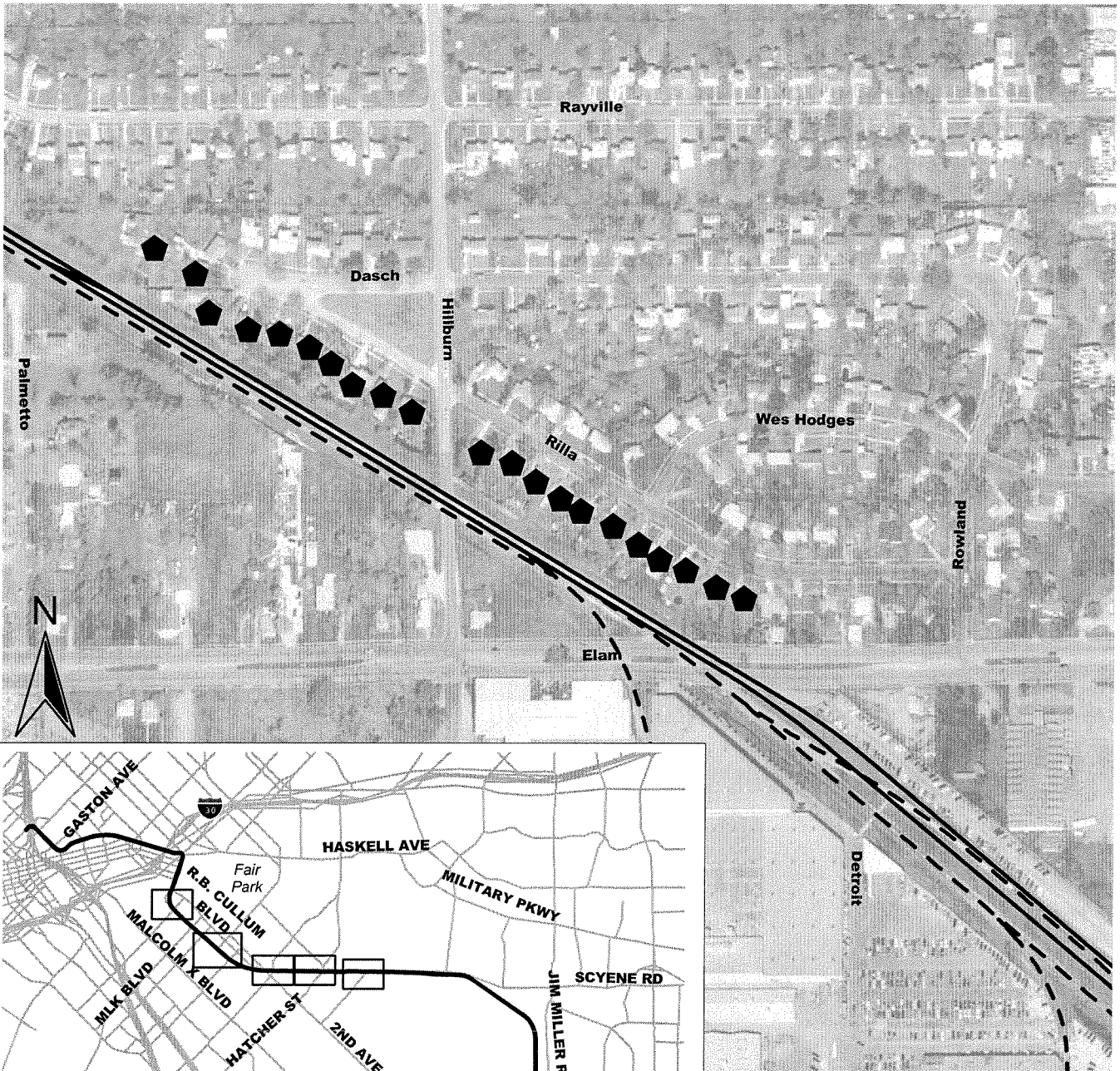
-  Build Alternative (LRT)
-  Freight Track
-  Area of Interest
-  Visual Impact

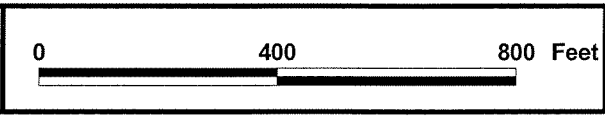


Figure 5.28 Visual Impacts: Hillburn Drive



Legend

- Build Alternative (LRT)
- Freight Track
- Area of Interest
- Visual Impact



5.8.3.3 Mitigation Treatments

Except where noise barriers are being constructed DART will mitigate the potentially significant visual intrusions identified in Section 5.8.3.1 through landscaping. Based on a maximum exposure time to two seconds, vegetation or visual screening will be placed every 130 to 190 feet (depending on speed) to break up views from the LRT in areas where existing screening is sparse, particularly where the vertical distance of the rail alignment is higher than the residences. These mitigation treatments will reduce impacts to a level less than significant. Short-term impacts may result as vegetation matures. In areas of both noise and visual impacts, noise wall barriers may effectively serve to mitigate both the noise and visual intrusion impact.

These mitigation treatments may be supplemented with additional enhancements through DART's Residential Betterments Policy. This policy provides for up to \$70 per linear foot for enhancements above and beyond the identified mitigation measure for residential property adjacent to the rail line. These enhancements may include additional screening where appropriate. DART will work with property owners during final design to most effectively implement the mitigation measures and betterments.

5.9 CULTURAL RESOURCES, HISTORIC PRESERVATION, ARCHAEOLOGICAL PRESERVATION

Five properties in the study corridor are listed on the NRHP and 13 additional properties have been determined potentially eligible for listing. These properties include the Comanche Storytelling Place plus the properties listed in Tables 3.18, page 3-73 and 3.19, page 3-73 and shown on Figure 3.25, page 3-74.

5.9.1 Application of the Criteria of Adverse Effect

In order to comply with Section 106 of the NHPA, any effects of the proposed undertaking on properties listed in or determined eligible for inclusion in the National Register must be analyzed by applying the Criteria of Adverse Effect [36 CFR 800.5(a)], as follows:

- (1) *Criteria of adverse effect. An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative.*

- (2) *Examples of adverse effects. Adverse effects on historic properties include, but are not limited to:*
- (i) *Physical destruction of or damage to all or part of the property;*
 - (ii) *Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation and provision of handicapped access, that is not consistent with the Secretary's Standards for the Treatment of Historic Properties (36 CFR part 68) and applicable guidelines;*
 - (iii) *Removal of the property from its historic location;*
 - (iv) *Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance;*
 - (v) *Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features;*
 - (vi) *Neglect of a property which causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization; and*
 - (vii) *Transfer, lease, or sale of property out of Federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance.*

5.9.2 Determination of No Adverse Effect

The No-Build Alternative would have no effect on any historic properties. In accordance with 36 CFR 800.5, the Build Alternative (LRT) will have No Adverse Effect on the properties listed in Table 5.17. The SHPO concurred with this determination and recommended an appropriate design review process be included in the Memorandum of Agreement (MOA) for the project to ensure compatible design of new visual elements with historic properties and avoid potential for adversely affecting historic properties.

Table 5.17 Properties for which No Adverse Effect is Anticipated

Address	Resource Name	NPHP Status
3800 Commerce	John E. Mitchell Co. Plant	Listed
4044 Commerce	Lincoln Paint & Color Company Building	Eligible
4100 Commerce	Alexander Motor Company Building	Eligible
4118 Commerce	W. Gottlich Company Manufacturing Building	Eligible
4140 Commerce	Textile Building	Listed
2551 Elm Street	Knights of Pythias Temple	Eligible
2605 Elm	Fink Paint Company Building	Eligible
2625 Elm	Manufacturers Expo Building	Eligible
2615 Elm	American Transfer & Storage	Eligible
2609 Elm	Southern Refrigeration Co. Building	Eligible
3301-3333 Elm Street, 212 and 232 Trunk Avenue	Continental Gin District	Listed
624 N. Good-Latimer	St. James AME Temple	Eligible
3601 Main	National Biscuit Company	Eligible
3801 Parry	Old Tige	Eligible
3809 Parry	Howard Wolfe Building and Garage	Listed
Along Parry and R.B. Cullum	Fair Park	Listed
Within Devon-Anderson Park	Comanche Storytelling Place	Potentially Eligible

Source: Myra L. Frank & Associates, Inc., 2001

The Build Alternative (LRT) will require the use of land within the Fair Park National Landmark District. Therefore, without mitigation, there is a potential adverse effect as a result of the project. The SHPO also concurred with this potential and recommended that the measures DART will take to mitigate potential adverse effects on the Fair Park Landmark District be outlined in the MOA. The Fair Park National Historic Landmark District is described in greater detail in Section 5.9.2.1. The Build Alternative (LRT) passes directly adjacent to the Comanche Storytelling Place. The Comanche Nation has determined that, with appropriate mitigation, the project will have no adverse on this property. The Comanche Storytelling Place is described in greater detail in Section 5.9.2.2.

In accordance with 36 CFR 800.6, DART, FTA and the SHPO have executed a MOA that will provide for the continued coordination between these agencies. This agreement will ensure that the LRT project will not result in an adverse effect on the historic properties identified within the APE of the project.

5.9.2.1 Fair Park National Historic Landmark District

No contributing structures or features within the Fair Park Landmark District will be directly affected, altered, or destroyed by the Build Alternative (LRT). Although some alteration to the property will occur, the Build Alternative will have no adverse effect on the Fair Park Landmark District.

(i) Physical destruction of or damage to all or part of the property

Construction activities associated with the Build Alternative (LRT), including stations, will occur primarily within existing streets and/or rail right of way. Right-of-way acquisition for TPSS will not result in the acquisition of parcels with buildings that are historic properties. However, the proposed LRT alignment will pass through the edge of the Fair Park Landmark District, which will require the destruction of paving and damage to landscape features. As noted previously, Parry Avenue adjoining the Fair Park Landmark District was historically the location of multiple trolley lines, and much of the area to be used by the proposed LRT alignment is within the paved area historically used for transit purposes (Figure 5.29).

Figure 5.29 View of Trolley Lines serving Fair Park During the 1936 Texas Centennial



Source: *Dallas Historical Society Archives*, published in McDonald, *Dallas Rediscovered*, 1978, p. 244.

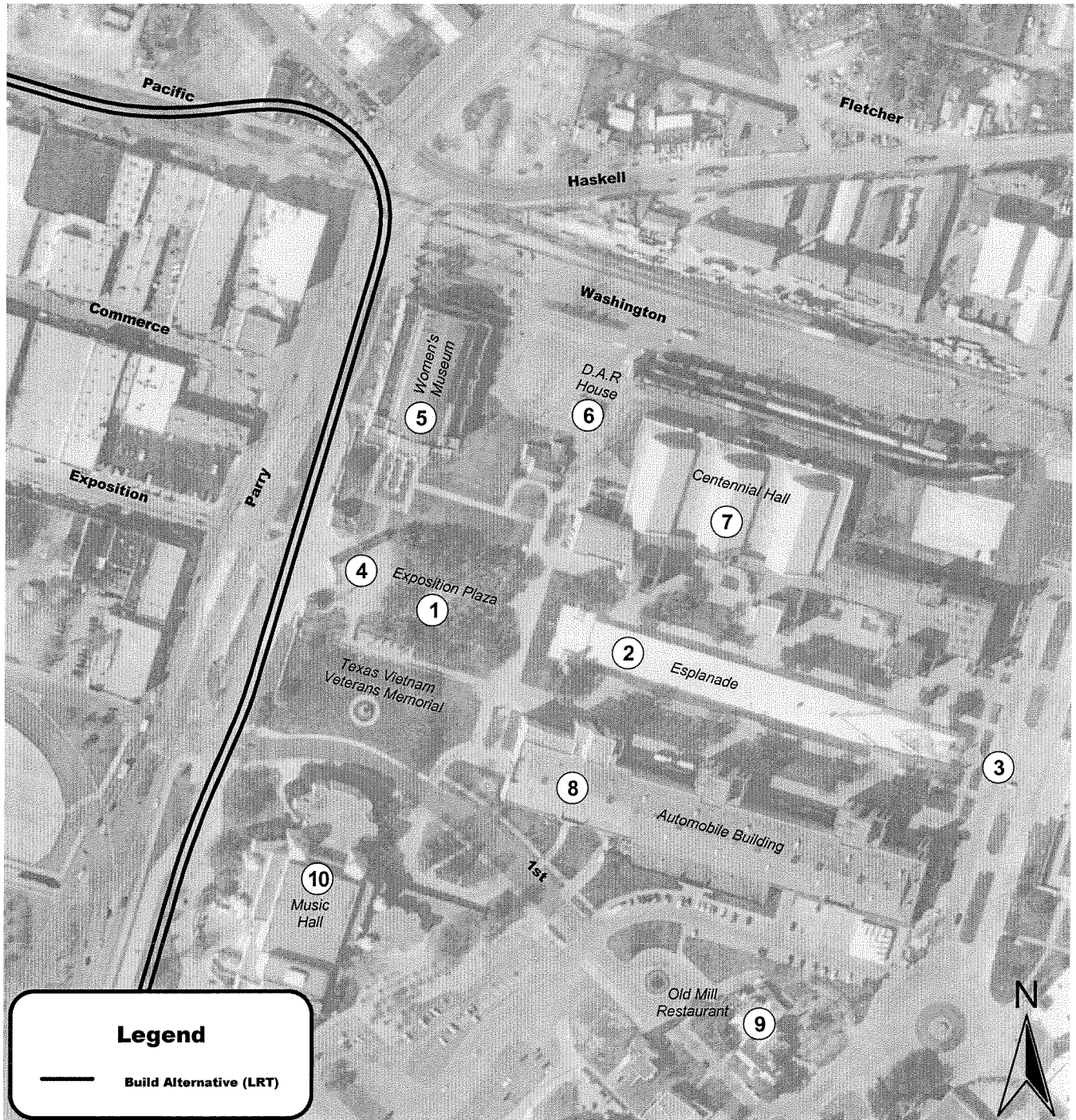
Table 5.18 and Figure 5.30 illustrate the contributing structures within the Fair Park Landmark District adjacent to the planned LRT alignment.

Table 5.18 Contributing Structures to the Fair Park Landmark District

Map No.	Common Name	Historic Name	Date*	Architect/Designer
1	<u>Esplanade of State</u>		1936	George Dahl and staff
2	Grand Plaza			
3	Esplanade proper			
3	Court of Honor			
4	Entrance Gates & Pylon		1936	George Dahl & staff
5	National Women's Museum	Hall of Administration; State Fair Coliseum	1910; 1936	James Flanders; George Dahl & staff
6	Continental Oil Hospitality House	Daughters of the American Revolution Building	1936	W. R. Brown
7	Transportation/Chrysler Building	Centennial Building	1905; 1936	James Flanders; George Dahl & staff
8	Automobile Building		1948	Bill Cobb and Ed Wilson
9	Old Mill Inn	Morten Milling Industry Building	1936	Conkranty
10	Music Hall	Auditorium	1925; 1936; 1972	Lang and Witchell; Jarvis Putty Jarvis

Source: Myra L. Frank & Associates, 2001

Figure 5.30 Contributing Structures to the Fair Park Landmark District



Legend

— Build Alternative (LRT)

- | | |
|----------------------------|--------------------------------------|
| 1. Grand Plaza | 6. Continental Oil Hospitality House |
| 2. Esplanade Proper | 7. Transportation/Chrysler Building |
| 3. Court of Honor | 8. Automobile Building |
| 4. Entrance Gates & Pylon | 9. Old Mill Inn |
| 5. National Women's Museum | 10. Music Hall |



0 200 400 Feet



(ii) Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation and provision of handicapped access, that is not consistent with the Secretary's Standards for the Treatment of Historic Properties (36 CFR part 68) and applicable guidelines

The proposed LRT alignment will pass through the edge of the Fair Park Landmark District, which will require minimal alteration to landscape or paving features. As noted previously, this area was historically the location of multiple trolley lines, and much of the area to be used by the Build Alternative (LRT) is within the paved area historically used for transit purposes. No contributing structures within the Fair Park Landmark District will be directly affected or destroyed by the proposed alignment. Therefore, although some alteration to the property will occur, the Build Alternative (LRT) will have no adverse effect on this historic resource. No other alterations to historic properties are contemplated for the Build Alternative (LRT).

(iv) Removal of the property from its historic location

No known historic property will be removed from its historic location as a result of implementation of the Build Alternative (LRT).

(v) Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance

The Build Alternative (LRT) proposes the construction of a LRT station adjacent to the main formal entry of the Fair Park National Historic Landmark District. The conceptual drawings and preliminary engineering for this station indicate that this station will require the construction of at least five structures and the repaving of the entry plaza which provides a forecourt to the entrance to Fair Park proper. In addition, a strip of landscaping along the Parry Avenue side of the Park nearest the Music Hall will be removed or relocated closer to the Music Hall as a result of construction of the LRT alignment. The boundaries of both the Fair Park National Historic Landmark and National Register-listed Historic District extend into Parry Avenue; consequently, a direct impact will result. Therefore, there is a potential adverse effect to the Fair Park National Historic Landmark District as a result of the LRT project.

In the early 20th Century, electric trolley vehicles with overhead wires were prominent in the portions of the proposed LRT alignment adjacent to Fair Park. Specific design elements of physical elements of the LRT project that will be constructed within the view shed of the primary

entrance to the National Historic Landmark District must be closely coordinated with SHPO to ensure their design is appropriate and does not adversely affect the character and setting of the Fair Park Landmark District. For example, new paving should be designed to harmonize with the existing concrete pavement, structures should not be located along the axis of the central entryway to the Park, and the design of structures associated with the LRT station should be as transparent in their design as possible. A MOA outlining the measures DART will take to mitigate potential adverse effects on the Fair Park Landmark District, has been executed by DART, FTA, and the SHPO. This agreement will ensure that the LRT project will not result in an adverse effect on the Landmark District.

The alteration of the setting of the Landmark District as it relates to the Music Hall structure will be minimal. Much of the district that abuts the Music Hall is already a paved parking lot or paved vehicular access to the park. While buffering landscaping will have to be relocated because of the LRT alignment, this buffer will be relocated toward the building so that a vegetative buffer will continue to exist between the transportation uses along Parry Avenue and the Music Hall. Finally, the Music Hall itself has been unsympathetically renovated at some time in the past, and little of the architectural integrity of the structure is left in the areas nearest the proposed LRT alignment.

v) Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features

Visual Elements: The Fair Park station, ancillary buildings, catenary poles and wires will introduce new visual elements in the street right-of-way and the view shed for the entryway to the Fair Park Historic Landmark District. The streets are, however, located in a dense urban area and, as discussed under criterion example (iv) above, there was an historic precedent for such visual elements. These elements will be designed to be compatible with the surrounding areas and historic properties by incorporating compatible building materials, landscaping and designs. As discussed under criterion (iv), the potential for an adverse effect on the Landmark District exists, and will be avoided through a MOA and on-going coordination with SHPO in the design process.

Atmospheric Elements: Because the Build Alternative (LRT) will be powered by electricity, the only atmospheric element that could be introduced will be dust during construction. This will be

minimized to the extent possible by construction practices, will be temporary, and will not harm any building surfaces.

Audible Elements: According to the noise and vibration analysis conducted for this project, no significant noise or vibration impacts to the Fair Park Landmark District will result from the construction or operation of the Build Alternative (LRT).

(vi) Neglect of a property which causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization

It is anticipated that all historic properties will continue to function normally with necessary, temporary inconveniences associated with construction, and that this will not precipitate neglect.

(vii) Transfer, lease, or sale of property out of Federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance

The Build Alternative (LRT) will not require the transfer, lease, or sale of any historic property.

5.9.2.2 Comanche Storytelling Place

This section addresses the impact that would occur to the Comanche Storytelling Place as a result of the alternatives. As the Comanche Nation has proclaimed the Storytelling Place to be sacred, FTA and DART have determined the site to be potentially eligible for listing in the NRHP.

DART has assessed the impacts to the site and coordinated effort with the SHPO and the Comanche Nation in order minimize impact to the site.

No-Build Alternative

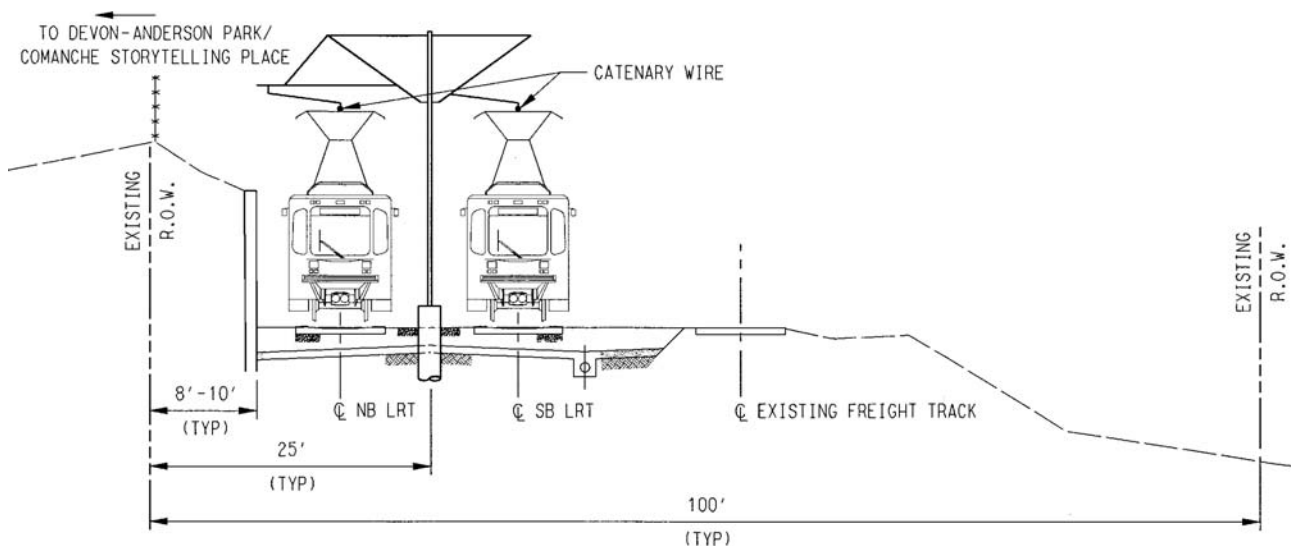
The No-build Alternative would have no effect on the Storytelling Place.

Build Alternative (LRT)

The Comanche Storytelling Place in Devon-Anderson Park is located on the escarpment ridge that extends into the DART right-of-way at Station at 505+50 in Appendix D. This location has also been identified as a scenic overlook. Figure 3.21 identifies the location of the Comanche Storytelling Place. The Storytelling Place with its scenic overlook was identified to DART subsequent to the publishing of the DEIS. As originally designed, the rail project would cut into

the face and require a retaining wall approximately 10 feet east of the east right-of-way line. Throughout this portion of the corridor fencing would be placed on both sides of the rail corridor at edge of the DART owned right-of-way for safety because the LRT will be traveling above 45 mph. The fence along the eastside of the right-of-way would be located at the top of the escarpment. Figure 5.29 is a cross section of this design of the LRT project at the Storytelling Place. Without appropriate mitigation, there is a potential that the DART light rail project could adversely affect the Comanche Storytelling Place and scenic overlook. In addition to cutting into the escarpment, project elements that if not properly mitigated could potentially effect the Comanche Storytelling Place are the new LRT tracks, new retaining wall, catenary wire, catenary poles, and the fences.

Figure 5.31 Cross Section of Proposed Design at the Comanche Storytelling Place



DART has consulted with the Comanche Nation regarding the Storytelling Place and scenic overlook. This consultation included discussions and mitigation measures to ensure the project will not adversely affect the Storytelling Place. Although considered by the Comanche People as part of an overall cultural landscape, the area of primary importance is the limestone outcropping of rock that forms a bowl-shaped configuration that is luminescent in the moonlight. This area is outside of the DART right-of-way and will not be directly impacted by the construction of the light rail line.

When the railroad was constructed in the 1870's the overall landscape of the area was significantly altered. Throughout the rail right-of-way, trees were cleared and a track bed was

prepared by filling low areas or by cutting into the escarpment. The railroad tracks are a significant feature through the area and part of the existing and historic landscape. The new LRT tracks will be placed within the existing right-of-way directly adjacent to the existing tracks. The addition of this element of the project will not impact the Storytelling Place or the scenic overlook.

(v) Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features;

At the Storytelling Place it appears that the face of the escarpment, that extends into the rail right-of-way, has previously been altered. There is a well-defined 2:1 slope from the top of the escarpment at the edge of the right-of-way down to the existing track bed. This defined slope appears to have been man-made and is typical of the practices the railroads used to make way for the path of the train. The subsequent erosion patterns of this area of the escarpment support this concept. Cutting into the previously altered escarpment face will not have a direct impact to significant bowl configuration of the Storytelling Place. The addition of the retaining wall will, however, alter the visual appearance of the area and, without mitigation, could potentially have an adverse effect on the Storytelling Place and scenic overlook.

The catenary wire will be placed along the rail corridor approximately 18 to 20 feet above the top of rail. The wire is supported by 22-foot to 26-foot tall catenary poles that will be placed every 40 to 180 feet along the corridor. Pole placement is subject to grade and curvature of the alignment and the exact locations will not be determined until final design. The catenary wire, which will generally blend into the wooded background, will be slightly higher than the top of the escarpment. As the view from the escarpment is out and over the treetops, the catenary wire will not impact the Storytelling Place or the scenic overlook. Without mitigation, the placement of the catenary poles may alter the visual appearance of the area and could potentially have an adverse effect on the Storytelling Place and scenic overlook.

Safety concerns require the placement of fencing along the edge of the right-of-way. This is especially a concern at the Storytelling Place where DART would cut into the escarpment creating a sheer drop off from the public park. The placement of the fence on the right-of-way line at the top of the escarpment will alter the visual appearance of the area and, without mitigation, could potentially have an adverse effect on the Storytelling Place and scenic overlook.

The only other potential visual impact at the Storytelling Place would be the removal of vegetation for grading and filling during construction. Vegetation impacts are discussed in Section 5.11.2 of this document.

The noise and vibration analysis that was conducted in the vicinity of Devon-Anderson Park did not identify any impacts that would disrupt the solitude of the Storytelling Place. The track in through the area is fairly straight and there are no crossings that would require the use of audible devices. Noise and vibration impacts are discussed in Section 5.7 of this document.

In summary, since the project is wholly within DART railroad right-of-way and does not alter the bowl-like rock configuration within Devon-Anderson Park, there is not a direct impact to the Storytelling Place. Additionally, the introduction of light rail will not significantly alter the physical setting the Storytelling Place since the DART corridor has been traditionally used for rail purposes. There is a potential that, without mitigation, the introduction of the visual features associated with the LRT system could have an adverse effect to the Storytelling Place. Through consultation with the Comanche Nation, DART and FTA have developed measures that will be employed to mitigate potential adverse effects of the rail project on the Storytelling Place. These mitigation measures are detailed in Section 5.9.6.3. In a letter to FTA, date August 15, 2002, the Comanche Nation agreed that the appropriately mitigated light rail project will not adversely effect the Storytelling Place. Subsequently, the Comanche Nation has reviewed and approved the proposed mitigation but have declined an invitation to enter into a formal MOA regarding the Storytelling Place.

5.9.3 Determination of Adverse Effect

In accordance with 36 CFR 800.5, there is one historic resource in the APE for the project for which the Build Alternative (LRT) will result in an adverse effect.

(i) Physical destruction of or damage to all or part of the property;

The Build Alternative (LRT) requires the physical destruction of the Good-Latimer Tunnel, which will be an adverse effect on the historic property. The SHPO concurred with this determination and recommended appropriate mitigation documentation as stipulated in a MOA. In accordance with 36 CFR 800.6, DART, FTA, and the SHPO have executed a MOA outlining these mitigation measures.

5.9.4 Archeology

The cultural resource survey for the proposed project included identification of known archeological resources along the proposed alignment. As provided under Section 26.7 of the Antiquities Code of Texas, Fair Park is a State Archeological Landmark. There is the potential to encounter archeological resources during the construction process. Although much of the proposed right-of-way has been previously disturbed, the potential to encounter resources from the historic and prehistoric periods still occurs.

The Build Alternative (LRT) crosses the White Rock Creek and Elam Creek floodplains, areas where archaeological sites have been previously recorded more than half a century ago by members of the Dallas Archeological Society (DAS). The floodplains were considered to be areas of high archaeological potential in the 1978 Dallas Archaeological Potential report, but subsequent investigations in the area have since reassessed the potential as being medium, although with some areas of high potential such as the area of the White Rock Lake Spillway site.

Archaeological resources have not been recorded within the study corridor, but previous DAS archaeological surveys and investigations in conjunction with development projects over the past 20 years have recorded prehistoric archaeological sites in the area. More specifically, five prehistoric sites have been recorded near the route and adjacent to White Rock Creek, both in the floodplain and in the nearby uplands. Two of these sites are described as being located on the bluff overlooking the creek and being immediately adjacent to the route of the preferred alternative between Scyene Road and Bruton Road. Other sites have been recorded as being on a ridge next to the creek bank and in the floodplain near a flowing spring. Sites have also been recorded downstream from the crossing of Elam Creek. Artifacts from these sites include arrow points, Caddoan pottery, lithic debris, and mussel shells. These sites were recently reevaluated by the DAS and two were determined to be intact, while one of the sites has been completely destroyed since it was recorded more than 50 years ago.

In September 2002, a cultural resources investigation was undertaken within the right-of-way along a 3.5-mile segment of the proposed route from west of the White Rock Creek to Lake June Road. The investigation also included the site of the proposed Lawnview Station. This investigation involved an intensive archeological survey, augmented by shovel testing in high probability areas along the proposed corridor, in conjunction with geoaicheological evaluations

of backhoe trenches excavated at the White Rock Creek main channel at the Scyene Road crossing. The areas adjacent to and within the corridor, however, have been highly affected by railroad construction, maintenance, and urban development over the past century, and shovel testing of the least disturbed areas yielded no artifacts. The only cultural find was a single historic locality, which appears to represent a construction materials dumping area. In addition to the shovel testing, four backhoe trenches were excavated at White Rock Creek (two on each bank) in order to assess the potential for buried paleosols and associated prehistoric living surfaces. All four profiles proved to be highly disturbed. The only profile with potentially undisturbed sediments, Backhoe Trench 4, yielded no evidence of either paleosols or living surfaces. In addition to the backhoe trenching at White Rock Creek, visual assessments were made of the floodplains of the other five drainages in the project area. All were found to be either highly disturbed or to be steep-sided drainages with no flood plain or terrace surfaces suitable for occupation. The proposed location of the Lawnview Station is situated on extensive fill deposits and will consequently not impact any archeological sites.

Examination of the escarpment edge at the location of the Comanche Storytelling Place sacred site revealed that the escarpment was most likely impacted initially during the construction of the railroad right-of-way in 1872. The unique erosion pattern at this locality is likely the result of the cutting of a notch in the escarpment to accommodate the railroad right-of-way, thereby steepening the escarpment edge and facilitating an erosional pattern that continues today.

5.9.5 Conclusions

Within the APE of the Build Alternative, 18 historic properties, including the Comanche Storytelling Place have been identified. The LRT project will have an adverse effect on only one of these historic properties, the Good-Latimer Tunnel. Appendix E of this document is a Section 4(f) Evaluation that demonstrates that there is no prudent or feasible alternative to the physical destruction of the Good-Latimer Tunnel. The appropriate mitigation for the loss of this resource is discussed in Section 5.9.6.

The Build Alternative (LRT) project is composed of largely street grade LRT that will pass through the edge of Fair Park National Historic Landmark and National Register-Listed District. The alignment is located largely in existing rail or street right-of-way, in part historically served by street trolleys. This portion of the Historic District is currently used for transportation purposes, such as driveways and busways. The Fair Park Station will be located within the view shed of

the Fair Park Historic Landmark District, potentially affecting the historic context of the District. SHPO consultation in the design and placement of this station is on-going, and these potential effects will be mitigated by appropriate design review by the SHPO to ensure that it complies with the Secretary of the Interiors Standard for Rehabilitation.

The Build Alternative (LRT) passes adjacent to the Comanche Storytelling Place but will not have a direct impact on the site within Devon-Anderson Park. Coordination with the Comanche Nation is on-going and potential effects from the introduction of new visual elements will be mitigated through sensitive design.

The proposed DART Southeast Corridor will have no effect on archeological sites or properties. Archival research, intensive pedestrian survey, backhoe trenching within the White Rock Creek floodplain, and an examination of all drainage crossings revealed no historic properties within the existing railroad right-of-way. The cultural resources investigations of the 3.5-mile long segment of the DART Southeast Corridor have resulted in the recording of one locality, Locality 1. Although this locality appears to include an in situ feature, a small, concrete slab, the remainder of the materials identified suggests that the area has served as a dump for construction materials. Extensive fill deposits are also present at the nearby location for the proposed Lawnview Station. For this reason, the locality is not considered to be a site, and is not eligible for inclusion in the NRHP or for designation as a State Archeological Landmark.

The proposed DART construction will not extend outside the existing right-of-way and not impact any part of the landscape that had not been altered previously by the initial railroad construction in 1872. Therefore, the Comanche Storytelling Place will not be impacted. The unique erosional pattern exhibited on the west face of this promontory and its relationship to the present railroad grade clearly indicates that the escarpment edge was notched or cut in 1872 to accommodate the railroad right-of-way. Consequently, the proposed cutting of the escarpment edge within the existing right-of-way would not impact any original element of the escarpment face or the associated Storytelling Place.

In accordance with 36 CFR 800.6, DART, FTA, and the SHPO have executed a MOA that will provide for the continued coordination between these agencies. This agreement addresses the appropriate mitigation for the adverse effect of the project on the Good-Latimer Tunnel. Additionally, the agreement ensures that the LRT project will not result in an adverse effect on

the remaining identified Southeast Corridor historic properties including the Fair Park National Historic Landmark District. The executed MOA, which provides for the continued coordination between the signatory agencies, is included in Appendix G.

5.9.6 Mitigation Treatments

5.9.6.1 Good-Latimer Tunnel

The adverse effect of physical destruction of the Good-Latimer Tunnel in Option A of the Build Alternative (LRT) will be mitigated through documentation. The documentation for the Good-Latimer Underpass shall be prepared in a manner equivalent to Historic American Engineering Record (HAER) Level I. This documentation will include measured drawings depicting existing and historic conditions, photographs with large-format negatives of interior and exterior views and a written narrative that places the tunnel and remaining system elements in the context of the community development of Dallas.

As detailed in Section 5.8.2.5, DART will develop a community committee to work through acceptable urban design opportunities to develop a new Deep Ellum Gateway. Additionally, if practicable, DART will attempt to retain significant pieces of the tunnel fabric for placement in a local and public setting with appropriate interpretation.

These measures were developed upon consultation with the SHPO and a coalition of Preservation Dallas, Meadows Foundation of Texas, Deep Ellum Association, and the Friends of Fair Park.

5.9.6.2 Fair Park

The potential adverse effect to the Fair Park National Historic Landmark District will be mitigated through a sensitive design that minimizes vertical station elements and captures design elements of the 1936 park entrance. Station features shall include four canopies of similar size and shape to historic 1936 historic ticket booths. Two of these canopies shall be placed in the location of the original ticket booths with the second set being placed on the opposite side of the track directly in front of the original location. These four canopies would be of the same design, which are intended recall the design of the historic ticket booths. A very, simple transparent designed, accessible platform will be placed at the front end of each side platform. On-going

coordination with the SHPO will ensure that the design of the LRT alignment will avoid adverse effect to the property.

5.9.6.3 Comanche Storytelling Place

DART has reached an agreement with the Comanche Nation regarding mitigation of the potential impacts of the Build Alternative (LRT) to the Comanche Storytelling Place in Devon-Anderson Park. As stated previously, the design will cut into the face of the escarpment that extends into the right-of-way and put up a retaining wall. Because of the importance of the natural limestone outcropping at the Storytelling Place, as requested by the Comanche Nation, DART will construct the retaining wall of limestone in order to blend in with the natural setting. Additionally, DART will eliminate the fence along the right-of-way line at top of the escarpment and the retaining wall be extended to height that preserves the view and meets DART safety requirements.

Other mitigation that DART has committed to at this location is that the fence, from Station 504+00 to Station 508+00, opposite the Storytelling Place will be coated in a black vinyl material to blend in with the background. Catenary poles will be spaced as far from the view from the escarpment as practically possible. Catenary poles, if practical, will also be kept to a minimum height. DART will make a concerted effort to preserve as much of the existing vegetation around the Storytelling Place as practicable. Although the rail corridor is not subject to the Dallas Tree Ordinance, DART will replace trees of exceptional quality or size that are damaged or removed. Additionally, the recently completed archeological survey of the corridor was part of DART's mitigation efforts. This survey information will be provided to the Comanche Nation for their efforts for National District recognition. Archeology is discussed in Section 5.9.4 of this document. The Comanche Nation will be given the opportunity to review and comment on the project at each phase of the project.

5.10 PARKLANDS [SECTION 4(f) AND 6(f)]

There are 14 existing public parks, school grounds, and recreation lands within the study area that are within about 500 feet of the proposed LRT alignment. There is also one proposed park that could be affected by the proposed project. Parklands and their features are described in Section 3.9.2. The location of these resources are listed in Table 3.20, page 3-80, and shown in Figure 3.27, page 3-81.

5.10.1 Impact Types and Assessment

There are basically two types of impacts that can affect parklands. Direct impacts are those that will occur from acquisition of park property or the location of a transportation system element on park property. Indirect impacts are those which arise from some feature or operation of a transportation system element. Examples of indirect impacts are noise or vibration, or changes in the visual environment, or changes in access. Where indirect impacts occur, an evaluation must be made as to whether the impact is of sufficient magnitude to have a substantial negative effect on a park, park function or park characteristic.

5.10.2 Direct Impacts

No-Build Alternative

The No-Build Alternative would have no direct impacts on any parklands.

Build Alternative (LRT)

Of the 14 existing public parks, school grounds, and recreation lands in the study area, only one will be subject to direct impact. Parkland property at Fair Park will need to be used for installation of portions of the LRT line and portions of the proposed station adjacent to the ceremonial entrance of Fair Park at Parry Avenue. DART has demonstrated that there is no prudent and feasible alternative to the use of Fair Park and a detailed discussion of direct impacts is included in Appendix E, Section 4(f) Evaluation.

At Fair Park, there are two park boundaries along Parry Avenue. The more easterly of the boundaries is associated with the early configuration of the Fair Park campus, while the westerly arose from expansions and street building. The area between the two boundaries is designated for street purposes and is thus technically not defined as dedicated park property to which there will be a direct impact.

The easterly boundary line is irregular with relationship to the existing ornamental fence of Fair Park, the bus drop off lane that serves the ceremonial entrance on Parry Avenue. Beginning at the Credentials Gate (north side of the Women's Museum) and Parry Avenue, the boundary line is about 35 feet west of the museum's western facade. Nearing the ceremonial entrance, the boundary appears to follow the east curb line of the bus lane. At the First Avenue Gate, the boundary is about 40 feet west of the gate. South of the First Avenue Gate, the boundary

follows the curb line near the Music Hall. About 75 feet past the sidewalk that serves the rear entry to the Music Hall, the boundary line turns east for a distance of about 55 feet, onto the berm separating the service entry drive of the Music Hall from the circulation drive that parallels the east side of R.B. Cullum Boulevard/Parry Avenue. At that point, it turns and follows parallel to the east curb line of the circulation drive. It is estimated that about 0.84 acres of dedicated parkland (i.e., land that lies to the east of the above-described boundary) will need to be used for project purposes. The 0.84 acres is about 0.30 percent of the total acreage of Fair Park's 277 acre campus. The park resources located on the areas to be used include paved sidewalks, roadways and small areas of landscaping. The City of Dallas owns both Fair Park and Parry Avenue. Under an Interlocal Agreement with DART, the city will allow DART to operate and maintain LRT within the park boundaries.

Trees that are located on the berm near the Music Hall will need to be removed to allow construction of the LRT system. Trees near the First Avenue Gate will need to be removed or trimmed. Other trees along the circulation drive and on the east curb of R.B. Cullum Boulevard will need to be removed or trimmed to provide adequate clearance for the operation of the LRT system.

5.10.3 Indirect Impacts

No-Build Alternative

The No-Build Alternative would have no indirect impacts on any parklands.

Build Alternative (LRT)

Without mitigation, the proposed LRT system has the potential for indirect impacts at Fair Park. As planned, there will not be any noise or vibration impacts to Fair Park. Noise and vibration impacts are discussed in Section 5.7 of this document. Coordination with the Dallas Landmark Commission, Dallas Parks Board, Friends of Fair Park, Preservation Dallas, and the SHPO is on-going to ensure that there are no visual impacts to historic Fair Park. Visual impacts and historic impacts are discussed in Sections 5.8 and 5.9, respectively. Although some access to Fair Park will be altered, the planned DART light rail line will actually increase access to Fair Park. A detailed discussion of indirect impacts is included in Sections E.5.1.3 and E.3.3 of the Section 4(f) Evaluation, Appendix E.

Outside of Fair Park, the remaining parks exist in an urban environment where the influences of transportation systems are part of their operational and functional characteristics. All have existed adjacent to operating railroad rights-of-way in the past, so the passage of LRT vehicles nearby will not introduce an activity that has not previously existed.

The proposed LRT system will represent a change in the visual environment near the parks. Except for the overhead catenary system, most of the LRT system elements will be very similar to typical railroad features that have previously or currently exist in proximity to the parks without negatively affecting their characteristics or functions.

The noise and vibration analysis prepared for the LRT system indicates that a marginal exceedance of the impact threshold will affect only a portion of the green at the first hole at the Grover Keeton Golf Course. This type and level of impact to a very small portion of the overall park, which does not reduce the park's overall functionality, will not be a substantial impact.

During the DEIS public comment period, several persons indicated a perceived constructive use of parkland because of the fencing that would be placed along the alignment near parks. It is DART policy to place fence along areas where DART will operate above 45 miles per hour or in areas where there are decreased sight distances for train operators, or in areas needed to minimize safety risks to children. The purpose of the safety fencing would be to ensure safe access is provided at controlled intersections and to discourage unauthorized use of right-of-way. The introduction of safety fencing in areas of pedestrian activity and where informal crossings of the alignment are located will impact the ability of persons to cross the alignment at will. To ensure the safety of the public and transit patrons, free access across the LRT alignment will not be allowed in this heavily wooded area. The Dallas Park and Recreation Department recognizes that DART will be operating within DART right-of-way. Because the railroad right-of-way predates the dedication of parkland, the Parks Department does not consider the fencing of the right-of-way a constructive use of parkland.

5.10.4 Mitigation Treatments

Direct Impacts

Through an agreement with the City of Dallas, DART will be using Fair Park, but not directly acquiring park property. The park property that will be used has traditionally been used for transportation purposes. These uses have included interurban trolley and bus activity. No

mitigation is required for the direct use of the parkland. DART will continue to coordinate efforts with the City of Dallas, the Friends of Fair Park and the various venues within Fair Park to ensure that design of the light rail line and the Fair Park Station is compatible with park and its varied uses.

Indirect Impacts

At the 1st Avenue signalized crossing into Fair Park, DART has committed to maintaining the lowest possible audible setting for the signalized bells to avoid a constructive use to the adjacent Fair Park Music Hall. Additionally, DART has agreed to a whistle ban at this intersection. Ongoing coordination with Fair Park and the Music Hall may limit this whistle ban to Music Hall events. The LRT system will alter, without diminishing, access to historic Fair Park. The Washington Street gate along Parry Avenue at the northwest corner of Fair Park will be closed to automobile traffic. This closure will eliminate potential conflicts between automobile traffic and LRT traffic. A new automobile gate will be provided a few hundred feet to the east along Haskell Avenue on the north side of the park. A little used service road and gate at the southeast corner of the park will be closed to make way for the LRT line. Traffic currently using this road will be internally rerouted within the park. In an effort to minimize harm of the temporary use of Fair Park during construction, DART will work with Fair Park to schedule construction not to coincide with major Fair Park events such as the State Fair of Texas.

To accommodate access between and into parks along the alignment, three crossings will be included to provide recreational and maintenance access. Two will be at-grade and one under the LRT line. The at-grade crossings at the Grover Keeton Road and the improved gravel driveway from Scyene to a storage/maintenance area north of Grover Keeton Park will remain. A pedestrian underpass just south of Bruton Road along a creek crossing will be added. The LRT bridge over the creek will be widened and a bench created to provide an informal, natural passage under the LRT.

These crossings have been coordinated with the Dallas Parks and Recreation Department and have been sited at locations consistent with DART's safety design policies. DART has committed to maintaining the lowest possible audible setting for the signalized bells at the two at-grade crossings. Current FRA rules preclude the concept of a whistle ban at the two at-grade crossings adjacent to Grover Keeton Park where DART will share right-of-way with freight

operations. However, these two crossings will be constructed with unmountable median barriers so as not preclude a future whistle ban should FRA regulations change. DART will work with Grover Keeton Park to maintain access to the golf course during construction.

5.11 ECOSYSTEMS

As indicated in Section 3.10, several ecosystem issues are applicable to the project. These issues include waters of the U.S. (i.e., streams and wetlands), vegetation, and wildlife. The following sections describe the impacts that would be associated with the project and present information regarding measures to minimize the effects of the project on the ecosystem.

5.11.1 Waters of the U.S. Impacts

Impacts to waters of the U.S. include both direct impacts (i.e., related to construction activities and placement of culverts or fill) and indirect impacts (i.e., related to stormwater runoff from construction activities and from operation of the DART LRT).

No-Build Alternative

The current railroad would remain operational under the No-Build Alternative. Currently, waters of the U.S. are impacted by stormwater runoff from the existing rail line. This runoff likely contains minor amounts of creosote, petroleum products, and other chemicals associated with rail activities. No additional direct impacts would occur to waters of the U.S. The No-Build Alternative would directly impact waters of the U.S. by failing to reduce automobile traffic along the project corridor. Contaminants including oil, grease, and fuel are deposited on roadways and are subsequently washed into streams along the corridor through the storm sewer system. These contaminants could affect the water quality of waters of the U.S. and associated habitats.

Build Alternative (LRT)

Construction of the Build Alternative (LRT) will cause impacts to the stream crossings mentioned in Section 3.11.1. For calculating impacts, it was assumed that stream crossings where an existing bridge was in place would also be bridged. Likewise, where a crossing for the existing tracks was accomplished over culverts, the new tracks will also be placed over culverts. The crossings shown in Figures 3.28 through 3.32, pages 3-84 through 3-88, at White Rock Creek, Tributaries A, B, C, E, F, and H, and Elam Creek will be crossed with bridge structures. Construction of bridges results in less impacts to streams because the shape (i.e., bed and

bank) of the channel is left in its natural condition, as opposed to culverts where the stream is routed through pipes or boxes.

The bridge crossings will result in negligible impacts to waters of the U.S. (i.e., the only fill will consist of the abutments at the bank and the pilings in the water). Table 5.19 presents the impacts to waters of the U.S. associated with construction of the Build Alternative (LRT). The station locations will not result in impacts to waters of the U.S. This table shows what element of the proposed project will impact a water of the U.S., identifies the name of the water, and the amount of linear footage or acreage that will be impacted. Short-term impacts to waters of the U.S. could also result from runoff during construction activities such as grading. Construction activities could also impact waters of the U.S. by affecting adjacent habitats. For instance, damage to root systems of plants or compaction of soils adjacent to waters of the U.S. could have an effect on the way water enters the water of the U.S. and, hence, on the waters themselves.

Table 5.19 Impacts to Waters of the U.S.

Impact Type	Water Impacted	Civil Station*	Ordinary High Water Mark	Impact (Linear Feet/Acres)
Bridge	White Rock Creek	348+00	95.0 feet	NA** / 0.0015
Bridge	Tributary A	359+60	29.0 feet	NA** / 0.0007
Bridge	Tributary B	360+00	8.5 feet	NA** / 0.0007
Bridge	Tributary C	369+00	104.0 feet	NA** / 0.0015
Culvert	Tributary D	390+80	3.1 feet	315 / 0.025
Bridge	Tributary E	424+60	4.3 feet	NA** / 0.0007
Bridge	Tributary F	446+20	23 feet	NA** / 0.0007
Fill	Tributary G	446+75	3.5 feet	85 / 0.007
Bridge	Tributary H	473+75	2.7 feet	NA** / 0.0007
Fill	Tributary I	473+75	1.0 feet	165 / 0.004
Culvert	Tributary J	491+50	3.17 feet	104 / 0.008
Culvert	Tributary K	499+50	2.0 feet	103 / 0.006
Culvert	Tributary L	507+80	7.2 feet	100 / 0.017
Bridge	Elam Creek	585+80	16.5 feet	NA** / 0.0007
Total				872 / 0.0750

Source: Carter & Burgess, 2001

*The alignment is shown on the plan and profile sheets in Appendix D. The stationing numbers references to the location on the engineering drawings and not to passenger station locations.

**Not Applicable - Assumes that only bridge pilings or support columns would be placed below the plane of the OHWM at bridge crossings (i.e., bridge abutments will be placed above the OHWM). Also assumes that each support column is 4.5 feet in diameter (15.90 square feet), that they will be placed in pairs, and that they are placed approximately 90 feet apart.

5.11.1.1 Mitigation for Impacts to Waters of the U.S.

Several waters of the U.S. will be impacted by the Build Alternative (LRT). All impacts associated with stream crossings for the Build Alternative (LRT) will be covered under Nationwide Permit 14, which allows fill of up to 0.50 acre at each stream crossing, provided that preconstruction notification is provided to the USACE for impacts of more than 0.10 acre. For impacts requiring preconstruction notification, a mitigation plan must also be submitted to the USACE for approval. None of the stream crossings will have impacts that meet or exceed the preconstruction notification threshold. Therefore, mitigation will not be required.

Filling and grading activities will be in compliance with the Texas Pollution Discharge Elimination System (TPDES) General Permit for Construction Activities. The TPDES prescribes a series of measures or best management practices (BMPs) that will serve to minimize impacts to waters of the U.S. as a result of construction in adjacent uplands. BMPs can include limiting the amount of disturbed earth so that potential for excessive erosion is minimized and sedimentation outside of the right-of-way is avoided. Also, preserving existing vegetation wherever possible.

Temporary erosion and sedimentation control measures such as silt fences, rock berms, and/or soil retention blankets will be implemented as needed prior to the initiation of construction.

Permanent soil erosion control features will be constructed as soon as feasible during the early stages of the contract through proper sodding and/or seeding techniques. Disturbed areas will be restored and stabilized as soon as the construction schedule permits, and temporary sodding will be considered where large areas of disturbed ground will be left bare for a considerable length of time. These erosion control measures will be coordinated with the permanent soil erosion control features which are to be a part of the completed project to ensure effective and continuous erosion control throughout the construction and post-construction periods.

5.11.2 Vegetation Impacts

The project has the potential to impact vegetation through grading/filling during construction (Section 3.10).

No-Build Alternative

No additional impacts to vegetation would result from the No-Build Alternative. However, the vegetation along the existing rail line would continue to be maintained by mowing and pruning to allow safe operation of the rail line. The vegetation along the existing rail line is also likely

affected by creosote, petroleum products, and other chemicals associated with the rail line. Vegetation along the study corridor is also indirectly affected by the general degradation of air and water quality associated with vehicular traffic in the area. The No-Build Alternative would fail to reduce the amount of vehicular traffic in the area, resulting in a continuance of these impacts.

Build Alternative (LRT)

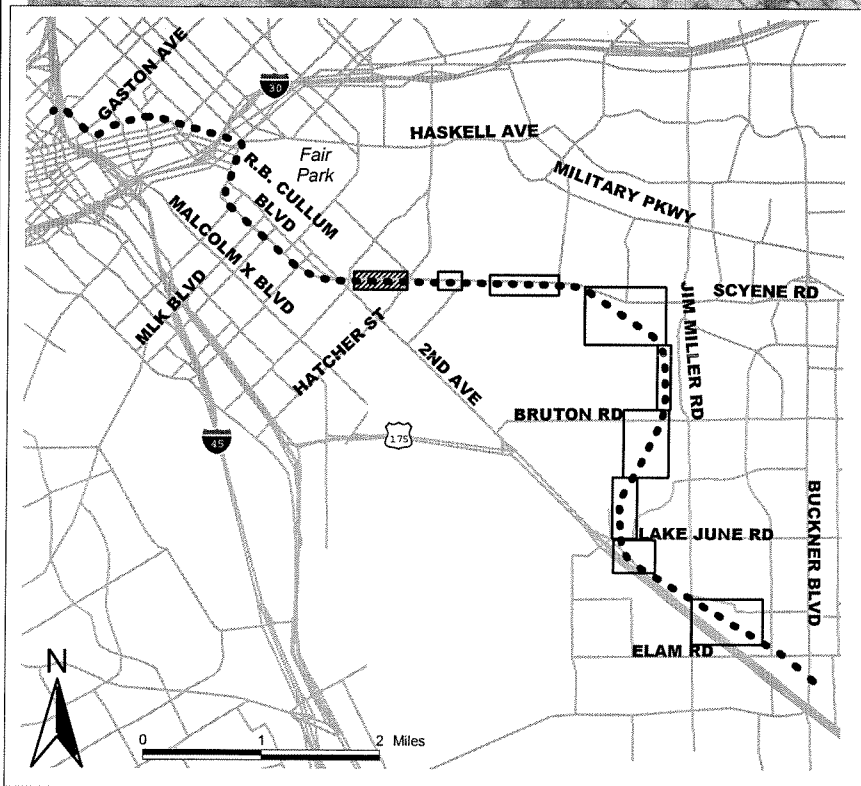
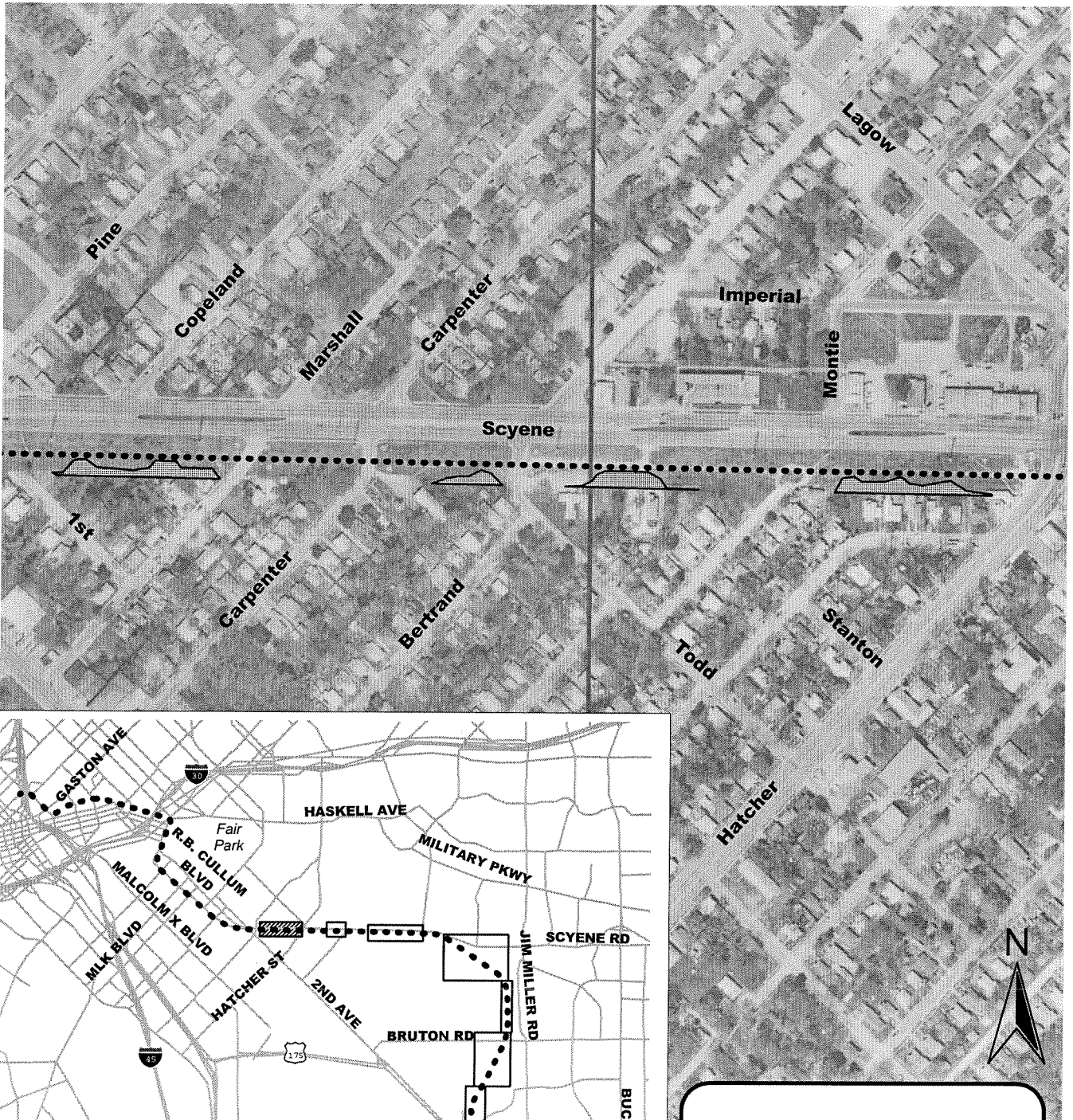
Vegetation along the project corridor will be directly impacted by the expansion associated with the implementation of the Build Alternative (LRT) within the existing railroad rights-of-way. Approximately 70 acres of vegetation will be impacted by the Build Alternative (LRT): 30 acres of woods and 40 acres of maintained grassy areas. The majority of impacts to vegetation will occur between White Rock Creek and Lake June Road, where the corridor travels through relatively undeveloped areas. Though the existing right-of-way width varies from 80 to 100 feet, only trees and vegetation within the right-of-way will be disturbed. DART will work with an arborist to identify quality trees with its right-of-way and make efforts to preserve them. Outside of DART-owned right-of-way (station areas, etc.), DART is subject to the City of Dallas Tree Regulations. As the site of the Lawnview Station, trees and vegetation will also need to be cleared. Figures 5.32 through 5.40 show the treed or wooded areas that will be disturbed. Vegetation outside of the right-of-way will not be disturbed. Operation of the rail line should not result in any additional impacts to vegetation in the area. The canopies of vegetation within or overhanging LRT right-of-way will be trimmed to maintain sight distances and clearances needed for the catenary wires.

5.11.2.1 Mitigation for Impacts to Vegetation

A current City of Dallas ordinance (Section 51A-10.101, Landscape and Tree Preservation Regulations) requires an inspection and permitting by the Arborist Division for the removal of protected tree species that have a diameter of eight inches or more. In accordance with an agreement between the City of Dallas and DART, only those significant trees removed outside the DART right-of-way will be required to be replaced.

Part II of the Dallas Development Code (Tree Regulations) generally prohibits the felling of protected trees of diameters greater than six inches in the City of Dallas without replacing them. Under these regulations DART is considered to be a public utility and is exempt from Tree Regulation requirements within DART-owned right-of-way. However, DART will work with an

**Figure 5.32
Vegetation Impacts: 2nd Avenue**



Legend

- Build Alternative (LRT)
- ▨ Area of Interest
- Woods

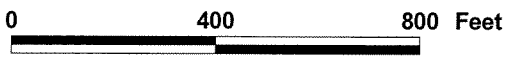
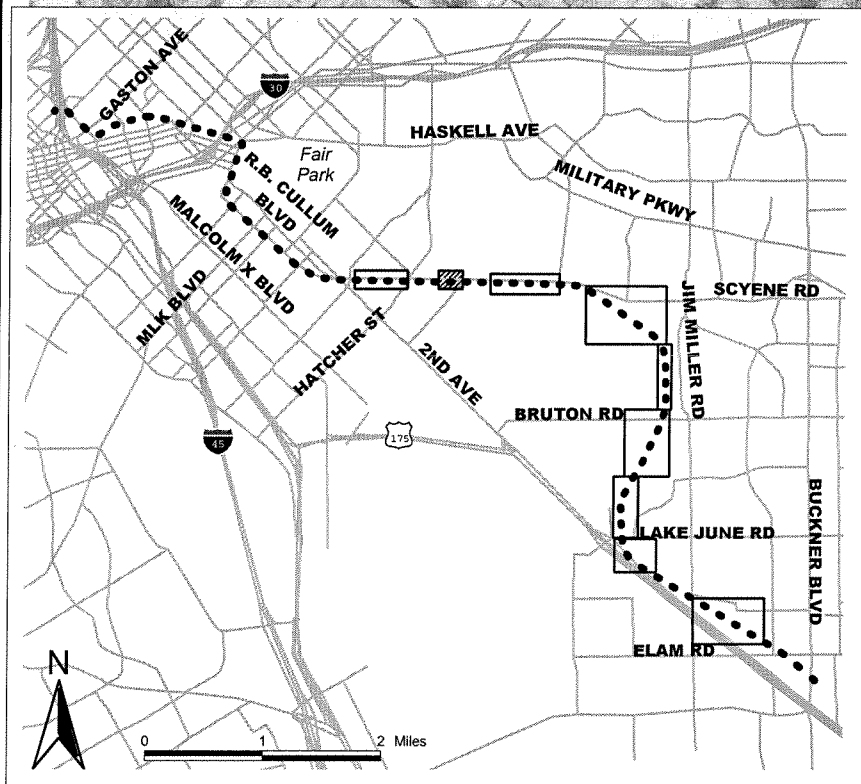
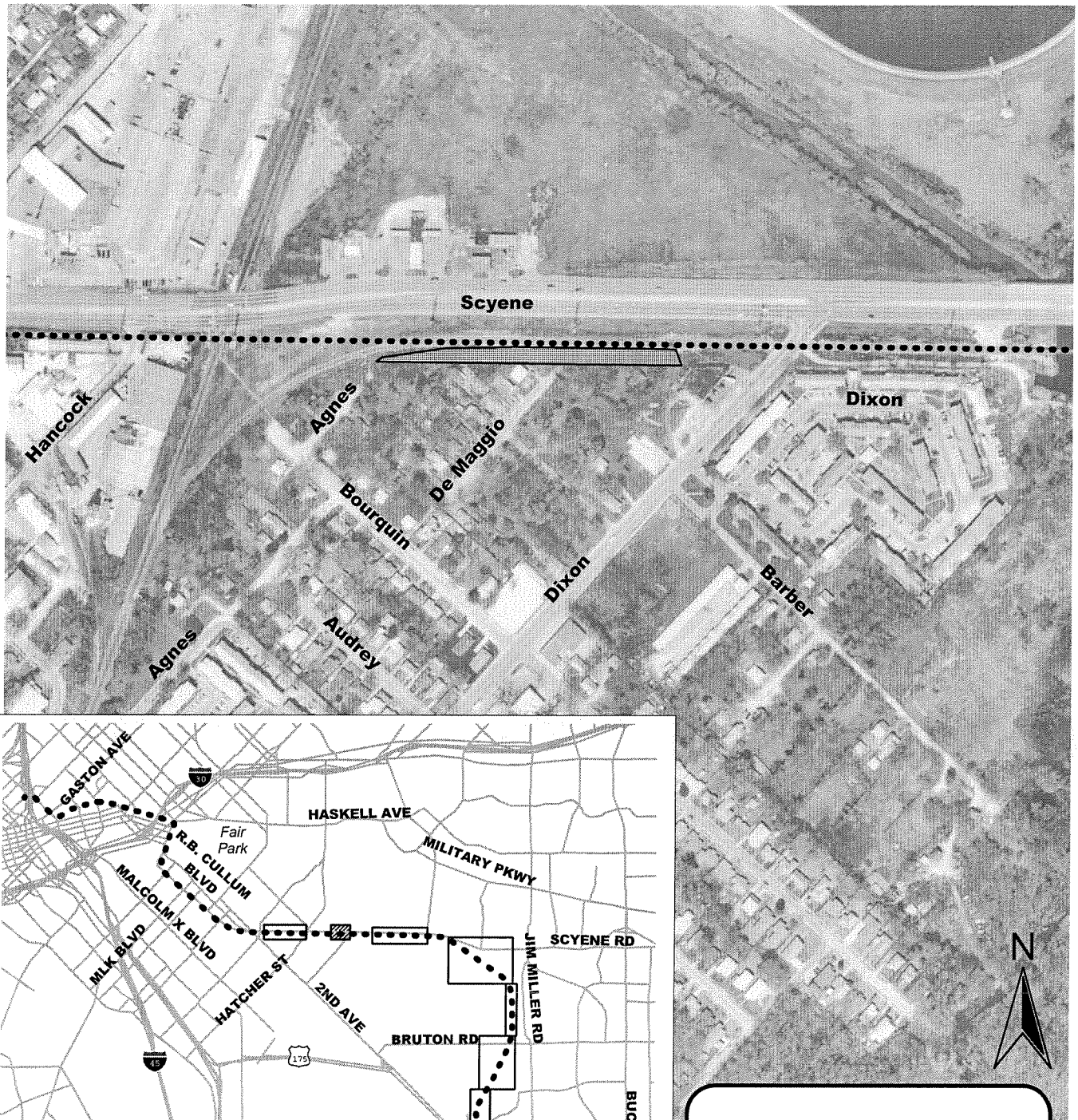


Figure 5.33
Vegetation Impacts: Scyene Road



Legend

- Build Alternative (LRT)
- ▨ Area of Interest
- Woods

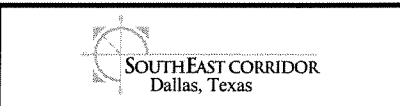
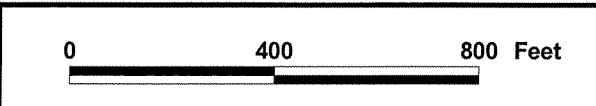
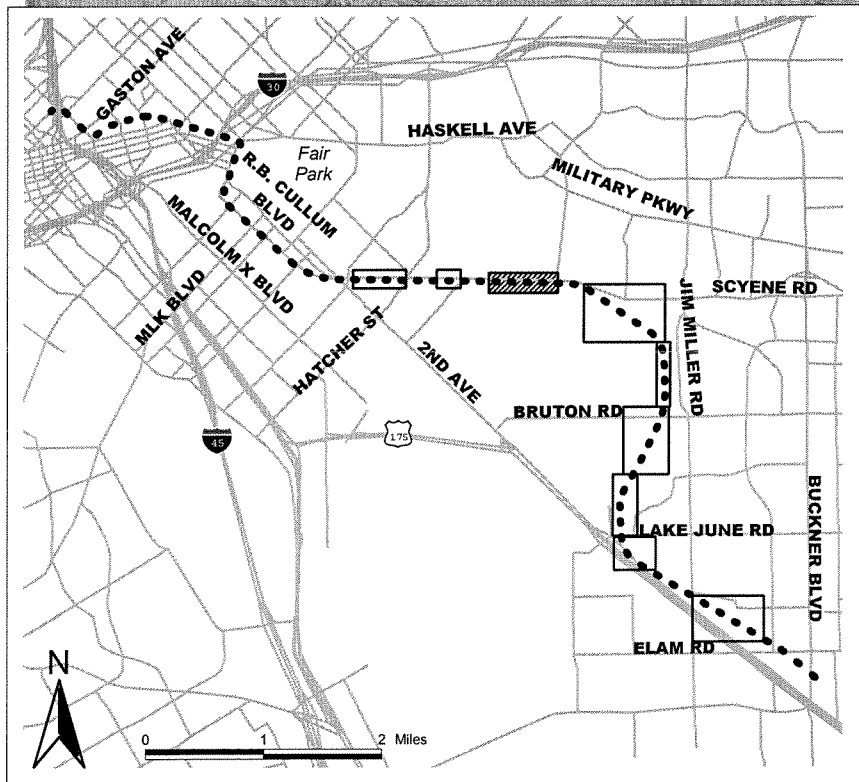


Figure 5.34 Vegetation Impacts: Lawnview



Legend

- Build Alternative (LRT)
- ▨ Area of Interest
- Woods

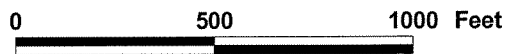
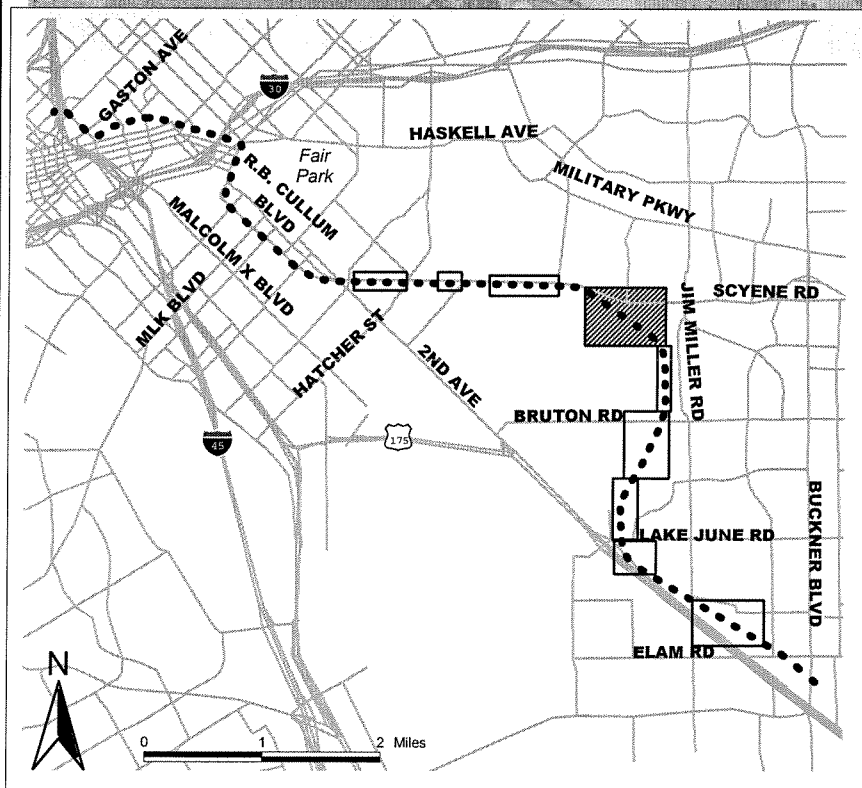
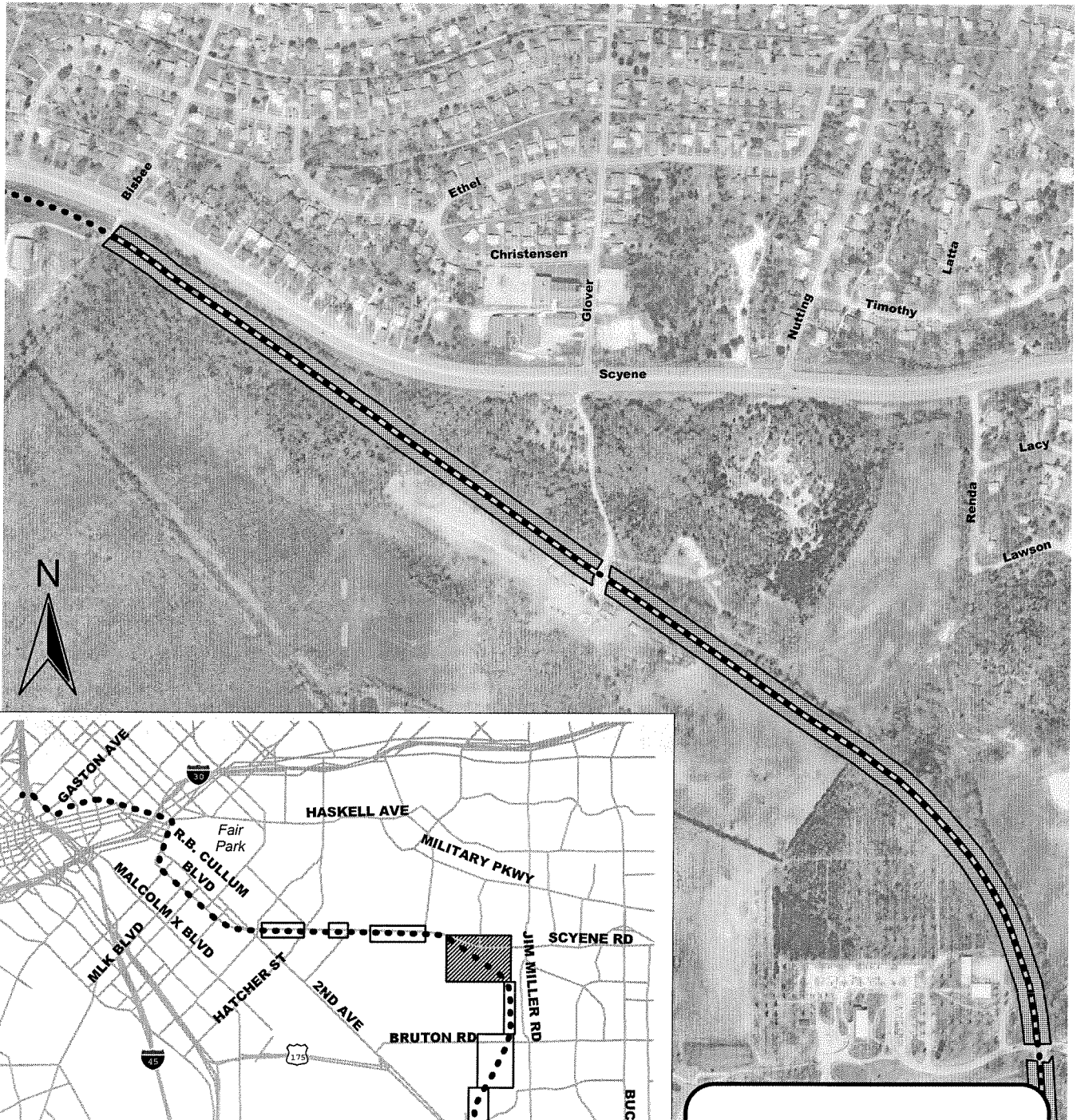


Figure 5.35 Vegetation Impacts: Glover



Legend

- Build Alternative (LRT)
- ▨ Area of Interest
- Woods

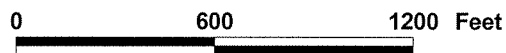
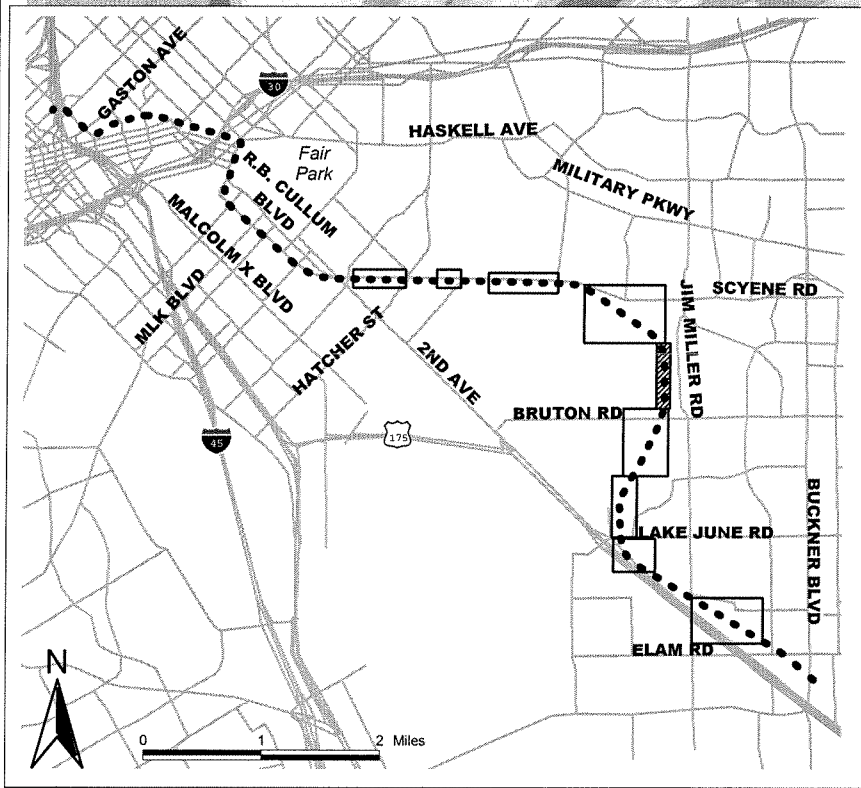
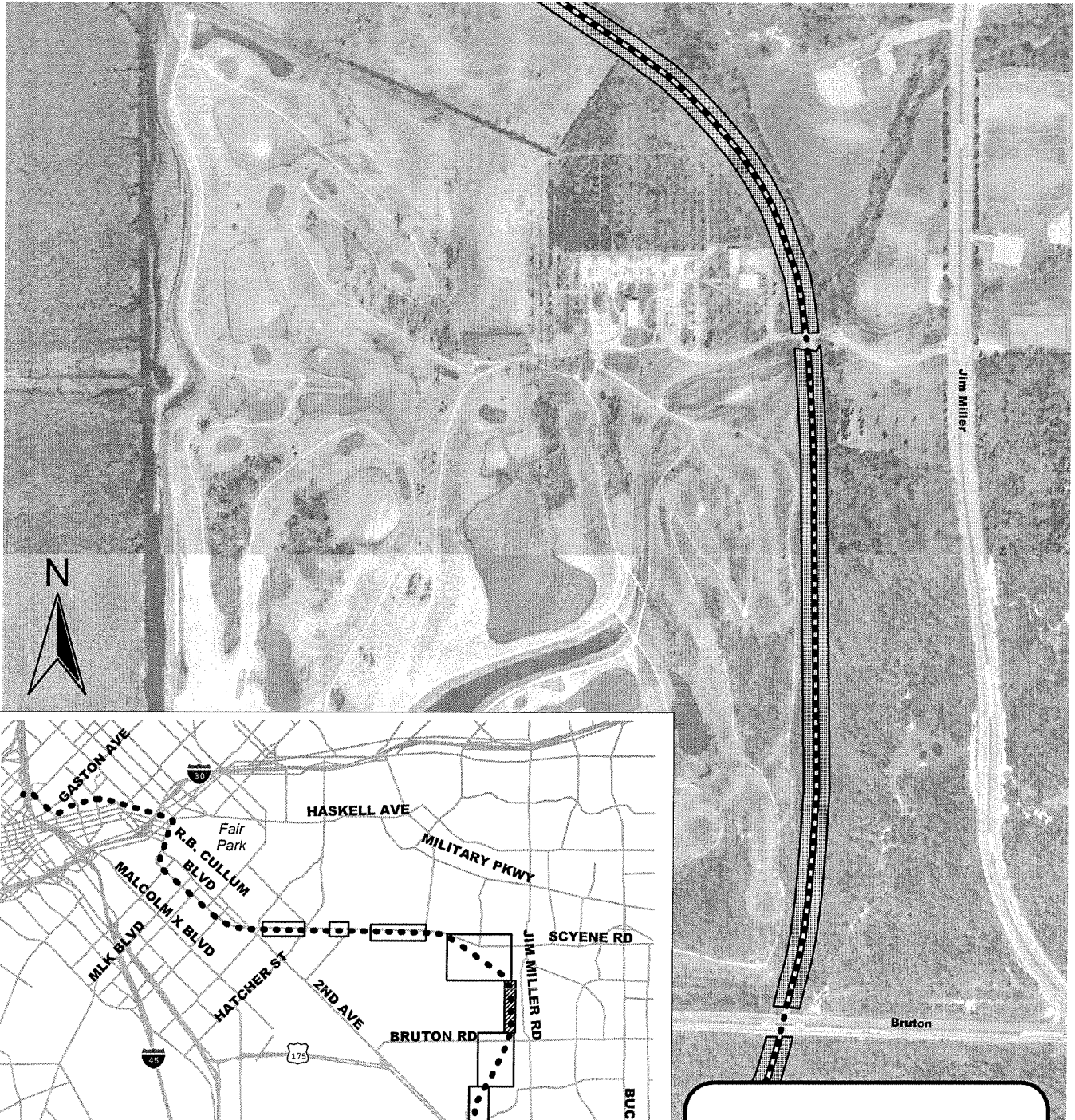


Figure 5.36
Vegetation Impacts: Grover Keeton

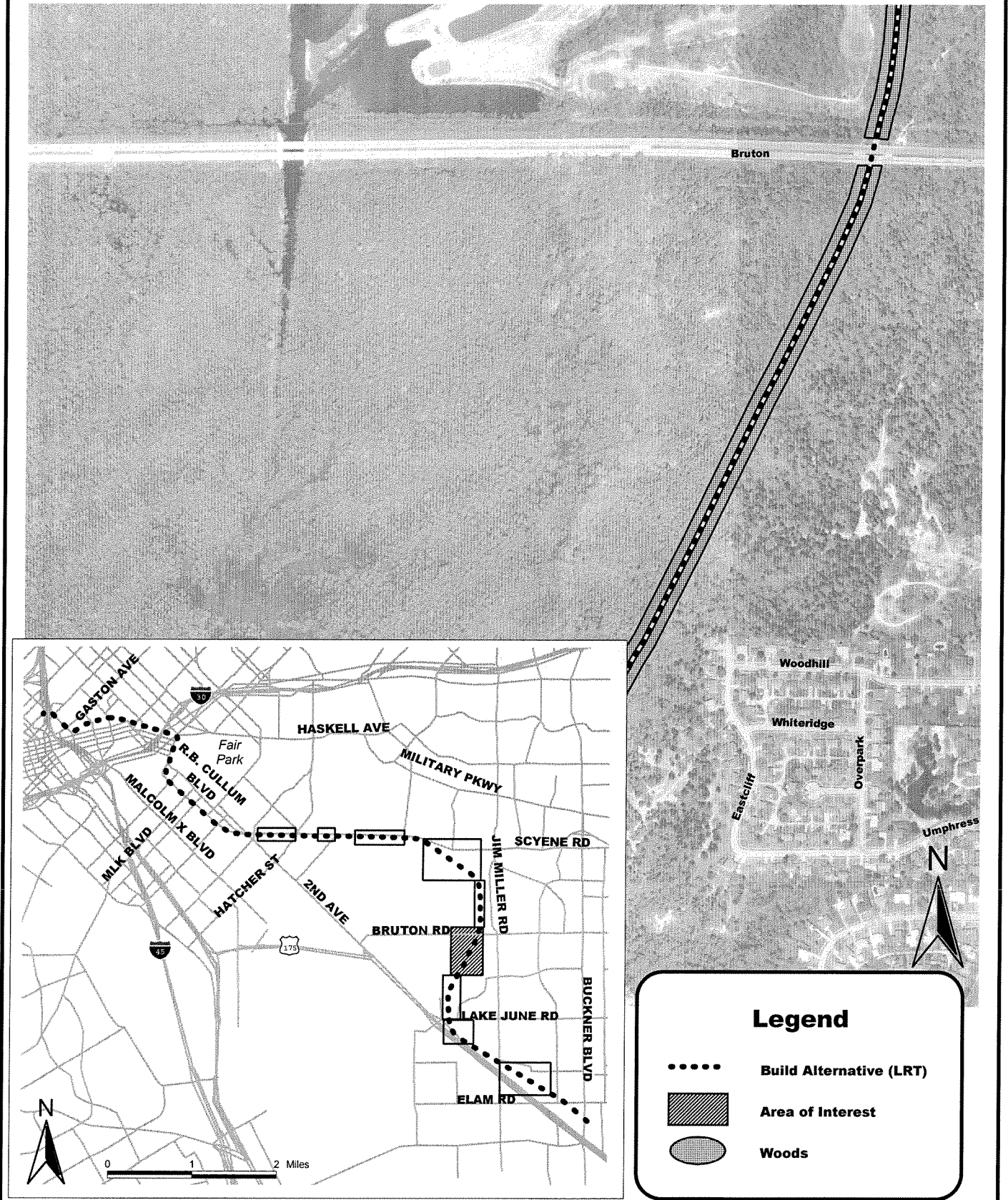


Legend

- Build Alternative (LRT)
- ▨ Area of Interest
- Woods



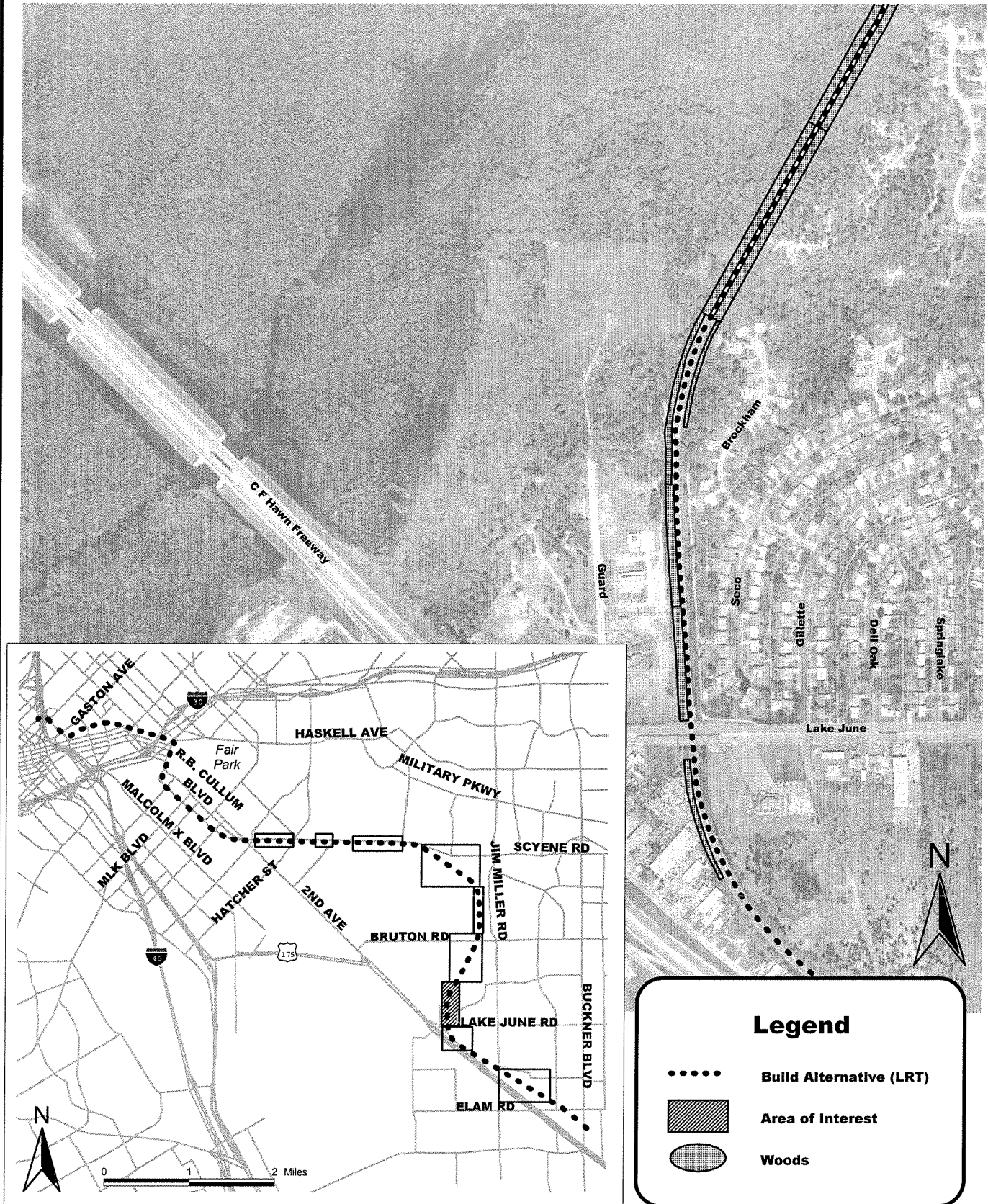
Figure 5.37
Vegetation Impacts: Bruton Road





0 600 1200 Feet

SOUTH EAST CORRIDOR
 Dallas, Texas

Figure 5.38
Vegetation Impacts: Lake June Road



Legend

- Build Alternative (LRT)
-  Area of Interest
-  Woods

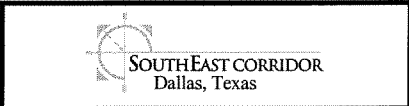
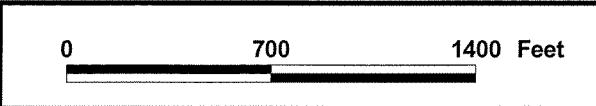
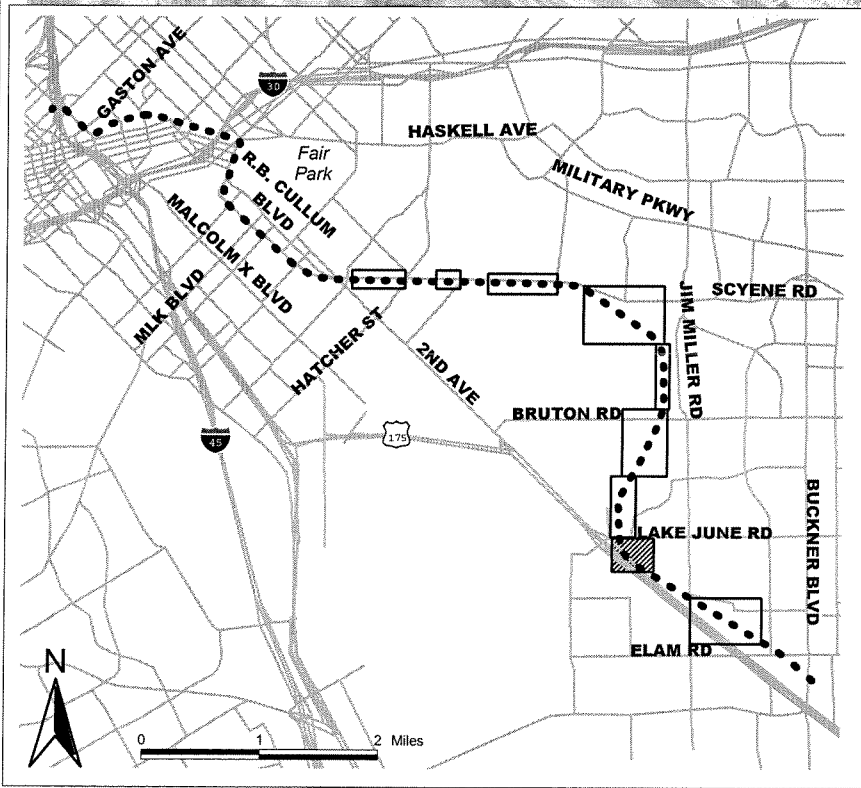
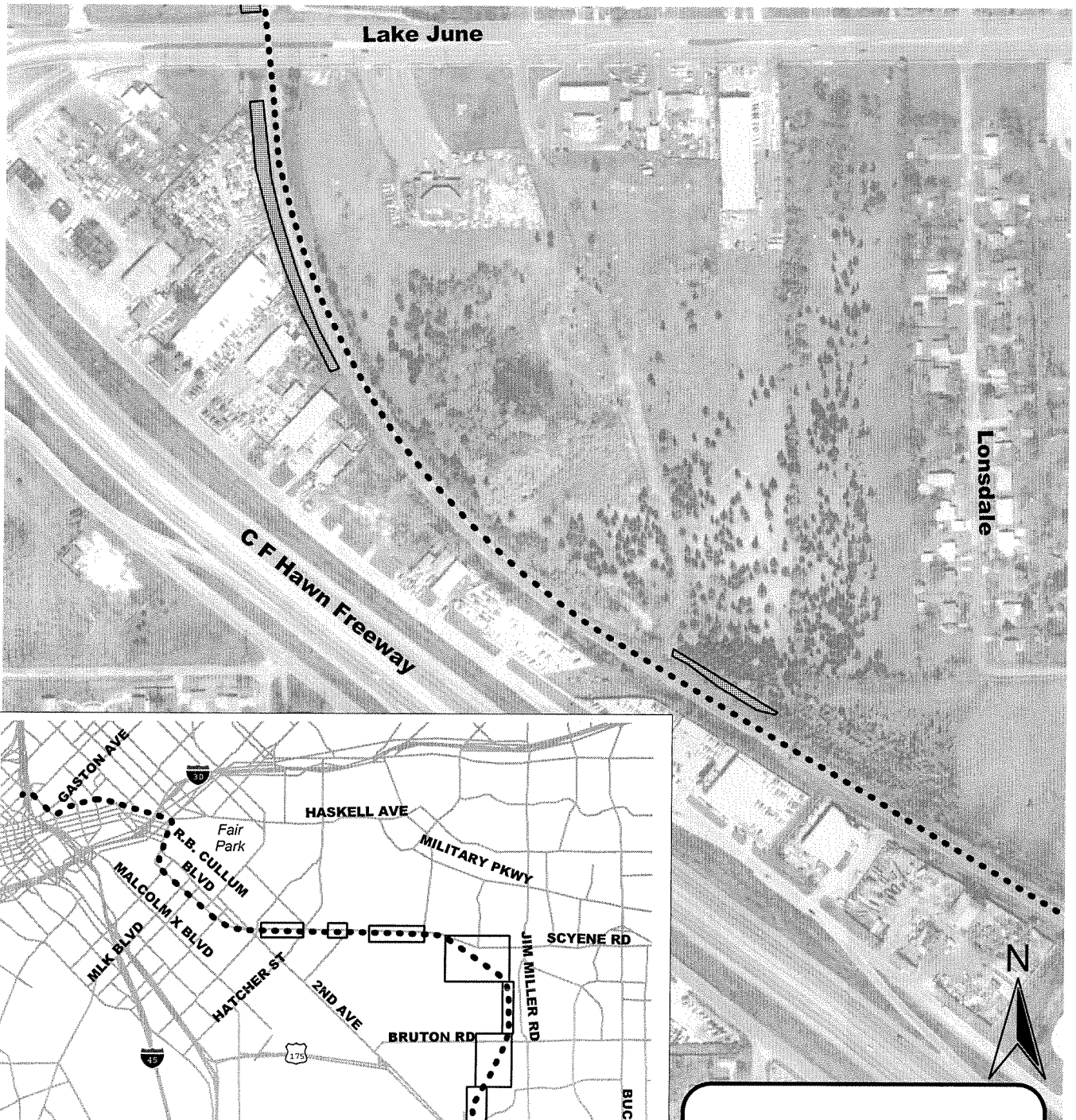


Figure 5.39
Vegetation Impacts: Jim Miller Road



Legend

- Build Alternative (LRT)
- ▨ Area of Interest
- Woods

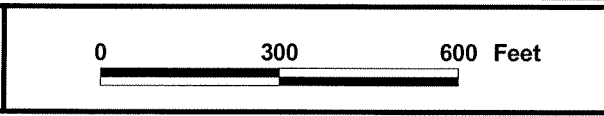
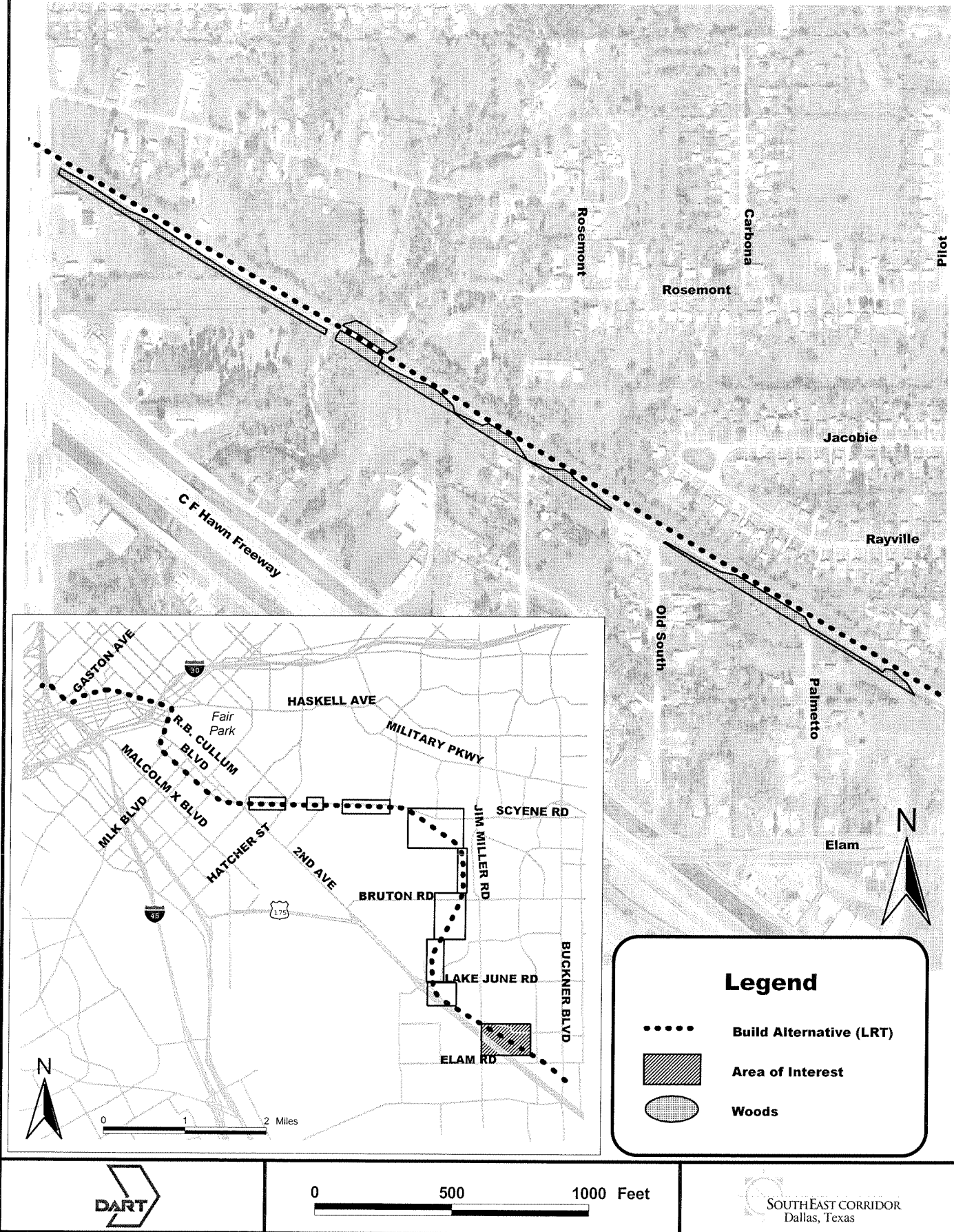


Figure 5.40
Vegetation Impacts: Elam Road



arborist to identify quality trees within its right-of-way and make efforts to preserve them. Additionally, DART has committed to replacing trees of exceptional size and quality within the right-of-way. Outside of DART-owned right-of-way (station areas, etc.), DART is subject to the Tree Regulations. DART's design criteria promote the use of native vegetation as replacement trees.

Approximately 70 acres of established vegetation will be impacted by the Build Alternative (LRT) within the Dallas city limits. Vegetation issues in the City of Dallas are coordinated with the Building Inspections Department, Arborist Division. DART will submit a written request to the Arborist Division to initiate an investigation of the affected tree areas prior to construction of the project. The city will conduct an investigation of the areas and determine the protected tree species that will be impacted. The City of Dallas will also provide a list of replacement species to be used for mitigation and references to the appropriate city ordinances. If protected tree species are removed, they must be replaced by a protected species of an economically reasonable size. Following construction of the project, the Arborist Division will conduct a second investigation to determine the number of protected species that were impacted. The number of replacement trees will be provided at that time.

At the Lawnview Station, a higher percentage of landscaped areas than typical has been included in the station design in keeping with the surrounding vegetation conditions. In addition, a landscape spine connecting the platform with a future trail has been included as part of the design. This station has also been cited as providing an opportunity for eco-tourism with the development of the Great Trinity Forest Park immediately to the south.

Before construction, the construction contractor will provide information to the City of Dallas Building Inspections Department, Arborist Division regarding potentially impacted trees. The contractor will then cooperate with city-coordinated mitigation measures. Mitigation will consist of removal of only the amount of vegetation required for construction and implementation of the measures designed to control erosion and reduce the discharge of pollutants in stormwater runoff from construction sites as required in the TPDES General Permit. When vegetation is impacted, the disturbed areas will be reconstructed in accordance with the guidelines of the City of Dallas. These mitigation measures apply to all areas along the project corridor where vegetation will be impacted.

5.11.3 Wildlife Impacts

The project could result in impacts to wildlife and wildlife habitat along the corridor (i.e., collisions between wildlife and trains, disturbance from presence/noise, etc.).

No-Build Alternative

Under the No-Build Alternative, the existing rail line would remain in use and no additional direct impacts to wildlife or wildlife habitat would be expected to occur. Effects to wildlife from the continued use of the existing track would persist (i.e., maintenance of vegetation within the right-of-way, infrequent disturbance associated with trains using the tracks, and potential collisions with trains using the track). Indirect impacts of the No-Build Alternative would include effects induced by the failure of the alternative to reduce vehicular traffic in the area. These effects would include accelerated degradation of air quality and water quality, which affect the value of wildlife habitats.

Build Alternative (LRT)

Construction and operation of the LRT will result in minor impacts to wildlife and wildlife habitat in the project corridor. However, these impacts will be minor and limited to a corridor that has already been heavily disturbed by past activities. Construction activities will result in indirect impacts to wildlife from destruction of habitat within the right-of-way, noise, and human activity/presence. Animals may be temporarily or permanently displaced as a result of construction activities. However, similar habitats are available adjacent to those that will be affected by construction. Since the existing rail line has already fragmented habitats along the project corridor, the addition of LRT tracks and relocation of freight tracks within the existing right-of-way will have little additional effect.

After construction, the operation of the LRT will have impacts on wildlife in the immediate vicinity of the right-of-way. These impacts will include minor effects from increased use of the tracks (i.e., more frequent disruption due to noise and presence of the trains) and an increased likelihood of animals being struck by the trains. Impacts to wildlife are expected to be minor due to two reasons. The areas with the most undisturbed habitats have an existing active rail line and wildlife in these areas are likely already conditioned to the presence of trains that are larger and louder than the LRT vehicles. Safety fencing will be placed where speeds are greater than 45 miles per hour. Additionally, the developed nature of the corridor and surrounding area has

already resulted in the displacement of all but the most adaptable animal species from the project corridor.

5.11.3.1 Mitigation for Impacts to Wildlife

The City of Dallas does not have an ordinance in place to specifically protect wildlife. During the site reconnaissance, no threatened or endangered species were observed along the right-of-way. Existing bridges/culverts in the Grover Keeton area will remain open and allow animals to go from one area to another. Additionally, the bottom of the safety fencing will be raised four inches above ground level to allow the passage of virtually all small to medium sized vertebrates, which make up the majority of the forest fauna. Larger animals can cross at any of the three pedestrian crossings being provided by DART or at the numerous bridges and culverts.

The City of Dallas tree ordinance does provide a measure of protection for habitats and provides for replacement of large trees with trees that are native and generally useful to wildlife. Any trees planted under this program will provide habitat for numerous wildlife species.

5.12 HYDROLOGY/WATER QUALITY

Hydrology and water quality issues associated with the project include impacts to surface water quality, groundwater quality, and floodplains were discussed in Section 3.11. The following sections provide information relating to the expected impacts to water resources and provide measures to eliminate or minimize these impacts.

5.12.1 Surface Water Quality Impacts

The project corridor crosses 13 water bodies (i.e., stream channels).

No-Build Alternative

The No-Build Alternative would continue to affect surface water quality through stormwater runoff, which likely contains small amounts of creosote, petroleum products, and other chemicals associated with railroad operation.

Additionally, the No-Build Alternative would indirectly affect surface water quality through its failure to reduce automobile traffic along the project corridor. Contaminants including oil, grease, and fuel are deposited on roadways and are subsequently washed into streams along

the corridor through the storm sewer system. These contaminants affect the water quality of streams within the project corridor.

Build Alternative (LRT)

Construction activities have the potential to cause minor impacts to these water bodies due to runoff/sedimentation from grading on nearby areas, filling, or accidental spills of fuel or other chemicals. Long-term impacts to surface water quality will be less for the Build Alternative (LRT). All LRT rail line ties will be concrete instead of wood. Therefore, runoff from the LRT tracks will not contain creosote. Additionally, the DART trains will be electric; therefore, petroleum products and related chemicals that could enter the streams and decrease water quality will not increase. Stormwater runoff from the platforms and station parking lots will cause an impact to water quality, through increased water velocities (i.e., sedimentation or erosion) and the presence of automobile-related chemicals (i.e., oil, fuel, antifreeze, etc.). Overall impacts to these resources will be minimal due to the limited number of resources identified in the area and the developed nature of the corridor.

5.12.1.1 Mitigation for Impacts to Surface Water Quality

Filling and grading activities will in compliance with the TPDES General Permit for Construction Activities. The TPDES prescribes a series of measures or BMPs that will serve to minimize impacts to waters of the U.S. as a result of construction in adjacent uplands. BMPs will be employed to limit the amount of disturbed earth and excessive erosion. The temporary erosion and sedimentation control measures previously described will be implemented as needed prior to construction. Disturbed areas will be restored and stabilized as soon as the construction schedule permits, and temporary sodding will be considered where large areas of disturbed ground will be left bare for a considerable length of time. These erosion control measures will be coordinated with the permanent soil erosion control features which are to be a part of the completed project to ensure effective and continuous erosion control throughout the construction and post-construction periods.

The construction contractor will also be required to take appropriate measures to prevent, minimize and control spillage of hazardous materials in the construction staging area. All materials being removed or disposed of by the contractor will be done in accordance to

applicable state and federal laws and as not to degrade ambient water quality. All of these measures will be enforced under appropriate specifications in the final design plans.

5.12.2 Groundwater Quality Impacts

This section describes the groundwater quality impacts as a result of the alternatives.

No-Build Alternative

The No-Build Alternative would not likely impact groundwater quality. Minor impacts have potentially occurred due to stormwater runoff, etc. The No-Build Alternative is not expected to have a measurable impact to groundwater quality.

Build Alternative (LRT)

There is a slight possibility that construction activities could adversely affect shallow groundwater quality with the Build Alternative (LRT). However, this shallow groundwater or “perched water,” within the project corridor has already been impacted by decades of runoff from nearby commercial and residential developments, streets, and the existing railroad. Long-term impacts to shallow groundwater quality will likely be reduced by the Build Alternative (LRT) due to decreases in vehicular traffic associated with use of the LRT. The Build Alternative (LRT) is not expected to impact aquifers within the project area. Since the project is not near any outcrops of either the Trinity Group (Antlers, Twin Mountain, and Paluxy formations) or Woodbine Aquifer, it is unlikely that surface runoff will impact these groundwater resources.

5.12.2.1 Mitigation for Impacts to Groundwater Quality

Mitigation measures will reduce the potential for impacts to groundwater quality during construction and operation of the LRT. BMPs will be employed to limit the amount of disturbed earth and excessive erosion. The temporary erosion and sedimentation control measures previously described will be implemented as needed prior to construction. Disturbed areas will be restored and stabilized as soon as the construction schedule permits, and temporary sodding will be considered where large areas of disturbed ground will be left bare for a considerable length of time. These erosion control measures will be coordinated with the permanent soil erosion control features which are to be a part of the completed project to ensure effective and continuous erosion control throughout the construction and post-construction periods.

The construction contractor will also be required to take appropriate measures to prevent, minimize and control spillage of hazardous materials in the construction staging area. All materials being removed or disposed of by the contractor will be done in accordance to applicable state and federal laws and as not to degrade ambient water quality. All of these measures will be enforced under appropriate specifications in the final design plans.

5.12.3 Floodplain Impacts

The study area includes areas within the 100-year floodplain. This section describes how the alternatives impact the floodplain.

No-Build Alternative

The No-Build Alternative would involve no additional construction activities and would, therefore, not result in any impacts to floodplains.

Build Alternative (LRT)

The Build Alternative (LRT) will involve the crossing of four floodplain areas listed in Table 3.25, page 3-94. These floodplain areas will be impacted by the placement of fill below the base floodplain elevation in order to raise a rail bed for the two new tracks. Based on preliminary design, approximately 34,300 cubic yards of fill will be placed in the 100-year floodplain.

The project spans or borders the following flood zones within the City of Dallas: the White Rock Creek east of Hatcher Street (Zone A7-A9), the White Rock Creek near the intersection of Renda Drive and Lacywood Lane (Zone A9), Stream 5B1 of White Rock Creek (Zone A2), and Elam Creek branch of the Trinity River. The Dallas Development Code Division 51A-5.100 Floodplain Regulations governs development within floodplains in Dallas. Some of the regulations that could apply to the project include obtaining a permit in order to deposit or store fill, place a structure, or excavate in a floodplain area.

FEMA has regulations governing alterations or development within mapped floodplains as discussed in Section 3.11.3. Under FEMA regulations, no alteration of flood zones can result in an increase in the 100-year base floodplain elevation or increase the velocity of floodwaters. Additionally, the City of Dallas has its own floodplain ordinance (Dallas Development Code Division 51A-5.100 Floodplain Regulations). This regulation requires a permit prior to deposition

of fill, placement of a structure, or excavation in floodplains. Encroachment into a floodway is prohibited within the City of Dallas unless a registered professional engineer certifies that the encroachment would not increase the design flood elevation. FEMA would then issue a conditional Letter of Map Revision, the encroachment complies with City of Dallas regulations governing fills in floodplains, and the floodplain encroachment does not result in an increase in the elevation of the design flood within the Dallas Floodway Levee System.

5.12.3.1 Mitigation for Impacts to Floodplain

Prior to construction activities that may affect floodplains, coordination will occur between DART, the City of Dallas, USACE, and FEMA with respect to placement of fill or any other activities within floodplains. These agencies will evaluate the project, provide recommendations, and prescribe mitigation options for impacts to floodplains.

At this present time, fill material to be placed adjacent to the existing railroad track bed in order to construct the double LRT guideway is not anticipated to impact or alter the floodplain elevation of the floodplains in the study corridor. Sufficient culvert and bridge openings will be provided to allow upstream water flow to not increase the floodplain elevation. Additional hydraulic analysis will be conducted during final design to ensure the culverts and bridges are sized properly. At that time, additional coordination will occur with the City of Dallas, FEMA, and the USACE to verify these results and confirm the need and types of mitigation.

5.13 GEOLOGY AND SOILS

This section describes the geology and soil impacts as a result of the alternatives.

No-Build Alternative

The No-Build Alternative would involve no additional construction activities and would, therefore, not result in any impacts to geology or soils.

Build Alternative (LRT)

The Build Alternative (LRT) will not involve any subsurface work or deep excavation, with the exception of some boring at the bridged stream crossings listed in Table 5.9. Therefore, it is not likely that geologic resources will be significantly affected by the Build Alternative (LRT).

The Build Alternative (LRT) will involve the disturbance of approximately 70 acres of soil; the remaining 30 acres of disturbance will be in areas already covered with concrete. The vast majority of the soils that will be impacted under the Build Alternative (LRT) have already been disturbed through past activities (i.e., construction of the existing railroads, development, etc.). Only a thin band of relatively undisturbed soil will be impacted along the LRT right-of-way. Therefore, impacts to soils are not expected to be significant.

5.13.1 Mitigation for Impacts to Geology and Soils

No significant impacts to geologic resources are expected; therefore, no mitigation will be required. Impacts to soils are not expected to be significant, therefore, no mitigation measures will be employed other than following BMP and measures specified in the TPDES permit.

5.14 HAZARDOUS/REGULATED MATERIALS

This section summarizes construction and operational impacts of the study corridor in regard to hazardous and regulated materials. Hazardous and regulated materials impacts are anticipated only during construction activities. Excavation activities for the proposed LRT corridor would be associated with the development of the guideway (i.e., road-bed preparation and pavement), station elements (i.e., platforms, stairs, elevators), retaining walls, and grade separations.

5.14.1 Impact Assessment

The results of the database searches, historical aerial photograph review, and field survey of hazardous materials in the project area presented in Section 3.13 indicated there are 33 sites that have the potential to be of high risk for right-of-way acquisition and/or construction of the project. These sites consist of hazardous waste handlers with the Resource Conservation and Recovery Act (RCRA) corrective action activity, spill sites, voluntary cleanup program participants currently undergoing investigation and/or remediation, leaking petroleum storage tanks associated with small petroleum fuel and oil facilities, and landfills associated with municipal disposition of waste.

Soil and groundwater contamination may be encountered during construction on the RCRA corrective action activity sites, spill sites, voluntary cleanup program sites, and leaking petroleum storage tank sites. The location(s) and type(s) of possible contamination connected with the landfills are unknown. Also, 194 orphan sites that could not be specifically located have the

potential to be of high risk for right-of-way acquisition and/or construction of the project until these sites are further evaluated. All other sites found in the database search are considered to be of low risk to the project. Sites that are considered to be of high risk for right-of-way acquisition and/or construction of the project are listed in Table 5.20 and shown on Figure 5.41. Appendix F contains the databases searched and definitions of site types.

Although a site is known or suspected to be contaminated, implementation of the LRT Alternative does not necessarily mean that the proposed LRT corridor project will affect the site. No final assessment as to risk or danger has been presented in this document. More detailed information regarding project design, to be developed during the final design phase of this project, will be used to make such assessments.

Table 5.20 Sites Considered to be Potential High-Risk for Contamination

Facility (Database)	Location	Comments and Site Location Reference Number
Dal-Tile Corporation (CORRACTS)	7834 Hawn Freeway Dallas	Assigned a priority of "medium" and status was not reported.
Dal-Tile Elam Gravel Pit (CORRACTS)	W. Intersection Kleberg Road/Silve Dallas	Assigned a priority of "medium" and status was not reported.
Unknown (TNRCC Spills)	2909 San Jacinto Street Dallas	No information other than address provided.
Unknown (TNRCC Spills)	Intersection of Gaston / Hall Dallas	No information other than address provided.
Unknown (TNRCC Spills)	2519 Swiss Avenue Dallas	No information other than address provided.
Unknown (TNRCC Spills)	1718 Robert B. Cullum Boulevard Dallas	No information other than address provided.
Unknown (TNRCC Spills)	7834 CF Hawn Freeway Dallas	No information other than address provided.
Dal-Tile Corporation (TNRCC VCP)	7834 CF Hawn Freeway Dallas	Site is currently in the investigation phase for soils-only lead and metals contamination. A final certificate of completion has not been issued.
Fishburn Oriental Dyeing and Dry Cleaning (TNRCC VCP)	3208-3214 Ross Avenue Dallas	Site is currently in the withdrawal phase for VOC contamination. A final certificate of completion has not been issued.
Wichita Street Remnant Property (TNRCC VCP)	Adjacent to North A Property Dallas	Site is currently in the post closure phase for soils and groundwater TPH contamination. A final certificate of completion has not been issued.
Habitat For Humanity (TNRCC VCP)	3020 Bryan Street Dallas	Site is currently in the investigation phase for soils-only petroleum hydrocarbon contamination. A final certificate of completion has not been issued.

Facility (Database)	Location	Comments and Site Location Reference Number
MDJ Bryan Street Buildings (TNRCC VCP)	3015/3029 Bryan Street Dallas	Site is currently in the investigation phase for soil and groundwater petroleum hydrocarbon, pesticide and PCE contamination. A final certificate of completion has not been issued.
515 N Carroll Avenue/4420 Worth Street (TNRCC VCP)	515 N Carroll Ave/4420 Worth Dallas	Site is currently in the investigation phase for soil and groundwater VOC contamination. A final certificate of completion has not been issued.
Clyde Lane Property (TNRCC VCP)	Clyde Lane @ McKinney Avenue and Oak Grove Dallas	Site is currently in the investigation phase for soils-only organics and metals contamination. A final certificate of completion has not been issued.
Deep Ellum Project (TNRCC VCP)	Indiana St and Malcolm X Blvd Dallas	Site is currently in the investigation phase for soil and groundwater petroleum hydrocarbon and metal contamination. A final certificate of completion has not been issued.
Laws Street Block 390 (TNRCC VCP)	Laws Street Block 390 Dallas	Site is currently in the withdrawal phase for soil and groundwater TPH contamination. A final certificate of completion has not been issued.
Alpert Capital/JNC Property (TNRCC VCP)	NWC Field and Broom Streets Dallas	Site is currently in the withdrawal phase for soils-only metals, PAH, and VOC contamination. A final certificate of completion has not been issued.
Metro Food Shop Flowers	3301 Gaston Dallas	Groundwater impacted.
Flowers by Charles (LPST)	Dallas	
Baylor Filling Station (LPST)	3100 Janius Dallas	A designed major or minor aquifer is impacted.
Wells Brake Shop (LPST)	2901 Commerce Dallas	Groundwater impacted.
DART Right of Way (LPST)	Ash Lane and Trunk Avenue Dallas	Soil contamination only.
Motions Convenience Store #7 (LPST)	3305 Grand Avenue Dallas	Groundwater impacted.
Chevron Fac 153459 (LPST)	3306 Grand Avenue Dallas	Groundwater impacted. Final concurrence pending documentation of well plugging.
A-1 Gas & Food Store (LPST)	4131 Hatcher Street Dallas	Groundwater impacted.
First Stop Beer, Wine & Grocery (LPST)	4847 Scyene Road Dallas	Groundwater impacted.
Gloco #47 (LPST)	4217 2 nd Avenue Dallas	Groundwater impacted.
CR Steeles Mobil Service Station (LPST)	3800 Hatcher Street Dallas	Priority: 4.0
Sigmor #763 (LPST)	6520 Lake June Road Dallas	Groundwater impacted.
Buckner Fina (LPST)	437 S Buckner Dallas	Vapor impact / NAPL near utility, potential vapor pathway.
Unknown (LPST)	440 S Buckner Dallas	A designed major or minor aquifer is impacted.

Facility (Database)	Location	Comments and Site Location Reference Number
Landfill (SWF/LF)	5304 2 nd Avenue Dallas	Sanitary landfill, daily cover required.
Landfill (NCTCOG)	On east side of Trinity River and south side of Martin Luther King Blvd at end of Lenway Street Dallas	"Unauthorized Landfill Site Facility: U1349". Origin and use of site unknown. During mid-1980, city did remediation by construction clay berm between site and Trinity River to stop seepage.

Source: Terra Mar, 2001

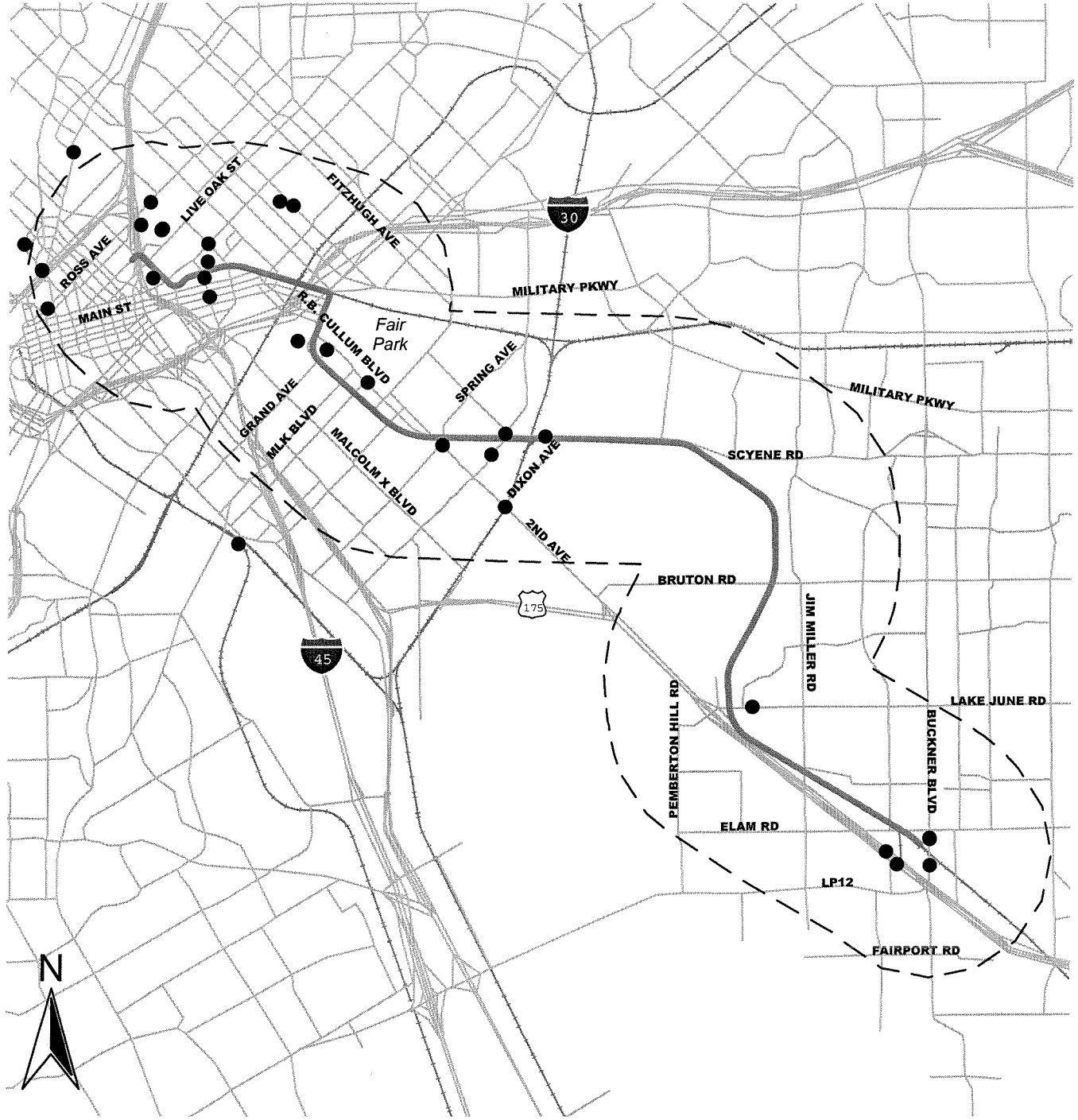
5.14.2 Mitigation Measures

Further investigations will be performed during final design for at-risk areas. The investigations will focus specifically on areas where construction activities involve soil excavation and/or dewatering operations. In addition, any existing structures will be surveyed for the presence of hazardous/regulated materials such as asbestos-containing materials, lead-based paint, chemical storage, etc., prior to their demolition or modification. These investigations will provide a basis for determining construction health and safety specifications, contaminated soil and groundwater remediation, and disposal procedures and asbestos or lead-based paint management or remediation practices. The design and preparation of required monitoring and remediation plans will be coordinated with the TCEQ.

If unanticipated sources of hazardous or regulated materials are encountered during construction activities, the construction manager or designee will immediately notify DART's Environmental Compliance Division. Specific mitigation activities, which address the type, level, and quantity of contamination encountered, will be immediately implemented. The handling, treatment, and disposal of any hazardous materials will occur in full compliance with all federal, state, and local requirements.

The discharge of any wastewater suspected of containing hazardous/regulated materials is prohibited without first obtaining a TPDES Permit issued by the TCEQ covering the one-time discharge of wastewater containing known and specific hazardous constituents. Such a permit may be obtained from the appropriate regulatory agency providing the discharge is well-characterized, meets discharge standards and does not pose a threat to the ultimate surface water body receiving the discharge. If fill material is required in the construction of proposed LRT facilities, the construction contractor will be required to ensure that the sources of any fill material are free of contamination.

**Figure 5.41
Contaminated Sites that Could be
Affected by Construction**



Legend		
●	Contaminated Site	— — —
—	Build Alternative (LRT)	- - -
		Study Area



5.14.3 Property Acquisition

As part of the property acquisition process, sites within the proposed right-of-way that have structures will be surveyed for the presence of asbestos-containing materials (ACM). The results of these surveys will determine whether or not additional impacts exist due to the presence of these hazardous/regulated materials. If the presence of these materials is confirmed during the survey, mitigation measures will be initiated as part of demolition and construction activities. DART has in place an on-going due diligence policy and program to assess the environmental condition of all properties contemplated for purchase as right-of-way or for the siting of transit facilities. Under this program, DART performs a separate Phase I Environmental Site Assessment (ESA) of each parcel or site under consideration for purchase in order to assess its specific probability for contamination. A Phase II ESA may also be undertaken to identify and quantify hazardous/regulated materials so the resulting need for cleanup or mitigation can be factored by Real Estate.

5.15 CONSTRUCTION IMPACTS

This section assesses the temporary impacts to the study corridor due to construction. Impacts to access, traffic operations, businesses, residence, air quality, water quality, noise and vibration receptors, visual impacts, aesthetics, and disruption of utilities from construction activities and staging areas are addressed.

5.15.1 Access and Circulation of Traffic

During the construction of any major transportation project, road and traffic disruption is expected.

No-Build Alternative

The No-Build Alternative would not require any construction activities. Therefore, no roadway disruptions or closures due to construction would occur.

Build Alternative (LRT)

Construction of the Build Alternative (LRT) will affect numerous major and minor roadways in the City of Dallas. A traffic management plan will be developed and agreed upon by the City of Dallas and TxDOT. The plan will include ways to maintain traffic, bus service, and pedestrian activities while allowing for the delineation of the construction areas. The magnitude of traffic

disruption will depend on the nature of the street and any local constraints. The construction activity will occur in short segments (0.5 miles) to provide adequate staging of construction. Separation of work areas will result in a more stable traffic patterns, minimizing the number of times motorists will need to adjust to the change in the construction zones.

The City of Dallas and TxDOT will review contract specifications and traffic management plan prior to initiation of construction. Several roadways within the project corridor will be disrupted and/or closed during construction.

The inner bridges/ramps of IH 45 (previously Central Expressway) will be reconstructed to reposition the columns to allow the LRT alignment to pass under the bridges. TxDOT has already programmed the bridges for reconstruction due to structural problems and has agreed to design and construct the bridges to accommodate the LRT alignment. Construction and traffic control will be handled in accordance with TxDOT standards. These ramps do provide access to and from downtown but do not currently carry high traffic volumes, therefore, no major impacts are anticipated.

Short-term transportation and circulation impacts are expected because of construction of along Good-Latimer Expressway, Trunk Avenue, and at-grade crossings. Traffic impacts could also occur around construction staging areas. Streets will remain open to local traffic and property access for pedestrians and vehicles. During final design, a construction sequencing plan will be developed to schedule lane closures and use of temporary traffic control. Temporary lanes, sidewalks, driveways, and bus stops will be used. Detours will be kept to a minimum. At-grade crossings will be constructed sequentially and involve temporary lane closures and/or detours. The phasing of construction will be scheduled to minimize construction near Fair Park during the State Fair of Texas.

5.15.1.1 Traffic Mitigation

The City of Dallas requires notification of all construction activities within city rights-of-way. The construction contractors will comply with appropriate regulations and incorporate mitigation measures during construction. Both the *Standard Specifications for Public Works Construction*, NCTCOG and *Texas Manual on Uniform Traffic Control Devices*, TxDOT provide applicable local and state regulation guides for the proposed construction. All construction specifications

and mitigation measures must be approved by local traffic engineering authorities prior to initiation of construction. Barricading and flag staff will be used when appropriate. Private business parking areas and driveways will not be used for equipment maneuvering or parking. In construction specifications, provisions will be included for maximum number of lanes during peak traffic hours, maintenance and removal of traffic control devices, efficient traffic rerouting measures, and scheduling of construction activities within the roadways for times other than during peak traffic periods.

5.15.2 Disruption of Businesses and Residences

No-Build Alternative

The No-Build Alternative would not require any construction activities. Therefore, there would be no disruption to businesses or residences.

Build Alternative (LRT)

Properties along Good-Latimer and Trunk will experience accessibility impacts during certain times during construction due to minor detours for through traffic. In most cases, the construction of the project will cause a short-term impact to the area due to access restrictions, general inconveniences to patrons, and temporary blocking of adjoining roadway intersections.

Business and residents with driveway access to Good-Latimer and Trunk will experience impacts to access during construction. It is estimated that ten to 15 businesses along Good-Latimer and six residences along Trunk will be affected. The most severe impact will occur at locations that have only one access point.

5.15.3 Mitigation for Disruption of Businesses

The City of Dallas requires notification of all construction activities that will disrupt or block traffic flow. The mitigation measures required by these cities for roadway access and traffic control also apply to disruption of area businesses. Permits will be acquired by project contractors from the appropriate city offices for roadway disruptions and blockages. As a courtesy, notification of roadway disruptions should be provided to neighboring property owners/operators. In cases of roadway blockages, neighboring property owners/operators will be notified and provided with descriptions of alternative routes.

Adjacent business owners and area business associations will be involved in developing plans for temporary access. The DART-coordinated community participation campaign for the corridor will be continued during construction to aid adjacent businesses in reducing access related concerns. Specific measures could include highly visible signage and public information materials.

Provisions in project specification plans will require the construction contractors to make every reasonable effort to minimize construction activities within the roadways during peak traffic periods. Abatement measures such as work hour controls and weekend construction will be included in project contracts. Private business parking area and driveways will not be used for equipment maneuvering or parking. In addition, all possible measures will be taken to avoid blockages and disruption of business access driveways.

If proper permitting and appropriate mitigation measures are used during construction, the proposed project will not result in adverse economic impacts on neighboring businesses. Therefore, construction impacts will not be significant.

5.15.4 Disruption of Utilities

Utilities within the project right-of-way include electric, natural gas, telecommunications, water, and sanitary sewer. Utility line disruptions are most likely during the grading, excavation, and construction activities.

No-Build Alternative

The No-Build Alternative would not require any construction activities. Therefore, other than general maintenance and upgrading, no utility disruptions would occur.

Build Alternative (LRT)

The potential to impact utilities exists throughout the corridor. The majority of the Build Alternative (LRT) is located within previous railroad rights-of-way which helps minimize impacts to utilities. No major utility relocations will be required. All utility work is expected to be within the norms for light rail construction, with the exception of the Texas Utilities (TXU) 345kV power transmission lines along Trunk Avenue and Scyene Road and on City of Dallas underground storm sewer box culvert along Trunk Avenue. This line is within an easement along the DART

owned right-of-way. During final design, DART will continue coordination with TXU on the final determination of affect for the line.

Discussions will be held with affected utility operators to determine specific measures to minimize disruptions and maintain system integrity. Utilities conflicting with the alignment will be relocated before construction or maintained and protected in-place during construction. In some situations, existing utility lines will be encased in concrete for added strength during and following construction. If utility line integrity is poor, in most cases, the old lines will be replaced with new lines in the areas of construction. Construction contractors will conduct a separate study of utility lines prior to initiation of construction in order to identify any additional lines.

5.15.4.1 Mitigation Measures for Disrupted Utilities

Construction specifications will provide terms for the identification and appropriate mitigation of any utility lines encountered during project construction. Prior to construction, all area utility companies and utility agencies will be contacted and requested to provide line location measures and approval of the proposed alternation of utility lines. Contractors will be required to consider the following items in their construction specifications for mitigation of utilities:

- Businesses and residences affected by utility disruptions should be notified of the disruptions at least two weeks in advance;
- Down periods for businesses should occur during off-business hours and never exceed a 24-hour period;
- Businesses such as restaurants, grocery stores, or food preparation/manufacturing facilities should be accommodated to protect food preparation and storage mechanisms;
- Should utilities be discovered during construction that are not identified prior to construction, work will be discontinued and appropriate utility companies and agencies will be contacted to identify the line(s). The discovered line will not be disrupted until businesses and residences are notified and the utility owner/operator has approved the proposed alternation.

5.15.5 Air Quality Impacts

This section discusses the impacts to air quality caused by construction.

No-Build Alternative

The No-Build Alternative would not require any construction activities. Therefore, no construction-related air quality impacts from the project would occur.

Build Alternative (LRT)

During the construction phase, there will be short-term impacts on air quality. Construction activities associated with excavations, grading and filling and other operations disturb the soil, generate dust and remove groundcover which causes the soil to be susceptible to wind and water erosion. There are no federal, state, or local regulations concerning the generation of dust from construction activities except as a nuisance complaint; however, DART has its own regulations concerning dust control.

5.15.5.1 Mitigation of Air Quality Impacts

Areas disturbed by construction activities will be covered or treated with dust suppressors. Dry power brooming will not be permitted. Only wet cutting of concrete block, concrete and asphalt will be permitted. All vehicles will be inspected prior to their leaving the construction site to minimize matter being dislodged from the vehicles during transit. Tarpaulins will be used on loaded trucks carrying loose material to prevent the material from becoming airborne. The sprinkling of water will be required on dust generating surfaces such as roads and other areas where construction equipment is in operation.

The control of exhaust emissions emanating from various construction equipment will be in accordance with EPA guidelines. To minimize exhaust emissions, contractors will be required to use emission control devices and limit the unnecessary idling of construction vehicles.

Construction of the project will not violate any federal, state, or local laws concerning air quality. Therefore, air quality impacts from construction activities will not be significant.

5.15.5.2 Special Construction Practices

Air quality construction-related air quality effects will be limited to short-term increased fugitive dust and mobile source emissions during construction. Construction specifications will require consideration of preventative and mitigate measures to minimize the possible particulate pollution problem. Site preparation measures will include: minimization of land disturbance;

using watering trucks to minimize dust; covering trucks when hauling dirt; stabilization of any surface of dirt piles not immediately removed; use of windbreaks to prevent accidental dust pollution; limits on vehicular paths and stabilization of temporary roads; and the paving of unpaved construction roads and parking areas to road grade for a length no less than 50 feet where such roads and parking areas exit the construction site to prevent dirt from washing onto paved roadways. During construction these measures will include: covering trucks when transferring materials; use dust suppressants on unpaved traveled paths; minimization of unnecessary vehicular and machinery activities; and the washing or cleaning trucks before leaving the construction site. An alternative strategy is to pave a few hundred feet of the exit road, just before entering the public road. Post construction measures will include: re-vegetate all construction related vehicular paths to avoid future off-road vehicular activities.

Since emissions of CO from motor vehicles increase with decreasing vehicle speed, disruption of traffic during construction (such as the temporary reduction of roadway capacity and the increased queue lengths) could result in short-term elevated concentrations of CO. In order to minimize the amount of emissions generated, every effort will be made during the construction phase to limit disruption to traffic, especially during peak travel periods.

5.15.6 Construction Noise Impacts

Construction of the tracks, stations, and associated parking facilities will result in the generation of noise from construction equipment. Construction noise varies greatly depending on the construction process, type and condition of equipment used and the layout of the construction site. Many of these factors are traditionally left to the contractor's discretion, which makes it difficult to accurately estimate levels of construction noise. Overall, construction noise levels are governed primarily by the noisiest pieces of equipment. For most construction equipment, the engine, which is usually diesel, is the dominant noise source. This is particularly true of engines without sufficient muffling. For special activities such as impact pile driving and pavement breaking, noise generated by the actual process dominates.

Table 5.21 summarizes some of the available data on noise emissions of construction equipment from the *FTA Noise and Vibration Impact Assessment* guidance document. Shown are the average maximum values at a distance of 50 feet. Although the noise levels in the table represent typical values, there can be wide fluctuations in the noise emissions of similar equipment. Construction noise at a given noise-sensitive location depends on the magnitude of

noise during each construction phase, the duration of the noise and the distance from the construction activities.

Table 5.21 Construction Equipment Noise Levels

Equipment Type	Typical Sound Level at 50 ft (dBA)
Backhoe	80
Bulldozer	85
Compactor	82
Compressor	81
Concrete Mixer	85
Concrete Pump	82
Crane, Derrick	88
Crane, Mobile	83
Loader	85
Pavement Breaker	88
Paver	89
Pile Driver, Impact	101
Pump	76
Roller	74
Truck	88

Source: Transit Noise and Vibration impact Assessment, FTA, April 1995.

No-Build Alternative

The No-Build Alternative would not require any construction activities. Therefore, no construction-generated noise impacts from the project would occur.

Build Alternative (LRT)

Projecting construction noise requires a construction scenario of equipment likely to be used and the average utilization factors or duty cycles (i.e., the percentage of time during operating hours that the equipment operates under full power during each phase). Using the typical sound emission characteristics given in Table 5.22, it is then possible to estimate Leq or Ldn at various distances from the construction site.

Table 5.22 Sound Emissions for Typical Construction Equipment

Equipment Item	Typical Maximum Sound Level at 50 ft (dBA)	Equipment Utilization Factor (%)	Leq (dBA)
Air Compressor	83	0.5	80
Backhoe	80	0.4	76
Crane, Derrick	82	0.1	72
Dozer	85	0.4	81
Generator	81	0.8	80
Loader	85	0.4	81
Pavement Breaker	84	0.01	70
Shovel	80	0.4	76
Dump Truck	88	0.16	80
Total workday Leq at 50 feet (9-hour workday)			88

Source: Transit Noise and Vibration Assessment, FTA, April 1995

The noise impact assessment for a construction site is based on:

- An estimate of the type of equipment that will be used during each phase of the construction and the average daily duty cycle for each category of equipment;
- Typical noise emission levels for each category of equipment such as those in Table 5.21;
- and
- Estimates of noise attenuation as a function of distance from the construction site.

Construction noise estimates are always approximate because of the lack of specific information available at the time of the environmental assessment. Decisions about the procedures and equipment to be used are made by the contractor. Project designers usually try to minimize constraints on how the construction will be performed and what equipment will be used so that contractors can perform construction in the most cost-effective manner.

Table 5.22 provides an example of the noise projections for equipment that is often used during tie-and-ballast track construction. For the calculations, it is assumed that all equipment is located at the geometric center of the construction work site. Based on this scenario, an eight-hour Leq of 88 dBA should be expected at a distance of 50 feet from the geometric center of the work site. This calculation in Table 5.22 does not assume any noise mitigation measures or any limits on the contractor about how much noise can be made. With at-grade track construction, the duration of the activities at a specific location along the alignment will be relatively limited, usually a matter of several weeks. As a result, even when there may be noise impacts, the limited duration of the construction can mean that mitigation is not cost effective.

Although no standardized criteria have been developed for assessing construction noise impact, assessment guidelines are provided in the FTA *Transit Noise and Vibration Assessment* guidance document. These guidelines, summarized in Table 5.23, are based on land use and time of day and are given in terms of Leq for an eight-hour work shift.

Table 5.23 FTA Construction Noise Guidelines

Land Use	Noise Limit, 8-hour Leq (dBA)	
	Daytime	Nighttime
Residential	80	70
Commercial	85	85
Industrial	90	90

Source: Transit Noise and Vibration Assessment, FTA, April 1995

Based on the guidelines in Table 5.23 and the noise projections in Table 5.22, and assuming that construction noise is reduced by six decibels for each doubling of distance from the center of the construction activities, screening distances for potential construction noise impact can be estimated. These estimates suggest that the potential for construction noise impact will be insignificant for commercial and industrial land use, with impact screening distances of 70 feet and 40 feet, respectively. Even for residential land use, the potential for temporary construction noise impact will be limited to locations within about 125 feet of the corridor. However, the potential for noise impact from nighttime construction could extend to residences as far as 400 feet from the corridor. This emphasizes the importance of avoiding nighttime construction in residential neighborhoods.

5.15.6.1 Construction Noise Mitigation

Construction activities will be carried out in compliance with all applicable local noise regulations.

In addition, specific residential property line noise limits will be developed during final design and included in the construction specifications for the project, and noise monitoring will be performed during construction to verify compliance with the limits. This approach allows the contractor flexibility to meet the noise limits in the most efficient and cost-effective manner.

Noise control measures that will be applied as needed to the noise limits include the following:

- Avoiding nighttime construction in residential neighborhoods.
- Using specially quieted equipment with enclosed engines and/or high performance mufflers.
- Locating stationary construction equipment as far as possible from noise sensitive sites.

- Construction noise barriers, such as temporary walls or piles of excavated material between noisy activities and noise-sensitive receivers.
- Re-routing construction-related truck traffic along roadways that will cause the least disturbance to residents.
- Avoiding impact pile driving near noise-sensitive areas, where possible. Drilled piles or the use of a sonic or vibratory pile driver are quieter alternatives where the geological conditions permit their use. If impact pile drivers must be used, their use will be limited to periods between 8:00 a.m. and 5:00 p.m. on weekdays.

With the incorporation of appropriate noise mitigation measures, impacts from construction-generated noise should not be significant. To provide added assurance, a complaint resolution procedure will also be put in place to rapidly address any noise problems that may develop during construction.

5.15.7 Construction Vibration Impacts

The most significant sources of construction vibration are blasting and pile driving. There will be no blasting for this project and only limited pile driving. Other construction activities that could cause an intrusive vibration include vibratory compaction, jack hammering, and the use of trackbed vehicles, such as bulldozers.

5.15.7.1 Construction Vibration Mitigation

Vibration impacts during construction will be avoided through numeric limits and monitoring requirements that will be developed during final design and included in the construction specifications for the project. Measures that will be considered as requirements to meet the vibration limits include the use of alternative equipment or processes, such as the use of drilled piles in place of impact pile driving and avoiding the use of vibratory compactors near vibration-sensitive areas.

5.15.8 Construction Visual Impacts

No-Build Alternative

The No-Build Alternative would not require any construction activities. Therefore, no construction-related visual impacts would occur due to major transportation investment.

Build Alternative (LRT)

Potential construction-related visual impacts may occur due to the placement of construction staging areas and equipment/materials storage in viewable areas from sensitive uses, which include residences and recreational areas abutting the alignment. In addition, potentially significant long-term adverse impacts could result from the construction phase removal of existing vegetation that provides visual screening from the rail right-of-way for adjacent land uses. However, the DART contractor will attempt to minimize the removal of existing vegetation and will restore areas to their pre-construction appearance to the greatest extent feasible.

As stated in Section 5.9, construction equipment and construction itself may interfere with views to and from the two structures determined potentially eligible of listing on the NRHP and one site that is listed on the NRHP. These include structures at 624 S. Good-Latimer, 3801 Parry, and 3809 Parry. Construction activities and equipment may cause a temporary alteration of the setting of these resources. However, this effect will be both entirely reversible and temporary, and therefore no adverse effect on these properties is anticipated.

During final design, DART will work closely with affected residents to assess the need for additional vegetation/screening to mitigate potentially significant privacy impacts so that improvements can be coordinated with construction activities.

5.15.8.1 Mitigation and Coordination Efforts

Prior to construction, a plan for protecting existing trees and vegetation to remain and that could be injured during construction activity will be developed. In accordance with the DART Light Rail Project - General Provisions, General Requirements, and Standard Specifications for Construction Projects, all trees and other landscape features scarred or damaged during construction will be repaired and restored to their original condition. Construction abutting other historic structures along the LRT alignment should be carried out in areas where they will not obscure the primary architectural facades of these structures. DART will also assess the need for additional landscaping in this area to mitigate potential visual intrusion/privacy impacts following clearing and grubbing activities during construction.

5.15.9 Excavations, Fill Material, Debris and Spoil

No-Build Alternative

The No-Build Alternative would not require any construction activities. The current railroad and associated right-of-way would remain undeveloped if the No-Build Alternative were retained. Therefore, no construction-related excavation fill material or the generation of debris and spoil would be required. This alternative fails to reduce the increased proportion of future automobile traffic on area roadways. The construction of new roadways and the expansion of existing roadways required to accommodate future traffic levels would necessitate excavations, fill material, and the generation of debris and spoil associated with road construction activities.

Build Alternative (LRT)

Construction of the project will require grading, excavations and fill material which will result in the generation of debris and spoil. Much of the spoil generated from grading activities and excavations will be use as fill material along the LRT to bring the rail line to grade; however, additional fill material will probably be required. Debris and spoil will be generated from the demolition of buildings acquired for the project (Section 5.3 - Acquisitions and Displacements).

The DART General Provisions, General Requirements and Standard Specifications for Construction Projects govern the disposal of excess material, trash and debris. Section 01560 (Part 1.5 A, B and C) provides measures concerning disposal of debris and spoil. The regulations state that excess “clean” fill material can be disposed of on the site. Waste will be placed in containers, transported off site and disposed of in a manner that complies with state and local requirements. No waste material will be burned on site. The disposal transport areas will be left clean on completion of the project.

Debris and spoil generated during construction of the LRT within the City of Dallas could be disposed of at the McCommas Landfill. There are no regulations concerning the types of debris and spoil that could be disposed of at this landfill except that of hazardous waste is not accepted. No hauling permits are required by the City of Dallas.

5.15.10 Mitigation of Excavation, Fill Material, Debris and Spoil

Only “clean” fill material will be used for construction of the LRT. The contractor will establish haul routes on roads other than established truck routes. Any hazardous waste encountered by

construction of the project will be disposed of by a licensed hazardous waste contractor. The project site and transport disposal areas will be left clean upon completion of the project. If these mitigation measures are followed, the short-term construction impacts from excavations, fill material, debris, and spoil will be minimal.

5.15.11 Construction Staging Areas

No-Build Alternative

The No-Build Alternative would not require any construction activities. The current railroad and associated right-of-way would remain undeveloped and inactive if the No-Build Alternative were retained. Therefore, no construction-related staging area would be required. This alternative fails to reduce the increased proportion of future automobile traffic on area roadways. The construction of new roadways and the expansion of existing roadways required to accommodate future traffic levels would necessitate construction staging areas for equipment and materials used for road construction.

Build Alternative (LRT)

The project is expected to be constructed in two sections. Section 1 will begin at Pearl Street Stations and continue to just west of the UP RR. Section 2 will begin just west of the UP RR and continue to Buckner Boulevard. Three staging areas will be required for the storage of equipment and materials used for the construction of the project. One of the construction staging areas will be between Jaguar, 4th Street, Elihu, and the former SP RR. The other construction staging areas will be just east of the Lawnview Station and on the excess property at the Lake June Transit Center.

There will be minor short-term impacts to the property due to the storage of construction materials and equipment. If exposed to the weather, some construction equipment and materials have the potential to release chemicals during storm events. The storage of construction equipment and materials on the ground has the potential to disturb the soil and kill or prevent the growth of groundcover, which causes the soil to be susceptible to wind and water erosion. Construction equipment has the potential to leak oil and grease, hydraulic fluid, brake fluid and other petroleum hydrocarbons. There is also the possibility of spillage during fueling operations.

The DART General Provisions, General Requirements and Standard Specifications for Construction Projects have regulations governing construction staging areas. Section 01560 (Part 1.3 C-6 and G, Construction Facilities and Staging Areas) provides measures concerning construction staging areas. The regulations state that the contractor must store equipment and materials in conformance with applicable local regulations. Unnecessary materials and equipment are not allowed to be stored at the job site. No structure is allowed to be loaded with a weight that will endanger its structural integrity or the safety of persons. Materials are not allowed to be stored on private property without written authorization of the owners of the property. Staging areas are not located in wetlands areas or on any property listed or eligible to be listed in the NRHP without prior approval of the DART Contracting Officer.

5.15.12 Mitigation of Construction Staging

The contractor will use best management practices to prevent stormwater runoff of construction materials and equipment such as covering materials and equipment of awnings, roofs, or tarps; storing materials and asphalt or concrete pads; surrounding material stockpiling areas with diversion dikes or curbs; and using secondary containment measures such as dikes or berms around fueling areas. The contractor will also mulch and reseed disturbed areas to prevent air and water erosion on the site after termination of construction operations.

5.15.13 Water Quality and Runoff

Area water could be impacted by the acceleration of erosion processes and additions of unnatural sediments that are introduced during construction projects. Typically, construction causes surface disruptions, including grading, filling and soil compaction, which impact soil permeability and cause an increase in the volumes of sediment runoff. Also, construction activities require the use of potential surface and subsurface water pollutants such as petroleum hydrocarbons for vehicle fueling and lubrication. Surface waters may also be aesthetically impacted by larger debris generated by construction activities. Local, state, and federal governments monitor and enforce water quality and runoff regulations. Water quality and runoff issues would be addressed for the construction of the LRT Alternative. Mitigation measures to protect area water quality include measures to erosion controls and minimization of the introduction of sediments, wastewater, and chemical to surface and subsurface waters.

No-Build Alternative

The No-Build Alternative would not require any construction activities. The current railroad and associated right-of-way would remain undeveloped and inactive if the No-Build Alternative is retained. Therefore, no significant water quality or runoff impacts over current conditions would be expected along the rail line. The water quality and surface runoff are currently impacted by rail line maintenance, operations and ground keeping activities that cause minor overall impacts. However, implementation of the No-Build Alternative would indirectly impact area water quality and runoff due to the failure of this alternative to reduce the increased proportion of future automobile traffic on area roadways. The increase in automobile traffic may cause heavy congestion, thus, causing an increase in incidental and accidental releases of automotive fluids and sediments to surface pavements. These materials are carried to area waterways by storm water sheet flow and serve to cause an increased long-term impact. The additional automobile traffic would also cause a long-term impact to air quality, which in turn causes water quality and runoff concerns.

Build Alternative (LRT)

Construction of the rail lines, stations and associated parking facilities will result in the generation of a short-term impact of water quality and sediment runoff. The construction staging areas will also cause short-term impacts. Impacts will be greatest in areas that are affected by grading and filling. The water bodies of concern are listed in Section 3.11.1 Surface Water Quality.

5.15.14 Mitigation of Water Quality and Runoff

According to EPA regulations, cities with populations of 100,000 or greater must maintain and enforce the Municipal Separate Storm Sewer System (MS4) permitting program. The City of Dallas participates in this program and regulates storm water discharges with regard to various construction projects. This ordinance is enforced by the Storm Water Quality Department. In accordance with the ordinance, project specifications must be reviewed by the Storm Water Quality Department prior to initiation of construction. The project specifications should provide adequate mitigation measures to prevent long-term impacts to area surface and groundwater and the city's storm water system.

Construction of the project will necessitate obtaining coverage under the TPDES General Permit for Storm Water Discharges Associated with Construction Activities. The TPDES program was established under the CWA to control and reduce the discharge of pollutants from point sources into the waters of the U.S. The program, which is administered by the TCEQ, was expanded to include storm water related discharges by the Water Quality Act of 1987. To obtain coverage under the terms of the TPDES General Permit for Storm Water Discharges Associated with Construction Activities, the site operator must develop a Storm Water Pollution Prevention Plan (SWP3) and submit a Notice of Intent (NOI) to the TCEQ at least 48 hours before commencing construction activities.

In summary, the TPDES General Permit provides the following mitigation measures:

- Limit the areas of disruption;
- Temporarily stabilize and protect areas disturbed by construction to minimize erosion;
- Filter or impound sediment laden water from storm water runoff, soil boring/excavation operations, trenching, etc., to remove sediment prior to release of runoff;
- Provide structural erosion control methods where required to treat sediment-laden runoff;
- Provide general housekeeping measures to prevent and contain spills of chemicals, including petroleum hydrocarbons, associated with construction;
- Implement waste management techniques to cover waste materials and minimizing ground contacts;
- Implement waste management techniques to cover waste materials and minimize ground contacts;
- Reduce wind blown waste and off-site tracking by vehicles from the construction sites.

Upon approval of TPDES General Permit by local, state, and federal agencies, the overall impact to area water quality by the proposed construction will be minimal provided that the construction contractors comply with the TDPEs General Permit.

5.16 PERMITS

The permits and approvals shown in Table 5.24 will be required to implement the Build Alternative (LRT).

Table 5.24 Permits/Approvals

Regulatory Program or Proposed Action	Agency
Section 404 Nationwide permit	USACE
Texas Pollutant Discharge Elimination System General permit for Storm Water Discharges Associated with Construction Activities	TCEQ
Development Permit to perform construction activities in a flood zone	FEMA Municipality
Storm Water Management	Municipality
Sewer Modification	Municipality
Section 4(f)	USDOT DOI
Section 106 (Historic)	ACHP THC (SHPO) DOI
USACE - US Army Corps of Engineers TCEQ – Texas Commission on Environmental Quality FEMA - Federal Emergency Management Agency USDOT - US Department of Transportation DOI – US Department of the Interior ACHP - Advisory Council on Historic Preservation THC - Texas Historical Commission SHPO - State Historic Preservation Officer	

Source: Carter & Burgess, 2001

5.17 SAFETY AND SECURITY

DART currently follows safety and security policies for LRT systems set forth in the *Systems Design Criteria, Volume II, Light Rail Starter Line* (December 1990). This document outlines the goals and objectives to optimize safety for light rail passenger vehicles. The design of any transportation improvement, particularly LRT should meet the following objectives at a minimum:

- Design for minimum hazard through the identification and elimination of hazards through the appropriate safety design concepts and/or alternative design.
- Use of fixed, automatic, or other protective safety devices to control hazards, which cannot be eliminated.
- Use of warning signal and devices, if neither design nor safety device can effectively eliminate or control an identified hazard.
- Provide special procedures to control hazards which cannot be controlled by the aforementioned devices.

For each of the above areas, the following were considered:

- Whether an adverse environmental impact might occur;

- What mitigation, if any, will be available if an impact did occur;
- Whether an impact will remain after mitigation; and
- Impacts of construction and implementation, where applicable.

The purpose of the safety fencing will be to ensure safe access is provided at controlled intersections and to discourage unauthorized use of the right-of-way. The introduction of safety fencing in areas of pedestrian activity and where informal crossings of the alignment are located will impact the ability of residents to cross the alignment at will. However, all cross streets and driveways along the alignment will remain open and allow for pedestrian movements across the alignment.

Safety fencing at the right-of-way boundary will be constructed in all locations where trains are expected to travel of speeds of 45 miles per hour and greater, in areas where there are decreased sight distances for the train operator, or in areas needed to minimize safety risks to children such as near schools or parks. Table 5.25 shows the recommended locations of the safety fencing. In addition, safety fencing (three foot tall cable and bollard type) is proposed along the Fair Park Station area and alignment along Parry Avenue to help direct pedestrian movements and prevent pedestrians from crossing the LRT tracks at unauthorized locations. In areas where both noise mitigation and safety fencing is required, noise walls will serve as noise mitigation and safety fencing. These areas include: Station 241+50 to 245+50, Station 258+50 to 262+00, Station 265+00 to 273+00, Station 268+00 to 273+00, Station 283+00 to 285+50, Station 290+50 to 293+00, Station 294+50 to 296+50, Station 297+50 to 299+50, and Station 302+00 to 303+50.

Table 5.25 Safety Fencing

Location	Approximate Civil Station*	Type
From Elm Street to IH 30	161+50 to 185+00	5' chain-link fencing
Fair Park Station	195+50 to 203+50	3' cable & bollard
From MLK Boulevard to Todd	240+00 to 307+50	5' chain-link fencing*
From West of Dixon to Lake June Road	335+00 to 529+00	5' chain-link fencing
From South of the Lake June Station to Jim Miller Road	550+00 to 571+00	5' chain-link fencing
From Elam Creek to West of Hillburn Drive	586+50 to 612+50	5' chain-link fencing

Source: Carter & Burgess, 2001

Note: The alignment stationing is shown on the plan and profile drawings in Appendix D. The stationing numbers references to the location on the engineering drawings and not to passenger station locations.

* In areas where both noise mitigation and safety fencing is required, noise walls will serve as safety fencing.

Because of the heavily wooded nature of the areas near Gateway and Grover Keeton parks, which creates limited sight-distance, at-grade crossings of the LRT alignment between the parks will not be allowed to ensure the safety of the public and transit patrons. Although the City of Dallas has no formal master plan for Lower White Rock or Devon-Anderson parks, the classification the Park Department has assigned to the property governs the use and potential use. The park area is classified as "Conservancy/Linkage," a National Park and Recreation Association (NPRA) recognized classification. Except the two existing at-grade crossings, there are no licensed or authorized crossings of the railroad between the parks and persons currently crossing the tracks between the parks are trespassing on DART right-of-way.

The Dallas Park and Recreation Department recognizes that DART will be operating within their own right-of-way and that use of the right-of-way for park purposes will require a recreation use license which the city does not have. To accommodate access between and into parks along the alignment, three crossings will be included to provide recreational and maintenance access to the parks. Two will be at-grade and one under the LRT. The at-grade crossings at the Grover Keeton Road and the improved gravel driveway from Scyene to a storage/maintenance area north of Grover Keeton Park will remain. A pedestrian under crossing just south of Bruton Road along the creek crossing will be added. The LRT bridge over the stream will be widened and a bench created to provide an informal, natural passage under the LRT. These crossings have been sited at locations consistent with DART's safety and design policies.

From the UP RR mainline, just east of Hatcher Road, the right-of-way will include three tracks – two for LRT and one for freight (Figure 2.15, page 2-31). The potential for a catastrophic collision between conventional rail equipment and lighter weight transit equipment is a major concern, and steps to avoid any appreciable risk of collision, is a high priority.

Shared right-of-way will include separate trackage for the LRT system and the freight provider. The freight track will run along the west side of the future light rail at a distance of 20 feet between center lines. The freight track will bypass all the light rail stations on the south or west side. The track will be built to conventional rail design requirements and not be physically connected to the light rail tracks. The shared right-of-way approach will have advantages because the LRT system will not be connected to the FRA defined "general railroad system." FRA oversight will be minimized, but FRA will still expect DART to observe its rules on grade crossing signals for any crossings shared with the conventional rail user. FRA and FTA will

coordinate with DART and the conventional rail user as to concerns about intrusion detection and safety measures to avoid collisions between LRT and conventional equipment.

The crossing of the DART LRT and the UP RR will be grade separated. The LRT will be constructed over the UP RR main line freight tracks and no impact to existing or future rail freight traffic is anticipated. The existing DART-owned freight railroad will continue short-line operations to Dal-Tile, the only freight rail customer along the route.

By using the shared right-of-way approach, the freight operations in the corridor will not be restricted to certain periods. However, operations for the current freight track users are primarily in the evening, outside of DART's anticipated LRT operating time. LRT and freight rail operations will co-exist in the study area with freight rail from just east of Hatcher to Buckner Boulevard. Because three tracks will be built, two for LRT and one for freight service, the physically separate operations will enhance safety for both LRT and freight rail. Additionally, a grade separation at the UP RR mainline will allow the LRT line to avoid any connection or interaction with the heavily used UP RR main line.

CHAPTER 6 - COMMENTS AND RESPONSES

This chapter includes the responses to written and oral public and agency comments received during the Southeast Corridor DEIS review period and Section 4(f) public hearing and comment period. The responses represent a formal means of addressing issues raised by agencies and the public.

6.1 DEIS AND COMMENT PROCESS

The DEIS complied with applicable state and federal regulations and acts as public disclosure document by presenting the anticipated environmental consequences of each alternative with possible reasonable and feasible mitigation measures. Once the DEIS was approved for public circulation by the FTA, copies of the document were distributed to members of the community and interested organizations, as well as the appropriate local, state, and federal agencies for their review and comment. Availability of the Southeast Corridor DEIS was officially advertised in the Federal Register on February 22, 2002.

The Federal Register announcement initiated DART's 45-day comment period (February 22, 2002, through April 8, 2002) as required by FTA. During this comment period, formal public hearings were held within the Southeast Corridor on March 12, 2002, at the Tom Landry Center, March 13, 2002, at the Pleasant Grove Public Library, and March 14, 2002, at Clean South Dallas. The purpose of these hearings was to provide interested parties an opportunity to formally submit comments on the Southeast Corridor DEIS. The public hearings also served to obtain testimony in compliance with Texas law regarding potential DART Service Plan changes. After a technical presentation on the project, verbal testimony was taken. Additional comments were submitted in writing at the public hearing and received at DART headquarters.

In response to the Southeast Corridor DEIS, DART received 43 written statements from individuals, organizations, and agencies and 22 verbal statements. A total of 84 people attended the three public hearings. Thirteen speakers testified at the March 12, 2002, public hearing, six speakers testified at the March 13, 2002, public hearing, and three speakers testified at the March 14, 2002, public hearing. In addition, four people provided comment on the project during the regularly scheduled public comment forum during the April 9, 2002, DART Board of Directors meeting.

6.1.1 Comments Received

Table 6.1 lists agencies, persons, or groups who submitted written comments or provided oral testimony at the public hearings.

Table 6.1 List of Letters, Written and Verbal Comments Received

Commenter ID Number	Person	Organization or Address	Corresponding Comment No.
Federal Agencies			
1	Jimmy Arterberry	EPA Director, Comanche Nation, PO Box 908, Lawton, Oklahoma	77
2	Willie R. Taylor	Director, Office of Environmental Policy and Compliance, US Department of the Interior	1, 78, 102, 103
3	Michael P. Jansky	Regional Environmental Review Coordinator, EPA, Region 6, 1445 Ross Avenue, Suite 1200, Dallas, Texas	134
State Agencies			
4	Lawrence Oaks	State Historic Preservation Officer, Texas Historical Commission	8, 14, 79, 80, 81, 82, 83
Local Agencies			
5	Michael Hellmann	City of Dallas, Park and Recreation Department, 1500 Marilla, Dallas, Texas	74, 95, 96, 97, 98, 104, 120
6	Allison Reaves-Poggi	City of Dallas Landmark Commission, 1500 Marilla, Dallas, Texas	9
Interested Organizations, Property Owners, and Persons			
7	Frances James	Historical Research, 4322 St. Francis Avenue, Dallas, Texas	40, 41, 46, 50, 51, 56, 84, 85, 86, 87
8	Joseph G. Beard	Westdale Asset Management, 3300 Commerce, Dallas, Texas	11, 14
9	Linda P. Evans	The Meadows Foundation, 3003 Swiss Avenue, Dallas, Texas	11, 14, 15
10	Carlene Washington	3101 Peabody Avenue, Dallas, Texas	11
11	Jeanne Martin	3025 Commerce Street, Dallas, Texas	11
12	Richard Schumacher	Not provided.	11, 16, 52
13	Jeff Swaney	Delphi Group, Inc., 3002A Commerce, Dallas, Texas	11
14	Stephen G. Turner	8765 Ferndale Road, #166, Dallas, Texas	13
15	Mary D. Tyson	4385 Turfway Trail, Harbor Springs, Missouri; 1702 Dakota Circle, Garland, Texas	37
16	Jay Teitelbaum	Adolph's Coffee Service, 2601 Swiss Avenue, Dallas, Texas	15
17	Charles F. Terry	Terry & Moore, Inc., 2601 Gaston, Dallas, Texas	11, 15
18	Linda Pelon	Piedmont-Scyene Homeowners Association, 3015 Nutting Drive, Dallas, Texas	47, 48, 57, 87, 99, 112, 113
19	Irby Foster	President, Rail Employees Association, 2331 Gus Thomason Road, Suite #118, Dallas, Texas	63, 122, 123, 124, 125, 126, 127
20	Doug Taylor	Texas Viewpoint Photography, 1410 Perrin Street, Arlington, Texas	121
21	Al Daniels	President, The Villas on Holland, Inc., 4210 Holland, #107, Dallas, Texas	11, 17

Commenter ID Number	Person	Organization or Address	Corresponding Comment No.
22	Linda Milton	P.O. Box 710711, Dallas, Texas	11
23	Marcel Quimby, FAIA	Preservation Dallas, 2922 Swiss Avenue, Dallas, Texas	10
24	William Wadkins, Jr.	2843 Modesto Drive, Dallas, Texas	2, 53, 54, 58, 64, 65, 100, 129, 135, 136
25	Charles Allen	Trinity River Expeditions, 615 South Montclair, Dallas, Texas	66, 88, 94, 105, 106, 107, 119
26	Timothy Dalbey	2719 Santa Cruz Drive, Dallas, Texas	3, 4, 5, 6, 42, 43, 44, 45, 46, 55, 59, 60, 62, 67, 68, 69, 70, 71, 73, 75, 76, 89, 90, 91, 92, 101, 108, 109, 110, 111, 114, 115, 116, 117, 118, 119, 133, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146
27	Kay Wilde	9312 Moss Trail, Dallas, Texas	111
28	Luke Vajo	Not provided	98
29	Campbell Read	Dallas County Audubon Society, 5839 Monticello, Dallas, Texas	99, 105, 121
30	Donald Giddings	Giddings & Wells Body Shop, 2606-08 Swiss Avenue, Dallas, Texas	49
31	RJ Smith	526 Golden Meadows, Duncanville, Texas	11
32	Larry Carter	730 W. Church, Grand Prairie, Texas	11
33	Fred Earley	3713 Willowood, Garland, Texas	11, 14, 15, 16
34	James Harcrow	2510 N. Hwy. 175, Seagoville, Texas	15
35	A. Teitelbaum	5200 Keller Springs, #323, Dallas, Texas	15
36	Carl Schieffer	Live Oak Bank, 3206 Live Oak, Dallas, Texas	11
March 12 Public Hearing Speakers			
PH1	General Audience	Question & Answer Session of the meeting	7, 21, 23, 24, 25, 26, 28, 29, 30, 31, 32, 61, 72, 131, 147
PH2	Charles Terry	2601 Gaston Avenue, Dallas, Texas	11, 19
PH3	Glen Boudreaux	2614 ½ Elm Street, Dallas, Texas	11
PH4	Jay Teitelbaum	Adolph's Coffee Service, 2601 Swiss Avenue, Dallas, Texas	11, 15
PH5	Suzanne Cruz-Sewell	Shared Housing Center, 402 North Good-Latimer, Dallas, Texas	11, 15
PH6	Bob Weiss	Meadows Foundation, 3003 Swiss Avenue, Dallas, Texas	11, 14, 15
PH7	Hurdie Burke	Deep Ellum Association, 2772 Gaston, Dallas, Texas	15
PH8	Tim Dalbey	2719 Santa Cruz Drive, Dallas, Texas	32
PH9	Don Blanton	2822 Commerce, Dallas, Texas	11, 16
PH10	John Kennedy	6430 Malcolm Drive, Dallas, Texas	12
PH11	Doug Aldridge	3417 Main Street, Dallas, Texas	18
PH12	Wayne Bazzle	2634 Elm Street, Dallas, Texas	11, 16
PH13	Steve Elsaesser	2900 Main Street, Dallas, Texas	11
PH14	Frank Compagda	Director of Tunnel Visions, 8651 Forest Hills Boulevard, Dallas, Texas	35

Commenter ID Number	Person	Organization or Address	Corresponding Comment No.
March 13 Public Hearing Speakers			
PH15	General Audience	Question & Answer Session of the meeting	22, 38, 128
PH16	Michael T. Hernandez	Volunteer for Shared Housing, 6042 Prestonshire Lane, Dallas, Texas	11, 15
PH17	Charles Allen	615 South Montclair, Dallas Texas	33, 34, 132
PH18	Renee Riggs	3105 San Jacinto, Dallas, Texas	13, 34
PH19	Reverend Lacey	3404 Spring Avenue, Dallas, Texas	130
PH20	Ruth Neil	3100 Peabody, Dallas, Texas	39
PH21	Charlene Washington	3103 Peabody, Dallas, Texas	11, 130
March 14 Public Hearing Speakers			
PH22	General Audience	Question & Answer Session of the meeting	23, 27, 36, 93
PH23	Victoria Aves	Shared Housing, 5942 Lewis, Dallas, Texas	11
PH24	William Wadkins, Jr.	2843 Modesto Drive, Dallas, Texas	148
PH25	Steve Turner	8765 Ferndale Road, Dallas, Texas	20
April 9 DART Board Meeting Speaker			
DB1	Linda Pelon	3015 Nutting Drive, Dallas, Texas	96, 99, 119
DB2	Frances James	4322 St. Francis Avenue, Dallas, Texas	40, 41, 46, 85
DB3	Doug Taylor	1410 Perrin Street, Arlington, Texas	57, 109, 121
DB4	Tim Dalbey	2719 Santa Cruz Drive, Dallas, Texas	76, 101, 119

6.1.2 Comments and Responses by Subject Area

All letters, cards, and transcripts of the public hearings were reviewed. Substantive comments have been identified, classified into one of the 17 different areas and numbered consecutively. Because there was some overlap and repetition, similar comments were consolidated and paraphrased. Paraphrasing was used for brevity and to aid in classifying comments that address more than one issue. As a result, the comments that appear in this chapter are seldom the precise words found in the commentator's letter or verbal testimony. This approach has been taken for clarity and to reduce duplication of similar comments and responses. Copies of the original letters and complete public hearing transcripts are available for review at DART Headquarters. The subject areas covered include:

- Alternatives and Alignment
- Good-Latimer Area
- Acquisition and Displacements
- Neighborhood, Community, Social and Environmental Justice
- Businesses, Employers and Economics
- Transportation, Traffic and Parking
- Service and Ridership

- Air Quality
- Noise and Vibration
- Visual Aesthetics
- Cultural Resources and Historical Properties
- Parks and Recreation Areas
- Ecosystems and Wildlife
- Floodplains and Water Quality
- Safety and Security
- Stations
- Other

Although complete responses are given to each comment, more detail can be found in relevant chapters of this Final EIS, often a response will reference to the appropriate chapter and section.

6.1.2.1 Alternatives and Alignments

The DEIS included two options for the LRT alignment in the Good-Latimer Area. Option A runs down the median of Good-Latimer and will require razing the Deep Ellum Tunnel. Option B shifts from the median to the west side of Good-Latimer and rises on aerial structure across the top of the Deep Ellum Tunnel. A third option was added and discussed in meeting before the Southeast Corridor public hearings. Option C shifts from the median to the east side of Good-Latimer and avoids the tunnel. The three options are discussed in detail in Appendix E.

1. We support the build alternative because it utilizes the existing Southern Pacific Railroad (SP RR) corridor. (Commenter 2)
Response: Comment noted.
2. The SP alignment would have been proven more cost effective if given proper consideration during the MIS process. (Commenter 24)
Response: Comment noted.
3. The No-Build Alternative should be the preferred plan. The LRT Alternative would adversely impact the Deep Ellum Historic District, specifically the Good-Latimer Tunnel (which is eligible for inclusion in the National Register), the Fair Park Historic District, the Great Trinity Forest vegetation, and the floodplains of White Rock Creek. (Commenter 26)
Response: Comment noted.

4. The UP RR alignment with noise mitigation is a practical alternative because it avoids potential construction impacts to wetlands and floodplains. (Commenter 26)

Response: Comment noted.

5. What is the difference between the UP RR Mainline and UP RR (DART)? (Commenter 26)

Response: The UP RR Mainline is a north-south railroad, west of White Rock Creek and Parkdale Lake, which links the UP RR and SP RR (DART) corridors. The UP RR (DART) is a previous rail line now owned by DART from Good-Latimer to junction of the north-south UP RR. Section 3.4.3 and Figure 3.14 illustrate the railroads in the corridor.

6. The EIS process should have taken place prior to DART's purchase of the Southeast corridor rail line and right-of-way for all the reasons stated in CFR 1500. DART's purchase of the right-of-way for later transportation use is a violation of CFR 1506.1 (a), thereby limiting the choices of reasonable alternatives. Instead of environmental scoping meetings, DART should be holding investment meetings based on the rationale for choosing a cost effective alternative. (Commenter 26)

Response: Through a corridor preservation program, DART purchased the SP RR corridor in 1988 as part of a larger purchase of railroad rights-of-way throughout the DART Service Area. DART has followed the FTA project development process (Section 1.5.1 and Figure 1.4) for implementing a major transit project in the Southeast Corridor.

7. Will there be gates or a road closure at the intersection of Live Oak and Florence and Swiss? How would street movements be affected? (Commenter PH1)

Response: The intersection of Good-Latimer and Live Oak will remain open. Similar to the median running LRT on Lancaster Avenue, traffic signals will be used to control traffic movements at the intersection of Live Oak and Good-Latimer. The median of Good-Latimer will be closed at Florence and Swiss Avenue prohibiting through traffic. The new at-grade intersection of Good-Latimer at Gaston will improve traffic circulation through the area. DART is working with the City of Dallas to identify method of improving access and circulation along this portion of the alignment.

6.1.2.2 Good-Latimer Area

8. The section on analysis of anticipated effects contradicts itself. The analysis specifies adverse effect for the Good-Latimer Tunnel under one criterion, but under another criterion, it specifies no adverse effect. In addition, the statement specifying that Option A

(burying the Good-Latimer Tunnel) and Option B (constructing an elevated track over the Tunnel) would not adversely affect the tunnel appears to be inaccurate. (Commenter 4)
Response: Contradictions in the text and Table 5.16 have been eliminated. Option A will have an adverse affect on the tunnel because it will require removal of the tunnel and filling in the area. This will have no adverse affect on other historic properties. Option B will have a direct impact and adverse impact on the Knight of Pythias property as well as a visual effect to the tunnel. Option C will have a direct impact and adverse impact on the St. James AME Temple.

9. The Dallas Landmark Commission concurs with the THC that the Good-Latimer Tunnel is eligible for the National Register listing as a contributing structure as part of a potential Multiple Property listing of the circa 1930 citywide transportation and Trinity River improvements. (Commenter 6)

Response: Comment noted.

10. The Board of Trustees of Preservation Dallas believes that the tunnel is of historical significance based on the Ulrickson Committee Report of 1925-27. We encourage DART to explore alternatives other than demolition and removal of the tunnel. (Commenter 23)
Response: As outlined in Appendix E, the MIS which preceded this EIS evaluated numerous alignment options and selected an alignment along Good-Latimer as the best combination of service, impacts, community support, and costs. Streets that run parallel to Good-Latimer that could have potentially been used for an alignment are narrower and discontinuous. An alignment along these parallel streets would not provide sufficient room for placing stations within street right-of-way without causing substantial impacts to adjoining properties. Additionally, the 480 unit Gaston Yard Apartments, extending from Good-Latimer to Malcolm X Boulevard, provides a formidable barrier to most parallel options.

11. The following are comments supporting Option A:
- a. The Good-Latimer Tunnel has already been adaptively reused for economic reasons that are unrelated to historical preservation purposes. (Commenter 9, PH6)
 - b. Install a new gateway. (Commenter 8, PH3)
 - c. Fill in the tunnel at Good-Latimer under Gaston. (Commenter 11, 13, 17, 22, 31, 32, PH2, PH4, PH5, PH16, PH21, PH 23)
 - d. Protect a landmark church. (Commenter 9, 10, 11, PH6)
 - e. Disrupt the least number of businesses. (Commenter 9, 10, PH6)

- f. The Dallas Police Department accident statistics for 2001 reported 23 vehicular accidents between 200 and 500 blocks of North Good Latimer. (Commenter 9, PH6)
- g. A roadway safety hazard should not be kept because of its historical status. (Commenter 21)
- h. Poor visibility and design rendering the tunnel unsafe. (Commenter 9, PH6)
- i. It is unsafe to walk through. (Commenter 12, 33, 36, PH9, PH12)
- j. DART has agreed to provide a new tablet for public art work. (Commenter PH9)
- k. Option A is the best way to tie a forgotten part of this area in with Deep Ellum. (Commenter PH13)
- l. Option A is the most feasible and prudent economic alternative. (Commenter 9, 10, PH6)
- m. The tunnel floods and serves as a moat or barrier between downtown and Deep Ellum. Option A would eliminate that barrier. (Commenter PH12)
- n. Option A would resolve the homeless situation currently existing in the tunnel. (Commenter PH12)
- o. Removing the tunnels would dramatically improve the area. (Commenter 36)

Response: Comments noted.

12. I am against filling in the tunnel. It is traditional art and it is beautiful. The tunnel is the gateway to Deep Ellum. (Commenter PH10)

Response: Comment noted.

13. The following are comments supporting Option B:

- a. Option B runs the DART LRT west of Good-Latimer and elevates the alignment over the bridge. (Commenter PH18)
- b. Option B would not disturb the bridge or the new apartments located on the east side of Good-Latimer or conflict with historic buildings located on the east side. (Commenter 14)

Response: Comments noted.

14. The following are comments opposing Option B:

- a. In comparison with Option A, Option B would have more of a negative visual impact to our property. (Commenter 8)
- b. The statement that Option B (constructing an elevated track over the tunnel) would not adversely affect the tunnel appears to be inaccurate based on information provided. (Commenter 4)

c. Option B displaces four businesses adding to the cost. (Commenter 9, 33, PH6)

Response: Comments noted.

15. The following are comments opposing Option C:

- a. The Deep Ellum Association does not support Option C because of impacts properties. Deep Ellum Association supports our businesses and our community and do not want to see any businesses or people displaced. (Commenter PH7)
- b. Option C threatens the historically designated site St. James AME Temple. Designed by Williams Sidney Pittman, this church is considered one of the most significant African American buildings in Dallas. (Commenter 9, PH6)
- c. Option C impacts the Shared Housing Center, a non-profit agency, which was recently acquired, and renovated with funds from private foundations, individuals, and the city. This facility provides counseling, comprehensive supportive services and training to the homeless. (Commenter 9, PH5, PH6, PH16)
- d. Option C will seriously alter and adversely affect the nature and fabric of this neighborhood. (Commenter 16, 17, PH4)
- e. Option C is too costly and too time consuming. (Commenter 35)
- f. Option C impacts will require partial and/or total property acquisition for St. James AME Temple, Adolph's Coffee Service, Giddings & Wells Body Shop, Dallas Shared Housing Center, the Latino Cultural Center, and Gaston Yard Apartments. (Commenter 16, 17, PH4)
- g. Option C displaces four businesses adding to the cost. (Commenter 9, 33, PH6)
- h. Option C would impact projects, such as the Meadows Foundation, which strategically borders the Wilson Historic District. (Commenter 9, PH6)
- i. Opposed to Option C. (Commenter 34)

Response: Comments noted.

16. Do not place a station on the north side of the tunnel from Deep Ellum. This would require walking through the unsafe tunnel. (Commenter 12, 33, PH9, PH12)

Response: Comment noted.

17. The same type of art currently displayed on the tunnels walls should be painted on the permanent panels of the proposed gateway entrance to Deep Ellum. (Commenter 21)

Response: Comment noted.

18. The stations should be placed closer together in areas of high density and established mixed-use zones such as the Baylor area and the Fair Park. (Commenter PH11)

Response: Comment noted.

19. I am in favor of having a station at Good-Latimer. (Commenter PH2)
Response: Comment noted.
20. The elevation going up over the tunnel is better than the other options. (Commenter PH25)
Response: Comment noted.
21. There were seven businesses and eight residences, which would be impacted as a result of Option B. Are those eight single-family homes? (Commenter PH1)
Response: The eight residences that would be displaced are multi-family housing.
22. Why are the pillars in Option B an issue? I do not understand why Option B would be considered a negative impact according to the SHPO. (Commenter PH15)
Response: The support columns for the bridge needed under Option B would significantly alters the view of the tunnel compared the existing view from both the south and north side of the tunnel along Good-Latimer.
23. Where would the station and gateway be located for each of the options? (Commenter PH1, PH22)
Response: For each Option A, the station will be located between Swiss and Gaston. A replacement Gateway to help mitigate the loss of the Deep Ellum Tunnel will be include din the final plan for Option A. The location of this gateway is yet to be determined. Since the tunnel would remain in place with Options B and C, a replacement Gateway would not be included in the plans.
24. If the tunnel were filled in, would DART provide another place for artists to paint? (Commenter PH1)
Response: The DART Board has designated \$1.5 million for a replacement gateway if Option A is selected. Some of the concepts include concrete panels, similar to the concrete panels along the existing tunnel entrance, which could be painted. DART will work with the community to develop the gateway design.
25. Would the new gateway include artwork by local artists? (Commenter PH1)
Response: DART will allow the Deep Ellum community to work on developing the replacement gateway. This concept could include works by local artists.
26. Is the \$1.5 million in addition to the rail station cost? (Commenter PH1)
Response: The \$1.5 million for the replacement gateway will be beyond the cost of the station.

27. Where will vehicles travel if the tunnel is filled in? (Commenter PH22)
Response: Good-Latimer will be brought up to the same elevation as the adjacent properties creating an at-grade street intersection at Gaston.
28. How would pedestrians access Elm Street from downtown? Who is responsible for designing and funding the pedestrian access plan? (Commenter PH1)
Response: As identified in the Master Interlocal Agreement between the City of Dallas and DART, the City is responsible for station area planning. As part of the Deep Ellum Station Concept, DART will be rebuilding Good-Latimer between Bryan Street and Elm Street. Pedestrian walkways will be included in the design along this segment.
29. Would there be an alternative to walking through the tunnel for Option B? (Commenter PH1)
Response: DART considers the tunnel unsafe for transit patrons and it does not meet ADA standards; therefore, a new sidewalk that is ADA accessible will have to be constructed along the west side of the LRT alignment from Gaston to Elm Street.
30. Is the pedestrian walkway included as part of the \$1.5 million for Option A? (Commenter PH1)
Response: A pedestrian walkway is included in the concept for the Deep Ellum Station. The components for the replacement gateway project have not yet been identified.
31. Would the two brick buildings along Good-Latimer mentioned in the report or any other brick buildings be removed because of the LRT? (Commenter PH1)
Response: Option A will require displacing a former gas station and altering the front of one building. Options B and C would require the displacement of several buildings.
32. Impacts to the Good-Latimer options could be eliminated if you elevate the track or bury it along that portion of the alignment. I also suggest eliminating the Gaston and Swiss at-grade crossings. (Commenter PH1, PH8)
Response: Elevating the alignment along Good-Latimer is not a feasible solution. Placing an elevated structure and Station along Good-Latimer would have an adverse effect on all three historic resources along this portion of the alignment: the St. James AME Temple, the Knights of Pythias Temple and the Good-Latimer Underpass. Burying the tracks along this section is also infeasible. The length and depth of the tunnel required would be cost prohibitive and jeopardize DART's ability to obtain federal funding for the project. Additionally, prior to the consideration of an underground alignment or station, the grade separation of the proposed LRT must be warranted. The in-depth traffic analysis conducted for the Southeast Corridor indicated that LRT could cross the existing streets

safely without adversely effecting vehicle traffic; thus indicating that a grade separation of LRT is not warranted.

33. The tracks at street level and filling in the tunnel would be a step backwards and would serve to cut off traffic and communication between Deep Ellum and the downtown areas. (Commenter PH17)

Response: Filling the tunnel and creating an at-grade intersection of Gaston and Good-Latimer that will improve all around traffic, access and circulation for the area.

34. The tunnel is an important piece of our history. The tunnel is characteristic of the neighborhood. It is important that our neighborhoods remain unique and have their own character and the people can see the difference in these neighborhoods. (Commenter PH17, PH18)

Response: DART acknowledges that the tunnel is an important component of Dallas' transportation past; however, the deteriorating structure is unsafe and a deterrent to neighborhood and station area development. DART proposes to appropriately document the history of the Good-Latimer Underpass. DART also proposes to mitigate the loss of this unique structure with a Replacement Gateway to Deep Ellum. Additionally, if practicable, significant pieces of the tunnel will be made available for placement in local and public settings.

35. The tunnel was something I was asked to paint, creating something out of nothing. If the tunnel stays, I would be more than happy to continue the work of putting great images on the wall. If the tunnel is filled in, I would like to work with DART to ensure that something comes through as a replacement. (Commenter PH14)

Response: Comment noted.

36. Where is the Latino Cultural Center located and why does the station need to serve them? (Commenter PH22)

Response: The Latino Cultural Center will be built on the corner of Good-Latimer and Live Oak. The station along Good-Latimer is being built to serve not only the Latino Cultural Center, but the Deep Ellum area, Texas Meadows Foundation properties, apartments, and the future economic development plans for the Union Bankers building in that area.

6.1.2.3 Acquisitions and Displacements

37. Tyson Wood Products, Inc., located on Scyene Road and Hatcher Street is no longer in use, but includes some structures. The owner would like to sell the property for DART's use. (Commenter 15)

Response: Comment noted.

38. How will businesses be compensated if they are displaced? How do you determine the value of property for businesses and how do reevaluate their operation? (Commenter PH15)

Response: Property owners will be paid fair market value for property acquired.

Relocation procedures for displaced persons and businesses will be guided by the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (49 CFR Part 24), as amended. Within the framework of this Act, it is necessary to determine the availability of adequate, decent, safe, and sanitary housing for displaced residents and suitable locations and/or facilities for displaced businesses. All new locations must be available on an open occupancy basis and at costs affordable by those displaced. DART will be responsible at the local level for administering the Act.

For residential relocations, Federal law requires that comparable replacement dwellings be available before residential displacements occur. Local real estate professionals have determined that comparable replacement housing will be available. Moving expenses will be reimbursed for all actual and related costs incurred in moving. This assistance is available to persons renting or leasing a residence that will be acquired. For businesses and non-profit organizations, moving expenses will be reimbursed for all actual and related costs incurred in moving. Most businesses are service-oriented or commercial businesses and could be readily relocated. In cases where relocation will be necessary for right-of-way acquisition for stations, a decision on relocation will be reviewed with each business owner in order to ensure that they are aware of all of the opportunities. There are comparable facilities for relocation existing in the general area. In addition, the public infrastructure investment represented by the light rail investment should support business development and create a benefit through the provision of high capacity transit in the corridor, thereby improving access to these businesses. It has been determined that a sufficient, comparable, safe and sanitary housing supply exists for displaced residents, and acceptable replacement sites for displaced businesses are available.

39. The proposed rail will be located directly west of where I live. I want to be relocated.
(Commenter PH20)

Response: Only residences directly impacted by the project are subject to relocation.

6.1.2.4 Neighborhood, Community, Social Impacts and Environmental Justice

40. The boundaries for some of the neighborhoods are incorrect. The neighborhoods between Buckner and Jim Miller need to be included. The boundaries of Buckner Terrace should be IH 30, Buckner Boulevard, Forney Road, and White Rock Creek. Urbandale Park is located between Forney, Scyene, Buckner and White Rock Creek or Parkdale Lake on the west. Southeast Dallas neighborhood is not a subdivision. Parkdale is located between Bisbee and White Rock Creek. The Piedmont Scyene Neighborhood is predominately located between Jim Miller, Buckner, Scyene, and Bruton. Pemberton Hill is located south of SH 175 between White Rock Creek and Jim Miller and Pemberton Road curves east to intersect with Loop 12. Umphress Recreation Center is not within the Pemberton neighborhood. I have not heard of the Waterwood neighborhood. Please clarify the boundaries. (Commenter 7, DB2)

Response: Comments noted. The boundaries of the neighborhoods have been corrected as suggested.

41. The demographics of Buckner Terrace are misleading. According to 1990 census, the median income in the area is \$19,844. The 1990 census data does not reflect the area currently. Many homes in the area are appraised over \$150,000, which is not consistent with the income referenced in the document. (Commenter 7, DB2)

Response: The study area for the Southeast Corridor includes the southeast quadrant of Dallas County and is generally bounded by IH 30 on the north, IH 635/IH 20 to the east and south, and IH 45 to the west. Buckner Terrace was included in the study area because it influences travel characteristics. Buckner Terrace is part of the more broadly define study area and the census data comes from the more narrowly define study corridor. Figure 3.9 in Section 3.2.1 identifies which census tracts were used to generate the study corridor data.

42. The most recent census figures from 2000 should be used as well as 1990 and 1980 to determine statistical trends in population growth. The population statistics presented in this meeting are misleading. Use the city census tract figures instead of NCTCOG. Reference source of census tracts used in Figure 3.9. (Commenter 26)

Response: The data needed to complete the demographic analysis using the 2000 Census Data was not finalized until late in the production of the document. A review of the 2000 data indicates that the use of this information would not alter the finding of the study. Population projections for 2025 were developed through a coordinated effort by NCTCOG and local governments. This is the same demographic data used in developing the ridership model for the project. NCTCOG Districts, which are different than the census tracts in the 1990 Census Report by the US Census Bureau, were only used to estimate future population projections, which are not available from the US Census Bureau.

43. The EIS divides people into ethnic and racial groups. Describe people as a population. These statistics depend on numerous variables that DEIS does not go into and census data is inadequate. (Commenter 26)

Response: As detailed in Section 5.2.1, Executive Order 12898 Environmental Justice requires FTA and DART to consider the impacts of the rail line on minority populations.

44. What is the ridership for the existing DART lines? (Commenter 26)

Response: Section 3.4 of the document depicts DART bus operations and ridership of the existing Southeast Corridor. As of Summer 2002, current DART LRT ridership ranged from 56,000 to 60,000 average daily riders for the 29 stations open.

45. The DEIS mentioned numerous community facilities in the study area such as schools, Fair Park, Baylor Health Care, a post office, Keeton Golf Course, and police department headquarters. Community facilities located on the line east of the Fair Park are not highly desirable for LRT. Baylor Health Center and Fair Park are good community facilities for mass transit. (Commenter 26)

Response: Chapter 3 identifies all of the existing community facilities within the study corridor but does not ascribe a value to these facilities.

6.1.2.5 Business, Employers and Economics

46. Table 3.6, section 3.2.2, should be updated. Several businesses, including Tri-City Hospital, Union Bankers Insurance Co., and Hollander Home Fashion, identified on this table are no longer in business. (Commenter 7, 26, DB2)

Response: The table was developed early in project development when these businesses were active. The table has been updated to reflect changes in employment.

47. What would be the economic impact of a Planned Greenway Zoning category for land use? (Commenter 18)

Response: The Planned Greenway Zoning is being proposed by the City of Dallas for the area. This designated and determination of this zoning and its effect on land use is the responsibility of the City of Dallas.

48. This evaluation does not reflect the rapidly evolving economic opportunities for ecotourism and historic tourism related to our river, forest, and scenic escarpment areas. (Commenter 18)

Response: There may be a high potential for economic opportunities for ecotourism and historic tourism, however, without definite plans it is difficult to quantify and evaluate. In Section 5.4, the document states the Lawnview Station could provide opportunities for eco-tourism with the development of the Great Trinity Forest Park. The determination of economic opportunities and plans for ecotourism and historic tourism would be the responsibility of the City of Dallas. DART has requested the City of Dallas to consider a site adjacent to the Lawnview Station as one of the alternatives for the Great Trinity Forest Interpretive Center.

49. Giddings & Wells is one of few, if not the only African American business landowner in downtown Dallas. It is the oldest African American owned business in the downtown area. Giddings & Wells has been in the downtown area since 1967 and we purchased the building at 2606-2608 Swiss in 1977. The building itself while not significant in terms of architectural design is 100 years old and therefore has historical value in terms of age. Because of absence of properties owned by African Americans downtown and because the location is critical to the success of my business, I place very high value (for historical reasons and business reasons) on this property. (Commenter 30)

Response: Comment noted.

6.1.2.6 Transportation, Traffic and Parking

50. The report notes that improved internal circulation is required within the study area. Buckner Terrace should be eliminated because there are no internal circulation problems in the residential areas. The City of Dallas and TxDOT are planning to make Samuell a four-lane divided parkway. Figure S.2 and the explanation in S 1.2 of increase in the future of congested arterials does not include Samuel Boulevard that is already in the planning stage to widen to a four-lane divided parkway. (Commenter 7)

Response: The widening of Samuell Boulevard is assumed in both the No-Build and Build Alternative (LRT). Section S 1.2 gives a general overview of the existing transportation conditions of the study area. Chapter 1 of the document discusses traffic congestion for the study area in more detail. Chapter 2 includes information regarding the Samuel Boulevard improvements and is illustrated in Figure 2.1.

51. Why include Buckner Terrace as part of the study area and not include the Samuell Boulevard, a congested roadway? (Commenter 7)

Response: The study area for the Southeast Corridor includes the southeast quadrant of Dallas County and is generally bounded by IH 30 on the north, IH 635/IH 20 to the east and south, and IH 45 to the west. Buckner Terrace was included in the study area because it influences travel characteristics.

52. Will the proposed Buckner Station include a park-and-ride lot? That would seem to be the most effective location for capturing inbound commuters from US 175. (Commenter 12)

Response: The LRT station proposed at Buckner Road will also serve as a park-and-ride lot and include approximately 536 parking spaces.

53. How will the traffic impact the LRT crossing of Parry at-grade? One of the main traffic entrances to Fair Park is located in this area. The main entrance for parking on the north side of Fair Park is also in this area. (Commenter 24)

Response: The crossing of Parry Avenue and the LRT line will operate at LOS B during both morning and evening peak traffic periods. The entrance to the parking lot from Parry Avenue, near the National Women's Museum will be closed. The entrance to the parking lot will be relocated to Haskell Avenue. The station at entrance to Fair Park will encourage access to the park via transit rather than personal vehicle. Additionally, during major events at Fair Park, changes to the schedules for feeder buses and LRT operations will be implemented to extend the operating schedules.

54. The crossing at R.B. Cullum will be a traffic problem. Traffic along this state highway is very heavy. Presently, you cannot get through the traffic signal at Parry going to downtown. (Commenter 24)

Response: The crossing of R.B. Cullum and the LRT line will operate at LOS A during both morning and evening peak traffic periods.

55. Chapter 4, Figures 4.1 and 4.2 what do letters A-F indicate? (Commenter 26)

Response: The letters refer to the LOS. Level-of-service is a qualitative rating system for roadways based on operating conditions, with "A" being best and "F" worst.

6.1.2.7 Service and Ridership

56. Some light rail passengers have found they can get away without paying by taking their chances with the random checks that occur on the train. In addition, many people complain of bus riders subsidizing the train riders. DART should develop a way to eliminate this problem. (Commenter 7)

Response: A recently completed fare evasion analysis estimated that DART has a fare compliance rate of 98 percent. The fare evasion penalty, which ranges from \$150 to \$250, provides a significant deterrent against non-payment. DART is currently developing a transit police deployment concept that will ensure greater compliance.

57. A slower train with a scenic view and no fence would result in passengers who arrived at work in a more relaxed state of mind. (Commenter 18, DB3)

Response: A slower train with no fence does not meet DART's mission "to establish and operate a safe, efficient, and effective transportation system." Reducing the speed of the train will decrease the projected ridership and potentially jeopardize DART's ability to obtain federal funding.

58. How is the Deep Ellum station justified when it is only forecasted to have 758 boardings and alighting? The Lake June and Buckner stations will be over 4,000 each. These numbers are based on the 1990 census figures and will be considerably higher based on the 2000 and after census figures. (Commenter 24)

Response: The Deep Ellum Station will have no parking; transit patrons will access the station by either walking or by the bus. The station will serve the Deep Ellum area and the Latino Cultural Arts Center. It is anticipated that several stations such as the Deep Ellum station could experience significant passenger volumes that are not in the travel model because it does not attempt to capture sporadic or infrequent special generator trips. The West End is an example of a special generator whose function has changed since the addition of LRT service. LRT helped reinforce the popular West End as an entertainment and restaurant district. Ridership exceeded projections because LRT service allowed the West End to become a popular weekday lunch destination for downtown employees and the area now serves as an entertainment destination on weeknights as well. The West End has emerged purely as an entertainment district, but Deep Ellum is an urban neighborhood. Deep Ellum includes dense residential neighborhoods, restaurants, retail, and commercial areas. LRT service will also become an integral part of an urban mixed-use neighborhood. While it is difficult to quantify increases in recurring ridership at non-

traditional times, it is likely that ridership at the Deep Ellum may follow similar night and weekend ridership trends as those at the West End Station. Ridership modeling is based on the regional 2025 demographics from NCTCOG.

59. Transit should be built where there are the most people. The 160,000+ monthly bus riders on bus route 466 is an indicator of heavy use. Only five of the 18 routes serve the study area east and southeast of Hatcher. Only four provide service to the CBD. Some of the 18 routes have very limited service in the study area such as routes 1, 3, 11, 24, 60 and 164, and are not applicable to the corridor. Bus service is poor in this area with poor scheduling. LRT is less flexible and more costly than buses. Compare the number of bus routes in Figure 3.12 from the CBD to Hatcher with routes with the inequity (9:2 ratio) of bus routes from Hatcher to the east and southeast for the low-income people in the southeast. (Commenter 26)

Response: While the Southeast Corridor comprises 10 percent of the DART Service Area, transit bus ridership in the Southeast Corridor accounts for approximately 20 percent of the total bus ridership in the entire DART Service Area. Bus only options were evaluated during the planning process. Based on comments and input received during the Needs Assessment, public meetings, and work group meetings, the public and agencies recognize the need to improve mobility in the southeast portion of Dallas through a major transportation investment. The community wants similar level of service and type of facilities provided in the other DART corridors. Overall, the public disliked the bus only alternatives due to the inability to assist in the redevelopment potential of the neighborhood.

60. Paragraph 3.4.7.1 (Bus service improvement) ignored the communities east of Parkdale, Urban Park, Piedmont and other residential neighborhoods. A transit center should be placed at Scyene and Jim Miller. This area of Jim Miller carries more cars (Table 3.9) than any other streets including Lake June where DART as recently opened a Transit Center. (Commenter 26)

Response: Comment noted.

61. What are the headways for Good-Latimer and other stations? (Commenter PH1)

Response: As currently planned, the headways, or frequency of trains, will be ten-minutes during peak hours, and twenty-minutes during off-peak.

6.1.2.8 Air Quality

62. How will the LRT line reduce vehicular emissions? If it does have an effect, how will it be addressed? (Commenter 26)

Response: Section 5.6 discusses air quality impacts. Based on the overall improvements in traffic level of service, slight reductions in CO and HC/VOC are projected. A slight increase in NO_x is anticipated because of the increase in travel speeds from improved levels of service. Vehicle miles traveled will be reduced by as a result of the addition of light rail service and the induced development will be in a more centrally located transit-friendly urban environment. The emissions reductions relative to the project are minimal on a regional scale, but can have the health benefits associated with the reduction of the criteria pollutants. The Build Alternative (LRT) is included in the revised SIP as a TCM as a commitment to improve air quality. The revised SIP for the Dallas-Fort Worth area was adopted by TNRCC on April 19, 2000. The proposed light rail project will be a significant element in contributing to the fulfillment of the SIP attainment requirements.

6.1.2.9 Noise and Vibration

63. DART should consider sound mitigation to minimize noise through neighborhoods. (Commenter 19)

Response: Based on the results of the noise assessment, mitigation measures have been identified. The primary mitigation measure will be the construction of sound barrier walls to shield areas where impact is projected. Table 5.10 indicates the recommended noise barrier locations, lengths, and side of track as well as the number of moderate and severe impacts that will be reduced. However, because barriers will not be practical for shielding receptors near grade crossings from the train and warning signal noise, sound insulation will need to be applied to such residences. Table 5.11 indicates the residences identified for sound insulation. Section 5.7 discusses the locations of noise mitigation.

64. Table 3.13, Site ST-4, along the side of the Women's Museum shows a Leq of 65 dBA for a period of one-half hour at 16:45. A reference made on page 5-33, paragraph three, estimates the train whistles will generate a noise level of 78 dBA at 50 feet. The distance to the nearest track (referenced in Table 5.9) is 45 feet alongside the Women's Museum, which indicates the whistle noise will be 13 dBA above ambient. How will this noise be mitigated? Sound walls may not be effective since they are too low or will visibly obstruct the building. (Commenter 24)

Response: The noise level due to LRT at the Women's Museum is 64 dBA. This level does not exceed the impact criteria for noise; therefore, no mitigation is proposed.

Predicted noise levels are based on the peak hour Leq and include a five decibel penalty for audible signal noise.

65. Noise impacts were generalized with no mention of the closeness of the alignment to the apartments on the south side of Gaston and the noise impact on that location from the train whistle when crossing northbound across Gaston. (Commenter 24)

Response: In Section 5.7.1.2 and Figure 5.1, an impact was cited for one building in the Gaston Yard Apartment complex primarily due to noise from audible warning devices at Malcolm X. The alignment is approximately 80 feet from the alignment.

66. The locations chosen for measuring ambient noise did not include sites within the White Rock Greenway or the Trinity Forest. The measurement results summarized in Table 3.13 do not reflect the actual ambient noise conditions in parklands. Can appropriate locally native vegetative screening be used to offset the adverse noise impacts, as well as the visual impacts, for the proposed project's intrusion on the Lower White Rock Creek Greenway and Great Trinity Forest where quiet is an essential element? (Commenter 25)

Response: Noise monitoring was conducted at Grover Keeton Golf Course. The ambient Leq noise reading was 48 dBA. Vegetation such as trees, shrubs and grasses, though very natural and attractive in appearance, offer little reduction in noise levels. In addition, noise mitigation of this type has proven to be ineffective in reducing noise at a reasonable cost.

67. Page 3-48 specifies a ten-decibel noise penalty for night, which is not explained. What will the higher decibel levels be for the LRT coming through the corridor? (Commenter 26)

Response: According to national industry standards on noise analysis and the FTA Noise and Vibration Impact Assessment Guidelines, noise levels are reported for ambient and projected conditions in Day-Night Sound Levels (Ldn) adjacent to residential properties. The Ldn levels as reported in this FEIS have the 10-decibel penalty already accounted for and taken into account for the particular night time sensitivity to noise. National industry standards have determined that an additional 10-decibels should be added to account for heightened night time sensitivity to noise. Therefore, all tables in Section 3.6 of this FEIS reflect Ldn noise level measurements for ambient conditions and projected light rail conditions reflecting the higher standard Ldn condition for night time sensitivity.

68. A noise wall from Bruton to Lake June (northbound) and from Lake June to Buckner (northbound) would serve as another barrier both visually and for trail access to the forest. (Commenter 26)

Response: In the area between Bruton and Lake June, a noise wall is proposed between Station 515+00 and 520+00 along the northbound track. This wall will only be 500 feet long and will be adjacent to private property. The wall will not limit access to dedicated trails or the forest. The locations between Lake June and Buckner where noise walls are proposed are residential with no parks or dedicated trails.

69. The signal crossing noise bell is very offensive and objectionable to nearby residents. The train whistle would be preferable to the signal as long as it is used in moderation. (Commenter 26)

Response: Comment noted.

70. Vibration was not discussed in relation to wildlife and the evaluation did not include vibration monitoring for forested areas. (Commenter 26)

Response: Vibration criteria are based on land use to determined vibration sensitive areas as shown in Table 3.14. These are typically areas where low ambient vibration is essential for interior operations, residences and buildings where people normally sleep, or Institutional land uses with primarily daytime use.

71. How were noise measures done? No statistics were provided on humidity conditions, temperature, height of microphones, length of time, time of day, how long was monitoring period, and season. (Commenter 26)

Response: Long-term, ambient noise measurements were conducted at Sites LT 1 through LT-11. As each of these locations, unattended Larson Davis Model 870 portable, automatic noise monitors were used to continuously sample the A-weighted sound level (with slow response), typically over one 24-hour period. The noise monitors were programmed to record hourly results, including the maximum sound level (Lmax), the equivalent sound level (Leq) and the statistical percentile sound levels (Ln). The day-night equivalent sound level (Ldn) was subsequently computed from the hourly Leq data. Short-term, ambient noise measurements were conducted at Site ST-1 through ST-4. At these locations, an attended Bruel & Kjaer Type 2221 precision, integrating sound level meter was used to obtain the equivalent, A-weighted sound level for one-minute intervals over one-half hour periods. The one-minute Leq data were then combined to obtain Leq for the half-hour periods. Table 3.13 lists location, date, time of day, measurement time, and noise exposure from each monitoring sites. The height of the microphones was four to six

feet above the ground. While wind conditions can affect noise measurements, humidity and temperature do not. In all cases, the measurement microphone was protected by a windscreen.

72. If either Option B or C were used, how would the vibrations affect the tunnel? (Commenter PH1)

Response: No vibration impacts are anticipated for the Good-Latimer tunnel under any of the options considered.

73. What is the significance of Table 3.12 in the DEIS? (Commenter 26)

Response: The noise impact criteria are summarized in Table 3.12. The first column shows the existing noise exposure and the remaining columns show the additional noise exposure from the transit project that will cause either moderate or severe impact. The future noise exposure caused by the transit project.

6.1.2.10 Visual Aesthetics

74. Attention should be given to visual impacts to two specific scenic overlooks. One is near the corner of Jim Miller and Bruton on the escarpment that faces the golf course and the other is a potential interpretive area on the west face of the escarpment behind Devon-Anderson Park, directly above the rail line. (Commenter 5)

Response: Information regarding these scenic overviews has been added to Section 3.7 and 5.8 of the document.

75. Table 3.17 does not consider the LRT visual impact to the forest, floodplain, bluff overlooks, and wetland areas. LRT raises the existing grade 13 feet above present floodplain. Along with the additional train height and electric wire support, the visual impact will be raised 30 feet above the present ground surface, impeding the view and serenity of the forest across Scyene/White Rock Creek floodplain. Visual and aesthetic impacts will occur where the LRT goes through the forest and where the LRT crosses White Rock Creek. (Commenter 26)

Response: Section 3.7 and Table 3.17 provide an inventory of visual resources only; Section 5.8 assesses the impacts to visual resources. Between Stations 496+00 and 518+00, the LRT will be 13 feet higher than the existing ground. However, with respect to the existing railroad, the LRT alignment will be at the same height or slightly higher than the existing railroad track. The existing railroad is on a berm, which elevates it out of the floodplain. Catenary poles are 22 to 26 feet tall and are spaced between 40 to 180 feet

apart depending on grade and curvature of the alignment. The scenic overlooks have been added to Table 3.17 and visual impacts assessed in Section 5.8. The DART LRT line will add new visual elements to this existing railroad corridor but the impact will not be significant. Some visual mitigation, discussed in Section 5.8.2.5, will be included in the design of the project.

76. The visual impacts to the historic cultural resources along Good-Latimer Tunnel, the Deep Ellum Historic District, and the Historic Fair Park District could be avoided by allowing the LRT line to go underground and along the UP RR corridor from CBD, and to come above ground along the same line on the north side of Fair Park. (Commenter 26, DB4)

Response: Placing the alignment underground is infeasible. The length and depth of the tunnel required would be cost prohibitive and jeopardize DART's ability to obtain federal funding for the project.

6.1.2.11 Cultural Resources and Historic Properties

77. The Comanche Moon storytelling place along the LRT is significant to the City of Dallas. This area should be preserved. (Commenter 1)

Response: FTA and DART has reached an agreement with the Comanche Nation regarding mitigation of the potential impacts to the Comanche Storytelling Place in Devon-Anderson Park. DART will construct the proposed retaining wall of limestone in order to blend in with the natural setting. This wall will be extended to height that preserves the view and meets DART safety requirements for fencing. The fence opposite the Storytelling Place will be coated in a black vinyl material to blend in with the background. Catenary poles will be constructed to a minimal height and spaced as far from the view from the escarpment as practically possible. DART will make a concerted effort to preserve as much of the existing vegetation around the Storytelling Place as practical. Although the rail corridor is not subject to the Dallas Tree Ordinance, DART will replace trees of exceptional quality or size that are damaged or removed. DART will consult with the Nation prior to any activities associated with the location and that no further advancement into the Comanche Storytelling Place will occur by DART.

78. The report states there are no prudent and feasible alternatives that would avoid the direct use of the 0.84 acres of the Fair Park Historic District/National Historic Landmark/Archeological Landmark. We are pleased to see on-going consultation with SHPO regarding the direct use of this site, as well as the possibility of any potential effects

to other properties listed or eligible for the NRHP. However, because the document does not provide adequate information regarding SHPO concurrence with the report findings, it is difficult to evaluate the DEIS in accordance with the provisions of Section 4(f). In order to fully evaluate this project, the NPS request that a Section 4(f) Evaluation responding to the Texas SHPO's concerns for this project be part of the final EIS. (Commenter 2)

Response: A letter from SHPO concurring with the design for the Fair Park Station was received after the publication of the DEIS. A copy of the letter has been included in this FEIS.

79. After reviewing the various renderings of the proposed Fair Park station, we concur that placement of the canopies in the location of the two historic ticket booths, with an additional set of two canopies directly in front of those, would be the more compatible sitting and offer less obstruction of the historic park entrance features. We recommend that the eastbound and westbound canopies be the same design, rather than trying to differentiate with styles between the historic ticket booth locations and the new canopy locations. We concur with the proposed transparency of the preliminary canopy design, with somewhat heavy columns supporting a roof that recalls that of the historic ticket booth design. Our continued general recommendation is for simple compatible features that blend with the character of existing historic park features. (Commenter 4)

Response: Comment noted.

80. We do not have enough information at this time to complete review of the proposed no adverse effect determinations offered, and it appears that modifications to the proposed work (e.g., option C) may influence these determinations. However, we are concerned that the potential exists for adverse effects on some historic properties. For example, the Knights of Pythias Temple at 2551 Elm Street is noted in the visual and aesthetic impacts section to receive significant impacts from either option A or B. In addition, the potential exists that such significant impacts could adversely affect the Temple. Also, if an elevated structure is proposed adjacent to Fair Park, to cross over R.B. Cullum Boulevard, there is a potential for an "adverse effect" on Fair Park. (Commenter 4)

Response: The Section 4(f) Statement in Appendix E has been revised to include the impacts of the three Good-Latimer options on historic properties. References to crossing R.B. Cullum on elevated structure have been clarified. The LRT line will cross R.B. Cullum Boulevard at-grade and will not impact Fair Park.

81. The analysis of anticipated effects includes only those effects listed in 36 CFR Part 800 as examples of adverse effects. It should be considered that other adverse effects are

possible, including those that may be cumulative or remote in distance or time.

(Commenter 4)

Response: In accordance with 36 CFR 800.6, DART, FTA, and the SHPO have executed a MOA that will provide for the continued coordination between these agencies. This agreement ensures that the LRT project will not result in an adverse effect on the identified Southeast Corridor historic properties. The executed MOA, which provides for the continued coordination between the signatory agencies, is included in Appendix G of this document.

82. Appendix E, Section 4(f) Evaluation: Section E3.6, regarding the Texas Antiquities Code, states “owner consent for designation of privately owned properties is not required.” Owner consent for designation of publicly owned properties is not required, but is required for privately owned properties. (Commenter 4)

Response: The document has been revised.

83. Based on the November 2001 Supplemental Determination of Eligibility Request, we acknowledge that the three properties are listed in the National Register. We concur with the properties listing as contributing elements of a Commerce Street Warehouse District and Deep Ellum Historic District. We disagree with your assessment of the following two properties, identified as not eligible in Table 4 of the November 2001 Supplemental Request -Good-Latimer Underpass and 3333 Elm – listed as part of the Continental Gin Company. We concur that the remaining 92 properties listed in Table 4 of the November 2001 Supplemental Request are not eligible for listing in the National Register. No further review is required regarding those properties. (Commenter 4)

Response: The FEIS and 4(f) statement have been revised to reflect these findings. The 3333 Elm is part of the Continental Gin District was inadvertently listed as an individual building eligible for listing.

84. Historical content in the document should also include the history of Pleasant Grove and Southeast Dallas. (Commenter 7)

Response: The referenced historical content was not specifically written as part of the DEIS document. This information is part of the previously published and approved Determination of Eligibility Report, November 2001, that was attached to the Section 4(f) Statement in Appendix E. As such, this information cannot be revised. However, additional supplemental historical information has been added to Appendix E.

85. What sources were used to compile the history of the corridor? (Commenter 7, DB2)

Response: A bibliography of documents is included in Appendix E.

86. The document states properties were identified through records research, and consultation with interested groups. No one from Buckner Terrace was consulted for input regarding cultural resources. The list of organizations and property owners listed as recipients does not include anyone from Buckner Terrace. (Commenter 7)

Response: The document listed the organization and interest group consulted during the historic research for the project. These included the City of Dallas Planning & Development Historic Preservation Division, City of Dallas Landmarks Commission, City of Dallas Park and Recreation Department, Dallas County Historical Commission, Dallas Historical Society, Preservation Dallas, Deep Ellum Association, Fair Park Board, and Friends of Fair Park.

87. The cemetery adjacent to the Trunk Railroad right-of-way should be included in the document. Samuel-Crawford is a park, not a cemetery. Are only active cemeteries included in the Figure 3.6? The following historic cemeteries were not included in the figure: Lagow at 3700 Carpenter; cemetery located adjacent to the Trunk line near Liberty Park; Elam Cemetery at Elam and Jim Miller; and Beeman Cemetery, adjacent to Shearith Israel. (Commenter 7, 18)

Response: The figure has been revised to reflect these cemeteries.

88. Has DART prepared a current assessment of the known Native American archaeological sites in or near the proposed project right-of-way? Has the SHPO been contacted concerning the known Native American archaeological sites in or near the proposed project right-of-way? What investigations downgraded the archaeological potential of the study from high to medium? (Commenter 25)

Response: DART has conducted an extensive records search and consulted with the SHPO regarding all known archaeological sites within the area of potential effects for the project. DART has also conducted a 100% pedestrian survey of the DART owned-right-of-way from west of White Rock Creek to Lake June Road. Several archeological reports and investigations in the area have show little buried material in the floodplain of White Rock Creek and very few sites.

89. The archaeological site 41DL66 at White Rock Creek located south of Scyene was omitted. In addition, the State Archaeological Site Record Repository, Texas Archeological Research Laboratory (TARL) was not consulted for records of archaeological sites within the APE. This search should have also included areas to be impacted by the project including the undetermined borrow and mitigation areas, the stations, staging areas, and any other easements and right-of-ways. A map should be

included for cultural resources especially with regard to 5.9.4. Also, the DAS is not recognized as competent under Federal guidelines as archaeologists to assess cultural resources. (Commenter 26)

Response: Records for sites in Dallas County along the Southeast Corridor were obtained from the TARL and were augmented with information not available at TARL being held by the DAS as part of their resurvey of Dallas County which was done 10 years ago but remains to be written up in a final form. The five sites that occur near the alignment alternatives are discussed in the Section 5.9.4. which discusses the sites without providing their numbers or their locations. The APE for archeological investigation did include the existing right-of-way and any additional right-of-way needed for the alignment and stations. In accordance with prudent archeological methods, maps of sites are not provided in documents of general distribution in order to ensure their continued protection.

90. There is no mention of adverse impacts to the historically significant NRHP listed AME church south of the Latino Center. (Commenter 26)

Response: No adverse impacts to the St. James AME Temple are anticipated.

91. The APE along the entire LRT needs to be clearly defined. The APE for cultural resources expanded to 180 feet wide for selected parts of corridor through forest while 1,000 to 1,400 feet for other areas. APE should be same throughout the corridor. (Commenter 26)

Response: This study followed 36 CFR 800.16 (d), which specifies that the APE effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects cause by the undertaking. For this study, the APE for architectural and historical resources includes the parcels within and adjacent to the Southeast Corridor LRT alignment, parcels containing and adjacent to parking lots, and parcels within a reasonable view shed of aerial structures. The APE for archeological investigation was the existing right-of-way and any additional right-of-way needed for the alignment and stations.

92. Paragraph 3.8.2.4 does not mention if the survey was conducted of all structures along the corridor equivalent to HABS/HAER Level 4 inventory survey, or the equivalent Texas State Historic structure inventory survey. Figure 3.25 the LRT line is not clearly provided to see how buildings occur along the alignment. (Commenter 26)

Response: Appendix E contains a copy of the historic resources survey. Historic Resources Inventory forms were completed for all properties within the APE that were constructed before 1954.

93. The St. James AME Temple is no longer being used as a temple and is currently owned by the Meadows Foundation and used for offices. If it is no longer a sacred building, why is it significant? (PH22)

Response: The St. James AME Temple is eligible for listing on the NRHP.

94. How will excavation activities be monitored for the likely presence of archaeological artifacts of a site requiring mitigation? (Commenter 25)

Response: The project area was surveyed for recorded archeological resources and none were found. If resources are identified during construction, the THC will be notified. Construction specifications will include emergency discovery provisions and procedures to address archeological resources discovered during construction. A discussion of archeological resources is included in Section 5.9.4.

6.1.2.12 Parks and Recreation Areas

95. Parkland can be considered an economic and educational resource. Education, economic development, and park and recreation improvements are mentioned as goals in the Dallas Plan, as mentioned in Chapter 3. (Commenter 5)

Response: Comment noted.

96. The National Park Service is currently working with the community, through grant assistance, in developing a Lower White Rock Creek Greenway initiative that will create a plan to address various land uses within the greenbelt area. This will primarily focus on the eco-tourism opportunities in the area and should be addressed as a real and viable economic development opportunity as a result of the DART rail line by simply providing access opportunities to the greenbelt area and possible station motifs that reflect the historical and environmental significance of the area. (Commenter 5, DB1)

Response: In Section 5.4, the document states the Lawnview Station could provide opportunities for eco-tourism with the development of the Great Trinity Forest Park. Through the Art & Design Program, the community will participate in developing individual station themes. A site adjacent to the Lawnview Station is now included as candidate site for the Great Trinity Forest Interpretive Center. Through the Art and Design Program, the community will participate in developing individual station themes.

97. Although there are no protected refuges that the park areas in the corridor there is significant wildlife habitat. More emphasis should be placed on this throughout the document. (Commenter 5)

Response: Comment noted.

98. It is essential to identify the areas within the parks that will be fenced because the LRT would be above 45 mph. Park users are not used to having a fence along the right-of-way and perceive the right-of-way as part of the park, as users can cross the right-of-way at will. There are trails along Devon-Anderson Park and the Grover Keeton Park, particularly in areas for hiking, viewing wildlife, studying nature, and trailing floodplain and creeks. Fencing will cut off access points to the trails and the nature areas of the Trinity Forest and White Rock Creek. Two or three pedestrian crossings (or vehicular crossing for park maintenance purposes with pedestrian access) in the Gateway Park area of the greenbelt should be provided for full access to both sides of the parkland. (Commenter 5, 28)

Response: Table 5.25 of the document lists the areas where safety fencing will be placed along the right-of-way. It is DART policy to place fence along areas where DART will operate above 45 miles per hour or in areas where there are decreased sight distances for the train operator, or in areas needed to minimize safety risks to children such as near schools or parks. The purpose of the safety fencing will be to ensure safe access is provided at controlled intersections and to discourage unauthorized use of the right-of-way. The introduction of safety fencing in areas of pedestrian activity and where informal crossings of the alignment are located will impact the ability of persons to cross the alignment at will. Because of the heavily wooded nature of the area, which creates limited sight-distance, at-grade crossings of the LRT alignment between the parks will not be allowed to ensure the safety of the public and transit patrons. Although the City of Dallas has no formal master plan for Lower White Rock or Devon-Anderson parks, the classification the Park Department has assigned to the property governs the use and potential use. The park area is classified as "Conservancy/Linkage," a National Park and Recreation Association (NPRA) recognized classification. The NPRA definition is the protection and management of the natural/cultural environment and use for passive recreation. Recreation use might include viewing and studying of nature/wildlife habitat and nature trails. NPRA does not have any specific acreage or size standards for this classification other than they should be sufficient to protect the resource and provide appropriate usage. Except the two existing at-grade crossings, there are no licensed or authorized crossings of the railroad between the parks and persons currently crossing the

tracks between the parks are trespassing on DART right-of-way. The Dallas Park and Recreation Department recognizes that DART will be operating within their own right-of-way and that use of the right-of-way for park purposes will require a recreation use license which the city does not have. To accommodate access between and into parks along the alignment, three crossings will be included to provide recreational and maintenance access to the parks. Two will be at-grade and one under the LRT. The at-grade crossings at the Grover Keeton Road and the improved gravel driveway from Scyene to a storage/maintenance area north of Grover Keeton Park will remain. A pedestrian under crossing just south of Bruton Road along the creek crossing will be added. The LRT bridge over the stream will be widened and a bench created to provide an informal, natural passage under the LRT. These crossings have been sited at locations consistent with DART's safety and design policies.

99. DART has failed to comply with the other part of USC-49, Section 303 that allows transportation projects to go through our significant publicly owned parkland only if the project includes all possible planning to minimize harm to the parkland resulting from use. (Commenter 18, 29, DB1)

Response: The proposed LRT alignment that passes adjacent to Grover Keeton Park, Gateway Park, Lower White Creek Park, and Devon-Anderson Park is completely within DART owned right-of-way and therefore does not violate 49 USC 303.

100. Three major venues at the Fair Park, the Music Hall, the Cotton Bowl, and the Star Plex, were not addressed in this DEIS. It is my understanding that the new football stadium will also be located in the general area of these venues. (Commenter 24)

Response: Section 3.1.5 identifies Fair Park as a major activity center and identifies each of its venues.

101. Figure 3.1 omits several parks: Devon, Gateway, 2,000+ acre Nature Preserve, 31 percent (vacant 22%, parks 8%, water 1%). The vacant 22 percent is deceiving since this includes forest, semi-annual and annual wetlands, and undeveloped bluff locations. (Commenter 26, DB4)

Response: Figure 3.1 is a "generalized" land use map provided by the NCTCOG. Individual parks are identified on Table 3.20 and Figure 3.26.

6.1.2.13 Ecosystems and Wildlife

102. The DEIS adequately describes the environmental consequences of the alternatives considered. Impacts to fish and wildlife resources resulting from the construction and operation of the Build Alternative would be greatly minimized. (Commenter 2)

Response: Comment noted.

103. DART may be required by the City to replace trees removed from the project corridor. Should compensation be necessary, we recommend it to be in-kind and on-site. If on-site mitigation is not possible, potential mitigation sites should be selected based on their proximity to the anticipated impacts and the watershed where the impacts occur. Additionally the trees used for compensation should be native to the area selected for restoration. (Commenter 2)

Response: *Part II of the Dallas Development Code (Tree Regulations)* generally prohibits the felling of protected trees of diameters greater than six inches in the City of Dallas without replacing them. Under these regulations DART is considered to be a public utility and is exempt from Tree Regulation requirements within DART-owned right-of-way. DART will work with an arborist to identify quality trees with its right-of-way and make efforts to preserve them and displaced trees of exception quality will be replaced. Outside of DART-owned right-of-way (station areas, etc.), DART is subject to the Tree Regulations. DART's design criteria promotes the use of native vegetation as replacement trees.

104. The natural corridor is a significant ecosystem. More value should be placed on non-listed plant and animal species for this area. (Commenter 5)

Response: Comment noted.

105. The proposed tree mitigation within the rail line right-of-way states only significant trees removed outside the DART right of way would be required to be replaced. Does this mean all affected trees within the right-of-way will not be replaced or mitigated? Is DART exempt from federal standards regarding vegetation evaluation and mitigation for adverse impacts? (Commenter 25, 29)

Response: See response to Comment 103.

106. Tree species used for landscaping and for mitigation purposes related to this project, and in particular for areas close to the White Rock Greenway and Great Trinity Forest, should not only be trees appropriate to their location but should also be selected from the species that are locally native, such as pecan, burr oak and shumard red oak. Crepe myrtle, live oaks, Chinese pistachios and fruitless trees are not locally native and are examples of

inappropriate tree species for landscaping or mitigation, especially near the White Rock Creek Greenway and Great Trinity Forest. (Commenter 25)

Response: See response to Comment 103.

107. Has the study area been evaluated for the presence of and habitat value for the Texas Garter Snake, listed by the State of Texas a threatened species? Why was this species not included in Table 3.23, Federal/State Listed Species that Occur or May Occur in Dallas County? Why were Habitat Evaluation Procedures (HEP) not used to evaluate habitat within the study area? Why are local ordinances pertaining to wildlife, or lack of such ordinances, deferred to instead of following the pertinent Federal wildlife conservation regulations, especially since DART and this project are subject to Federal funding and regulation? (Commenter 25)

Response: The study area was not specifically evaluated for Texas Garter Snake habitat. Texas Garter Snake is not listed as threatened according to the latest Dallas County species list obtained from TPWD - Wildlife Diversity. It is listed for Dallas County, but without status. This means "rare, but with no regulatory listing status." HEP is one tool for evaluating habitat for a specific species. It is not generally used unless impacts to threatened and endangered species are expected. No local ordinances were cited pertaining to wildlife conservation at the expense of federal wildlife regulations.

108. The alignment along Stations 446+00 to 518+00 will require widening of the right-of-way, which may affect the integrity of the soils. The widening of the right-of-way will take out the lower slope, exposing and weakening the bedrock. The bedrock contains layers of shaly limestone that can slip along fractures and bedding plans when saturated with moisture. Bedrock movement could impact adjacent housing. (Commenter 26)

Response: Between Stations 446+00 to 518+00, the alignment will be within existing DART right-of-way. Retaining walls will be used to avoid extending the slope beyond DART owned right-of-way and maintain slopes.

109. Large mature, old growth trees will be removed or cut for the right-of-way. No details are given regarding their type or size. These areas should be preserved. How will this be mitigated? (Commenter 26, DB3)

Response: Section 3.10.2 briefly describes the existing conditions of the corridor observed during the site investigation. It does not reference any cutting or removal of large mature trees rather it describes areas outside the right-of-way near Grover Keeton Park and Gateway Park as having large mature trees.

110. How long did biologists spend surveying wildlife habitat located in the study area? Many bird and mammal species located in the area are missing. (Commenter 26)

Response: The study corridor was surveyed over a period of three days spread over approximately one week. Table 3.24 only lists those species that were actually observed during these surveys. A list of every species (i.e., bird, mammal, reptile, fish, insect) that could occur within the project area would include thousands of species. We recognize that many species were not included in Table 3.24.

111. DART should review its present plan and remedy any impediments to the migration of wildlife in the Great Trinity Forest. Piers should be considered over a raised levee in the floodplain. They would take less valley storage in the floodplain. (Commenter 26, 27)

Response: Comment noted.

112. I am opposed to the destruction of parkland in the Great Trinity Forest, which is one of the largest bottomland hardwood urban forests in the world. The information presented in this DEIS documents a plan that is destructive to this forest and counterproductive to historic/ecotourism plans for this section of Southeast Dallas Trinity River Corridor. (Commenter 18)

Response: DART has avoided using any designated parkland near the Great Trinity Forest.

113. Located within DART's easement is a terrace, completely covered with Trout Lilies in the early spring. The profusion of these plants is an indicator of the Balcones Escarpment ecosystem. There is also evidence of coyotes and other wildlife in this area. We are not adequately assured that DART's construction activities will not negatively impact these adjacent sensitive areas and asked that these areas be monitored by trusted wildlife specialists and naturalist prior to and during construction activities. (Commenter 18)

Response: Comment noted.

114. The document does not include details of where the 30 acres of forest and 40 acres of grassland impact will occur. DART should conduct an analysis to determine what type of comparable land is needed to purchase mitigation. (Commenter 26)

Response: The areas of potentially impacted vegetation are shown in 5.29 through 5.37. DART will, where feasible, identify trees that can be preserved within the DART owned right-of-way. As indicated in the response to Comment 103 above, DART is exempt from the tree replacement requirements for trees within DART owned right-of-way.

115. DART should assess the use of the existing freight line. If it so no longer cost effective, could the track be removed to allow more space for LRT and reduce the destruction of many old growth trees? (Commenter 26)

Response: DART is required by law to maintain the existing freight service to the users at the southern end of the rail corridor. From the UP RR mainline, just east of Hatcher Road, the right-of-way will include three tracks – two for LRT and one for freight. The existing right-of-way width is sufficient to maintain the existing freight tracks and add two additional tracks for LRT service along the portion of the alignment where freight service must be maintained. DART has met with Dal-Tile, the primary freight user and largest employer in the area, to discuss freight operations. Dal-Tile considers the freight service necessary to their operation. Dal-Tile freight deliveries will be shifted to nighttime operation to avoid any conflict with LRT service. Most of the trees within the DART owned right-of-way are not old growth trees. DART has committed to identifying and preserving as many high quality old growth trees as possible.

6.1.2.14 Floodplains and Water Quality

116. The Trinity River and the White Rock Creek floodplain should not be characterized as barriers of the project study corridor. Much of the LRT is located within the no build 100-year floodplain. It crosses the White Rock Creek floodplain, which is not referenced. The vacant land referenced is streams, wetlands, and forested area with 100 feet high bluffs located east. This is also not referenced in the document. (Commenter 26)

Response: Comment noted.

117. Table 3.21 incorrectly describes the vegetation of Tributary F as similar to Tributary E. The tree vegetation is underrepresented for Tributary F as depicted in Figure 3.28. The 100-year floodplain for this area is also missing. Figure 3.29 does not identify all the tributaries between tributaries I and J. The creek identified as Prairie Creek in Figure 3.31 is incorrect. This creek should be labeled Elam Creek. (Commenter 26)

Response: The description of the vegetation for Tributary F has been revised to "Similar to Tributary E, but less dense." Figure 3.32 does show the 100-year floodplain for Tributary F (Stream 5B1 in Table 3.25). There were no jurisdictional streams between I and J. The creek identified as Prairie Creek in Figure 3.31 was incorrect, the creek has been relabeled of Elam Creek.

118. The report is missing important USGS report on water quality in White Rock Creek drainage for example high in pesticides, etc. (Commenter 26)

Response: Comment noted.

119. What is the hydrologic impact on White Rock Creek and the affect on valley storage?

Raised in the grade will serve as a dam across the White Rock Creek floodplain and other the creek drainages down stream. Are any excavations planned to offset the loss of valley storage due to floodplain filling activities, and if so, will these excavations impact jurisdictional waters or wetlands, or vegetated areas? How much fill is needed and where it will come from? (Commenter 25, 26, DB1, DB4)

Response: At this present time, fill material to be placed adjacent to the existing railroad track bed in order to construct the double LRT guideway is not anticipated to impact or alter the floodplain elevation of the floodplains in the study corridor. Sufficient culvert and bridge openings will be provided to allow upstream water flow to not increase the floodplain elevation. Additional hydraulic analysis will be conducted during final design to ensure the culverts and bridges are sized properly. At that time, additional coordination will occur with the City of Dallas, FEMA, and the USACE to verify these results and confirm the need and types of mitigation. Section 5.12.3 of the document provides more information.

6.1.2.15 Safety and Security

120. The style of fencing could impact the aesthetics of the parkland. Standard chain link fencing typically used could be perceived as industrial in nature. Please use fencing, which would blend better with the surroundings. (Commenter 5)

Response: In areas adjacent to scenic overlooks the fencing will be coated in black vinyl material to better blend in with the surroundings.

121. Fencing along the alignment would adversely impact wildlife by preventing their access to and egress from both sides of the parkland. (Commenter 20, 29, DB3)

Response: Based on consultation with TPWD, the bottom of the safety fencing will raised four inches above ground level to allow the passage of virtually all small to medium sized vertebrates, which make up the majority of the forest fauna. Existing bridges/culverts in the Grover Keeton and Lower White Creek Greenbelt areas will remain open and allow larger animals to go from one area to another.

122. The LRT should be placed above or below grade around the entrances to the Fair Park and when operating north and south along Trunk Avenue to increase safety and minimize visual impacts. (Commenter 19)

Response: The LRT crossings at Fair Park do not warrant grade-separations. Below grade operation of the LRT line is not feasible at this location and above grade operation will impose a negative visual impact on the historic park. DART is working closely with the park to ensure safety and to minimize visual impact.

123. Landscaping should not create additional safety hazards by allowing areas where children can hide from approaching trains. Landscaping should also adapt to Texas climate. (Commenter 19)

Response: Safety is a primary concern of DART and is a primary consideration in landscaping. Use of native vegetation that can survive the Texas climate is included DART's Design Standards.

124. DART should consider better visual barriers to passengers standing near approaching trains at rail stations. Is it possible to include audible and visual warnings? (Commenter 19)

Response: Comment noted. DART has considered numerous safety device and procedures in the design the LRT Starter System. The existing control measures and practices have help to make the DART system one of the safest LRT System in the nation.

125. DART has experienced a large number of red signal violations, therefore, light rail line signals must be bright to allow operators to clearly see them during bright sunny days for passenger safety. (Commenter 19)

Response: Comment noted. See response to Comment 123.

126. DART must consider placing grade crossing indicators (GCI's) at grade crossings, allowing operators to focus on their job. GCI's indicate the gates are in the down position to the approaching operator. (Commenter 19)

Response: Comment noted. See response to Comment 123.

127. Grade crossing names and substation names should be clearly marked at those locations for familiarization by rail operators, transit officers, and track workers, which would allow for quick access during emergencies by all emergency personnel. (Commenter 19)

Response: Comment noted.

128. The fencing along Fair Park should include shrubs. (Commenter PH15)

Response: The LRT fencing along Fair Park will be located in areas that historically have not had shrubbery. Therefore, shrubbery is undesirable.

129. The three-foot high chain and bollard fencing proposed for uses in front of Fair Park could present an attractive play area for children, allowing adults to easily step over it and children to go under it. (Commenter 24)

Response: Comment noted.

130. There are three schools nearby: Daniel "Chappie" James, Rose School and Pearl C. Anderson. Where is the rail located in respect to the Daniel "Chappie" James, Rose School and the Pearl C. Anderson school? Will children need to cross the tracks to get to and from school? Overhead crossovers should be used near schools. (Commenter PH19, PH21)

Response: There are numerous schools and parks in the corridor, which could require children to cross streets or the LRT tracks. Safety fencing at the right-of-way boundary will be constructed in all locations where trains are expected to travel of speeds of 45 miles per hour and greater, in areas where there are decreased sight distances for the train operator, or in areas needed to minimize safety risks to children such as near schools or parks. Table 5.25 shows the locations of the safety fencing. The purpose of the safety fencing will be to ensure safe access is provided at controlled intersections and to discourage unauthorized use of the right-of-way. The introduction of safety fencing in areas of pedestrian activity and where informal crossings of the alignment are located will impact the ability of residents to cross the alignment at will. However, all cross streets and driveways along the alignment will remain open and allow for pedestrian movements across the alignment. Overhead crossovers are costly and have proven to be ineffective in locations where at-grade options exist. The numerous street crossings provide this at-grade option.

6.1.2.16 Stations

131. Regarding Baylor Station, would we have to lobby with the city to work out a pathway into Deep Ellum? (Commenter PH1)

Response: The City of Dallas or others will be responsible for construction of a walkway from the Baylor Station to Deep Ellum.

132. The west site for the Lawnview Station is a better location than the east side because it requires less fill. The Lawnview Station should be designed to compliment the trail on the forest. Trees and all of the landscaping should utilize locally native plants. (Commenter PH17)

Response: Comment noted.

133. Parking lots and stations are fundamental parts of the project and are not included in the report. They are an integral part of the cumulative effects and should to be addressed in the EIS. (Commenter 26)

Response: The stations and parking lots have been included in the analysis. Chapter 2 describes each station and parking area. The potential effects on to development, economic, displacements, access, and other subjects have been discussed throughout the document.

6.1.2.17 Other

134. The EPA rates your DEIS as “Lack Objections” to the lead agency’s preferred alternative. Our classification will be published in the Federal Register according to our responsibility under Section 309 to the Clean Air Act. (Commenter 3)

Response: Comment noted.

135. Reference to the location of the lofts at 3809 Parry should be corrected. The lofts are located on the north side of the alignment along Parry not the south. (Commenter 24)

Response: The property is located both south and west of the LRT alignment as shown in Figure 5.2.

136. From all appearances of the DEIS not only are your totally avoiding the Buckner Terrace with light rail service but also plan on rerouting our current express bus service to town, which is currently faster that the project time for the light rail service. (Commenter 24)

Response: DART has not avoided any particular community but designed an LRT line that, within constrains, best serves the Southeast Corridor. Currently, there no express buses serving the Southeast Corridor. DART will eliminate service that will be duplicative of the LRT service. This will allow resources to be more effectively allocated and provide more efficient service to the entire DART Service Area.

137. The DEIS notes that the number of trains which pass along the tracks is 31 trains a day. This number is inflated and not accurate. (Commenter 26)

Response: According to an official with the UP RR, approximately 30 trains a day travel along the UP RR.

138. TPSS No. 6, located near station 470+00, will impact the view from the southern lookout point. TPSS No. 6 should be moved to a location where it would create less noise and visual impact. Discussion regarding TPSS No. 6 is not included. Separate environmental

study to FTA is not acceptable. This information should be included in EIS with details about power, etc. (Commenter 26)

Response: The impacts and effects of the TPSS have been considered throughout the document. As indicated in Section 2.2.2.4, TPSS have been placed to avoid impacts. The specific requirements of locating a TPSS along with the need to avoid the use of parkland have made the placement of TPSS 6 particularly problematic. TPSS must be placed approximately every mile and must be accessible by automobile. The proposed location of TPSS appears to be the only site in the area that meets these requirements. TPSS 6 will be visible from the Bruton Road scenic overlook but as the view from the overlook is out and over the treetops, DART will have minimal visual impact. DART will minimize tree removal to the greatest extent practical and use extensive vegetative screening at this location. The ultimate location of TPSS's is a function of final design. DART's mitigation monitoring program will track the TPSS location and provide additional environmental analysis, as necessary, if the location is changed.

139. How much electrical power will be required to power the entire line, stations, and other related electric amenities? How much added power will be required to the existing grid? Where will the source of power come from? How will the additional power needed for the line effect the exhaust output into the atmosphere at the generating facilities?
(Commenter 26)

Response: The simulations required to model the electrical power for Southeast Corridor cannot take place until final design. A typical estimated power consumption for DART LRT line is 81,000 KWh/month for each substation. Terminal substations will typically require approximately 30,000 KWh/month. The Southeast Corridor will have eight typical substations and one terminal substation consuming approximately 680,000 KWh/month. With today's ability to purchase power from various sources, it is very difficult to calculate the effect of generating facilities exhaust output into the atmosphere. The local exhaust output will be greatly reduced and will probably be relocated from the DART Service Area.

140. The Latino Cultural Center is under construction rather than proposed. (Commenter 26)

Response: The document has been revised.

141. Operating maintenance costs are estimate in 2001 dollars and should be estimated for 2008 when line becomes operational, and exceed \$18.5 million (estimate 3% per year for 7 years or \$22.75 million). (Commenter 26)

Response: Comment noted.

142. The bike map depicts nine routes in study area that do not exist, most routes are future routes. In Figure 3.17, it is difficult to distinguish completed bike routes from roads, rails, etc. (Commenter 26)

Response: The bike map is based on the City of Dallas Bicycle Map. Not all City of Dallas Bicycle routes have been signed.

143. Page 3-41, State Highway 310 (S.M. Wright Freeway, South Central) as discussed is out of the study area. Trinity Toll Road (Parkway) is outside most all of the study area and no link is established between this project and the toll road. (Commenter 26)

Response: The study area for the Southeast Corridor includes the southeast quadrant of Dallas County and is generally bounded by IH 30 on the north, IH 635/IH 20 to the east and south, and IH 45 to the west. Both SH 310 and Trinity Parkway are within the study area.

144. Woodbine and Paluxy Formations not in the area. (Commenter 26)

Response: As discussed in Section 3.11.2, the primary source of groundwater for the upper Trinity River Basin (i.e., Dallas County) is supplied by the Trinity Group, a major aquifer composed of three formations near the project corridor are the Antlers, Twin Mountains, and Paluxy formations. A minor aquifer, the Woodbine Aquifer, is also present within the study corridor. The project corridor runs over the downdip portion of this aquifer.

145. The two landfills located along Scyene at Lawnview. The landfill located to the west of the property (and is the proposed site of the Lawnview Station) was filled approximately in 1991. The landfill located to the east of the property was filled in 1993. Are these legally permitted landfills? What is the nature of the fill and is it contaminated? (Commenter 26)

Response: No documented landfills are located in these areas. Property owners have brought in fill material and raised the elevation of the property. The land south and east of Lawnview is currently occupied by commercial properties.

146. Table 5.20, Hazardous, Toxic, and Radioactive Waste (HTRW) locations need to be numbered and coordinated as numbered sites with Figure 5.38 as you have numbered locations in previous chapters of EIS. How will LRT line impact or not impact hazardous, toxic and radiological waste sites (Commenter 26)

Response: As indicated in Section 5.14.2, although a site is known to be contaminated, implementation of LRT does not necessarily mean that the project will affect the site. During final design, further investigations will be performed for at-risk areas.

147. What is the project timetable? (Commenter PH1)

Response: The EIS will be completed early 2003. Construction is scheduled to begin in mid-2004 and the line is scheduled to be operational in 2007. Current financial constraints may alter this schedule.

148. The executive summary of this DEIS, states the Southeast Corridor has been combined with the Northwest Corridor. Is this project going to compete for funds with the Northwest corridor? (Commenter PH24)

Response: For funding purposes, the Southeast Corridor has been combined with part of the Northwest Corridor. The corridors will not compete for funds.

6.2 SECTION 4(f) STATEMENT COMMENTS

The DEIS published in February 2002 included a draft Section 4(f) Statement. Based on comments received during the circulation of the DEIS, FTA and DART determined that significant changes to the Section 4(f) Statement occurred and warranted a redistribution of the document for comment. The revised draft Section 4(f) Statement was distributed to appropriate governmental agencies, legislative bodies, and concerned organizations and individuals. The formal public comment period began December 30, 2002, and ended January 21, 2003. A Public Hearing was held January 15, 2003, at the Tom Landry Center. The purpose of the hearing was to provide interested parties an opportunity to formally submit comments on the Section 4(f) Statement. After a technical presentation on the project, verbal testimony was taken. Additional comments were received at DART headquarters. DART received 12 relevant written statements from individuals, organizations, and agencies and 5 relevant verbal statements. A total of 23 people attended the public hearing.

6.2.1 Comments Received

Table 6.2 lists agencies, persons, or groups who submitted written comments or provided oral testimony at the public hearing.

Table 6.2 List of Comments Received on the Section 4(f) Statement

Commenter ID Number	Person	Organization or Address	Corresponding Comment No.
Agencies			
1	Michael Hellmann	City of Dallas, Park and Recreation Department, 1500 Marilla, Dallas, Texas	1,2
2	Allison Reaves-Poggi	City of Dallas Landmark Commission, 1500 Marilla, Dallas, Texas	3, 4
3	Dale Hoff	Federal Emergency Management Agency	53
4	Stan Hall	Texas Department of Transportation	54

Commenter ID Number	Person	Organization or Address	Corresponding Comment No.
Interested Organizations, Property Owners, and Persons			
5	Charles F. Terry	Terry & Moore, Inc., 2601 Gaston, Dallas, Texas	5
6	Bob Weiss	Meadows Foundation, 3003 Swiss Avenue, Dallas, Texas	6
7	Jan May Chapman	Baylor HCS	7
8	Linda Pelon	Piedmont-Scyene Homeowners Association, 3015 Nutting Drive, Dallas, Texas	8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19
9	Timothy Dalbey	2719 Santa Cruz Drive, Dallas, Texas	20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45
10	Charles Allen	Trinity River Expeditions, 615 South Montclair, Dallas, Texas	46, 47, 48, 49, 50, 51
11	Don Blanton	2822 Commerce, Dallas, Texas	5
12	Al Daniels	President, The Villas on Holland, Inc., 4210 Holland, #107, Dallas, Texas	5
13	Frances James	Historical Research, 4322 St. Francis Avenue, Dallas, Texas	52
14	Linda P. Evans	The Meadows Foundation, 3003 Swiss Avenue, Dallas, Texas	6

All letters, cards, and transcripts of the public hearings were reviewed. Substantive comments have been identified and numbered consecutively. Because there was some overlap and repetition, similar comments were consolidated and paraphrased. Paraphrasing was used for brevity and to aid in classifying comments that address more than one issue. As a result, the comments that appear in this chapter are seldom the precise words found in the commentator's letter or verbal testimony. This approach has been taken for clarity and to reduce duplication of similar comments and responses. Copies of the original letters and complete public hearing transcripts are available for review at DART Headquarters.

1. The issue of how DART is going to address wildlife fragmentation and the movement of wildlife across the DART right-of-way is not addressed in the Section 4(f) Statement.
(Commenter 1)

Response: The Section 4(f) Statement demonstrates that potential impacts to parkland due to proximity of the light rail project are not severe and will not adversely affect cultural resources that are located adjacent to an active freight rail corridor. The 4(f) Statement is an appendix of the more comprehensive FEIS. As discussed in Section 5.11.3.1 of the FEIS, the safety fencing will be raised four inches to allow the passage of small animals. Larger

animals can pass at the three pedestrian crossings plus bridges and culverts. The Texas Park & Wildlife Department, Wildlife Habitat Assessment Program has reviewed the project and determined that the project activity as proposed indicates minimal impacts to fish and wildlife resources.

2. How will DART address the issue of visual aesthetics of the safety fencing adjacent to parkland. A black fence would certainly blend into the background better than silver. (Commenter 1)

Response: During the planning process two scenic overlooks in the parkland were identified; the Comanche Storytelling Place and the Bruton Road Scenic overlook. Black vinyl coated fencing will be used in these two areas. Visual impacts are discussed in Section 5.8 of the FEIS.

3. Since no official action has been taken, the Dallas Landmark Commission (DLC) objects to the assertion on pages E-22 and E-23 that the Fair Park Station location was supported unanimously by the DLC. (Commenter 2)

Response: This statement was meant to characterize the overwhelming support that DART has received from most parties during the planning process. The text has been changed to clarify this issue. Subsequent to publishing the of the Revised Draft Section 4(f) Statement, the DLC passed a resolution supporting the station location.

4. The DLC recommends that the mitigation of the Deep Ellum Tunnel include an extremely strong historic context of the Ulrickson Plan and its components. The mitigation should include a public interpretive element and possibly other visual architectural means of documentation. (Commenter 2)

Response: An agreement with the SHPO will ensure that the historical narrative developed for the Good-Latimer Underpass shall interpret the tunnel within the context of other elements of the Dallas transportation system and contemporaneous community development. A public interpretive element and other visual architectural means of documentation will be considered in the development of the level of effort for the documentation pending discussions with the SHPO.

5. I agree with of the proposed alignment in the center of Good-Latimer and that the Deep Ellum tunnel be removed. (Commenters 5, 11, 12)

Response: Comment noted.

6. The Meadows Foundation supports the conclusion of the Section 4(f) Statement and continues to support removal of the Good-Latimer Tunnel. (Commenters 6 and 14)

Response: Comment noted.

7. We support the alignment going through the Good-Latimer Tunnel as long as it will not limit access to Baylor HCS. (Commenter 7)

Response: Comment noted.

8. Parks within the corridor will be dramatically impacted by the segment of the line that will create barriers between the parkland escarpment ridges and the bottomland forest parkland. People and wildlife have grown accustomed to moving back and forth throughout that area. (Commenter 8)

Response: This issue is discussed in Section E.4.3 of the Section 4(f) Report. Pedestrian movement across the right-of-way is not authorized. To prevent unauthorized use of the DART owned right-of-way and ensure maximum safety, DART will construct fencing along the right-of-way through the parkland. Three authorized crossings will be provided. The wildlife issue is addressed in the response to Comment 1 in this Section.

9. Many direct and indirect negative impacts on environmental and cultural resources associated with this project have not been adequately addressed. We would like for you to acknowledge that you are dramatically impacting parkland in the Great Trinity Forest and that you will work with us on trying to mitigate those impacts. (Commenter 8)

Response: The Section 4(f) Statement addresses the impacts and affects to cultural resources and parklands. The Deep Ellum Tunnel will be adversely affected because it will be removed. DART and FTA have been working with SHPO and the DLC to ensure no adverse impact will occur at Fair Park. No other park or cultural resource property will be permanently incorporated into the transportation project therefore; there is no direct use of protected resources. Potential impacts to parkland due to proximity of the light rail project are not severe so as to impair the utilization of these cultural resources that are located adjacent to an active freight rail corridor. Potential impacts to parkland are the focus of Section 5.10 of the FEIS. Additional information regarding environmental issues and mitigation in parkland is discussed throughout Chapter 5 (also see Response to Comment 14 in this Section).

10. The spring-fed stream below the Scyene Overlook is arguably a landscape feature associated with Comanche healing traditions (See 'Reading the Landscape' prepared by Linda Pelon in Attachment E4). (Commenter 8)

Response: This stream, identified as Tributary E on Figure 3.29 of the FEIS, is not a recognized cultural resource. Tributary E was not identified as a potential cultural resource during scoping, the planning process, nor during the official comment period for the DEIS. The DEIS and the Revised Draft Section 4(f) Statement have been provided to the

Comanche Nation for comment. The comments on the project provided by the Comanche Nation did address this stream. The SHPO has been provided with all documentation (including 'Reading the Landscape' prepared by Linda Pelon) regarding the Comanche Nation that has been presented to or prepared by DART. In a letter dated December 6, 2002, the SHPO has determined that, within the 3.5 mile section of corridor that passes adjacent to the parkland, there will be "no historic properties affected."

11. There is documentation of an archeological site located along Tributary E in the original Draft EIS (page 5.92 "site recorded...in the floodplain near a flowing spring".) This site is not addressed in the recently completed Cultural Resource Survey (Misc. Report Number 271). (Commenter 8)

Response: The cited archeological site is not located along Tributary E nor is it within the DART right-of-way. The site described is near Wahoo Park. The Cultural Resource Survey (Misc. Report Number 271) only addresses sites within the DART right-of-way.

12. How will the bridge (large enough for two DART train lines and one freight line) over this spring fed stream (Tributary E) in our parkland impact the nearby archeological site and this valuable natural feature/historic landscape feature? (Commenter 8)

Response: There is no archeological or historic site that will be impacted by this bridge (See Response to Comments 9 and 10 in this Section). All impacts associated with stream crossings will be covered under Nationwide Permit 14. Construction activities will be coordinated with the USACE (See Section 5.11 of the FEIS). All filling and grading activities will be in compliance with the NPDES General Permit for Construction Mitigation. Prior to construction coordination will occur between DART, the City of Dallas, USACE, and FEMA. These agencies will evaluate the project recommendations and prescribe mitigation options for impacts to floodplains (See Section 5.12 of the FEIS).

13. Two archeological sites, cited on page 5-92, Draft EIS are in parkland, and may be in harm's way. These two sites are not adequately addressed in Cultural Resource Survey (Report Number 271). (Commenter 8)

Response: Cultural Resource Survey (Report Number 271) clearly states, "Although there are previously recorded sites very near the surveyed segment of the railroad corridor, none are within the project area." These sites will not be disturbed by the project and are not in harm's way. The SHPO concurred with the conclusion of the archeological report that there will be "no affect on historic properties."

14. Conservationists who attended the site visit to the Storytelling Place with transportation project leaders and Comanche leaders were assured by DART that the DART right-of-way

ended at the marker on the side of the slope and there would be not additional encroachments. Recently, that marker was removed and another stake was place several feet east on the top of the ridgeline at the scenic overlook. What is the meaning of the “wandering” survey markers? Has the alignment been redefined, and if so, has the Comanche Nation been notified of this change that increases encroachment on the Storytelling Place? (Commenter 8)

Response: DART has maintained that the right-of-way line at the Storytelling Place is located at the top of the escarpment face (See Appendix D, Sheet 25 Station 505+50 of the Plan and Profile Drawings). If these markers have been adjusted by DART, it was only to bring the markers in conformity with the plans, which accurately portray the right-of-way. Based on these plans DART has reached an agreement with the Comanche Nation. As depicted in Figure E1.12, DART will construct a retaining wall 10 feet in from the edge of the right-of-way. The location of the wall, which cuts through the face of the escarpment, was discussed at the site visit with the Comanche Nation. As part of the agreement with the Comanche Nation, DART will consult with the Comanche Nation prior to any change of plans.

15. The impacts to scenic overlooks (which are White Rock Heritage District tourist destinations) have been minimized in these reports and so has the impact of the intrusions from the constantly passing trains below. Electrical wires above the line will blight scenic vistas. Fencing along the tacks through the forest will block the movement of wildlife—and park patrons--between the floodplain and the escarpment ridges. Noise from the constant train traffic will overpower the calls of birds, the rustling of leaves in the wind, and other sounds of nature. The functioning of wildlife habitat will be dramatically and permanently disturbed. The natural ambiance of this parkland and the tranquility of these special places will be compromised by this transportation project. These impacts, and others, are underestimated and/or denied. A comprehensive environmental assessment of direct and indirect impact to parkland is necessary to comprehend the scope of these impacts and mitigation plan must be developed to minimize them. (Commenter 8)

Response: The Section 4(f) Statement is not designed to be a comprehensive environmental assessment of the Southeast Corridor Project. This report demonstrates that outside of Fair Park, there is no direct or constructive use of urban parkland, which is located adjacent to an existing railroad line. The 4(f) Statement is an appendix to the Southeast Corridor FEIS, which is a comprehensive environmental assessment of the impacts of the project. Detailed discussions of all impacts are discussed in Chapter 5 of the FEIS. Topics

in Chapter 5 include: Noise and Vibration (Section 5.7); Visual and Aesthetic Impacts (Section 5.8); Cultural Resources, Historic Preservation, Archeological Preservation (Section 5.9); Parklands (Section 5.10); and Ecosystems, including water, vegetation, wildlife (Section 5.11); and Hydrology/Water Quality (Section 5.12). Each of these sections includes a discussion of mitigation.

16. DART deliberately misuses of the word “adjacent” for the purpose of evading mitigation responsibilities for direct and indirect impacts on Great Trinity Forest parkland caused by the construction and use of the DART light rail line through Dallas public parkland. In my *Webster’s American Dictionary College Edition* the word “through” is defined as “in one side, or surface, and out the other.” This is clearly the situation with the DART alignment through this parkland. (Commenter 8)

Response: Webster’s defines the word “adjacent” as “close to; next to; lying near; adjoining.” The railroad right-of-way predates the dedication of the parkland. The dedicated parkland does not include the DART owned right-of-way; therefore the parkland that abuts the right-of-way is adjacent. This word was deliberately chosen, not to mislead, but to accurately illustrate the spatial relationship of the dedicated parkland to the DART right-of-way. A Section 4(f) Use occurs when parkland is incorporated into a transportation facility. Outside of Fair Park, no parkland will be incorporated into the transit facility.

17. It was my understanding that DART purchased an easement or right-of-way rather than the property itself. If this is the case, then who “owns” the property? (Commenter 8)

Response: DART’s right-of-way is a combination of fee ownership and easement ownership. In those situations where a railroad easement was acquired by the railroad company, the abutting property owner on each side of the railroad right-of-way owns a fee interest all the way to the centerline of the right-of-way. However, the abutting property owner’s fee interest in the right-of-way does not blossom into full ownership until the railroad abandons the right-of-way or ceases to use it for railroad purposes. Under Section 452.064 of the Texas Transportation Code, DART’s use of railroad right-of-way for its own transportation purposes is considered to be a continuation of the existing rail use of the right-of-way. Texas law is clear that the easement holder has superior rights to use the land over the fee owner. The general rule is that a fee owner is precluded from using the land over which the right-of-way easement exists.

18. The mitigation plan is inadequate, and we would like to see it improved. (Commenter 8)

Response: The proposed mitigation for impacts is described in Chapter 5 of the FEIS. This comment was made prior to publication of the document.

19. The Dallas Chapter of the American Institute of Architects has suggested that DART passengers be considered a park patron. They have offered to help design the rail line so that it could actually be an eco-tourism DART line. There is a tremendous challenge and potential here to make this a world-class light rail line and a major eco-tourism attraction for Dallas. (Commenter 8)

Response: Without any embellishment, the line adjacent to the parkland will arguably be DART's most scenic rail corridor. DART will provide park patrons with a safe and secure environment. This entails safety fencing with limited controlled crossings. DART will provide rail access for eco-tourism. DART is developing a trailhead at the Lawnview Station to provide DART passengers access to the park. This site is also under consideration for the Great Trinity Forest Interpretive Center. DART has an existing contract with a design firm to oversee all aspects of the Southeast Corridor. A competitive process will select the section designer for this portion of the corridor. Any qualified group can seek to participate in the solicitation process.

20. A 21-day review period is too short with one public hearing and only three minutes for comment. (Commenter 9)

Response: This report is an amended version of the Section 4(f) Statement that appeared in the DEIS. Most of the information contained in this report has been previously published. Most new material relates to two specific properties: 1) The Good-Latimer Tunnel, which has recently been determined to be eligible to the National Register of Historic Properties and has been determined to be an adverse effect; and 2) The Comanche Storytelling Place that was not previously identified as a potentially eligible property. FTA and DART felt the revision were significant enough to warrant additional public comment. The 21-day comment period is sufficient because of the limited amount of new material presented with previously published material. The three-minute period for oral comments is the period prescribed by the DART Board for all public hearings. Additionally, persons attending the public hearing were allowed to speak more than once. There was no limit placed on the length of written comments.

21. The title of the revised 4(f) draft does not identify what 4(f) means or that this is an addendum to the DEIS. Receipt of this document from DART was a total surprise with the public unaware that DART was making revisions. (Commenter 9)

Response: The revised Section 4(f) Statement was sent to all persons that received a copy of the DEIS or commented on the DEIS. The document was accompanied by a letter that described the document and identified the primary revisions.

22. Although the revision is basically the same as the DEIS, 167 page 4(f) revision with emphasis on Cultural Resources, it is substantial evidence of the deficiency in DEIS. Everything that is in the revision and cultural resource survey should have been done back in the MIS planning stage and before the DEIS. (Commenter 9)

Response: The revisions in this document are based on comments received during the public comment period for the DEIS and on-going coordination with the SHPO. Preparation of a 4(f) Statement and the cultural resource survey are typically completed at this stage of project development.

23. The writers of the 4(f) Statement and the EIS should be clearly identified with their cultural resource professional experience. There is no bibliography or references in the main body of the report. (Commenter 9)

Response: This report is designed to be an appendix to the FEIS, which contains a list of list of preparers. DART staff prepared the report with significant input from recognized professional cultural resource firms including Myra L. Frank & Associates, AR Consultants, and Geo-Marine, Inc.

24. Cultural Resource Survey (Report Number 271) should have been included in the revised report. (Commenter 9)

Response: Cultural Resource Survey (Report Number 271) was prepared concurrently with the Draft Section 4(f) Statement. This report is referenced in the FEIS and is available for public review at DART Headquarters. Cultural Resource Survey (Report Number 271) did not reveal any significant cultural resources within the DART owned right-of-way. In a letter dated December 2, 2002, the SHPO authorized finalization of Report 271 and concurred with the conclusion that there will be “no effect on historic properties.”

25. Appendix E-1 is unchanged from the original report. The writers should be identified. I question the qualifications of the authors and whether they ever made a site visit. (Commenter 9)

Response: Appendix E-1 is the *Supplemental Request for Determination of Eligibility* Report prepared for review by the THC. The findings of the document were approved on March 25, 2002, and the document is not open to revision. The principle authors are listed on page 32 of the Appendix.

26. Appendix E-1 does not meet the Secretary of Interiors Standards for doing Section 106. The report is deficient in many of the Section 106 requirements. The historic context is poor. The SHPO was remiss in approving this document. (Commenter 9)

Response: DART is meeting the Secretary of Interiors Standards for Section 106. DART has provided to the SHPO all required documentation including State of Texas Historic Resources Inventory Forms. Only the text of the *Supplemental Determination of Eligibility Report* was included in the Section 4(f) Statement. The appendices of the report, which included the Historic Resource Inventory Forms and pictures, were omitted to prevent the document from becoming too large. A full copy of the report is available for public review at DART Headquarters. The information in the Section 4(f) Statement represents supplemental information requested by the SHPO. It is only included because it provides valuable information on the history of the Good-Latimer Tunnel.

27. There is a problem with the Cultural Resource process. DART is going through three historic districts listed on the National Register of Historic Places (NRHP) (page E-20). DART is not following the Section 106. The Section 106 process should have started when the project was initiated. (Commenter 9)

Response: DART did initiate the Section 106 process early in the project. There are several historic districts and structures (on or eligible for the NRHP) within the area of potential effect for the DART project. With the exception of the Good-Latimer Tunnel, FTA and DART have determined, in consultation with SHPO, the project will have no adverse effect on these historic properties listed on Table E-1 provided that certain conditions are fulfilled. These conditions are stipulated in a MOA included Appendix G of the FEIS.

28. Where is the signed FTA letter that states FTA has determined that Good-Latimer Options B and C are not prudent based on their impacts. (Commenter 9)

Response: The Section 4(f) Statement is draft document. FTA approval is through the issuance of a Record of Decision for the FEIS. This occurs after public and agency comments and the DEIS revised based on these comments.

29. The word “prudent” is used repeatedly in this document. DART misuses the term prudent, which means capable of exercising sound judgment in practical matters; cautious or discreet in conduct; circumspect; sensible; not rash; or characterized or dictated by prudence. As used by DART the term prudent seems to have the connotation: haste, fast, speedily, economical, least expensive expedient, or expeditious. (Commenter 9)

Response: Under Section 4(f), “Prudent” and “Feasible” are standards that are applied to alternatives to an action. DART and FTA have carefully considered the prudence of the alternatives to the two Section 4(f) uses within the corridor. In consideration of prudent and feasible alternatives all adverse factors such as environmental impacts, social impacts, safety, traffic, and other factors including cost have been considered collectively.

30. There are other alternatives that DART does not consider prudent. Specifically, the UP railroad runs east between Military and Forney roads is a viable alternative to 4(f) impacts. This line is a preferred alternative considered by DART's East Corridor major investment study. (Commenter 9)

Response: This alignment does not meet the requirements of the Southeast Corridor in that it does not serve the South Dallas or the Pleasant Grove communities. It does serve the east-west travel pattern being considered in the East Corridor study but it has not been identified as a "preferred" alternative. This service would be implemented in addition to the Southeast Corridor project. Additionally, this alternative does not avoid use of the Good-Latimer Tunnel.

31. An underground rail line would avoid the Section 4(f) impacts to the historic districts and the forest. (Commenter 9)

Response: DART does not consider a tunnel to be a prudent or feasible alternative to an at-grade alignment in this corridor. A tunnel is impractical and would severely limit DART's ability to implement its service plan in a timely and cost-effective manner. Consideration of short segments of tunnel that would avoid the two 4(f) uses is also extremely problematic. The rail stations that would be constructed at both these locations exacerbate these problems and substantially increase the costs. The cumulative problems associated with construction of tunnels at these locations include underground utilities, ground water, cost, and the unique requirements of subterranean stations. Prudence is not an issue adjacent to the forest because there is no Section 4(f) use to avoid.

32. DART is considering a \$160 million dollar tunnel to serve Love Field Airport. (Commenter 9)

Response: DART is considering construction of a tunnel at Love Field that would be primarily funded by others. This proposal is part of a regional cooperative effort that would provide airport access. Consideration of this proposal will be evaluated on its own merit with its own unique set of circumstance and has no significance to Section 4(f) issues in the Southeast Corridor.

33. Attachment E-2 does not include all the public comments. All of the comments on cultural resources should have been included. (Commenter 9)

Response: This attachment in the Section 4(f) Statement focuses on the adverse effect that the project will have on a historic property – the Deep Ellum Tunnel. Written comments that primarily addressed this issue are copied into this attachment. Chapter 6 of the FEIS addresses all the comments received during the DEIS comment period and public hearing for the revised Section 4(f) Statement.

34. Many of the correspondences with the SHPO included in Attachment E3 were omitted from the DEIS. (Commenter 9)

Response: The new correspondence with the SHPO are dated subsequent to publishing of the DEIS which was published in February 2002.

35. A March 25, 2002, SHPO letter has determined the Good-Latimer Tunnel and other properties to be eligible for the NRHP. There is no mention in 4(f) Statement of how DART is going to deal with NRHP properties. There is nothing in the document stating how the rail line will visually effect the Deep Ellum Historic District or its ambiance. DART only focuses on the tunnel and ignores the historic district it is locate within. (Commenter 9)

Response: A Section 4(f) Statement is only intended to focus on Section 4(f) uses. There are only two Section 4(f) uses in the corridor - the Good Latimer Tunnel and Fair Park. Properties eligible for the NRHP are discussed in Section 5.9 of the FEIS. DART, FTA, and the SHPO have executed a MOA that will ensure that the LRT project will not result in an adverse effect on eligible historic properties (except for the Good-Latimer Tunnel). Additionally, the Good-Latimer Tunnel is not within the boundary of the Deep-Ellum Historic District.

36. The SHPO has determined the Good-Latimer Tunnel to be eligible for the NRHP. There is nothing in the report saying what you are going to do about it. Will DART do HABS/HAER Level I recordation of the Good-Latimer Tunnel as recommended by the Meadows Foundation? (Commenter 9)

Response: As stated in Section E5.5.2.1 of the revised Section 4(f) Statement, the loss of the tunnel will be mitigated through documentation prepared in accordance with the Historic American Engineering Record (HAER) Level I.

37. There is nothing in the document stating how the rail line will visually effect the Fair Park Historic District and Landmark or its ambiance. (Commenter 9)

Response: Section E5.5.1 of the Section 4(f) Statement discusses how the rail station design will be integrated into the historic entrance to Fair Park.

38. The entire view shed of the LRT and barrier created by the rail line in the Great Trinity Forest is omitted. (Commenter 9)

Response: Visual impacts of the LRT are discussed in Section 5.8 of the FEIS. Also see Response to Comment 8 of this Section.

39. A May 6, 2002 letter from the SHPO requests that an MOA on how DART is going to deal with the overall effects of the Southeast Corridor. Where is the MOA? (Commenter 9)

Response: The development of a MOA is discussed in several locations in the Section 4(f) Statement. FTA with DART has executed an MOA with the SHPO that addresses the overall effects of the Southeast Corridor project. This MOA is included Appendix G of the FEIS.

40. DART has totally omitted the ACHP from the process. (Commenter 9)

Response: The ACHP has been provided a copy of the DEIS, the revised draft Section 4(f) Statement, the MOA and the FEIS. In a letter dated August 28, 2003, the ACHP accepted the SE Corridor MOA. Recent regulations governing Section 106 review stipulate that the ACHP is no longer a signatory to MOAs that are negotiated between the SHPO and Federal agencies.

41. Additional correspondence regarding the Comanche Storytelling Place should be included in the Section 4(f) Statement. (Commenter 9)

Response: All the correspondence that has been provided to DART is included.

42. The existing rail line dates back to 1873 and anything to do with the historic significance of this line to southeast Texas and the development of Dallas has been omitted and should have been included for consideration under Cultural Resources. (Commenter 9)

Response: A brief description of the history of the railroad is included in Attachment E1 in Appendix E under Supplemental History provided during the Public Comment Period.

43. It does not matter that the railroad predates the dedication of the parklands, it was dedicated before DART obtained the right-of-way. (Commenter 9)

Response: DART's purchase of the right-of-way included the purchase of all rights associated with the right-of-way. The dedicated parkland does not include the DART owned right-of-way (See Response to Comment 16 in this Section).

44. The DART 100-foot right-of-way exceeds the existing right-of-way dimensions that is why DART has to mitigate 70 acres of land impacted by the line. (Commenter 9)

Response: Adjacent to the parkland, the DART project will be constructed entirely within the existing 100-foot right-of-way. DART has identified approximately 70 acres of vegetation that will be impacted by the project. Most of this vegetation is within DART owned right-of-way. None of this vegetation is within dedicated parkland.

45. There are a few problems with Cultural Resource Survey (Report Number 271). (Editorial Note: Commenter engaged in a detailed discussion about details and locations about specific sites including an unrecorded site. The commenter questioned scope of work, the qualifications of the staff and the methods that were used. The commenter disputes the findings of this report. Additionally, the commenter believes that the rail project will impact archeological and historic sites outside of the project area.) (Commenter 9)

Response: Cultural Resource Survey (Report Number 271) was prepared by professional archeologists under Texas Antiquities Permit #2936 under the authority of the THC. In a letter dated December 2, 2002, the THC concurred with the conclusions and recommendations of the report. The SHPO further determined that there will be no effect on historic properties. The Texas Antiquities Code prohibits the public disclosure of the locations of archeological sites. Unrecorded sites should be documented by a professional archeologist and brought to the attention of the SHPO.

46. I support the preservation of the Good-Latimer Tunnel. (Commenter 10)

Response: Comment noted.

47. The DART right-of-way has never been fenced. Movement across the corridor by both trail users and wildlife will be obstructed by this fence. (Commenter 10)

Response: The safety fencing is intended to prevent the unauthorized use of the right-of-way by pedestrians. The wildlife issue is addressed in the Response to Comment 1 in this Section.

48. The White Rock Floodplain is a valuable natural and cultural resource that will be impaired by this barrier. (Commenter 10)

Response: Prior to construction coordination will occur between DART, the City of Dallas, USACE, and FEMA. These agencies will evaluate the project recommendations and prescribe mitigation options for impacts to floodplains (See Section 5.12 of the FEIS).

49. The planned bench under a bridge will likely be flooded and require additional maintenance. (Commenter 10)

Response: Comment noted

50. There is a printing in error in the historical context section of Attachment E1 (page 10, first sentence of first paragraph under Transportation and Commerce). (Commenter 10)

Response: Appendix E-1 is the *Supplemental Request for Determination of Eligibility Report* prepared for review by the THC. This is an approved document that is not open to revision. The lines should have read as follows: "The key to economic expansion in Dallas has always been better transportation in and out of the area. Attempts to navigate the Trinity River had proven impractical."

51. The natural resources of the area, the Great Trinity Forest and White Rock Creek Heritage District, have real economic value. These natural resource need to be preserved.

(Commenter 10)

Response: Comment noted.

52. The author of the Supplemental History Provided during the Comment Period for the DEIS (Attachment E-1) should be credited. (Commenter 13)

Response: The text has been revised to reflect authorship.

53. FEMA requests the Floodplain Administrator for the City be contacted for her review and possible permit requirements for this project. (Commenter 3)

Response: Prior to construction coordination will occur between DART, the City of Dallas, USACE, and FEMA. These agencies will evaluate the project recommendations and prescribe mitigation options for impacts to floodplains (See Section 5.12 of the FEIS).

54. We understand the 4(f) statement will be coordinated through the FTA. We have reviewed the 4(f) statement and offer no comments at this time. As this project moves forward to Preliminary Engineering, please submit the design schematic for our review of the projects impact to state highway facilities. (Commenter 4)

Response: Comment noted.

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APPENDIX A – LIST OF RECIPIENTS

The FEIS is being distributed to all appropriate governmental agencies, legislative bodies, and interested organizations and individuals. Additionally, the FEIS is being made available or distributed to all people who commented on the project's Draft EIS. Public viewing copies of the Final EIS and Appendix D, Preliminary Engineering Plan and Profile Drawings, are available at the following locations.

J. Erik Jonsson Central Library, 1515 Young Street
MLK Jr. Public Library, 2922 MLK Boulevard
Pleasant Grove Public Library, 1125 Buckner Boulevard
Skyline Public Library, 6006 Everglade Road
DART Website – www.DART.org (FEIS only)

You may also contact DART Community Affairs staff at (214) 749-2598 to receive more information on the availability of the document.

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Jim Arterberry, Director, The Comanche Nation Office of Environmental Protection

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Mark Denton, Archeologist, Director of State and Federal Review, Texas Historical Commission
Linda Roark, Preservation Consultant, Texas Historical Commission
Greg Smith, National Register Coordinator, Texas Historical Commission
Jay Nelson, District Engineer, Texas Department of Transportation
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Ruth Boward, Transportation Planner, NCTCOG
John Promise, Director Environmental Resources, NCTCOG
Barbara Maley, Senior Transportation Planner, NCTCOG
James McCarley, Executive Director, Dallas Regional Mobility Coalition

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City of Dallas

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Mary K. Suhm, First Assistant City Manager
Charles W. Daniels, Assistant City Manager
Ryan S. Evans, Assistant City Manager
Jill A. Jordan, P.E., Assistant City Manager
Ramon F. Miguez, P.E., Assistant City Manager
David K. Cook, Chief Financial Officer
H. Daniel McFarland, Chief Information Officer
Madeleine B. Johnson, City Attorney
Terrell D. Bolton, Chief of Police, Police Department
Steve Abaira, Chief, Fire Department
Hammond Perot, Assistant Department Director, Economic Development
Karen Bradford, Department Director, Environmental and Health Services
Rosie L. Norris, Fair Housing Administrator
Sherell Cockrell, Department Director, Planning and Development
David C. Dybala, Department Director, Public Works and Transportation
Paul D. Dyer, Department Director, Park and Recreation
Forest Turner, Department Director, Business Development and Procurement
Tony De La Cruz, Acting Department Director, Streets Services
Robert Johnson, P.E., Interim Department Director, Water Utilities
Kathleen Davis, Department Director, Code Compliance
Gladys Bowens, Interim Department Director, Office of Property Management

Jerry Killingsworth, Department Director, Housing
Rebecca Dugger, Trinity River Project
Jim Anderson, Historic Preservation Planner
Allison Reaves-Poggi, Chair, Dallas Landmark Commission

Dallas County

Donald Holzwarth, Director of Public Works, Dallas County
Mary Phinney, Administrator, Dallas County Parks and Open Space Program

U.S. LEGISLATORS

Senator John Cornyn, United States Senator
Senator Kay Bailey-Hutchison, United States Senator
Representative Pete Sessions, United States Congressman (32nd District)
Representative Eddie Bernice Johnson, United States Congresswoman (30th District)

STATE ELECTED OFFICIALS

Governor Rick Perry, Texas
Senator Bob Deuell, Texas State Senator (2nd District)
Senator John Corona, Texas State Senator (16th District)
Senator Royce West, Texas State Senator (23rd District)
Representative Helen Giddings, Texas House of Representatives (109th District)
Representative Terri Hodge, Texas House of Representatives (100th District)
Representative Dan Branch, Texas House of Representatives (108th District)
Representative Jesse Jones, Texas House of Representatives (110th District)

LOCAL ELECTED OFFICIALS

Dallas County

The Honorable Jim Jackson, County Commissioner, District 1
The Honorable Mike Cantrell, County Commissioner, District 2
The Honorable John Wiley Price, County Commissioner, District 3
The Honorable Kenneth Mayfield, County Commissioner, District 4
The Honorable Margaret Keliher, County Judge

City of Dallas

Mayor Laura Miller
Council Member Dr. Elba Garcia, District 1
Council Member John Loza, Mayor Pro Tem, District 2
Council Member Ed Oakley, District 3
Council Member Maxine Thornton-Reese, District 4
Council Member Donald W. Hill, Deputy Mayor Pro Tem, District 5
Council Member Steve Salazar, District 6
Council Member Leo V. Chaney, District 7
Council Member James L. Fantroy, District 8
Council Member Gary Griffith, District 9

Council Member Bill Blaydes, District 10
Council Member Lois Finkelman, District 11
Council Member Sandy Greyson, District 12
Council Member Mitchell Rasansky, District 13
Council Member Veletta Forsythe Lill, District 14

INTERESTED ORGANIZATIONS/ASSOCIATIONS/PROPERTY OWNERS

ACORN, Clyde Kelley
Blue Bonnet Homeowners Association, Cathy Cox
Bryan Place Condominiums, Sandra Barron
Fair Park Administration, Eddie Hueston
Fair Park Administration, Yvonne Washington
The Dallas Plan, Renee Riggs
Dallas Homeowners League, Mary Jane Beaman
Dallas Independent School District, Jan Didear
Baylor Health Care Systems, Brad Gahm
Clean South Dallas/Fair Park, Inc., Kathlyn Gilliam
Coalition to Keep DART Accountable, Carolyn Davis
Connectional Alliance, Diane Ragsdale
Cotton Bowl Association, Darrell Jordon
Dallas Black Chamber of Commerce, Reginald Gates
Deep Ellum Association, Sean Wisdom
Fair Park Comprehensive Plan, Alva Baker
Fair Park Transportation Task Force, Walt Humann
Friends of Fair Park, Howard Brashear
Friends of Fair Park, Craig Holcomb
Inter City Community Development Corporation, Diane Ragsdale
Kiwans Club, Barry Hallmark
Latino Cultural Arts Center, John Nieto
League of Women Voters, Suzybelle Yosser
MLK Merchants, Jim Washington
Parkdale Heights Neighborhood Association, Linda Pelon
Piedmont/Scyene Homeowners Association, Bill Wadkins
Piedmont/Scyene Homeowners Association, Tim Dalby
P.L.A.N. Homeowners Association, Robert Salesky
Pleasantwood/Pleasant Grove, Eugene Thomas
Political Congress of African American Women-Dallas, Vivian Davis
The Science Place, Lela Jackson
Trammel Crow, Cary Moon
Social Security Administration, Janet Johnson
Southeast Chamber of Commerce, Kathy Melton
Sunny Acres Community Action Association, Calvin Carter
State Fair of Texas, Bob Hilburn
Urban Park Homeowners Association, Frances James
Wendelkin/Driskell, Connie Harris
Westdale Asset Management, Kenneth Cailson

APPENDIX B – LIST OF PREPARERS

PUBLIC AGENCIES

Federal Transit Administration, Federal agency responsible for reviewing methodology. Key personnel include:

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Robert C. Patrick, Regional Administrator
Peggy Crist, Director of Planning and Development
Jesse Balleza, Community Planner
Gail Lyssy, Regional Engineer
John Sweek, Community Planner

FTA Office of Planning, Washington D.C.
Kathleen Horne, Environmental Protection Specialist

Dallas Area Rapid Transit, Dallas, Texas. Client agency responsible for project. Key personnel include:

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Willene Watson, Community Affairs
Steve Salin, Interim Assistant Vice President, Capital Planning and Development

Doug Allen	Lawrence Meshack	Reza Shirmanesh
Richard Brown*	Tim Newby	Reece Studt
Nathan Frumkin	Nick Novick*	Eduardo Ugarte
Curvie Hawkins*	Rene Rodriguez*	Jack Wierzenski
Victor Ibewuike	Tom Ryden*	
Phil Johnson	Jan Seidner	
Jennifer Jones	Michael Shaw	

* No longer with agency.

CONSULTANTS

Carter & Burgess, Inc. Primary consultant for the project. Key personnel include:

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- Civil and Transportation Engineering
- Bachelor of Science, Civil Engineering, Texas A&M University

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- Master of Arts, Anthropology, Southern Methodist University
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- Master of Science, Civil Engineering, Texas A&M University

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Terry Williams

- CADD and Graphics Coordinator

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Harris, Miller, Miller & Hanson

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- Noise & Vibration
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Myra Frank

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- Master of Arts, Architecture: History and Criticism, UCLA

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- Master in Business Administration, Texas A&M - Commerce

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Manuel Padron

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Chris Adkins

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- Bachelor of Public Administration

Urban Analytics

Firouzeh Nourzad

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- Master of Urban Planning, University of Kansas

Wallace, Roberts and Todd

Don Raines

- Station Planning
- Bachelor of Landscape Architecture, Rhode Island School of Design
- Masters of Landscape Architecture, Rhode Island School of Design

APPENDIX C – COORDINATION, CONSULTATION AND PUBLIC INVOLVEMENT

Active public and agency involvement is critical to the success of any project with the potential to significantly affect the community. The ultimate goal of the public and agency involvement process is to have an informed local community and government leadership making decisions regarding the impacts and implementation of a locally preferred alternative.

The Major Investment Study (MIS) and the preparation of this Environmental Impact Statement (EIS) involved extensive coordination and consultation with the affected public and agencies. The affected public included not only the residents in the Southeast Corridor, but individuals, businesses, groups, clubs, civic organizations, and others interested in the study area. The agencies included local governments and state and federal agencies with regulatory oversight and permitting responsibilities. The process was structured and implemented to ensure critical concerns and issues related to engineering solutions, social impacts, environmental impacts, economic effects, financing, and other items of concern to the community.

PROJECT SPONSORS

Dallas Area Rapid Transit (DART) is the local sponsor of the Southeast Corridor project. DART consists of 13 member cities in Dallas, Denton, and Collin counties. DART assembled an interdisciplinary team to consider and evaluate the human, natural, and engineering issues associated with the project. The study team consisted of people with a variety of technical backgrounds in planning, engineering, economics, human resources, environmental concerns, and natural sciences. This project is co-sponsored by the United States Department of Transportation (USDOT) through the Federal Transit Administration (FTA). Federal funds are being used to support the Preliminary Engineering/Environmental Impact Statement (PE/EIS) efforts and FTA will continue to be a major investor in the development of the project.

As the local sponsor, DART had responsibility for leading public and agency involvement for the project. To accomplish this, DART developed a Public and Agency Involvement Program to engage individuals, neighborhoods, community and interest groups, agency representatives and policy leaders in meaningful and collaborative decisions regarding the future transportation investment strategy for the Southeast Corridor. The program sought to build consensus among these interests by involving them in the planning process. To achieve this purpose, the program

was developed to be all-inclusive, proactive, flexible, responsive, and maintain accountability of the DART Project Team.

PUBLIC AND AGENCY INVOLVEMENT PLAN

A Public and Agency Involvement Plan was developed for the MIS and then refined for the PE/EIS effort. The program is an open and inclusive program to ensure all interested parties had an opportunity to be involved in the planning process. Stakeholders had an opportunity to direct, review, and comment on analysis and results as major milestones reached during the course of the study.

The Public and Agency Involvement Program was conducted in a manner keeping with regulations consistent with the National Environmental Policy Act (NEPA) to ensure approval of the EIS. This program has been designed to be consistent with the Transportation Equity Act for the 21st Century (TEA-21) of 1998 and the USDOT guidelines for public involvement including but not limited to Title VI of the Civil Rights Act of 1964 and Executive Order 12898 Environmental Justice provisions. It is also consistent with the DART and other local, regional, and state agency policies that seek to fully involve the public in the planning and project development processes.

Three work groups established during the MIS were continued during the PE/EIS to supplement input received from the public and to provide policy and technical review. The following is a brief description of the work groups and their roles in the study.

- Executive Work Group - Members included elected officials and policy leaders from affected jurisdictions and implementing agencies. This work group met regularly to be apprised of study progress, discuss findings, and work towards implementation of the Locally Preferred Alternative (LPA).
- Staff Work Group - This group provided technical staff support from a broad range of agencies through the review of study information and findings. Staff from local, state, and federal implementing agencies and authorities, local jurisdictions, and resource agencies meet to assess project development; assist in the valuation of project effects; review technical studies and recommendations; disseminate information within their respective agencies; and coordinate agency activities.

- Community Work Group - This work group was comprised of representatives from organized interest groups and residents and was intended to represent the diverse interests in the study area. These persons acted as liaisons between the project team and their representative organizations to offer input on issues and potential solutions on behalf of their organization. The Community Work Group also assisted with public outreach efforts by disseminating information and bringing comments and concerns from their friends and neighbors.

While the Community Work Group members served as broad-based representatives of the community, the public also had numerous opportunities to participate in the planning process through public meetings, workshops, and open houses, which were scheduled at major milestones in the project. In addition, a wide range of public outreach methods were employed to inform, educate, and solicit input. These were used to make the community aware of the study and provide opportunities for input. The following describes community outreach methods implemented during the MIS and PE/EIS efforts.

- Public Meetings and Workshops - Public meetings, open houses, and workshops were conducted during the MIS and PE/EIS. Each series included three meetings in various locations (i.e., Deep Ellum/Baylor, South Dallas/Fair Park, and Pleasant Grove) along the corridor to ensure many opportunities and convenient locations and dates for the public to attend.
- Mailing Database - The initial mailing list from the MIS included names of over 2000 interested people, organizations, elected officials, and property owners. This database was updated throughout the course of the PE/EIS and used for the mailings of newsletters and public notices. The database included property owners within 400 feet of the proposed LPA alignment selected during the MIS.
- Miscellaneous Meetings - Additional miscellaneous meetings and briefings were part public and agency programs for the Southeast Corridor. These meetings included briefings to elected officials and organizations such as Friends of Fair Park, Southeast Dallas Chamber of Commerce, and Dallas Landmark Commission as requested to keep them informed of the project.

- Newspaper Advertisements - General advertisements were placed in local newspapers to notify the community of the public workshops and meetings. In addition, the Notice of Intent (NOI) was published in the Federal Register and legal section of local newspapers.
- Web Site - The DART web site (www.dart.org) included study information, meeting announcements, newsletters, reports and maps for the Southeast Corridor. Throughout the PE/EIS, the web site was updated to include current project information and meeting schedules.
- Newsletters – Project newsletters were developed and distributed using the project mailing database. Newsletters were also posted on the website. Additional copies of the newsletters were distributed to public libraries, recreation centers, and chambers of commerce.
- Information at Public Libraries – The corridor study report was made available in the Reference Section of public libraries along the study corridor. The Draft (DEIS) was placed and Final (FEIS) will be placed in the Reference Section of the public libraries.
- Presentations - Presentations and briefings were made by DART or consulting firm staff to various community organizations upon request.
- Spanish Translation – Project newsletters were translated into Spanish. Spanish interpretation at public meetings/hearings was available upon request. Project newsletters and newspaper advertisements also included contact information in Spanish.

SCOPING MEETINGS

A NOI to prepare an EIS for the Southeast Corridor was published in the *Federal Register*, Volume 65, Number 214 on Friday, November 3, 2000. The NOI also announced the scoping meetings. Newspaper advertisements announced the locations and times of the scoping meetings appeared in *The Dallas Morning News*. Copies of the NOI and newspaper advertisement are included at the end of this Appendix. Three formal scoping meetings were conducted to begin the EIS process for the project on November 28, 29 and 30, 2000. All persons on the project mailing list received individual notices of the meetings.

Additionally, a scoping meeting with the agencies was held on December 6, 2000. Local governments, the Metropolitan Planning Organization (MPO), state agencies, and federal agencies were invited to attend. Along with the letter to each agency announcing the meeting, DART provided a *Scoping Information Report* for the project. This report highlighted the

potential environmental, land use, and transportation issues associated with the Southeast Corridor. A copy of the letter and invitee list is included at the end of this Appendix.

PUBLIC HEARINGS

Once the DEIS was approved for public circulation by the FTA, copies of the document were distributed to members of the community and interested organizations, as well as the appropriate local, state, and federal agencies for their review and comment. The Federal Register announcement initiated DART's 45-day comment period (February 22, 2002, through April 8, 2002) as required by FTA. During this comment period, formal public hearings were held within the Southeast Corridor on March 12, 2002, at the Tom Landry Center; March 13, 2002, at the Pleasant Grove Public Library; and March 14, 2002, at Clean South Dallas. The purpose of these hearings was to provide interested parties an opportunity to formally submit comments on the Southeast Corridor DEIS. The public hearings also served to obtain testimony in compliance with Texas law regarding potential DART Service Plan changes. After a technical presentation on the project, verbal testimony was taken. Additional comments were submitted in writing at the public hearing and received at DART headquarters. Several community members also provided comment at the April 9, 2002, DART Board meeting open public comment forum. Relevant comments received as well as responses are in Chapter 6 of the FEIS.

Additionally, a fourth public hearing was held on January 15, 2003, at the Tom Landry Center. The DEIS published in February 2002 included a draft Section 4(f) Statement. Based on comments received during the circulation of the DEIS, FTA and DART determined that significant changes to the Section 4(f) Statement occurred and warranted a redistribution of the document for comment. The revised draft Section 4(f) Statement was distributed to appropriate governmental agencies, legislative bodies, and concerned organizations and individuals. The formal public comment period began December 30, 2002, and ended January 21, 2003. The purpose of the hearing was to provide interested parties an opportunity to formally submit comments on the Section 4(f) Statement. After a technical presentation on the project, verbal testimony was taken. Additional comments were received at DART headquarters. Relevant comments received as well as responses are in Chapter 6 of the FEIS.

LIST OF PRESENTATIONS, MEETINGS AND BRIEFINGS

During the MIS and PE/EIS efforts, DART conducted numerous public meetings, presentations, and briefings to interested groups.

Major Investment Study – Phase 1

1st Staff Work Group Meeting	September 23, 1998
FTA Kick-Off Coordination Meeting	October 7, 1998
Briefing to Craig Holcombe - Friends of Fair Park	October 8, 1998
Dallas City Council Transportation Committee	October 12, 1998
DART Board Planning Committee Briefing Guiding Principles	October 27, 1998
City of Dallas Park Board Briefing	November 12, 1998 City of Dallas City Hall
1st Open Corridor-Wide Public Meeting	November 12, 1998 DART Board Room
City of Dallas Transportation Staff Dallas Projects in Corridor	November 13, 1998 City Hall Conference Room 5DN
Briefing to John Wiley Price - Dallas County Commissioner	November 23, 1998
2nd Staff Work Group Meeting	December 1, 1998 DART Committee-of-Whole Room
1st Community Work Group Meeting	December 1, 1998 DART Headquarters, Executive Conference Room
Briefing to Charlie Tucker - TxDOT Director of Transportation Planning & Development	December 7, 1998 TxDOT Dallas District Offices
1st Executive Work Group Meeting	December 10, 1998 DART Headquarters
Briefing to Southeast Dallas Chamber of Commerce	January 26, 1999
2nd Community Work Group Meeting	January 28, 1999 DART Headquarters, Room 1C

2nd Series of Public Meetings	February 2, 1999 Center for Non-Profit Management 2900 Live Oak Street
	February 3, 1999 Pleasant Grove Public Library 1125 S. Buckner Boulevard
	February 4, 1999 Martin Luther King Jr. Senior Center 2910 Pennsylvania Avenue
3rd Community Work Group Meeting	February 18, 1999 DART Headquarters, Room 1C
Presentation & Field Tour with Intercity Development Corporation	March 4, 1999
Southeast Dallas Chamber of Commerce Briefing to Board of Directors	March 11, 1999
Friends of Fair Park Board of Directors	March 16, 1999
3rd Series of Public Meetings	March 15, 1999 Southeast YMCA 2818 Prichard Lane
	March 16, 1999 Tom Landry Center 411 N. Washington Avenue
	March 17, 1999 Martin Luther King Jr. Senior Center 2910 Pennsylvania Avenue
3rd Staff Work Group Meeting	March 24, 1999 DART Headquarters
Parkdale/Lawnview Homeowners' Association Briefing of Initial Alternatives Evaluation	March 28, 1999 Urbanpark Methodist Church 6670 Military Parkway
2nd Executive Work Group Meeting	April 8, 1999 DART Headquarters
4th Staff Work Group Meeting	April 20, 1999 DART Headquarters, Room 1C

Briefing to DART Board Planning Committee	April 27, 1999 DART Headquarters, Room 1C
4th Community Work Group Meeting	April 28, 1999 DART Headquarters, Room 1C
Briefing to City of Dallas Planning Department - Ms. Marcia Stevens	April 28, 1999 City Hall
4th Series of Public Meetings	May 4, 1999 Tom Landry Center 411 N. Washington Avenue
	May 5, 1999 Janie C. Turner Recreation Center 6424 Elam Road
	May 6, 1999 Martin Luther King Jr. Senior Center 2910 Pennsylvania Avenue
City of Dallas Transportation & Telecommunications Committee Briefing	May 10, 1999 Dallas City Hall
Dallas Park & Recreation Board of Directors Briefing	May 13, 1999 Dallas City Hall
DART Board Planning Committee	May 18, 1999 DART Headquarters, Room 1C
Briefing to Dallas Landmark Commission - Fair Park Task Force	May 19, 1999 Tower Building - Fair Park
Latino Cultural Center - Executive Committee Briefing	May 20, 1999 Majestic Theater
Exposition Avenue Property Owners Alignment & Station Briefing	May 20, 1999 820 Exposition Avenue
DART Board of Directors Approval of Phase 2 Alternatives	June 8, 1999 DART Board Room
Funding Subcommittee - Community Work Group	June 10, 1999 DART Headquarters
City of Dallas Public Works - Traffic Department Briefing	June 22, 1999 Dallas City Hall L1BN
5th Staff Work Group Meeting	June 23, 1999 DART Headquarters, Room 1C

3rd Executive Work Group Meeting	June 24, 1999 DART Headquarters, Room 1C
5th Community Work Group Meeting	June 24, 1999 DART Headquarters, Room 1C
Briefing to Recently Elected Dallas City Council Members	June 30, 1999 Dallas City Hall
5th Series of Public Meetings	July 13, 1999 Martin Luther King Jr. Senior Center 2910 Pennsylvania Avenue
	July 14, 1999 Pleasant Grove Library 125 S. Buckner Boulevard
	July 15, 1999 Tom Landry Center 411 N. Washington Avenue
Briefing with City of Dallas Planning Department - Good-Latimer Area	July 26, 1999 Dallas City Hall
Southeast Dallas Chamber of Commerce Breakfast Briefing - Executive Committee	August 5, 1999 Chamber Offices on Buckner Boulevard
South Dallas/Fair Park LRT Alignment & Station Charrette Workshop	August 12, 1999 Gibson Building on Exposition Boulevard
Briefing with Ken Carlson Business/Property Owner on Good-Latimer	August 18, 1999 DART Offices
Briefing with DART Board Planning Committee	August 24, 1999 DART Conference Room 1C
6th Series of Public Meetings	August 24, 1999 Pleasant Grove Methodist Church
	August 25, 1999 Gibson Building 820 Exposition Avenue
	August 26, 1999 Martin Luther King Jr. Senior Center 2910 Pennsylvania Avenue
4th Executive Work Group Meeting	September 23, 1999 Dallas City Hall

Presentation to DART Board Planning Committee Completion of Phase 2 Detailed Evaluation	October 5, 1999
6th Community Work Group Meeting	October 13, 1999 DART Headquarters, Room 1C
7th Series of Public Meetings	October 19, 1999 Martin Luther King Jr. Senior Center 2910 Pennsylvania Avenue
	October 20, 1999 Center for Non-Profit Management 2900 Live Oak Street
	October 21, 1999 Pleasant Grove United Methodist Church 8301 Bruton Road
Presentation to DART Board Planning Committee Comment Response from October Public Mtgs.	October 26, 1999
7th Community Work Group Meeting	October 28, 1999 DART Headquarters, Room 1C
Presentation to DART Board Planning Committee Staff Recommendation of LPIS	November 9, 1999
Dallas Park & Recreation Board Briefing Staff Recommendation of LPIS	November 18, 1999 Dallas Zoo
City of Dallas City Council Briefing Staff Recommendation of LPIS	December 8, 1999 Dallas City Hall
Briefing to Dallas City Council Members Buckner/Lake June Road Opportunities	January 10, 2000
Briefing to Southeast Dallas Chamber of Commerce Executive Board	January 13, 2000
Presentation to DART Board Planning Committee Staff Recommendation of LPIS w/ Lake June Option Approval to forward to Committee-of-the-Whole	January 25, 2000
DART Committee-of-the-Whole & Full Board Approval of LPIS w/ Lake June Option	February 8, 2000
Preliminary Engineering/Environmental Impact Statement – Phase 2	
District and Town Hall Briefing	June 19, 2000
Southeast Chamber Members Briefing	June 21, 2000

Presentation to Clean South Dallas	June 21, 2000
8th Series of Public Meetings	June 29, 2000 Meeting Martin Luther King Jr. Library 2922 Martin Luther King Drive
	July 17, 2000 Meeting Pleasant Grove Public Library 1125 South Buckner Boulevard
Scoping Meetings	November 28, 2000 Tom Landry Center 411 N. Washington Avenue
	November 29, 2000 MLK Library 2922 Martin Luther King Drive
	November 30, 2000 Pleasant Grove United Methodist Church 8301 Bruton Road
Interagency Scoping Meeting	December 6, 2000 DART Headquarters, Room 1C
8th Community Work Group Meeting	December 7, 2000 DART Headquarters, Room 1C
Presentation to Dallas Parks & Recreation Board	January 11, 2001
Presentation to Dallas Coalition	January 11, 2001
Coordination Meeting with City of Dallas – Trinity River Development Project Office – Rebecca Dugger	January 17, 2001
Presentation to the Southeast Chamber of Commerce Board of Directors	January 17, 2001
Presentation to Friends of Fair Park Magnolia Lounge Building	January 25, 2001
Presentation to P.L.A.N. Homeowners Association	January 28, 2001
Presentation and Meeting with Deep Ellum Foundation Fountain Square Building	February 14, 2001
5th Executive Work Group Meeting	February 22, 2001 DART Headquarters

Meeting with Ken Carlson – Westdale Asset Management Developer & Property Owner near Good-Latimer Tunnel	March 1, 2001
Presentation to Dallas Landmark Commission Fair Park Station	March 6, 2001
Meeting with TxDOT – Dallas District LRT Alignment under US75 Central Expressway	March 8, 2001
9th Community Work Group Meeting	March 21, 2001 DART Headquarters, Room 1C
Presentation to Dallas Plan – Southern Dallas Update	March 28, 2001
10th Series of Public Meetings	March 27, 2001 Larry Johnson Recreation Center 3700 Dixon Avenue
Presentation to Pleasant Grove Senior Center	March 30, 2001
	April 4, 2001 Tom Landry Center 411 N. Washington Avenue
	April 5, 2001 John Ireland Elementary School 1515 Jim Miller Road
Presentation to York Street Homeowners Association	April 9, 2001
Meeting with Baylor Hospital Kerry Moon – Discuss coordination with pedestrian Access from Baylor Station to Baylor Hospital	May 1, 2001 Baylor Hospital
Presentation to Monthly Deep Ellum Association Meeting – Coordination with Deep Ellum Station at Good-Latimer Expressway and Good-Latimer Tunnel	May 9, 2001
Presentation to Weed & Seed Community Meeting	May 9, 2001
Coordination meeting with City of Dallas Planning and Development Department – Pier Chacko on Station Area Planning Development	May 18, 2001
Field Walk Tour of Grover Keeton Park with Ms. Linda Pelon – Wildlife/Natural Areas near Grover Keeton and Gateway parks	May 25, 2001
Presentation to Pleasant Grove/Pleasantwood CDC	May 28, 2001
Fair Park Station Charette	May 30, 2001

Coordination with stakeholders of Fair Park Station	National Women's Museum
Presentation to Preservation Dallas Committee	May 30, 2001
Discussion of Deep Ellum Station & Good-Latimer Tunnel Alternatives	Preservation Dallas – Carriage House
Meeting with City of Dallas Public Works and Traffic Department – discuss at-grade crossing Cullum Boulevard	June 1, 2001
Presentation to City of Dallas Annual Community Outreach	June 2, 2001
2nd Meeting with Baylor Hospital – Cary Moon	June 6, 2001
Coordination on Baylor Station	
Presentation to T.K. Hoover Community Fair	June 9, 2001
11th Series of Public Meetings	June 12, 2001 MLK Public Library 2922 Martin Luther King Drive
	June 13, 2001 Tom Landry Center 411 N. Washington Avenue
	June 14, 2001 Pleasant Mound Baptist Church 8301 Bruton Road
Update Presentation to DART Board Planning Committee	June 26, 2001
10th Community Work Group Meeting	June 28, 2001 DART Headquarters, Room 1C
Presentation & Briefing to Preservation Dallas Committee	June 29, 2001 Preservation Dallas Offices
Presentation & Briefing to Dallas Landmark Commission – Fair Park Station, Deep Ellum Station and Good-Latimer Tunnel	July 2, 2001 Dallas City Hall
Briefing to City of Dallas Senior Staff Assistant City Managers Ryan Evans, Jill Jordan And Director of Public Works David Dybala Discuss Good-Latimer Alternatives	August 3, 2001 Dallas City Hall
Meeting and Briefing with State Historic Preservation Officer (SHPO) Offices – Linda Roark	August 14, 2001 SHPO Offices – Austin, Texas
Briefing to Councilwoman Veletta Forsythe Lill and Preservation Dallas	September 10, 2001

Briefing to State Representative Terri Hodge	August 31, 2001 Dallas City Hall
Briefing to Councilman John Loza	September 19, 2001 Dallas City Hall
Briefing to Fair Park Staff	September 21, 2001 Fair Park
Deep Ellum Town Hall Meeting	October 4, 2001 Deep Ellum
Briefing with City of Dallas Staff	October 4, 2001
Briefing with Mayor Pro-Tem Mary Poss	October 5, 2001 Dallas City Hall
Executive Work Group	October 8, 2001 Dallas City Hall
Deep Ellum Community Meeting	October 10, 2001 Tom Landry Center
Briefing with TXU	October 11, 2001
Briefing with City of Dallas Parks Department	October 22, 2001 Dallas City Hall
Brief Councilwoman Veletta Forsythe Lill and Preservation Dallas	October 31, 2001
Briefing to State Representative Terri Hodge	November 7, 2001
Meeting with Latino Cultural Community Planning Group	November 13, 2001
Tour of Southeast Corridor with Project Management Oversight	November 14, 2001
Brief Councilwoman Veletta Forsythe Lill	November 29, 2001
Tour of Southeast Corridor with FTA staff	November 27, 2001
Tour and meeting with SHPO	December 5, 2001
SHPO Briefing	December 18, 2001 Austin, Texas
Presentation to Dallas Parks & Recreation Board	February 20, 2002 Dallas City Hall
Briefing to Councilwoman Veletta Forsythe Lill	March 4, 2002

Meeting with State Representative Helen Giddings & Donald Giddings	March 5, 2002
	Giddings Wells Auto Paint and Body
Briefing to Councilperson John Loza	March 6, 2002
	Dallas City Hall
Meeting with Paul Hetzer	March 6, 2002
	Adolph's Coffee
Meeting with Bob Weiss and Linda Evans, Meadows Foundation	March 6, 2002
Meeting with Greystone Management, Gaston Yard Apartments	March 8, 2002
Meeting with Greystone Management, Gaston Yard Apartments	March 12, 2002
Meeting with Dallas Shared Housing, 402 Good-Latimer	March 12, 2002
DEIS Public Hearings	March 12, 2002
	Tom Landry Center
	411 N. Washington Avenue
	March 13, 2002
	Pleasant Grove Public Library
	1125 South Buckner Boulevard
	March 14, 2002
	Clean South Dallas
Meeting with State Representative Terri Hodge	March 13, 2002
	Swiss Avenue Offices
Meeting with Southeast Corridor Property Owner	March 15, 2002
	DART
Meeting with Preservation Dallas, 2922 Swiss Avenue	March 18, 2002
Briefing to Councilperson Veletta Forsythe Lill	March 26, 2002
	Dallas City Hall
Briefing to Councilperson Mary Poss	March 26, 2002
	Dallas City Hall
Meeting with City of Dallas/DART Coordination Meeting	April 1, 2002
	Dallas City Hall
SHPO Tour/Briefing	April 5, 2002
	DART

Meeting with City of Dallas Traffic Staff	May 6, 2002 Dallas City Hall
Meeting with Dallas Park & Recreation	May 6, 2002 Dallas City Hall
Meeting with Latino Cultural Center Planners	May 6, 2002 Dallas City Hall
Meeting with Southeast Corridor Property Owner	May 13, 2002 Southeast Corridor
White Rock Heritage District Planning Charrette	May 15, 16, 2002 Larry Johnson Center
City of Dallas/DART Coordination Meeting	June 3, 2002 City Hall
Briefing with SHPO	July 24, 2002 DART
Meeting with Southeast Corridor Property Owner	July 26, 2002 DART
Meeting with Southeast Corridor Property Owner	August 7, 2002 DART
Meeting with Southeast Corridor Property Owner	August 8, 2002 DART
Fair Park Staff Briefing	August 9, 2002 Fair Park
Meeting with the Comanche Nation	August 12, 2002 DART Headquarters
Meeting with TxDOT Staff	September 5, 2002 TxDOT HQ
Meeting with City Veloweb Planners	September 13, 2002 DART
Meeting with DGNO RR	December 4, 2002 Union Station
Meeting with City of Dallas Traffic	December 5, 2002 DART
Meeting with City of Dallas Parks Department	December 11, 2002 DART

Friends of Fair Park Briefing	December 11, 2002 Fair Park
Meeting with Great Trinity Forest Interpretive Center Planner	December 19, 2002 Consultant Offices
Presentation to Dallas Landmark Commission	January 6, 2003 Dallas City Hall
Presentation to Dallas Landmark Commission	January 14, 2003 Dallas City Hall
Section 4(f) Statement Public Hearing	January 15, 2003 Tom Landry Center 411 N. Washington Avenue
Presentation to Fair Park Task Force	January 29, 2003 Fair Park
Presentation to Dallas Landmark Commission	February 3, 2003 Dallas City Hall
Presentation to Friends of Fair Park	February 20, 2003 Magnolia Lounge Building
City of Dallas Park & Recreation Department	March 12, 2003 Dallas City Hall

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[Notices]
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[DOCID:fr03no00-111]

DEPARTMENT OF TRANSPORTATION

Federal Transit Administration

Environmental Impact Statement on Transportation Improvements
Within the Southeast Corridor in Dallas, TX

AGENCY: Federal Transit Administration, DOT.

ACTION: Notice of intent to prepare an Environmental Impact Statement.

SUMMARY: The Federal Transit Administration (FTA) and Dallas Area Rapid Transit (DART) have issued this notice to advise interested agencies and the public of their intent to prepare an Environmental Impact Statement (EIS) on the proposed Southeast Corridor Light Rail Transit (LRT) Project, in Dallas, Texas. The EIS will be prepared in accordance with the National Environmental Policy Act of 1969 (NEPA), as amended. The Dallas-Fort Worth region is currently designated as a serious non-attainment area for ozone by the Environmental Protection Agency.

The Southeast Corridor Light Rail Transit (LRT) Project is the product of the Southeast Corridor Major Investment Study (MIS), completed by DART in early 2000. The MIS identified a Locally Preferred Investment Strategy (LPIS), which included the light rail being advanced into the EIS phase of project development at this time. A separate EIS is also being prepared for a DART LRT extension in the Northwest Corridor of the Dallas metropolitan area.

DATES: Comment Due Date: Written comments on the scope of the alternatives and impacts to be considered should be sent to John Hoppie, Project Manager by December 20, 2000. See ADDRESSES below.

Scoping Meetings: Three public scoping meetings will be held at the following locations and dates. Scoping material will be available at the meeting or in advance of the meeting. DART will conduct public scoping meetings on the following dates and at the following locations:

Tuesday, November 28, 2000, from 6:30 p.m. to 9 p.m., Baylor--Tom Landry Center, 411 N. Washington Ave., Dallas, Texas

Wednesday, November 29, 2000, from 6:30 p.m. to 9 p.m., Martin Luther King Jr. Senior Center, 2922 Martin Luther King Jr. Blvd., Dallas, Texas

Thursday November 30, 2000, from 6:30 p.m. to 9 p.m., Pleasant Mound UMC, 8301 Bruton Rd., Dallas, Texas

Interagency Coordination Meeting: DART will conduct an interagency coordination meeting with appropriate federal, state, and local agencies on the following date and at the following location:

Wednesday, December 6, 2000, 10 a.m. to 12 p.m., DART Board Conference Room 1-C, 1401 Pacific Avenue, Dallas, Texas

ADDRESSES: Written comments on the project scope should be sent to John

[[Page 66298]]

Hoppie, Project Manager, DART Planning, P.O. Box 660163, 1401 Pacific Avenue, Dallas, Texas 75266. Telephone (214) 749-2525, Fax (214) 749-

<http://www.fta.dot.gov/library/legal/fr11300b.html>

3670,

E-mail: jhoppie@dart.org.

FOR FURTHER INFORMATION CONTACT: Mr. Jesse Balleza, Community Planner, Federal Transit Administration, Region VI; Telephone (817) 978-0550.

SUPPLEMENTARY INFORMATION:

I. Scoping

The FTA and DART invite interested individuals, organizations, and federal, state, and local agencies to participate in refining the Southeast Corridor LRT Line including alignment and station locations. Comments should focus on identifying any significant social, economic, or environmental issues related to the alignment. Specific suggestions related to additional alternatives to be examined and issues to be addressed are welcome and will be considered in the final scope for the project. Scoping comments may be made at the scoping meetings or in writing no later than December 20, 2000. (see DATES and ADDRESSES above.)

Scoping comments should focus on identifying specific social, economic, or environmental impacts to be evaluated, and suggesting alternatives that are less costly or less environmentally damaging, which achieve similar transit objectives. Comments should focus on the issues and alternatives for analysis, and not on a preference for a particular alternative. Additional information on the EIS process, alternatives, and impact issues to be addressed will be included in the "Scoping Information Document". Copies of the document will be available from DART immediately prior to the scoping meetings (see DATES and ADDRESSES above.)

II. Description of Study Area and Project Need

The Southeast Corridor Light Rail Transit (LRT) Project includes 10.2 miles of LRT running on new double tracks in existing railroad corridors with some street running along Good Latimer and Parry Avenue. There are 9 LRT stations, including 6 with Park & Ride Lots (totaling just under 2000 parking spaces), and 2 with transfer facilities to other modes.

The Southeast Corridor Major Investment Study defined and evaluated a range of project alternatives using a two-phased evaluation process. In addition to the No Build Alternative, a Transportation Systems Management (TSM) Alternative, and several variations of Light Rail Transit (LRT) Alternatives were considered. Based on work group and public input, and based on the technical analysis, the above-described Build Alternative was selected. While some alignment refinements will continue for the Build Alternative, the other alternatives considered were dropped from further consideration. The EIS will consider the No Build Alternative in addition to Southeast LRT Line as the Build Alternative (see ALTERNATIVES below).

DART's Southeast Corridor contains a dynamic mix of land uses including a burgeoning, eclectic entertainment district; one of the region's most prestigious hospital facilities; a multi-faceted, 277 acre, cultural, historical, museum, and entertainment complex; and large areas of single-family and multi-family housing.

The existing corridor and station area development character in the Southeast Corridor has three distinct subareas:

(1) The Baylor HCS/Deep Ellum/Bryan Place is a redeveloping/revitalizing area of a previously urban core environment of warehouses and commercial uses into multi-family lofts, artists' studios, retail, and service businesses. The area is anchored by Baylor HCS. This area includes pedestrian oriented development. The Deep Ellum area has been designated a historic district. Hundreds of new housing units have been created through new construction or conversion of older buildings. This area is within the City of Dallas Intown Housing Program boundary, which is a local initiative aimed at increasing the vitality of the Central Business District by providing mixed income housing through joint ventures with private developers. (2) The South Dallas/Fair Park

area is characterized by commercial/light industrial and loft apartments immediately west of Fair Park; a strip of commercial businesses along R.B. Cullum; and single-family residential with some apartments and duplexes to the south and west of Fair Park. Fair Park is a 277-acre city park, which is listed on the National Register of Historic Places. This area is one of the most transit dependent areas of the city. In the South Dallas/Fair Park area, several community-based organizations have on-going in-fill housing programs. (3) The Pleasant Grove/Buckner Terrace area is primarily composed of residential, industrial, and retail/commercial uses. The commercial activities are concentrated along Buckner Boulevard/Loop 12. This area contains a large amount of vacant land, which is dedicated parkland and/or located in the floodplain. Additionally, development of single-family residential housing in the Pleasant Grove and Buckner Terrace areas is filling the last remaining land for housing developments.

DART's 10.2-mile Southeast Corridor LRT extension, like its original 20-mile starter System, is contained entirely within the Dallas city limits. The University of North Texas Center for Economic Development and Research assessed the impacts of the DART LRT Starter System and estimated over \$850 million has been invested in and around DART's new LRT stations. Development currently completed or planned at DART stations varies from a new hotel and mixed-use development downtown, to new residential and municipal facilities in a redevelopment area around the Cedars Station south of downtown Dallas.

Along with the previously mentioned transit supportive land use considerations, some of the other influencing conditions within the Southeast Corridor include:

Environmental Justice and Equity Issues--Within the 47 census tracts covering the Southeast Corridor study area, the majority of tracts have a higher percentage of minority and/or low-income population than the average for the county. Through the extensive public involvement and outreach efforts for the project, equity issues related to the South Dallas neighborhood and the Fair Park area have been identified. It is perceived by the neighborhoods that the needs of the community have been overshadowed or set aside for the economic benefit of Fair Park. Fair Park has expanded several times since its establishment; many times residences were purchased by the city to accommodate the expansion. Additionally, special events at the park's numerous venues can create traffic problems and congestion in the neighborhoods. In the Pleasant Grove area, equity issues related to transit service have been identified. Many residents perceive the Southeast Corridor as the last to receive LRT service it has been promised. However, DART services and the concept of LRT in the corridor are widely supported. The LRT project is seen as providing better transit service and a catalyst for economic development.

Station Area Economic Development Potential--Economic development potential of the terminus station was identified by the DART Board of Directors as one of the primary criteria to be used to compare two vastly different alternative alignments for the final two-mile segment of the LRT line. This further emphasizes the growing

[[Page 66299]]

importance that DART is placing on economic development.

Historical Transit Service--The LRT alignment and station along Parry Avenue will be at near the ceremonial entrance to Fair Park. This alignment and station will reestablish similar service to the park that was provided by the Dallas Interurban Trolley system until the 1950's.

III. Alternatives

The transportation alternatives proposed for consideration in this project area include:

No-Build Alternative--The No-Build Alternative involves no change to transportation services or facilities in the corridor beyond already committed projects.

Build Alternative--The Southeast Corridor Project (including line, station locations and support facilities), consists of 10.2 miles of

LRT running on new double tracks in existing railroad corridors with some street running in along Good Latimer and Parry Avenue. There are 9 potential LRT stations, including 6 with Park & Ride Lots (totaling just under 2000 parking spaces), and 2 with transfer facilities to other modes.

IV. Probable Effects

The FTA and DART will evaluate all significant environmental, social, and economic impacts of the alternatives analyzed in the EIS. Impact areas to be addressed include: land use, zoning, and economic development; secondary development; land acquisition, displacements, and relocation of existing uses; historic, archaeological, and cultural resources; parklands and recreation areas; visual and aesthetic qualities; neighborhoods and communities; environmental justice; air quality; noise and vibration; hazardous materials; ecosystems; water resources; energy; safety and security; utilities; traffic and transportation impacts. Potential impacts will be assessed for the long-term operation of each alternative and the short-term construction period. Measures to avoid, minimize, or mitigate any significant adverse impacts will be identified.

V. FTA Procedures

The EIS process will be performed in accordance with applicable laws and Federal Transit Administration regulations and guidelines for preparing an Environmental Impact Statement. The impacts of the project will be assessed, and, if necessary, the scope of the project will be revised or refined to minimize and mitigate any adverse impacts. After its publication, the draft EIS will be available for public review and comment. One or more public hearings will be held during the draft EIS public comment period. On the basis of the draft EIS and comments received, the project will be revised or further refined as necessary and the final EIS prepared.

Issued on: October 30, 2000.
Robert C. Patrick,
Regional Administrator.
[FR Doc. 00-28301 Filed 11-2-00; 8:45 am]
BILLING CODE 4910-57-P



Dallas Area Rapid Transit
P.O. Box 660163
Dallas, Texas 75266-0163
214/749-3278

November 17, 2000

Reference: DART Northwest Line to Carrollton EIS
DART Southeast Corridor EIS

Dear Agency Representatives:

Dallas Area Rapid Transit (DART) has recently initiated efforts to prepare an Environment Impact Statement (EIS) for both of the above-referenced projects. Both projects have completed Major Investment Studies (MIS), arriving at a Locally Preferred Investment Strategy featuring Light Rail Transit (LRT) recommendations. The Federal Transit Administration (FTA) has authorized DART to commence this phase of project development, issuing a Notice of Intent to Prepare an EIS in the Federal Register on Friday, November 3, 2000.

Public Scoping Meetings for these two projects have been announced for late November (Southeast Corridor) and early December (Northwest Corridor). These meetings are detailed in the accompanying Notices of Intent.

For the purposes of initiating interagency coordination with federal, state, and local agencies, DART is conducting an Interagency Coordination Meeting during the Scoping period. You are invited to attend this meeting, scheduled for the following time and location:

DART Interagency Scoping Meetings

December 6, 2000

DART Board Conference Room 1C, First Floor

1401 Pacific Avenue

Dallas, Texas 75201

10:00 a.m. - 12 noon -- Southeast Corridor EIS

12 noon - 1:00 p.m. -- Lunch (provided by DART)

1:00 p.m. - 3:00 p.m. -- Northwest Line to Carrollton EIS

You will note from this schedule that we are planning for a full day of activities in order to kick off these two important regional transportation projects. Lunch will be provided. It is our hope that you will make the time to attend these meetings so that we can initiate these projects with the fullest information possible.

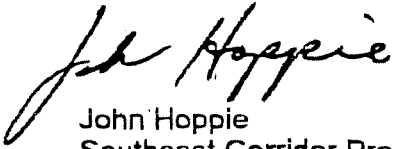
In order to provide you with background prior to these meetings, we are including with this letter *Scoping Information Reports* for both projects. These documents highlight the potential environmental, land use and transportation issues associated with each

project. Where applicable, information from the preliminary *Environmental Baseline Reports* prepared during the MIS phase is attached to provide additional information for each corridor. Your early input on these issues, as well as your assistance with identifying other issues not included, would be greatly appreciated.

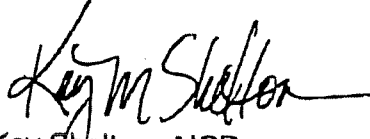
If you are not able to attend the meeting, but have information or comments that will be useful for the environmental process, please forward the information to the respective Project Manager at your earliest convenience.

If you have any questions, please contact either of us. We look forward to seeing you at the meetings.

Sincerely,



John Hoppie
Southeast Corridor Project Manager
214/749-2525
jhoppie@dart.org



Kay Shelton, AICP
Northwest Corridor Project Manager
214/749-2841
kshelton@dart.org

Attachments - Notice of Intent (SE and NW)
- Scoping Information Report (SE and NW)

Mr. James Steely
Deputy State Historic Preservation
Officer
Texas Historical Commission
P.O. Box 12276
Austin, Texas 78711-2276

Mr. Joe Swick
Environmental Protection Agency
1445 Ross
Dallas, Texas 75202

Mr. Wayne Lea
Chief Regulatory Branch
U.S. Army Corps of Engineers
P.O. Box 17300
Fort Worth, Texas 76102-0300

Mr. Melvin Lewis
Regional Director
TNRCC
1011 E. Arkansas Lane
Arlington, Texas 76010-6499

Ms. Nan Terry
Environmental Specialist
Federal Aviation Administration
2601 Meacham Boulevard
Fort Worth, TX 76193

Mr. David Visney
Regional Manager
Federal Railroad Administration
8701 Bedford-Euless Road, Suite 425
Hurst, TX 76053

Mr. Jesse Balleza
Community Planner
Federal Transit Administration
Region VI
819 Taylor Street, Room 8A36
Fort Worth, TX 76102

Mr. Bob Short
United States Fish and Wildlife Service
711 Stadium Drive, Suite 252
Arlington, TX 76011

Mr. Roy Frye
Texas Parks and Wildlife Department
4200 Smith School Road
Austin, TX 78744

Barbara Maley
North Central Texas Council of
Governments (NCTCOG)
616 Six Flags Drive, 4th Floor
PO Box 5888
Arlington, TX 76005-5888

Mr. Tim Juarez
Transportation & Planning Division
Texas Department of Transportation
125 E. 11th Street
Austin, Texas 78701-2483

Ms. Elvia Gonzalez
Environmental Division
Texas Department of Transportation
125 E. 11th Street
Austin, Texas 78701-2483

Mr. Bruce Nolley
Texas Department of Transportation
P.O. Box 133067
Dallas, Texas 75313-3067

John Brunk, PE
City of Dallas, Public Works &
Transportation
City Hall, Room L1BN
1500 Marilla Street
Dallas, TX 75201

Mr. Irvin Griffin
Senior Project Manager
Dallas County, Dept of Public Works
411 Elm Street, 4th Floor
Dallas, TX 75201

Mr. Jim Anderson
City of Dallas Landmark Commission
Planning & Development – 5CN
1500 Marilla Street
Dallas, TX 75201

Mr. Steve Rollins
Director of Planning
Denton County
306 n. Loop 288, Suite 112
Denton, Texas 76209-4887

Mr. Terry Mitchell
Asst. Director of Aviation
City of Dallas Aviation Department
LB 16, Love Field Terminal Building
Dallas, TX 75235

Richard Gehring
TxDOT, Dallas District
9700 E. R.L. Thornton Frwy
PO Box 3067
Dallas, TX 75221-3067

Mr. Dave Davis
City Traffic Engineer
City of Farmers Branch
13000 Wm. Dodson Parkway
Farmers Branch, TX 75234

Cesar Molina, PE
Transportation Department
1945 E. Jackson Road
PO Box 110535
Carrollton, Texas 75011-0535

Ms. Glenna Taite
Dallas Independent School District
3700 Ross Avenue
Dallas, TX 75204

Mike Germany/Ginny Melara
Transportation Department
Carrollton-Farmers Branch ISD
1445 North Perry Road
Carrollton, TX 75007

Ms. Mary Phinney, Administrator
Dallas County Parks and Open Space
Program
411 Elm Street
Dallas, TX 75202

Mr. Willis Winters
Asst Director of Planning & Dev.
Dallas Parks Department
1500 Marilla Street, 6FN
Dallas, TX 75201

Mr. Peer Chacko
Chief Planner
City of Dallas Planning
1500 Marilla Street, 5CN
Dallas, TX 75201

Mr. Andy Carroll
DART Project Manager
City of Dallas Public Works
1500 Marilla Street

Alan Hendrix
City of Dallas, Public Works
City Hall, Room L1BN
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Shon Merryman
Transportation Department
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Carrollton, Texas 75011-0535

Christopher Barton
Chief Planner
1945 E. Jackson Road
PO Box 110535
Carrollton, Texas 75011-0535

Mr. Eddie Hueston
Fair Park Administration
P.O. Box 15909
Dallas, TX 75315

Ms. Yvonne Washington
Fair Park Administration
P.O. Box 15909
Dallas, TX 75315

Ms Renee Riggs
The Dallas Plan
City of Dallas
1500 Marilla
6BN
Dallas, TX 75201

Mr. Don Cranford
Dallas County
Department of Public Works
411 Elm Street
4th Floor
Dallas, TX 75201

Ms. Jan Didear
Dallas Independent School District
3700 Ross Avenue
Dallas, TX 75204

Ms. Rebecca Dugger
City of Dallas
Trinity River Project



Dallas Area Rapid Transit
P.O. Box 660163
Dallas, Texas 75266-0163
214/749-3278

Texas Parks & Wildlife Dept.

NOV 20 2000

Wildlife Habitat Assessment Program

November 17, 2000

Reference: DART Northwest Line to Carrollton EIS
DART Southeast Corridor EIS

Dear Agency Representatives:

Dallas Area Rapid Transit (DART) has recently initiated efforts to prepare an Environment Impact Statement (EIS) for both of the above-referenced projects. Both projects have completed Major Investment Studies (MIS), arriving at a Locally Preferred Investment Strategy featuring Light Rail Transit (LRT) recommendations. The Federal Transit Administration (FTA) has authorized DART to commence this phase of project development, issuing a Notice of Intent to Prepare an EIS in the Federal Register on Friday, November 3, 2000.

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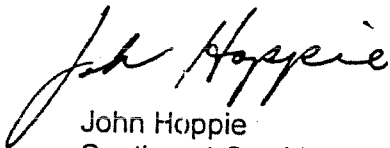
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project. Where applicable, information from the preliminary *Environmental Baseline Reports* prepared during the MIS phase is attached to provide additional information for each corridor. Your early input on these issues, as well as your assistance with identifying other issues not included, would be greatly appreciated.

If you are not able to attend the meeting, but have information or comments that will be useful for the environmental process, please forward the information to the respective Project Manager at your earliest convenience.

If you have any questions, please contact either of us. We look forward to seeing you at the meetings.

Sincerely,

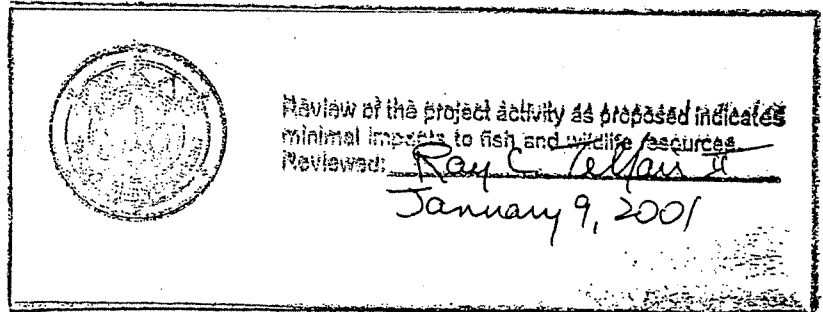


John Hoppie
Southeast Corridor Project Manager
214/749-2525
jhoppie@dart.org



Kay Shelton, AICP
Northwest Corridor Project Manager
214/749-2841
kshelton@dart.org

- Attachments - Notice of Intent (SE and NW)
- Scoping Information Report (SE and NW)



Legal Notices T-11

Legal Notices T-11

Legal Notices T-11

Legal Notices T-11

Legal Notice for Public Meeting

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Persons with disabilities planning to attend these meetings: who require auxiliary aids or services such as interpreters for the hearing impaired, readers, or Braille, should call 214-749-2598 at least two working days prior to the meeting, so that appropriate arrangements can be made. The meetings will be conducted in English. Requests for language interpreters or other special communication needs should be made at least two working days prior to the meetings. Reasonable accommodations will be made.

All interested parties are invited to attend and express their views and will have the opportunity to view project exhibits and ask questions. Both verbal and written comments regarding the project are requested. Written statements and other exhibits may also be submitted to Dallas Area Rapid Transit, Attn: Willene Watson, Community Affairs Representative, P.O. Box 660163, Dallas, Texas 75266-7232.



We'll Take You There.

DWD 11/19/00

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Dallas Area Rapid Transit
P.O. Box 660163
Dallas, Texas 75266-0163
214/749-3278

June 13, 2001

Ms. Linda Roark
Preservation Consultant
Division of Architecture
Texas Historical Commission
P.O. Box 12276
Austin, Texas 78711-2276

Dear Ms. Roark:

Attached are two technical memoranda regarding selected issues in DART's Southeast LRT extension related to Section 106 of the Historic Preservation Act of 1966. Both of these memoranda will be incorporated into a letter requesting formal concurrence for a determination of eligibility for all properties along the Southeast Corridor and will eventually serve as a foundation for a Determination of Effects report.

The memorandum regarding the Deep Ellum Tunnel is being forwarded to you for your information since it our understanding that others have contacted you concerning our proposal to demolish to tunnel.

The memorandum regarding Fair Park is being forwarded to you to serve as early coordination. Fair Park is a National Historic Landmark and the most significant historic entity encountered along the Southeast Corridor LRT line. On May 30, 2001, DART held a Charrette to determine how to best integrate a DART LRT Station with the historic entrance to Fair Park and reintroduce a transit element to the area. Participants included the Dallas Landmark Committee, Friends of Fair Park, Dallas Parks Department and representatives of the various venues at Fair Park.

We would like to come to Austin to meet with you at your earliest convenience to discuss these issues. Steve Salin will be contacting you to schedule a meeting. Should you have any questions, Steve can be reached at (214) 749-2828, or I can be reached at (214) 749-2525.

Sincerely,

A handwritten signature in cursive script that reads "John Hoppie".

John Hoppie

Project Manager
Corridor and Environmental Planning

Enclosures

c: Steve Salin
Tom Ryden

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Dallas Area Rapid Transit
P.O. Box 660163
Dallas, Texas 75266-0163
214/749-3278

September 14, 2001

Mr. F. Lawrence Oaks
State Historic Preservation Officer
Texas Historical Commission
P.O. Box 12276
Austin, Texas 78711-2276

Attn: Ms. Linda Roark

Re: Southeast Corridor Light Rail Project
Request For Determination of Eligibility Report

Dear Mr. Oaks:

I am pleased to transmit for your review and concurrence two copies of the *Request for Determination of Eligibility Report* for the referenced project. The Federal Transit Administration (FTA) has determined that the proposed DART Southeast Corridor Light Rail Transit Project in Dallas, Texas, is an undertaking as defined in 36 CFR 800.16(y) because it has the potential to cause effects on historic properties and, therefore, requires compliance with Section 106 of the National Historic Preservation Act as amended (Section 106, 16 U.S.C. 470f) and its implementing regulations (36 CFR Part 800).

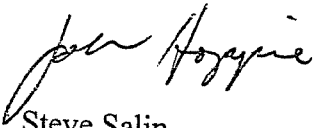
This *Request for Determination of Eligibility Report* provides a description of the project, identifies the Area of Potential Effects (APE), reviews the identification efforts, describes the historical context of the corridor, and provides FTA and DART's determination of eligibility.

In accordance with 36 CFR 800.4(c)(2), FTA and DART are seeking SHPO concurrence with its determination of eligibility for listing in the National Register of Historic Places of properties within the Southeast Corridor APE. Following your concurrence, the report will be incorporated into this project's Final Environmental Impact Statement. All comments provided by the SHPO will be included.

Mr. F. Lawrence Oaks
September 14, 2001
Page 2

Thank you for your timely attention to this matter. Please call me at (214) 749-2828 or John Hoppie, Southeast Corridor Project Manager, at (214) 749-2525, if you have any questions.

Sincerely,



for

Steve Salin
Senior Manager
Corridor and Environmental Planning

enclosures

c w/o: Jesse Balleza
Tom Ryden
John Hoppie
Tom Shelton, C&B
Willene Watson



TEXAS
HISTORICAL
COMMISSION

The State Agency for Historic Preservation

RICK PERRY, GOVERNOR

JOHN L. NAU, III, CHAIRMAN

F. LAWRENCE OAKS, EXECUTIVE DIRECTOR

September 17, 2001

Mr. Steve Salin
Dallas Area Rapid Transit
P.O. Box 660163
Dallas, Texas 75266-0163

Re: *Project review under Section 106 of the National Historic Preservation Act
Proposed Southeast Corridor LRT; Dallas Area Rapid Transit,
Dallas, Dallas County (FTA/106)*

Dear Mr. Salin:

Thank you for meeting with Texas Historical Commission (THC) staff to provide preliminary project information on DART's Southeast Corridor LRT, including the proposed Fair Park station. This letter serves as initial comment on the proposed Fair Park station design from the State Historic Preservation Officer, the Executive Director of the THC.

As discussed in our meeting August 14, the THC is concerned that construction of a DART station in front of the main Fair Park entrance has the potential to affect this National Historic Landmark. We understand that this is a convenient location for the public, and would be of special benefit for those attending the State Fair. As you know, Section 110 of the National Historic Preservation Act requires federal agencies to minimize harm to such National Historic Landmark properties. As discussed, we look forward to receiving a draft agreement document for the overall undertaking.

It is fortunate that there is a design opportunity for this project, related to the ticket buildings constructed for the Centennial Fair, but demolished in subsequent years. We recommend relatively accurate reconstruction of the historic ticket buildings in their historic location, understanding that security is a concern and that the design will need to be based on historic photographs, since the original plans are not available. We recommend that other structures not be placed in on the central axis of the historic entrance gate.

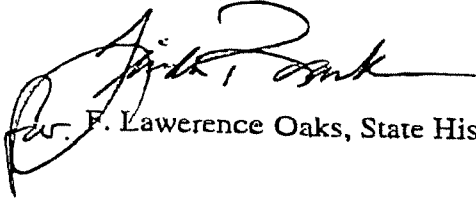
Design of the accessible platforms, and platforms for the other side of the tracks, should be as minimal and transparent as possible, and they should be placed as far from the central entrance axis as possible; preferably to the north of the central axis. There should be a total of five structures: the two reconstructed ticket buildings, two accessible platforms and one additional shelter. The three structures that are not reconstructions of the historic ticket buildings should be compatible with the historic ticket buildings and

September 17, 2001
Fair Park Station, DART SE Corridor
Page 2 of 2

design vocabulary of Fair Park. The plaza design should also be compatible. As we discussed, concrete should be used rather than pavers and lighting should be worked into reconstructed historic features (ticket booths, flag/light structures, catenary poles).

We hope to maintain a partnership that will foster effective historic preservation. Thank you for your cooperation in this federal review process, and for your efforts to preserve the irreplaceable heritage of Texas. **If you have any questions concerning our review or if we can be of further assistance, please contact Linda Roark at 512/463-9122.**

Yours truly,



F. Lawrence Oaks, State Historic Preservation Officer

cc: Jim Anderson, Dallas CLG
Jeff Dunn, Dallas County Historical Commission
FLO/LR



TEXAS
HISTORICAL
COMMISSION

The State Agency for Historic Preservation

RICK PERRY, GOVERNOR

JOHN L. NAU, III, CHAIRMAN

F. LAWRENCE OAKS, EXECUTIVE DIRECTOR

October 24, 2001

Steve Salin
Corridor and Environmental Planning
DART
PO Box 660163
Dallas, TX 75266-0163

Re: Project review under Section 106 of the National Historic Preservation Act of 1966: DART
Southeast Corridor, Dallas, Dallas County, Texas (N10, N20, N25)

Dear Mr. Salin:

Thank you for your correspondence describing the above referenced undertaking. Section 106 of the National Historic Preservation Act requires federal agencies, or their designated representatives, to take into account the effects of their undertakings on historic properties. Federal agencies, or their designated representatives, must request the comments of this office when they are considering an action, or if they are assisting, permitting, or licensing an action that may affect archeological sites or historic buildings. Under the Antiquities Code of Texas, state agencies and political subdivisions of the State are required to contact us relative to actions on non-federal public lands in the State of Texas.

The Texas SHPO needs additional information before we can provide comment on this undertaking. While the documentation of buildings in the project area appears adequate, the report featured no information about the Good-Latimer Tunnel, other than a reference on page 3. The tunnel may be eligible for listing in the National Register. Please send photographs of the tunnel and other transportation-related features along the proposed DART alignment (including other tunnels, bridges, overpasses), along with a written history and your assessment of these properties' eligibility for listing in the National Register. Texas Historical Commission staff will review all properties in the project area after this information is received.

Thank you for your interest in the cultural heritage of Texas, and for your compliance with this federal review process.

Sincerely,

A handwritten signature in black ink, appearing to read "Gregory W. Smith".

Gregory W. Smith
National Register Coordinator

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Dallas Area Rapid Transit
P.O. Box 660163
Dallas, Texas 75266-0163
214/749-3278

November 7, 2001

Mr. F. Lawrence Oaks
Executive Director
Texas Historical Commission
P.O. Box 12276
Austin, Texas 78711-2276

Attention: Gregory W. Smith

Re: Project review under Section 106 of the National Historic Preservation Act of 1966: DART Southeast Corridor, Dallas, Dallas County, Texas (N10, N20, N25)

Dear Mr. Oaks:

Thank you for your correspondence of October 24, 2001 regarding the above referenced undertaking. Attached is the additional information that you requested. This *Supplemental Request for Determination of Eligibility Report* contains the requested information and pictures of the Good-Latimer Underpass, as well as, other transportation-related features along the DART alignment. In addition, the report contains amended Table 3 and 4 from the original *Request for Determination of Eligibility* submitted in September 2001.

Please be advised that Mr. W. Dwayne Jones, Executive Director of Preservation, has volunteered to review or original submittal. Based on his comments we may submit additional revisions. If this is the case, we will repackage the original and supplemental report and submit it as one amended document in the very near future. However, as time is of the essence, we would appreciate your prompt consideration of the transportation-related features, especially the Good-Latimer Underpass, contained in this report.

Should you wish to discuss issues related to the Southeast Corridor LRT Project please contact me at (214) 749-2828.

Sincerely,

A handwritten signature in black ink, appearing to read "Steve Salin", written over a horizontal line.

Steve Salin
Senior Manager
Corridor and Environmental Planning

Enclosures

c: Jesse Balleza, FTA
W. Dwayne Jones, Preservation Dallas
Tom Ryden
John Hoppie



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TEXAS
HISTORICAL
COMMISSION

The State Agency for Historic Preservation

RICK PERRY, GOVERNOR

JOHN L. NAU, III, CHAIRMAN

F. LAWRENCE OAKS, EXECUTIVE DIRECTOR

March 21, 2003

Mr. Stephen Salin
Dallas Area Rapid Transit
P.O. Box 660163
Dallas, Texas 75266-0163

Re: *Project review under Section 106 of the National Historic Preservation Act of 1966
DART Southeast Corridor draft Memorandum of Agreement, Dallas, Dallas County
(FTA/106)*

Dear Mr. Salin:

Thank you for providing our office with the revised and final draft Memorandum of Agreement (MOA) regarding the subject project. This letter serves as comment on the draft MOA from the State Historic Preservation Officer, the Executive Director of the Texas Historical Commission (THC).

The review staff, led by Linda Roark, has completed its review of the draft MOA for DART's proposed Southeast Corridor. We concur that it is ready for signature and look forward to receiving the signature copies.

Thank you for your cooperation in this federal review process, and for your efforts to preserve the irreplaceable heritage of Texas. **If you have questions concerning these comments please contact me at 512/463-9122.**

Yours truly,

A handwritten signature in black ink, appearing to read "Linda Roark".

Linda Roark, Preservation Specialist
for: F. Lawrence Oaks, State Historic Preservation Officer

cc: Jesse Balleza, Federal Transit Administration
Jeff Dunn, Dallas County Historical Commission
Jim Anderson, Dallas CLG
Dwayne Jones, Preservation Dallas

FLO/LR

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Appendix D – Draft Preliminary Engineering Plan and Profile Drawings

The Draft Preliminary Engineering Plans and Profiles Drawings for the Build Alternative (LRT) are provided in a separate volume. These drawings are available for review at libraries within the study corridor and at DART Headquarters, 1401 Pacific Avenue, Dallas, Texas 75266.

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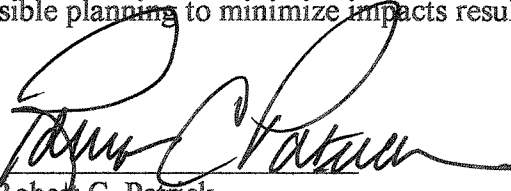
Section 4(f) Finding
Good-Latimer Tunnel in Dallas, Texas and
Fair Park in Dallas Texas
Dallas Area Rapid Transit (DART) Southeast Corridor
Light Rail Project

The Dallas Area Rapid Transit Authority (DART) in consultation with the Federal Transit Administration (FTA) is proposing construction of the Southeast Corridor Light Rail Transit Project (the Project) in Dallas, Texas. FTA has determined that said construction will have an effect upon the Good-Latimer Tunnel and a portion of Fair Park, as hereinafter described, which are two properties that are included in or have been determined to be eligible for inclusion in the *National Register of Historic Places* and subject to the requirements of Section 4(f) of the Department of Transportation Act of 1966.

The Project will directly use approximately 0.84 acres of Fair Park for station area and adjacent trackage.

The Good-Latimer Tunnel, which is between Swiss Avenue and Elm Street, passes under Gaston Avenue and the former Texas & Pacific Railway. The tunnel structure would be razed and the area filled in to bring the roadway and the LRT alignment to the same level as the surrounding roadways and properties.

The Federal Transit Administration has consulted with the State Historic Preservation Officer, the Advisory Council on Historic Preservation and the United States Department of the Interior. Based on this consultation and the "Southeast Corridor Section 4(f) Statement", prepared as Appendix E to the Southeast Corridor Environmental Impact Statement, the Federal Transit Administration has determined that there is no feasible and prudent alternative to the use of the land from Fair Park and the Good-Latimer Tunnel and that the proposed action includes all possible planning to minimize impacts resulting from such use.

By: 
Robert C. Patrick
Regional Administrator

Date: 9/25/03



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**Appendix E - Section 4(f) Evaluation for
Cultural Resources and Parklands**

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Section 4(f) Report Federal Transit Administration and Dallas Area Rapid Transit (DART)

E1.0 INTRODUCTION

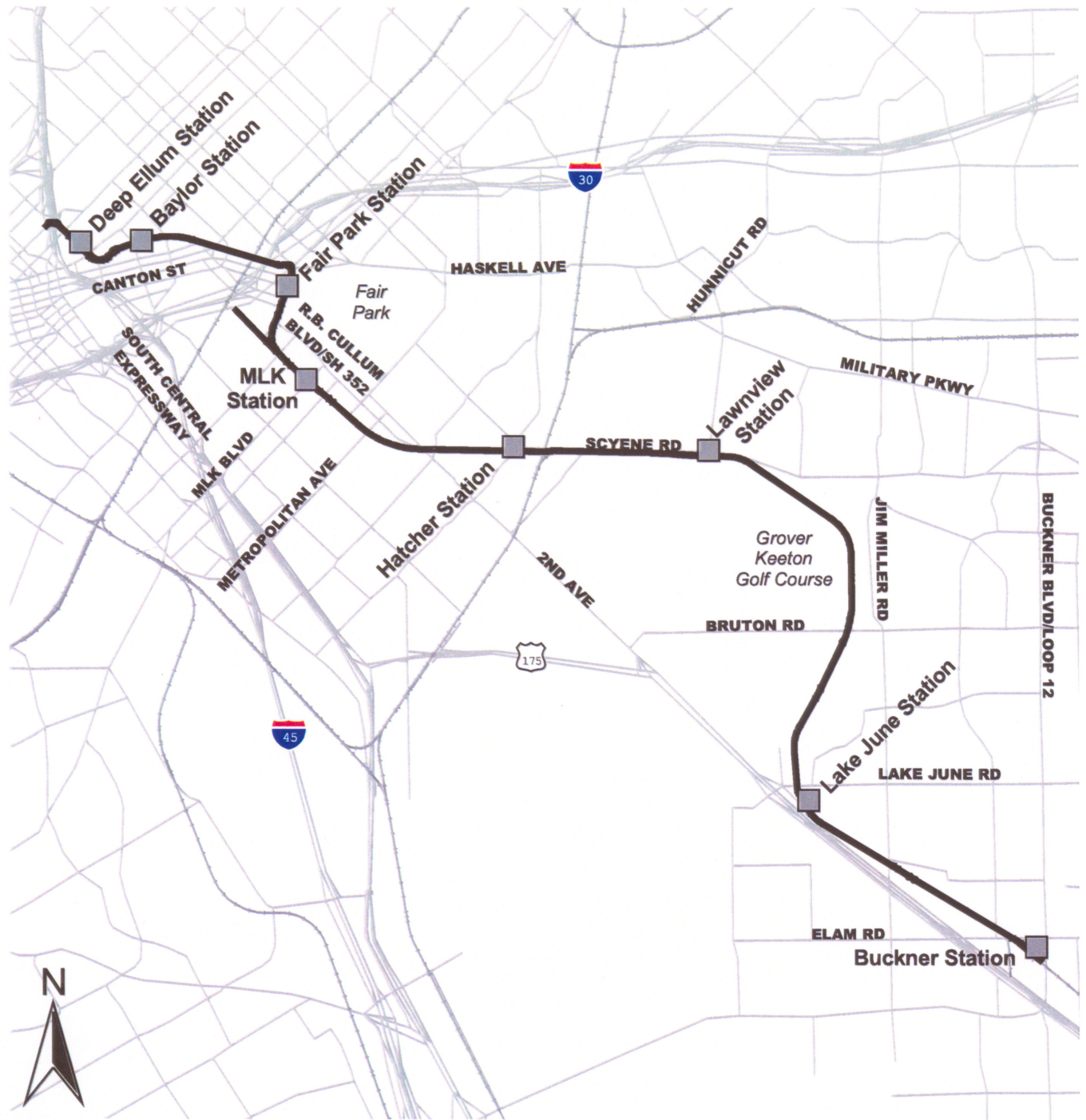
Section 4(f) of the Department of Transportation Act of 1966 (49 USC 1653, now 49 USC 303) declares a national policy that special effort be made to preserve the natural beauty of the countryside, including public park and recreation lands, wildlife and waterfowl refuges, and historic sites. This report documents the assessment of potential Section 4(f) properties along the planned route of DART's Southeast Corridor project. It identifies those properties that were found not to be subject to Section 4(f) use and the property where a Section 4(f) use is necessary. For this property, documentation of the planning efforts and coordination activities is provided that demonstrates that use of the property is justified, necessary, and meets the requirements of the Section 4(f) legislation.

E2.0 PROJECT DESCRIPTION

DART proposes to build a light rail transit (LRT) line from downtown Dallas to Buckner Boulevard in the southeast portion of Dallas County as shown in Figure E.1. The study area for the project is generally bounded by Interstate Highway (IH) 30 on the north, IH 635/IH 20 on the east and south, and IH 45 on the west. The study corridor also includes the Good-Latimer/Deep Ellum/Baylor area north of IH 30. As a result of completing a Major Investment Study (MIS) for the area and subsequent Preliminary Engineering/Environmental Impact Statement (PE/EIS), a Build Alternative (LRT) alignment has been developed, as follows.

Alignment and Stations: The alignment of the proposed LRT would begin in downtown Dallas at the existing Pearl Street Station. It would extend northeastward along Bryan Street, passing under the North Central Expressway to the Good-Latimer Expressway (Good-Latimer), where the alignment would turn to the southeast and be within the median of Good-Latimer Expressway. This requires razing the existing tunnel and bringing Good-Latimer back to the same level as the surrounding streets and properties. A proposed station would be located near Good-Latimer and Swiss Avenue. The alignment would turn northeastward near Monument Street onto the former Union Pacific Railroad (UP RR) right-of-way (now owned by DART). The rail right-of-way lies north of and parallel to Indiana Avenue. A station to serve the

Figure E.1 Build Alternative (LRT)



Legend

 Transit Center/LRT Station	 Build Alternative (LRT)	 Existing Rail
--	---	---

Source: Carter & Burgess, Inc



Baylor Health Care System (HCS) and Deep Ellum areas would be located on the railroad right-of-way in the block bounded by Walton, Indiana, Malcolm X, and Junius Streets. The alignment would continue northeastward along the rail right-of-way, then turn to the east and southeast after passing Hall Street. The alignment would cross under IH 30. Just before intersecting with Parry Avenue, the alignment would swing north, off the rail alignment, before curving south to the east side of Parry Avenue. A station would be built on the east side of Parry Avenue at the entrance to Fair Park. The alignment would then continue on the east side of Parry, along the edge of Fair Park, past the Music Hall, before crossing Parry Avenue/R.B. Cullum Boulevard. It would continue southward across current residential properties to connect to the former Southern Pacific Railroad (SP RR) right-of-way (now owned by DART). This segment of rail line would extend southeast parallel to Trunk Avenue. A transit center/station would be built at the intersection of the rail alignment with Martin Luther King, Jr. Boulevard (MLK). The alignment would continue southeast, then turn east along the railroad right-of-way south of Scyene Road. Stations would be built near Hatcher Street and Lawnview Avenue. East of Lawnview, the LRT alignment uses the existing rail right-of-way which turns southward, passing through Gateway Park/Grover C. Keeton Golf Course north of Bruton Road. South of Bruton Road, the alignment would pass by the east end of Devon-Anderson Park. A station would be built at the transit center on the south side of Lake June Road. At Lake June Road, the alignment would turn southeast along the railroad right-of-way, which is parallel to and north of US 175 (C.F. Hawn Freeway). The alignment would continue southeast to its terminal station between Elam Road and Buckner Boulevard (Loop 12).

The physical aspects of the proposed LRT system are defined by two features: the alignment and the stations. The proposed route and alignment for the LRT guideway would include the tracks, trackbed, overhead electric system (or catenary), and ancillary equipment. LRT vehicles would operate on two-track, two-way continuously welded steel rails. The proposed LRT system would be similar to current DART operations for a double track line. Service would be provided between 5 a.m. and midnight, with the non-service hours reserved for maintenance. An unrelated feature includes the existing freight rail line on which service must be maintained and the operation of which will not affect LRT operations. From the UP RR mainline, just east of Hatcher Road, three tracks will be provided – two for LRT and one for freight. The right-of-way in the area is generally a 100-foot wide with the existing track located in the center of the right-

of-way. Some portions of the freight track will be relocated within the existing right-of-way, particularly along Scyene Road and through Grover Keeton Park.

Station platforms would be at-grade with 300-foot, low-level platforms, which could be extended to 400 feet in the future. Weather protection for patrons would be provided by canopies covering the width of the platform for a minimum of one-third of the platform's length. The stations typically would include amenities such as bench seating, windscreens, trash receptacles, newspaper racks, and artwork. All platforms and LRT vehicles would be accessible to elderly and physically challenged patrons during all hours of operation. DART currently uses a combination of low and high platforms at its stations. Typical boarding is done from the low platform, approximately 8 inches above top-of-rail, with special use boarding taking place from high-block platforms.

E3.0 GUIDING LEGISLATION, RULES AND POLICY

E3.1 Department of Transportation Act of 1966 (49 U.S.C. 303)

Projects using U.S. Department of Transportation funds or requiring a license from its agencies must meet the requirements of Section 4(f) of the Department of Transportation Act of 1966 (49 USC 303). Section 4(f) declares it a national policy to make a special effort to preserve the natural beauty of the countryside, including parks and recreation land, wildlife and waterfowl refuges, and historic sites. Section 4(f) prohibits the Secretary of Transportation from approving projects that require the use of significant publicly owned parks, recreation areas, or wildlife and waterfowl refuges, or any significant historic site protected under Section 4(f) unless a determination is made that:

- (1) There is no feasible and prudent alternative to such use, and
- (2) The project includes all possible planning to minimize harm to the property resulting from such use.

When such resources are affected, the documentation of no feasible or prudent alternative and planning to minimize harm is included in the federal environmental document. A Section 4(f) "use" occurs:

- (1) When land is permanently incorporated into a transportation facility;
- (2) When there is a temporary occupancy of land that is adverse in terms of the statute's preservationist purposes as determined by the [length of occupancy, scope of work, anticipated permanent adverse physical impact of the occupancy of land, and possibility of restoration to the resource's original condition prior to occupancy]; or
- (3) When there is a constructive use of land. (23 CFR 771.135 [p])

Permanent Acquisition: The physical and permanent procurement of a protected resource for use by a transportation project is known as an actual or direct use.

Temporary Use: Short-term, temporary use (e.g., for a construction easement) of a Section 4(f) resource would not constitute a use under Section 4(f) as long as the following conditions are met: occupancy of the resource is temporary (i.e., shorter than the construction period for the entire project) and there is no change in ownership; changes or effects to the resource are minimal; there are no permanent adverse impacts resulting from the temporary use; and there is a documented agreement between relevant jurisdictions regarding temporary use of the resource.

Constructive Use: A constructive use occurs when a project does not incorporate land from a protected resource but when the project generates impacts due to proximity (e.g., noise or visual impacts) and these impacts are so severe that they impair preservation or utilization of the protected resource. Constructive use occurs when the project negatively affects the purposes for which the resource is of value to the public (i.e., its activities, features, or attributes). In other words, a constructive use determination considers the present use of the resource by the public as well as the attributes that made the resource valuable in the first place. Constructive use resulting from increased noise applies only when the protected resource is "noise sensitive" and derives some of its value and use from its relatively quiet setting. To constitute a constructive use, the noise increase must not only be detectable to the human ear (i.e., greater than 2 to 3 dBA) and exceed the Federal Transit Administration (FTA) abatement criteria, but it must be severe enough to impair enjoyment of the Section 4(f) resource. Constructive use based on visual intrusion occurs when there is substantial

impairment to the features, setting, or attributes of a protected resource when those features, setting, or attributes are important contributing elements to the value of the resource.

E3.2 Department of Transportation Environmental Impact and Related Procedures, Final Rule, Section 771.135 (f)

A determination of whether a resource is used under Section 4(f) is also subject to consideration of 23 CFR § 771.135(f) of the Department of Transportation guidelines for preparation of environmental documents. This section states that certain properties are excluded from 4(f) evaluation because they are already in use for transportation purposes; the project contemplates the restoration, rehabilitation, or maintenance of these properties; and the project will not adversely affect the historic qualities of these properties. Section 771.135(f) states:

“The Administration may determine that Section 4(f) requirements do not apply to restoration, rehabilitation, or maintenance of transportation facilities that are on or eligible for the National Register, when:

such work would not adversely affect the historic qualities of the facility that caused it to be on or eligible for the National Register, and the SHPO and the Advisory Council on Historic Preservation (ACHP) have been consulted and have not objected to the Administration finding in paragraph (f)(1) of this section.”

E3.3 Department of Transportation Section 4(f) Policy Paper

The US Department of Transportation (DOT), via the Federal Highway Administration (FHWA), issued its *Section 4(f) Policy Paper* in 1987 (revised in 1989) to “provide guidance on the applicability of Section 4(f) to various types of land.” As a DOT agency, and absent of its own specific policy statement, FTA projects are also subject to this policy guidance. The policy addresses 22 land uses and related issues, as reflected in the following list:

1. Use of Land
2. Public Parks, Recreation Areas, and Wildlife and Waterfowl Refuges
3. Historic Sites
4. Historic Bridges and Highways
5. Archeological Resources

6. Public Multiple-use Land Holdings
7. Late Designation
8. Wild and Scenic Rivers
9. Fairgrounds
10. School Playgrounds
11. Bodies of Water
12. Trails
13. Bikeways
14. Joint Development (Park with Highway Corridor)
15. "Planned" Facilities
16. Temporary Occupancy of Highway Right-of-Way
17. Tunneling
18. Wildlife Management Areas
19. Air Rights
20. Access Ramps (in accord with Section 147)
21. Scenic Byways
22. Temporary Construction Easements

E3.4 Land and Water Conservation Fund Act (Public Law 88-578)

Section 6(f) of the Land and Water Conservation Fund Act (Public Law 88-578) requires that recreation land acquired or developed with assistance under this section remain in use exclusively for public outdoor recreation. It may not be converted to other uses without the approval of the National Park Service.

E3.5 Texas Parks and Wildlife Code

Chapter 26 of the Texas Parks and Wildlife Code was established to protect parks, recreation and scientific areas, wildlife refuges, and historic sites from being used or taken by state or local agencies for public projects. Chapter 26 applies to all DART rail projects. Section 26.001 of Chapter 26 provides that:

- (a) A[n] [agency] of this state may not approve any program or project that requires the use or taking of any public land designated and used prior to the arrangement of the program or project as a park, recreation area, scientific area, wildlife refuge, or

historic site, unless the [agency], acting through its duly authorized governing body or officer, determines that:

- (1) There is no feasible and prudent alternative to the use or taking of such land;
and
- (2) The project includes all reasonable planning to minimize harm to the land, as a park, recreation area, scientific area, wildlife refuge, or historic site, resulting from the use or taking.

Chapter 26 is similar to Section 4(f) of the Department of Transportation Act of 1966 in its requirements, except that the Texas law requires a public hearing on any taking of public parkland. Section 26.001 states that:

- (b) A finding required by Subsection (a) of this section may be made only after notice and a hearing as required by this chapter.
- (c) The governing body or officer shall consider clearly enunciated local preferences, and the provisions of this chapter do not constitute a mandatory prohibition against the use of the area if the findings are made that justify the approval of a program or project.

Chapter 26 excludes parks, recreation areas, or wildlife refuges in certain cases. Section 26.004 provides that a department, agency, board, or political subdivision having control of the public land is not required to comply with this chapter if:

- (1) The land is originally obtained and designated for another public use and is temporarily used as a park, recreation area, or wildlife refuge pending its use for the originally designated purpose;
- (2) The program or project that requires the use or taking of the land being used temporarily as a park, recreation area, or wildlife refuge is the same program or project for which the land was originally obtained and designated; and
- (3) The land has not been designated by the department, agency, political subdivision, county, or municipality for use as a park, recreation area, or wildlife refuge before September 1, 1975.

E3.6 Antiquities Code of Texas

The Antiquities Code of Texas (Texas Natural Resources Code of 1977, Title 9, Heritage, Chapter 191) establishes the Texas Historical Commission (THC) as the legal custodian of all cultural resources, historic and prehistoric, within the public domain of the State of Texas (§191.051). The authority of the THC extends to designation and protection of State Archeological Landmarks, which can be historic buildings and structures, shipwrecks, or archeological sites.

Section 191.092(a) of the Antiquities Code states that State Archeological Landmarks include:

Sites, objects, buildings, artifacts, implements, and locations of historical, archeological, scientific, or educational interest, ...as well as archeological sites of every character that are located in, on, or under the surface of any land belonging to the State of Texas or to any county, city, or political subdivision of the state are state archeological landmarks and are eligible for designation.

The law contends that a structure or building has historical interest if it:

- (1) Was the site of an event that has significance in the history of the United States or the State of Texas;
- (2) Was significantly associated with the life of a famous person;
- (3) Was significantly associated with an event that symbolizes an important principle or ideal;
- (4) Represents a distinctive architectural type and has value as an example of a period, style, or construction technique; or
- (5) Is important as part of the heritage of a religious organization, ethnic group, or local society. [§191.092(b)]

Part II of Title 13 of the Texas Administrative Code includes a chapter governing the practice and procedure of the THC (13 TAC 26). Section 26.7 of this chapter states that a historic structure can be designated a state archeological landmark if it: (1) is publicly or privately owned and listed in the National Register of Historic Places (NRHP); and (2) meets one of the six eligibility criteria listed below.

- (A) Is associated with events that have made a significant contribution to the broad patterns of our history;
- (B) Is associated with the lives of persons significant in our past;
- (C) Is important to a particular cultural or ethnic group;
- (D) Is the work of a significant architect, master builder, or craftsman;
- (E) Embodies the distinctive characteristics of a type, period, or method of construction, possesses high aesthetic value, or represents a significant and distinguishable entity whose components may lack individual distinctions; or
- (F) Has yielded or may be likely to yield information important to the understanding of Texas culture or history.

Owner consent for designation of publicly owned properties is not required. Once a resource is considered a State Archeological Landmark, it may not be removed, altered, damaged, or destroyed without a contract or a permit issued for that purpose by the THC. Once this permit is issued, the THC will grant, at maximum, a one time extension beyond the original time frame for the required investigations.

E4.0 STATUS OF PROJECT DEVELOPMENT

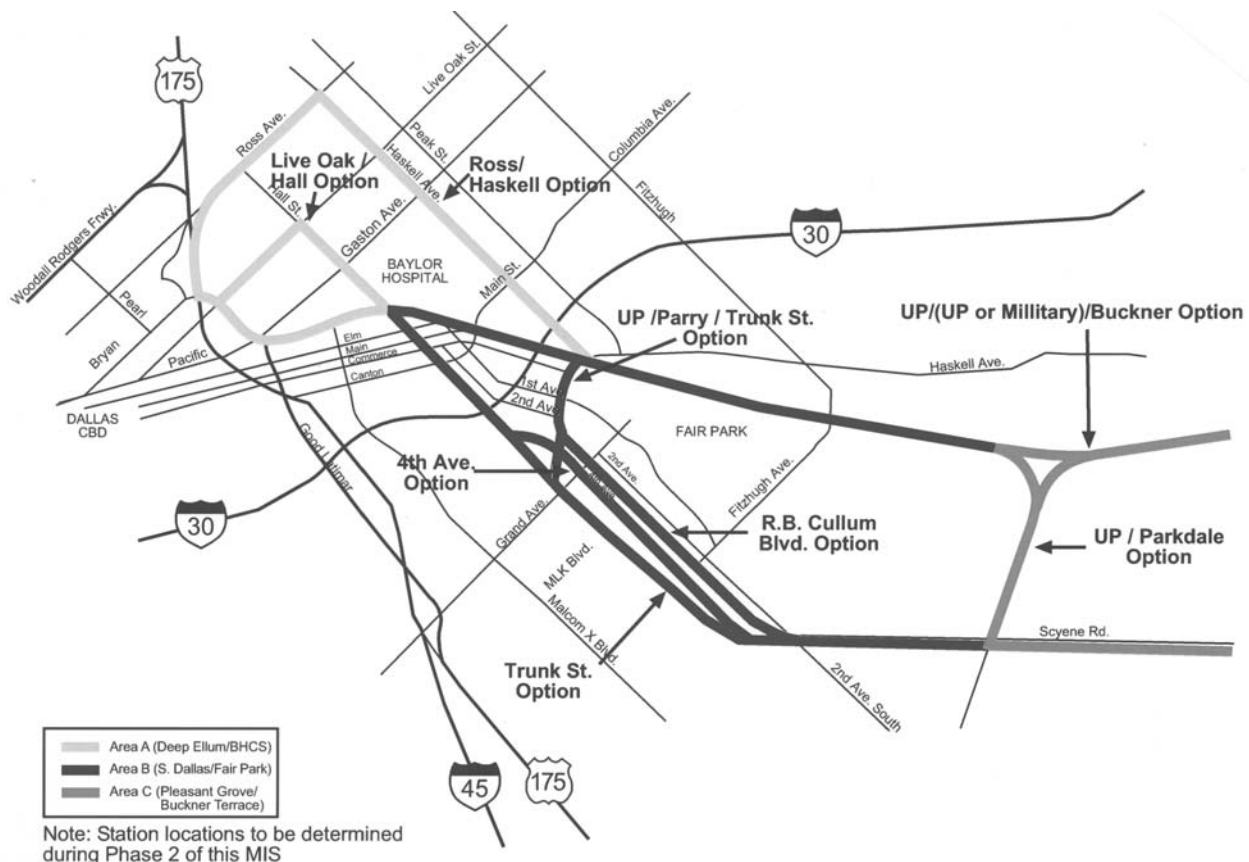
E4.1 Selection of the Light Rail Alternative for PE/EIS

FTA and DART completed an MIS for the Southeast Corridor in May 2000. The MIS evaluated potential alternatives and alignments, presenting a comprehensive transportation improvement strategy. The primary purpose of the study was to provide a decision-making tool for determining the transportation strategies based upon an initial identification of issues and a preliminary assessment of potential environmental impacts. The study evaluated, in detail, the engineering and environmental implications of the recommended alternative, as well as considered other modes and alignments for connecting the Dallas CBD to the southeastern portion of Dallas County. Extensive public and agency involvement was part of the study.

An evaluation process was conducted, as part of the MIS, that provided the technical framework through which potential transportation improvement alternatives and alignments were comparatively analyzed. The evaluation analysis determined how well each alternative addressed the identified travel needs, goals, and objectives. Conceptual alternatives were

initially screened during the Phase 1 Conceptual Evaluation of the MIS process. A range of alignments and modes were identified to try to meet the mobility needs of the corridor, which included Transportation Systems Management (TSM)/Congestion Management System (CMS), Transit/High Occupancy Vehicle (HOV), and Bus Rapid Transit (BRT), and 54 LRT options. The Phase 1 LRT alternative alignments considered in the Deep Ellum and South Dallas Areas are shown in Figure E.2.

Figure E.2 Phase 1 MIS LRT Alignment Alternatives in Deep Ellum and South Dallas



The screening approach was based on the goals and objectives described in Chapter 1 of the Draft EIS (DEIS). These alternatives represented a range of alignments and modes identified to meet the mobility needs of the corridor. Based on the evaluation measures and criteria established for this phase of the MIS process, the No-Build Alternative, TSM/CMS Alternative, and eight LRT Alignment Alternatives were recommended for further definition and evaluation in the second phase of the MIS.

In the Deep Ellum/Baylor area, the Live Oak/Hall and Ross/Haskell alignment options were not recommended for further consideration because they had lower projected ridership, increased travel times and costs, would not provide direct access to both Deep Ellum and Baylor HCS, potentially impacted parkland and historical properties on Live Oak and Haskell Avenue, required a higher number of displacements, and lacked public support. During this analysis, the public requested a station be included along Good-Latimer to further serve Deep Ellum and the proposed Latino Cultural Arts Center. In the South Dallas/Fair Park area, both the UP RR/Parry/South Dallas and SP RR/South Dallas options were recommended for further study in Phase 2 because both had similar ratings. A detailed discussion of the MIS process was documented in the *Southeast Corridor Final Phase 1 Conceptual Evaluation Summary Report, June 1999*, and is available to the public for review.

During the Phase 2 Detailed Evaluation of the MIS, a more extensive list of evaluation criteria and measures was applied for a comparative rating of the alternatives which provided information for the recommendation of the preferred investment strategy decision. The evaluation results, which are described in the *Southeast Corridor Phase 2 Detailed Evaluation Summary Report, May 2000*, is available to the public for review. A detailed list of evaluation criteria and measures were applied, comparatively rating each of the alternatives (including the No-Build Alternative). This rating system provided information for the recommendation of the preferred investment strategy decision. The alternative with the highest rating was ranked the best candidate for recommendation as part of the LPIS.

A final MIS report was circulated for public and agency review in the spring of 2000. On May 9, 2000, the DART Board of Directors selected LRT as the main component of the locally preferred investment strategy. The Build Alternative (LRT) selected had the best combination of cost, ridership, and public and agency support. It also had minimal environmental and community impacts because the majority of the alignment uses existing railroad right-of-way. It also provided the best access and had the most economic development potential for both the South Dallas community and Fair Park. Subsequently, FTA granted permission to DART to begin PE/EIS.

E4.2 Refinements of Alignment

During PE/EIS, DART reviewed the LRT alignment in numerous locations to consider engineering, operational, and environmental issues. Among the areas where the alignment was refined are:

- Good-Latimer Expressway/Gaston Avenue intersection, where two alternative alignment options were developed in response to community concerns about potential impacts to the Good-Latimer tunnel under Gaston Avenue.
- Parry Avenue/Haskell Avenue intersection, where the alignment's curvature was refined to provide improved operation of the LRT line onto the east side of Parry Avenue while accounting for concurrent traffic and signal operations.
- R.B. Cullum Boulevard, where a proposed aerial crossing over the roadway was eliminated in response to community concerns about visual impacts.

E5.0 SECTION 4(f) PROPERTIES

Of the various categories of 4(f) properties, DART has determined that there are no waterfowl or wildlife refuges near the proposed alignment. Consequently, the only Section 4(f) properties of potential concern to this project are historic resources and parklands. For the purpose of this report Historic Resources have been subdivided into Architecturally Historic Properties, Archaeological Sites, and Traditional Cultural Properties. In each of the following subsections, properties that are subject to Section 4(f) are first identified, then assessed as to whether the project would result in either a direct or indirect use.

E5.1 Architecturally Historic Properties Subject to Section 4(f)

DART has undertaken a survey of architectural resources along the proposed corridor. An Area of Potential Effect (APE) within which the survey was conducted was defined in consultation with the SHPO. The APE for architecturally historical resources includes the parcels within and adjacent to the LRT alignment (including alignment options), parcels containing and adjacent to traction power substations, and parcels within a reasonable view shed of aerial structures.

The survey results were submitted to the SHPO for concurrence on eligibility of the surveyed resources (Attachment E1). The surveys of the proposed alignment identified the following resources for which the SHPO has made determinations of eligibility:

- Four structures (other than those in Fair Park) are currently listed on the NRHP
- Three Historic Districts listed on the NRHP, one of which is also a National Historic Landmark
- Seven structures contribute to two eligible historic districts
- Four properties are individually eligible for the NRHP.

Table E1 presents the architecturally historic properties in these various categories that lie within the APE and that are included in the Section 4(f) analysis.

Table E1 Architecturally Historic Properties within the APE Subject to Section 4(f)

Address	Resource Name	Significance
3800 Commerce	John E. Mitchell Co. Plant	NRHP Listed 03-04-1991
3301-3333 Elm Street, 212 and 232 Trunk Avenue	Continental Gin District	NRHP Listed 02-14-1983
1300 R.B. Cullum Blvd	Fair Park (Texas Centennial Exposition Buildings)	Designated a National Historic Landmark 09-24-1986; also a Historic District
4100 Commerce	Alexander Motor Company Building	Contributor to the Commerce Street Warehouse District, Eligible for the NRHP (2)
4118 Commerce	W. Gottlich Company Manufacturing Bldg.	Contributor to the Commerce Street Warehouse District, Eligible for the NRHP (2)
4044 Commerce	Lincoln Paint & Color Co. Bldg.	Contributor to the Commerce Street Warehouse District, Eligible for the NRHP (2)
2551 Elm	Knights of Pythias Temple	Eligible individually for NRHP (2)
2605 Elm	Fink Paint Co. Bldg.	Contributor to the Deep Ellum Historic District, Eligible for the NRHP (2)
2625 Elm	Manufacturers Expo Bldg.	Contributor to the Deep Ellum Historic District, Eligible for the NRHP (2)
2615 Elm	American Transfer & Storage	Eligible individually for the NRHP (2); Contributor to the Deep Ellum Historic District
2609 Elm	Southern Refrigeration Co. Bldg.	Contributor to the eligible Deep Ellum Historic District, Eligible for the NRHP (2)
3601 Main	National Biscuit Company	Eligible individually for the NRHP (2)
3801 Parry	Old Tige	Contributor to the Commerce Street Warehouse District, Eligible for the NRHP (2)
3809 Parry	Goodyear Tire and Rubber Company Building/Howard Wolfe Building and Garage	NRHP Listed 05-01-2002, Contributor to the Commerce Street Warehouse District
4140 Commerce	B. F. Goodrich Building	NRHP Listed 05-01-2002, Contributor to the Commerce Street Warehouse District,
624 N. Good-Latimer	St. James AME Temple	Eligible individually for the NRHP (2)
400-500 N. Good-Latimer	Good-Latimer Tunnel	Eligible individually for the NRHP (1)
Notes: (1) SHPO Determination of Eligibility letter to DART, February 1, 2002 (2) SHPO Determination of Eligibility letter to DART, March 25, 2002		

DART analyzed the potential effects of the proposed primary LRT alternative in Chapter 5 of the DEIS. Although the analysis of effects in Chapter 5 is part of the Section 106 process, it also considered direct use and factors that are related to constructive use. The SHPO has reviewed DART's proposed determination of effects and in a letter dated July 8, 2002, concurred that the project would have an adverse effect on the Good-Latimer Tunnel and without appropriate mitigation would have the potential to adversely affect the Fair Park National Historic Landmark.

E5.1.1 Section 4(f) Analysis of Architecturally Historic Properties

Of the listed and eligible architecturally historic properties subject to Section 4(f), two are subject to direct use: Fair Park Historic District and the Good-Latimer Tunnel. All of the other properties lie outside of the proposed LRT right-of-way.

E5.1.1.1 Direct Use at Fair Park

At Fair Park, part of the proposed station would lie within the boundary of the Fair Park Historic District/National Historic Landmark (Fair Park HD/NHL). The entire Fair Park HD/NHL covers approximately 277 acres. The boundary of Fair Park HD/NHL in the area of the proposed station (at the ceremonial entrance, opposite Exposition Avenue) is not defined by the existing ornamental fence of Fair Park. Rather, the boundary appears to follow the east curb line of the bus drop-off area. Between the Credentials Gate (on the north side of the Women's Museum) and the First Avenue Gate (on the south side of the ceremonial entrance), the proposed LRT system and station would encroach on about 26,000 square feet of the Fair Park HD/NHL. The area of encroachment is outside of the existing ornamental fence and used for pedestrian queuing areas entering the park and bus access driveways. Both of these areas will be replaced in function with the introduction of the LRT passenger station. The pedestrian queuing needs will be replaced by the same area provided by the LRT platform area and the bus access driveways will be removed due to DART redistribution of bus route activity. Other portions of the proposed station would be located in an area of the Fair Park parkland boundary that is designated for street purposes (see discussion in Section E5.4.1 of this 4(f) Statement).

The boundary of the Fair Park HD/NHL would again be crossed by the LRT system south of the First Avenue Gate. The boundary crosses the berm that separates the service entrance to the Music Hall from the park circulation road on the north/east side of Cullum Boulevard. South of the First Avenue Gate, the line segment of the LRT would encroach on about 10,500 square

feet of the Fair Park HD/NHL. This area is currently used as a landscaped “berm” median separating two maintenance drives to service areas. Other portions of the LRT line segment would be located in an area of the Fair Park parkland boundary that is designated for street purposes (see discussion in Section E5.4.1 of this 4(f) Statement).

In total, the two areas of encroachment are about 36,500 square feet (about 0.84 acres). This is less than 0.31% of the total area of the Fair Park HD/NHL. Since the Build Alternative (LRT) project would make a direct use of this small area of a historic property, Section 4(f) requires documentation that:

- (1) There is no feasible and prudent alternative to such use, and
- (2) The project includes all possible planning to minimize harm to the property resulting from such use.

Discussion of Feasible and Prudent Alternatives

Determining whether there is no feasible and prudent alternative requires the consideration of avoidance alternatives. The types of alternatives that would avoid any use of the Fair Park HD/NHL property are: (a) do nothing or No-Build; (b) develop an alternative LRT alignment that avoids use of the property; or (c) modify the proposed LRT alignment to avoid use of the property. Based upon the discussions below, none of these would be feasible and prudent alternatives to the proposed project and the associated use of protected Section 4(f) land.

- a. No-Build or Do Nothing Alternative. The alternative would not meet the goals and objectives established by DART to provide improved transit to communities in the Southeast Corridor. Further, a No-Build Alternative would not address the conditions expressed in the Purpose and Need Statement.
- b. Alternative Alignments Avoiding Use of Property. A range of alignment alternatives were previously proposed and evaluated in the Southeast Corridor MIS. In May 2000, the DART Board of Directors selected an LRT alignment that included a station serving the ceremonial entrance of Fair Park as the Locally Preferred Investment Strategy (LPIS). The LPIS decision reflected the judgment of DART that the proposed alignment best meets the transportation needs of the Southeast Corridor and is therefore the most prudent alternative. The selection of the LPIS, which includes the alignment along Parry Avenue and a station at

the ceremonial entrance to Fair Park, was supported unanimously by has received favorable support from all affected stakeholders including the Dallas City Council, Dallas Landmark Commission, the Friends of Fair Park, Dallas Park Board, each institutional venue use within Fair Park, and the surrounding commercial and residential community. On December 8, 1999, the Dallas City Council passed a resolution supporting the Southeast Corridor Alignment that serves the ceremonial entrance to Fair Park. On January 14, 2003, the Dallas Landmark Commission passed a resolution supporting the Fair Park Station location and on January 29, 2003, the Commission approved a conceptual Certificate of Appropriateness for the Fair Park Station design. On February 20, 2003, the Friends of Fair Park passed a resolution supporting the Fair Park Station location.

- c. Alignment Modification Avoiding Use of Property. The placement of the proposed LRT alignment and passenger station adjacent to the ceremonial entrance of Fair Park is constrained by several factors. In order to most efficiently and safely provide service to Fair Park, especially during events, the LRT station would be located near the existing central pedestrian access point (i.e., the ceremonial entrance to Fair Park). The area of the proposed LRT station is currently used for buses and would thus provide higher levels of accessibility for transit patrons. This area was also previously served by the Interurban trolley lines as depicted in Figure E.3. The proposed LRT station adjacent to the ceremonial entrance would serve a function that occurred at the same location when Fair Park was originally developed in 1936 for the Texas Centennial.

There are two alternative (avoidance) alignments avoiding use of the property: (1) shifting the LRT alignment to the eastern edge of Parry Avenue and (2) shifting the LRT alignment to the median of Parry Avenue. Shifting the LRT station to the eastern edge or median of Parry Avenue would require reduction of the street's travel volume capacity from six to four lanes between Exposition Avenue and Haskell Avenue and the closure of left turn lanes. This would have a major negative effect on traffic movement in the area, especially during events at Fair Park including the Texas State Fair during the month of October each year. This would create a bottleneck in the city's arterial network. A median station may not accommodate the anticipated crowds during the State Fair or major special events. Additionally, a median station would also require LRT passengers to cross two lanes of traffic to reach the ceremonial entrance, which would be much less safe than the proposed

location adjacent to the ceremonial entrance. Providing grade-separated pedestrian access to a median station in Parry Avenue would introduce either (1) an aerial structure that would be likely to be found to be an adverse visual effect relative to the historic ceremonial entrance, or (2) a subterranean passage that would be likely to be perceived as unsafe and which could be subject to dangerous overcrowding during events.

Figure E.3 View of Trolley Lines serving Fair Park during the 1936 Texas Centennial



Source: Dallas Historical Society Archives, published in McDonald, *Dallas Rediscovered*, 1978, p. 244.

In addition, there are two agreements or ordinances that prohibit the reduction of travel lanes of Parry Avenue from six lanes to four lanes. First, Section IX of the DART/City of Dallas Planning and Development Interlocal Agreement (ILA) prohibits DART's ability to reduce travel lane capacity of major arterials for the purpose of introducing LRT service. Secondly, the City of Dallas Thoroughfare Plan prohibits the permanent reduction of travel lane capacity of major arterials for other purposes.

The location of the LRT station on the east side of Parry Avenue is also constrained by the need to provide tangent alignments before and after the station, so that the LRT vehicles are properly aligned with the platforms. Alignment of the rail vehicles with the platforms is critical to providing accessibility to persons with disabilities. The location is further constrained by the LRT alignment curve at the Parry Avenue/Pacific Avenue/Haskell Avenue intersection, where the overall alignment makes a 90-degree turn. Placing the station in the median of Parry Avenue would require either an extremely tight (and thus slow and probably noisy) curve from the LRT alignment along Pacific Avenue onto Parry Avenue, in addition to the traffic, circulation, and safety impacts previously noted.

Shifting the station north or south on the east side of Parry Avenue would still affect property within the Fair Park HD/NHL boundary. Placement of the station on the west side of Parry Avenue would likely require demolition of properties, including one potentially eligible structures (3801 Parry) and one NRHP-listed property (3809 Parry).

E5.1.1.2 Direct Use at Good-Latimer Tunnel

The LRT alignment would travel down the middle of Good-Latimer Expressway. The Good-Latimer Tunnel, which occurs between Swiss Avenue and Elm Street, passes under Gaston Avenue and the former Texas & Pacific Railway that ran parallel to Gaston. The tunnel structure would be razed and the area filled in to bring the roadway to the same level as the surrounding roadways and properties. This would recreate an at-grade intersection with Gaston Avenue and Good-Latimer Expressway. An LRT station would be built between Swiss Avenue and Gaston Avenue on the restored grade.

Engineering studies have determined the tunnel is not structurally capable of sustaining the weight of LRT facilities (either line sections or the proposed station). This is in large part due to the lack of maintenance it has received over the years, coupled with periodic flooding. The tunnel does not meet current traffic design standards and there are no proposals by the City of Dallas to address design deficiencies in the foreseeable future. These deficiencies include narrow travel lanes, low vertical clearances, narrow sidewalks, inadequate sight distances, poor drainage, low light levels, and security visibility. Additionally, the tunnel does not meet the accessibility criteria of the Americans with Disabilities Act (ADA). Figures E.4 through E.7 shows conditions in the tunnel from the perspective of motorists and pedestrians.

The Deep Ellum Station would serve as a destination station and would not include parking, drop-off, or bus transfer facilities. This means the primary access to the station will be by walking. The narrow sidewalks and low light levels create safety and security problems, both for current users and, if the tunnel were to continue to be used as an access route, for future patrons bound to and from the Deep Ellum Station. Lighting within the tunnel could help improve visibility but would not eliminate security concerns for patrons in the tunnel which includes many hiding places that exist between columns. Additionally, during times of heavy rain, the tunnel floods making both the roadway and sidewalks impassable. During the comment period for the DEIS, residents and employees from the area stated they avoid the tunnel and area because it is unsafe to walk through, even during the daytime. The tunnel is considered an attractive nuisance, a barrier, and a haven for homeless persons. Attachment E2 includes a summary of both verbal and written comments received.

By razing the tunnel and filling the area to bring the roadway to the same level as the surrounding roadways and properties, this would recreate the at-grade intersection with Gaston Avenue and improve vehicle and pedestrian access to Deep Ellum. It would increase access to properties near the tunnel and remove the confusing service roads between Swiss and Gaston. According to the Dallas Police Department accident statistics for 2001, there were 23 vehicular accidents between 200 and 500 blocks of North Good-Latimer. Of these, 11 involved the 400 block/tunnel, with seven accidents considered major. In addition, five accidents involved Swiss Avenue and Good-Latimer intersection near the tunnel service road. The tunnel requires the service roads to provide access to adjacent properties and Gaston Avenue but creates poor visibility and awkward access for vehicles.

Removing the tunnel would not require the relocation of any businesses or residents and allows for increased economic development opportunities, which is one of the four primary purposes of the proposed action. Bringing Good-Latimer back to its original grade would allow more opportunities and flexibility for transit and pedestrian-oriented development. The area is on the fringe on the redeveloping area of Deep Ellum. Adjacent property owners are supportive of LRT in the median of Good-Latimer because it would increase the visibility and access to their properties.

Figure E.4 View of Good-Latimer Tunnel Looking North



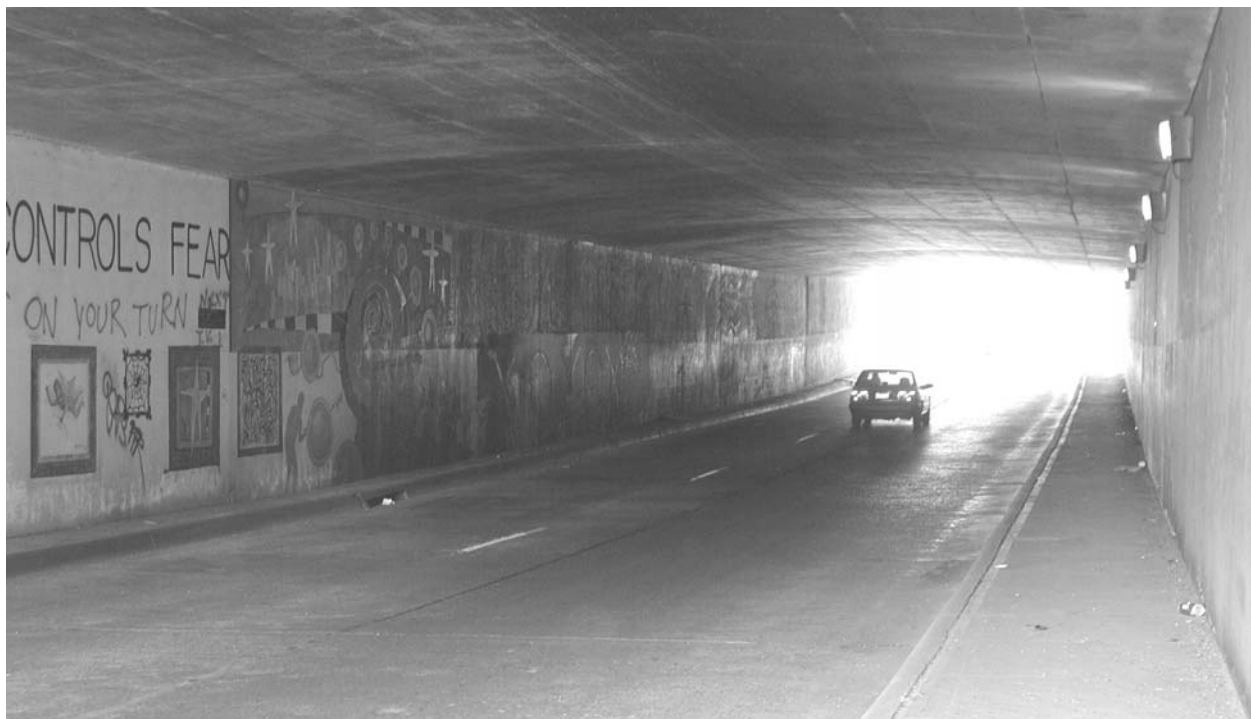
Figure E.5 View of Good-Latimer Tunnel Looking South



Figure E.6 View of Pedestrian Tunnel in the West Tunnel Section



Figure E.7 View of Sidewalk along East Tunnel



Along Good-Latimer are two other properties that are eligible for listing in the NRHP, St. James AME Temple (east of Good-Latimer at Florence) and Knights of Pythias Temple (west side of Good-Latimer at Elm). The St. James AME Temple was constructed in 1919 and the Knights of Pythias Temple was built in 1916, pre-dating the construction of the tunnels. Both buildings were designed by William Sydney Pittman, are considered significant African-American buildings in Dallas, and were financed and built by African-Americans. The use of the median of Good-Latimer maintains the existing transportation corridor and does not encroach upon either building.

Dallas City Council has been supportive of DART LRT in the median of Good-Latimer. In May 1997, a Thoroughfare Plan Amendment was passed by the city council of the City of Dallas that established a special cross section placing LRT in the median of Good-Latimer Expressway from Bryan Street to the DART owned railroad right-of-way just prior to Elm. Additionally, on December 15, 1999, Dallas City Council passed a resolution endorsing the Southeast Corridor with LRT in the median of Good-Latimer. Upon the review of the DEIS and comments from the community, Dallas City Council passed a third resolution in support of Good-Latimer alignment that requires filling the Good-Latimer Tunnel and placing LRT in the median of Good-Latimer between Bryan Street and the DART owned UP RR right-of-way. The city council cited that though the tunnel is eligible for the NRHP, it is in extremely deteriorated condition and has outlived its design life and original purpose. Dallas City Council also considered that removing the tunnel would have the least impact to historic resources, have the greatest potential to promote redevelopment, improve vehicular and pedestrian safety, and enhance access to the LRT station.

As stated previously, the overall configuration of the tunnels (west side built in 1930 and the east side built in 1952) do not meet current roadway design standards. A complete rehabilitation of the tunnels would be required to provide adequate structural support for the LRT elements and to bring the tunnel into compliance with current roadway design standards. Although rehabilitation of the tunnels would continue their existence in the same locations and performing the same functions noted in the SHPO letter of eligibility (February 1, 2002), bringing the tunnels into compliance with current design standards would be likely to result in one of two conditions:

- Substantial changes in architectural features, such that the resulting visual images of the tunnels no longer represent the styles of 1930's and 1950's construction, if all design current standards are met, or
- Failure to meet design standards and the legal requirements of ADA, if the architectural features are maintained.

If waivers of design standards were obtainable, there would still be safety and security concerns for pedestrians because of the many hiding places provided by the columns placed along the subterranean walkways. Requirements for compliance with ADA, which would come to bear if the tunnels are rehabilitated to provide the necessary structural support for the LRT elements, cannot be waived.

The SHPO has determined that the Good-Latimer Tunnel is eligible for listing in the NRHP. Since the alignment would require a direct use of historic property, Section 4(f) requires documentation that:

- (1) There is no feasible and prudent alternative to such use, and
- (2) The project includes all possible planning to minimize harm to the property resulting from such use.

Discussion of Feasible and Prudent Alternatives

Determining whether there is no feasible and prudent alternative requires the consideration of avoidance alternatives. The types of alternatives that would avoid any use of the Good-Latimer Tunnel are: (a) do nothing or No-Build; (b) develop alternative LRT alignments that avoid use of the property; or (c) modify the proposed LRT alignment to avoid use of the property. Based upon the discussions below, none of these would be feasible and prudent alternatives to the proposed project and the associated use of protected Section 4(f) land.

- a. No-Build or Do Nothing Alternative. The alternative would not meet the goals and objectives established by DART to provide improved transit to communities in the Southeast Corridor. Further, a No-Build Alternative would not address the conditions expressed in the Purpose and Need Statement.

- b. Alternative Alignments Avoiding Use of Property. The overall Good-Latimer alignment provides the most reasonable way to connect the existing Pearl Street station in downtown Dallas to the railroad alignment through Deep Ellum. As discussed in Section E4.1, the MIS which preceded the DEIS evaluated numerous alignment options and selected an alignment along Good-Latimer as the best combination of service, impacts, community support, and costs. Streets that run parallel to Good-Latimer that could potentially be used for an alignment are narrower and discontinuous. An alignment along these parallel streets would not provide sufficient room for placing stations within street right-of-way without causing substantial impacts to adjoining properties. Additionally, the 480 unit Gaston Yard Apartments, extending from Good-Latimer to Malcolm X Boulevard, provides a formidable barrier to most parallel alignment options.

Only a segment of the overall Good-Latimer alignment between downtown and the railroad would create a Section 4(f) use near the Good-Latimer Tunnel. Alignment modification options in that area which would avoid direct use of the tunnel are discussed in the next section.

- c. Alignment Modification Avoiding Use of Property. There are two alternative (avoidance) alignments avoiding use of the property. Option B would shift the LRT alignment and station to the western edge of Good-Latimer. Option C would shift the LRT alignment and station to the eastern edge of Good-Latimer. The alignment which travels down the middle of Good-Latimer and would require razing and filling in the tunnel has been designated Option A.

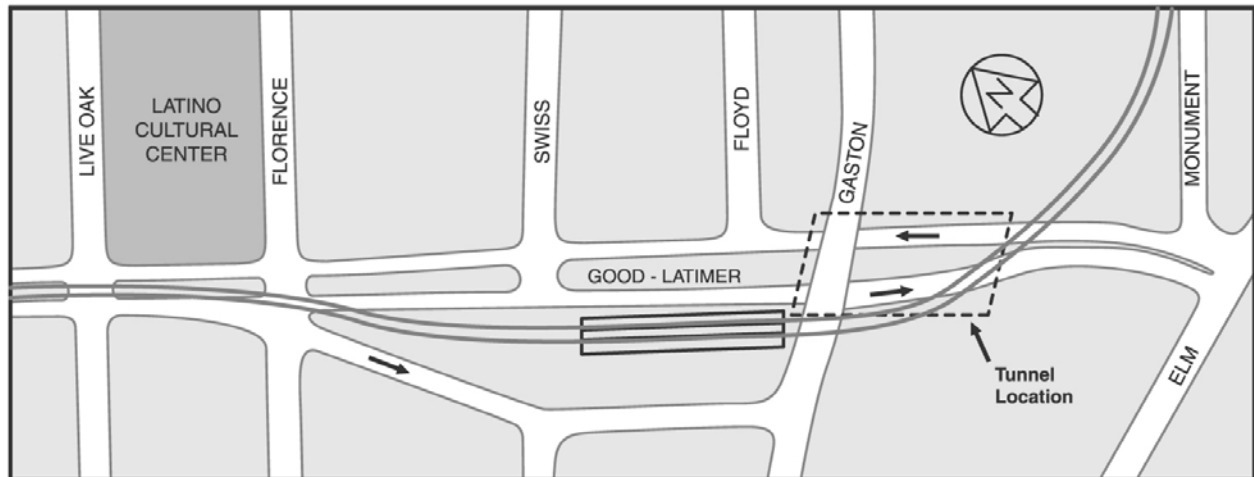
Good-Latimer Alignment Option B

This option would avoid the existing tunnel and allow it to stay in place by shifting the LRT alignment to the west (Figure E.8). This alignment option would also require the construction of a new one-way street west of the LRT to allow access to adjacent properties and closing Swiss Avenue between Good-Latimer and the new one-way street.

The alignment was designed to meet design requirements and provide proper location for a station while minimizing displacements and avoid physical impact to the tunnel. Because the tunnel cannot structurally support LRT, the alignment was designed to avoid placing any structural load on the tunnel and protect the LRT line in the event the tunnel would collapse

and interrupt LRT service. Additionally, a sidewalk from Elm to Gaston Avenue would need to be built along the west side of the alignment to provide safe, visible, and ADA access to the station.

Figure E.8 Good-Latimer Alignment Option B



This alignment option would require the acquisition of several properties, including:

- Commercial properties at 615 Good-Latimer (6 commercial tenants) and 2519 Swiss Avenue
- Eight residential units at 2511 Swiss Avenue
- One vacant building located at 505 Good-Latimer and four vacant parcels
- A portion of the property for the Knights of Pythias Temple at 2551 Elm Street

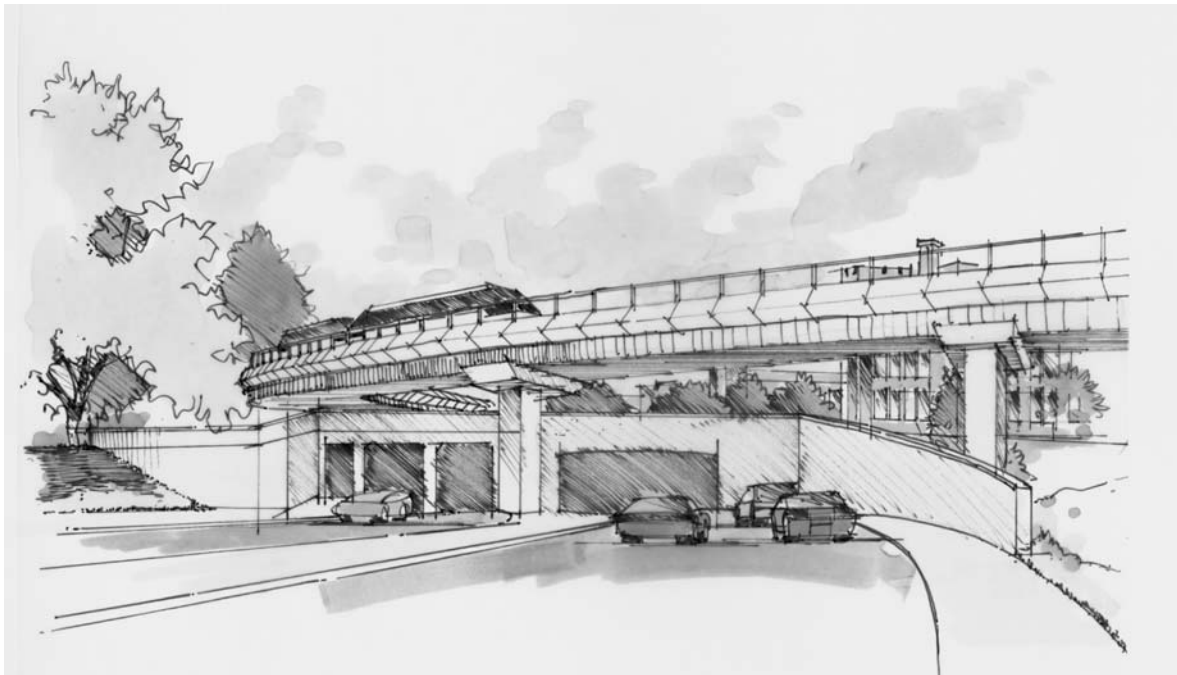
Impacts and Issues for Option B

- Of these properties, the Knights of Pythias Temple is eligible for the NRHP. Option B would make direct use of the property and therefore having an impact to a Section 4(f) property. This would thus not be a viable alternative to Option A.
- The alignment would be about 35 feet from the rear of the building and could have a visual impact to the temple. Additionally, the Option B alignment would include an aerial structure across the south entrance of the tunnel as shown in Figure E.9. A determination of effects for these circumstances has not yet been made in consultation with the SHPO; there is the possibility that this structure would result in an adverse effect under Section 106 to both the Knights of Pythias and the tunnel. Under Section 4(f), the

aerial structure raises the potential for constructive use, which is discussed in Section E5.1.3.

- Swiss Avenue is a major east-west thoroughfare that would need to be closed as a through street in order to accommodate a full-length station platform. Traffic bound for Good-Latimer Expressway from areas to the west would need to be shifted northward to Florence, which is not a major thoroughfare, or southward to Pacific/Gaston Avenue.
- Efforts to redevelop this area have been on-going but have occurred at a slower pace than Deep Ellum and Bryan Place. The acquisition of property would disrupt mixed-use redevelopment efforts by displacing eight residences and seven businesses that create jobs, generate taxes and contribute to the economic vitality of the neighborhood.
- Option B would not be as conducive to transit and pedestrian-oriented development. The tunnel would remain in place. It is perceived as a barrier and uninviting to pedestrians.
- The cost of acquiring, relocation, and demolition of the commercial and residential properties has been estimated by DART at more than \$4.85 million.

Figure E.9 View of Option B Looking North



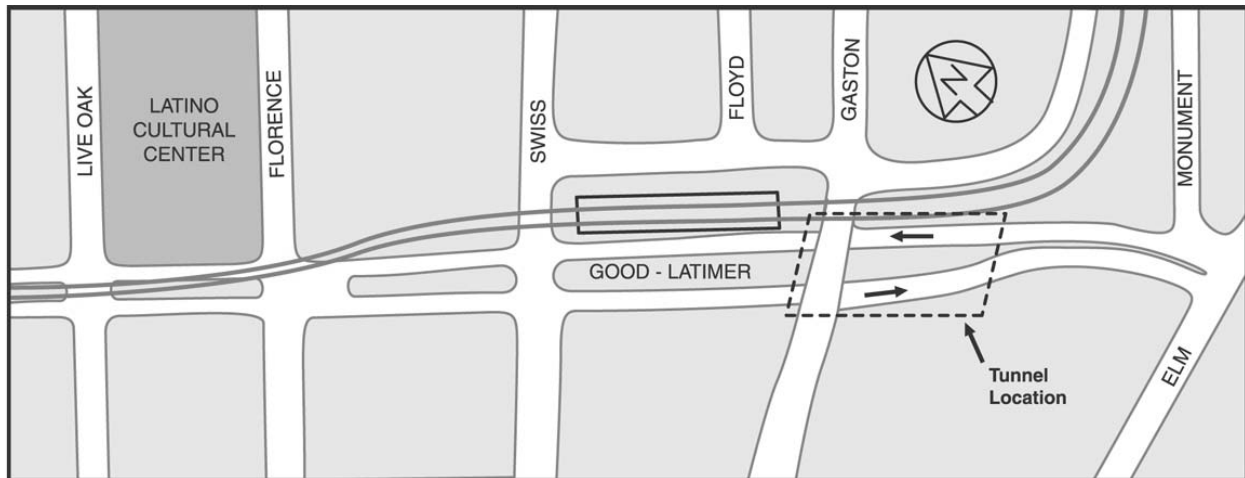
- The commercial properties include tenants and uses that have a potential for having created hazardous materials impacts to the properties. These include past and current uses for automotive services 615 Good-Latimer, a former printing operation at 505 Good-Latimer Expressway, and a service station at 2519 Swiss Avenue. Each of these has a potential for having created hazardous materials impacts to the property. The cost of potential clean-up of hazardous materials has not been estimated.
- The LRT alignment would transition from the median of Good-Latimer near the intersection with Florence creating a situation that is difficult to signalize and sign.
- Conditions associated with the deficiencies of the Good-Latimer Tunnel (narrow travel lanes, low vertical clearances, narrow sidewalks, inadequate sight distances, flooding, and security visibility) would continue.

Good-Latimer Alignment Option C

Option C is similar to Option B, but with the LRT alignment being shifted to the east at Florence Street (Figure E.10). This option includes the construction of an LRT station between Swiss Avenue and Gaston Avenue on the east side of the Good-Latimer Tunnel. This alignment option would also require the construction of a new street between Swiss and Gaston, east of the LRT station to allow access to adjacent properties. This alignment option would require the acquisition of several properties, including:

- Property from the St. James AME Temple at 624 N. Good-Latimer.
- Commercial properties at 2601 and 2606 Swiss Avenue, and 2601 Gaston Avenue.
- Non-profit group, Shared Housing, located at 402 Good-Latimer.
- Twenty-four residential units from the Gaston Yard Apartments. The shift of the LRT alignment to the east would require a curve across the Gaston Yards Apartment property in order to transition onto the alignment parallel to Monument Street. The alignment would occupy the current driveway to the Gaston Yard Apartments, which is also a required fire access route. To maintain access and circulation in the apartment complex for safety and emergency equipment access, the driveway would have to be replaced causing the displacement of 24 apartments.

Figure E.10 Good-Latimer Alignment Option C



Impacts and Issues for Option C

- Of these properties, the St. James AME Temple is eligible for the NRHP. Option C would make direct use and alter access to St. James AME Temple which is eligible for the National Register therefore having an impact to a Section 4(f) property. This would thus not be a viable alternative to Option A.
- The shift of the alignment closer to the Gaston Yard Apartments would greatly increase the potential for noise and visual impacts to residents. Option C would move the LRT alignment closer to apartment units on the east end of the complex. The alignment would be inside the current apartment boundary.
- Efforts to redevelop this area have been on-going but have occurred at a slower pace than Deep Ellum and Bryan Place. The acquisition of property would disruption redevelopment efforts by three businesses and one non-profit organization that create jobs, generate taxes, and contribute to the economic vitality of the neighborhood.
- Option C would not be as conducive to transit and pedestrian-oriented development. The tunnel would remain in place. It is perceived as a barrier and uninviting to pedestrians.
- The cost of acquiring, relocation and demolition of the commercial and residential properties has been estimated by DART at more than \$5.2 million.
- The commercial properties include tenants and uses that have a potential for having created hazardous materials impacts to the properties. This includes past and current use for automotive services 2606 Swiss Avenue. The cost of potential mitigation of hazardous materials has not been estimated.

- Conditions associated with the deficiencies of the Good-Latimer Tunnel (narrow lanes, low vertical clearances, narrow sidewalks, inadequate sight distances, flooding, ADA compliance and security visibility) would continue.
- The LRT alignment would transition from the median of Good-Latimer near the intersection with Florence creating a situation that is difficult to signalize and sign.

Summary of Good-Latimer Impacts

Although alignment Options B and C are technically feasible alternatives to Option A, they are not prudent because of the array of impacts that would arise from their implementation. Both Options B and C would require direct use of another Section 4(f) property. Because of the visual impact to the tunnel and Knights of Pythias, Option B would have a constructive impact on both structures. The levels of impact to the Good-Latimer Tunnel area from Options B or C would be greater than for Option A, as summarized in Table E2.

Table E2 Comparison of Good-Latimer Tunnel Alternatives

Issue	No Build	Option A	Option B	Option C
Structural stability of tunnel	Does not address structural stability of integrity of the tunnel	Razing and filling in tunnel resolves structural issue	Does not address structural stability of integrity of the tunnel	Does not address structural stability of integrity of the tunnel
Acquisitions and Displacements	No acquisitions or displacement	Requires acquisition of 2 vacant parcels	Requires acquisition of 7 commercial properties, 8 residential units, 4 vacant parcels, and land from the Knights of Pythias Temple. Right-of-way costs estimated at \$4.85 million.	Requires acquisition of 3 commercial properties, 1 non-profit organization, 24 apartment units, and land from the St. James AME Temple. Right-of-way costs estimated at \$5.2 million.
Hazardous materials	No change from existing conditions	Limited potential to encounter during construction	High potential for encounter on properties to be acquired	Moderate to high potential for encounter on properties to be acquired
Pedestrian access and safety	No change; pedestrian access via tunnel's narrow, subsurface walkways; low visibility; non-ADA compliant	Pedestrian access via surface walks along the at-grade roadway thus providing high visibility	Additional pedestrian access would be required via surface walks to provide higher visibility. Pedestrian access via tunnel's narrow, subsurface walkways; non-ADA compliant would still be possible	No change; pedestrian access via tunnel's narrow, subsurface walkways; low visibility; non-ADA compliant

Issue	No Build	Option A	Option B	Option C
Traffic and Access	No change from existing conditions	Recreates at-grade intersection with Good-Latimer. Eliminates confusing access via service roads. Greatly improved access to adjacent properties and Deep Ellum. Overall improved circulation within area.	Closes west side, at grade segment of Good-Latimer (south of Swiss) and requires a new one-way street. Changes access route for properties in west Deep Ellum. Adds LRT operations to a confusing traffic situation.	Closes east side, at-grade segment of Good-Latimer (south of Swiss). Adds LRT operations to a confusing traffic situation.
Visual	No change from existing conditions	Recreates visual appearance in the 1910's when the Knights of Pythias and St. James AME Temple were originally constructed.	Introduces new visual elements. Potential visual impacts to Knights of Pythias Temple, Gaston Yard apartments, and to south portal of tunnel.	Introduces new visual elements. Potential visual impacts to St. James AME Temple and to apartments
Historic	No change. Any structural rehabilitation project that would bring tunnel into conformity with design standards would have an adverse effect	Adverse effect to Good-Latimer tunnel from direct use. No adverse effects to Knights of Pythias Temple or St. James AME Temple	Adverse effect to Knights of Pythias Temple from direct use. Potential constructive use to Good-Latimer tunnel and Knights of Pythias.	Adverse effect to St. James AME Temple from direct use. Also, constructive use of property because of alteration of access.
Noise	No change from existing conditions	No noise impacts to Section 4(f) properties	No noise impacts to Section 4(f) properties	No noise impacts to Section 4(f) properties Noise impacts at Gaston Yard Apartments.
Public and Agency Support	No public or agency support. The Dallas Landmark Commission and Preservation Dallas have indicated a better option may exist.	Supported by Dallas City Council, Deep Ellum Association, Deep Ellum Foundation, Meadows Foundation, Dallas Morning News, Shared Housing, adjacent property owners, and Deep Ellum residents	Minimal public support	No public or agency support

E5.1.2 Temporary Use

The areas of the Fair Park HD/NHL identified for direct use would also be affected on a temporary basis during construction. As noted under the definitions under Section E3.1, such temporary use is not a Section 4(f) use. Conditions to protect adjoining areas of the Fair Park HD/NHL during the construction process will be developed as part of the consultation process.

The areas for the Good-Latimer options identified for direct use would also be affected on a temporary basis during construction. As noted under the definitions under Section E3.1, such temporary use is not a Section 4(f) use. None of the options would create a temporary use on nearby Section 4(f) properties during construction.

E5.1.3 Constructive Use

U.S. DOT guidance on Section 4(f) (23 CFR Section 771.135 [p][4]) indicates that constructive use occurs under various circumstances, as described below. After each of these conditions, the impact of the proposed LRT relative to the circumstance raised is described.

(i) The projected noise level increase attributable to the project substantially interferes with the use and enjoyment of a noise-sensitive facility of a resource protected by Section 4(f), such as hearing the performances at an outdoor amphitheater, sleeping in the sleeping area of a campground, enjoyment of a historic site where a quiet setting is a generally recognized feature or attribute of the site's significance, or enjoyment of an urban park where serenity and quiet are significant attributes;

The noise analysis prepared for the proposed LRT system indicates that there would be no noise impacts at Fair Park. The current, measured noise level of 63 dBA would increase by just over one dBA with LRT operation.

For the Good-Latimer Options, there would be no noise impacts to any historic properties.

(ii) The proximity of the proposed project substantially impairs aesthetic features or attributes of a resource protected by Section 4(f), where such features or attributes are considered important contributing elements to the value of the resource. Examples of substantial impairment to visual or aesthetic qualities would be location of a proposed transportation facility in such proximity that it obstructs or eliminates the primary views of an architecturally significant historical building, or substantially detracts from the setting of a park or historic site which derives its value in substantial part due to its setting

Without appropriate mitigation, the proposed LRT station and other system elements have the potential to yield a constructive use arising from proximity. Coordination and consultation with

the Dallas Landmark Commission, Dallas Parks Board, Friends of Fair Park, Preservation Dallas, and the SHPO is on-going to ensure that the LRT system elements design will have no adverse effects on the Fair Park HD/NHL.

With regard to the Good-Latimer options, there do not appear to be proximity impacts to Section 4(f) resources under Option A. LRT is a transportation element that would be located within an existing transportation corridor. Option B could have a visual impact to the Knights of Pythias Temple. These proximity impacts can be considered as constructive uses of this property since they have a very high potential to adversely affect the setting, utilization, and functions of the building. Additional property, beyond what would be needed for the LRT alignment, would also need to be acquired to provide ADA access to the station. Redevelopment scenarios that have been considered for this building, which are essential to its long-term preservation, could be negatively influenced by visual, noise, or property acquisition arising from Option B. The type of redevelopment that could occur at the temple would be influenced by the presence of a nearby aerial structure.

Option C would include the crossing of the St. James AME Temple property at an angle, changing the orientation/relationship of the building to the streetscape. The building was designed and placed at right angles to the adjoining streets.

(iii) The project results in a restriction on access, which substantially diminishes the utility of a significant publicly owned park, recreation area, or a historic site.

The proposed LRT system will alter, without diminishing, access to the Fair Park HD/NHL. The LRT Station and planned pedestrian improvement will actually increase overall access to the park. The Washington Street gate along Parry Avenue at the northwest corner of Fair Park will be closed to automobile traffic. This closure will eliminate potential conflicts between automobile traffic and LRT traffic. A new automobile gate will be provided a few hundred feet to the east along Haskell Avenue on the north side of the park. A little used service road and gate at the southeast corner of the park will be closed to make way for the LRT line. Traffic currently using this road will be internally rerouted within the park. Without substantially diminishing access, the LRT line will pass in front of the ceremonial pedestrian gate and the 1st Street automobile gate,

both along Parry Avenue. The LRT Station and planned pedestrian improvement will actually increase overall access to the Fair Park HD/NHL.

For the Good-Latimer options, Option A would remove access to the Good-Latimer Tunnel, but would maintain the current access to all other eligible Section 4(f) properties in the area. Option B would not change the access to eligible properties. Option C would change the access to the St. James AME Temple property.

(iv) The vibration impact from operation of the project substantially impairs the use of a Section 4(f) resource, such as projected vibration levels from a rail transit project that are great enough to affect the structural integrity of a historic building or substantially diminish the utility of the building.

The vibration analysis prepared for the proposed LRT system indicates that there would be no vibration impacts at Fair Park or along Good-Latimer. The highest projected vibration level of 70 VdB is actually below the impact threshold of 75 VdB.

Conclusion

The proposed LRT system will not have a constructive use on the Fair Park HD/NHL because the proposed project does not violate the conditions of items (i) through (iv). SHPO has been consulted and will continue to be to ensure that conditions of item (ii) will not be violated.

For the Good-Latimer area, Option A does not include any constructive uses. Option B appears to create a constructive use under item (ii). Option C appears to create a constructive use under items (ii), and (iii).

E5.1.4 Finding for Architecturally Historic Properties

Fair Park

A direct use of approximately 0.84 acres of the Fair Park HD/NHL is required for implementation of the proposed Built Alternative (LRT) project. However, there is no feasible and prudent alternative to the use of the historic property and a process to incorporate all possible planning to minimize harm has been established. The potential adverse effect to the Fair Park HD/HNL

will be mitigated through a sensitive design that minimizes vertical station elements and captures design elements of the 1936 park entrance. On-going coordination with the SHPO will ensure that the design of the LRT alignment will avoid adverse effect to the property. In a letter dated July 8, 2002, the SHPO recommended that a Memorandum of Agreement (MOA) be developed to address use, design and construction of the LRT Project. This agreement is included in Appendix G of the FEIS. A copy of the July 8, 2002 letter is contained in Attachment E3.

Good-Latimer Tunnel

Option A would include direct use of the Good-Latimer Tunnel, which has been found eligible for the NRHP. Although there are feasible avoidance alternatives (Options B and C) to the use of the Good-Latimer Tunnel, the FTA has determined these alternatives are not prudent based on their impacts. The impacts of the avoidance alternatives include the direct use of other eligible properties or potentially eligible properties, as well as constructive use of eligible or potentially eligible properties. Additionally, the avoidance alternatives have the potential to create adverse effects to other properties that are potentially eligible for listing on the NRHP.

Removing the tunnel would have the no effect on the St. James AME Temple and Knight of Pythias Temple, require no displacements of businesses or residents, have the greatest potential to promoted redevelopment and transit oriented development, improve vehicular and pedestrian safety, and enhance access to the LRT station. Based on these positive effects and the strong community desire for LRT service along Good-Latimer, Option A has the greatest public and agency support. In summary, the impacts and effects of the avoidance alternatives are substantially greater than the impacts and effects associated with the use of the tunnel. In a letter dated July 8, 2002, the SHPO concurred that the demolition of the Good-Latimer Tunnel would have an adverse effect on the historic property and recommended development of appropriate mitigation documentation should be stipulated in a MOA. This agreement is included in Appendix G of the FEIS. A copy of the July 8, 2002 letter is contained in Attachment E3.

E5.2 Archeological Resources Subject to Section 4(f)

DART has undertaken a survey of archeological resources along the proposed corridor. The APE includes any ground area that would be disturbed by excavation, grading or construction. The cultural resource survey for the proposed project included identification of known archeological resources along the proposed alignment. As provided under Section 26.7 of the Antiquities Code of Texas, Fair Park is a State Archeological Landmark. There is the potential to encounter archeological resources during the construction process. Although much of the proposed right-of-way has been previously disturbed, the potential to encounter resources from the historic and prehistoric periods still occurs.

E5.2.1 Direct Use of Archeological Resources

As noted in Section E5.1, the proposed project would require direct use of approximately 0.84 acres of the Fair Park HD/NHL, which is also a State Archeological Landmark. The area that is subject to construction for the placement of new facilities has been previously disturbed and thus the potential to encounter unanticipated resources is very low. However, because under the Antiquities Code historic buildings and other structures are considered to be archeological landmarks, construction of the proposed LRT station and other system elements would require a permit from the THC.

As discussed under Section E5.1.1.1 above, there are no feasible and prudent alternatives to the direct use of the Fair Park State Archeological Landmark and a process to incorporate all possible planning to minimize harm has been established.

Construction for the LRT line across White Rock Creek would occur in an area that has been previously disturbed and that also has a low potential to encounter unanticipated resources. The areas adjacent to and within the corridor have been highly affected by railroad construction, maintenance, and urban development over the past century, and shovel testing of the least disturbed areas yielded no artifacts. The only cultural find was a single historic locality, which appears to represent a construction materials dumping area. In addition to the backhoe trenching at White Rock Creek, visual assessments were made of the floodplains of the other five drainages in the project area. All were found to be either highly disturbed or to be steep-sided drainages with no floodplain or terrace surfaces suitable for occupation.

E5.2.2 Temporary Use

The areas of the Fair Park HD/NHL identified for direct use would also be affected on a temporary basis during construction. As noted under the definitions under Section E3.1, such temporary use is not a Section 4(f) use. Conditions to protect adjoining areas of the Fair Park HD/NHL during the construction process will be developed as part of the consultation process.

E5.2.3 Constructive Use

Since the Fair Park HD/NHL is a State Archeological Landmark, there is also the potential for its constructive use as an archeological resource. Based on the discussion in Section E5.1.1.1 of this 4(f) Statement, there would not be a constructive use of the Fair Park HD/NHL from an archeological perspective.

For other areas where there is a potential for discovery of unanticipated resources, the types of constructive use conditions identified in Section E5.1.1.1 of this 4(f) Statement would not have an effect on archeological resources.

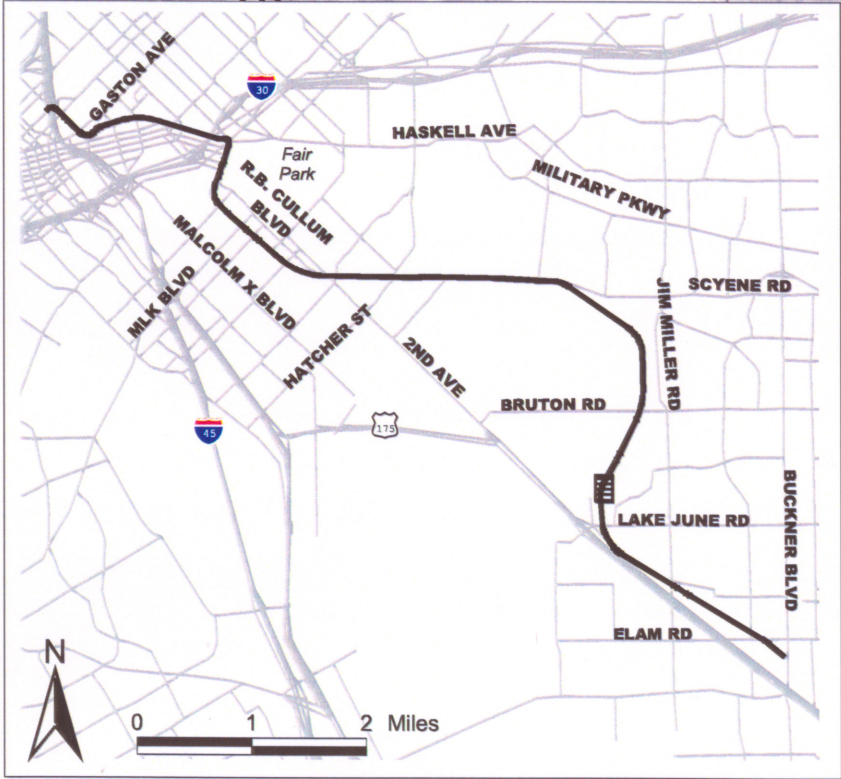
E5.2.4 Finding for Archeological Resources

A direct use of approximately 0.84 acres of the Fair Park State Archeological Landmark is required for implementation of the proposed project. However, there is no feasible and prudent alternative to the use of the archeological resource and a process to incorporate all possible planning to minimize harm has been established. The SHPO and the Advisory Council on Historic Preservation will be provided the opportunity to comment on this finding by circulation of this document.

E5.3 Traditional Cultural Properties

Traditional Cultural Properties are defined as eligible for inclusion in the NRHP because of their association with cultural practices or beliefs of a living community that are rooted in that community's history, and are important in maintaining the continuing cultural identity of the community. The surveys of historical and archeological resources along the proposed corridor did not identify any Traditional Cultural Properties. During the public comment period for the DEIS, a Comanche Storytelling Place was identified as a potential Traditional Cultural Property. The Storytelling Place is located on the escarpment ridgeline along the DART right-of-way in Devon-Anderson Park (Figure E.11).

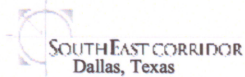
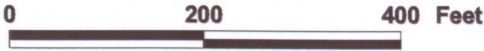
Figure E.11 Comanche Storytelling Place



Legend

- Comanche Storytelling Place
- Build Alternative (LRT)
- - - Existing Rail
- Existing Right-of-Way
- Devon Anderson Park
- ▨ Area of Interest

Source: Carter & Burgess, Inc., 2001



Traditionally, a Storytelling Place is used as means of cultural transition for Comanche children and young adults. Although, events associated with this site involve the sacred traditions that can only be discussed among the Comanche people, the Storytelling Place is essentially a gathering place where stories were shared and games played. The necessary components of a Storytelling Place include a natural spring, specific rock formations, timber, medicinal plants, minerals, berries, fish, and game. The location within Devon-Anderson Park contains all of these qualifying factors. The limestone outcropping of rock that forms a bowl-shaped configuration that is luminescent in the moonlight is a very significant feature of the Storytelling Place. The background documentation provided by the Comanche Nation and interested local environmental groups is contained in Attachment E4. Additionally, the Storytelling Place also functions as a scenic overlook from the escarpment to the Great Trinity Forest.

An archeological investigation by DART within the project limits did not identify any information directly related to the Comanche People or the Storytelling Place. However, after consultation with the SHPO and the Comanche Nation regarding the Storytelling Place, DART conducted a pedestrian archaeological survey of the DART right-of-way adjacent to parkland and the Storytelling Place. This survey did not encounter any items of significant relevance to the Storytelling Place.

The Comanche Nation has recognized the location in Devon-Anderson Park as having the characteristics of a traditional Storytelling Place. Local advocates of the Storytelling Place have provided some historical documentation along with geographical and archaeological evidence that indicate that the Comanche People may have occupied the Great Trinity Forest in the Dallas area prior to 1840. The oral history and sacred traditions of the Comanche People bolstered by this indirect empirical evidence helped the Comanche Nation identify the location in Devon-Anderson Park as a Storytelling Place. On May 23, 2002, the Comanche Nation proclaimed the site sacred.

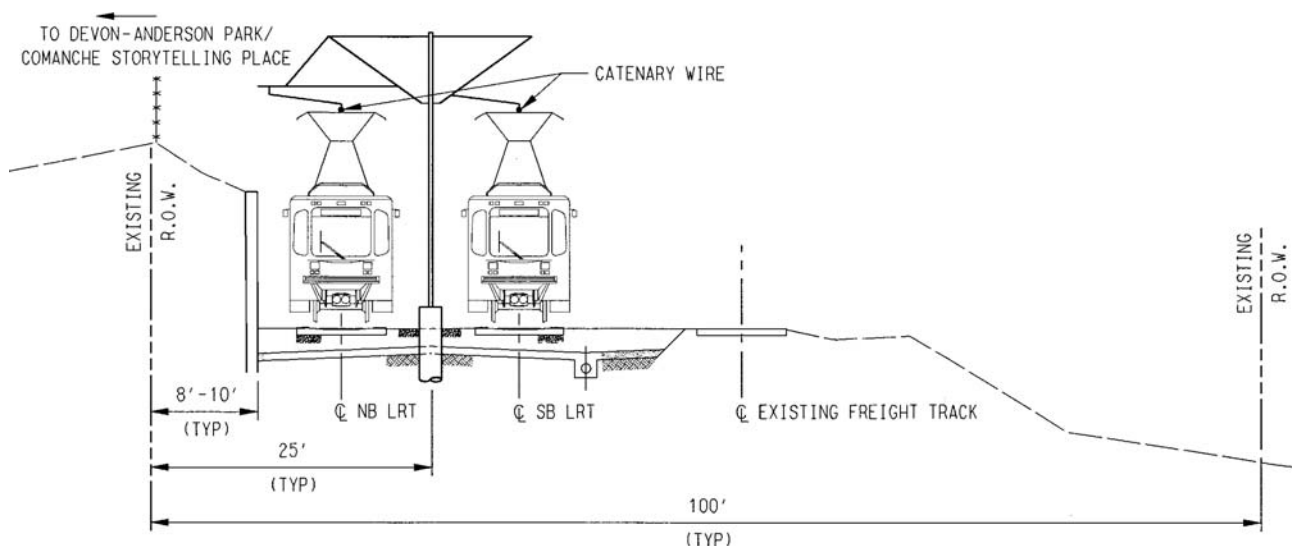
As the Storytelling Place was only brought to DART's attention during the public comment period for the DEIS in April 2002, it was not included in earlier consultation with the SHPO. Documentation supporting the site within Devon-Anderson Park as eligible for the NRHP is limited, however, the Comanche Nation has a strong oral tradition that supports this location as a Storytelling Place. Given this oral tradition and the Comanche Nation's proclamation that the

site is sacred, FTA and DART have determined that the site is potentially eligible for the NRHP. The Comanche Nation is not presently seeking to have the Storytelling Place listed as individual Traditional Cultural Property, but they are working with interested local environmental groups to elevate recognition of the Storytelling Place as a component of a National Historic District, Traditional Cultural Property. This district would include additional resources that are significant to the Comanche People but are not within the APE of the Southeast Corridor LRT Project.

E5.3.1 Direct Use

The Comanche Storytelling Place is located on the escarpment ridge adjacent to the DART right-of-way at Station 505+50 in Appendix D of the DEIS. As originally designed, the rail project will cut into the face and require a retaining wall approximately 10 feet east of the east right-of-way line. Throughout this portion of the corridor, fencing will be placed on both sides of the rail corridor at edge of the DART owned right-of-way for safety because the LRT will be traveling above 45 mph. The fence along the eastside of the right-of-way will be located at the top of the escarpment. Figure E.12 shows the cross section of this design at the Storytelling Place.

Figure E.12 Cross Section of Proposed Design at the Comanche Storytelling Place



At the Storytelling Place, it appears that the face of the escarpment that extends into the rail right-of-way has previously been altered. There is a well-defined 2:1 slope from the top of the escarpment at the edge of the right-of-way down to the existing track bed. This defined slope appears to have been man-made and is typical of the practices the railroads used to make construct rail lines. The subsequent erosion patterns of this area of the escarpment support this concept.

The catenary wire will be placed along the rail corridor approximately 18 to 20 feet above the top of rail. The wire is supported by 22-foot to 26-foot tall catenary poles that will be placed every 40 to 180 feet along the corridor. Pole placement is subject to grade and curvature of the alignment and the exact locations will not be determined until final design. Safety concerns require the placement of fencing along the edge of the right-of-way. This is especially a concern at the Storytelling Place where DART would cut into the escarpment creating a sheer drop off from the public park.

The bowl shaped outcropping of rock that has been identified as the Comanche Storytelling Place is located within Devon-Anderson Park. The DART light rail project will be located within the existing railroad right-of-way and will not encroach into the park. At the Storytelling Place, the escarpment extends into the DART owned right-of-way; however, cutting into this previously altered slope will not have a direct impact to the Storytelling Place. The Southeast Corridor light rail project will not require a direct use of the Comanche Storytelling Place in Devon-Anderson Park.

E5.3.2 Temporary Use

The Comanche Storytelling Place is located within Devon-Anderson Park. As indicated in Section E5.4.2, DART construction activity will not constitute a Temporary Use of Devon-Anderson Park. Therefore, DART construction activity will not constitute a Temporary Use of the Comanche Storytelling Place.

E5.3.3 Constructive Use

U.S. DOT guidance on Section 4(f) indicates that constructive use occurs under the various circumstances detailed in Section E5.1.3 of this document. Each of these conditions is briefly

described below followed by description of the impact of the proposed project as it relates to the circumstance.

(i) The projected noise level increase attributable to the project substantially interferes with the use and enjoyment of a noise-sensitive facility of a resource protected by Section 4(f).

The Comanche Nation did not identify noise as a concern in the coordination and consultation regarding the Storytelling Place. The LRT trains running adjacent to the Storytelling Place will be operate on a straight, flat section of rail without any nearby special trackwork or at-grade crossings. This will result in a quiet rail segment.

Any noise impact introduced by light rail at the Storytelling Place will be mitigated by the retaining wall that will be constructed at the Storytelling Place. The retaining wall will be significantly higher than typical sound walls and sufficiently wide enough to function as an effective noise barrier. The design of the LRT will not result in a noise impact to the Comanche Storytelling Place. Noise generated by the LRT line will not substantially interfere with the use of the site.

(ii) The proximity of the proposed project substantially impairs aesthetic features or attributes of a resource protected by Section 4(f), where such features or attributes are considered important contributing elements to the value of the resource.

The light rail line will be placed in a corridor that has traditional been used for transportation purposes. However, new LRT system elements will be constructed within this corridor. These system elements include: catenary wire, catenary poles, a retaining wall, and fencing. The catenary wire, which will generally blend into the wooded background, will be slightly higher than the top of the escarpment. As the view from the escarpment is out and over the treetops, the catenary wire will not impact the Storytelling Place. Catenary poles can be spaced far enough away from the Storytelling Place to avoid a visual impact. Cutting into the escarpment face and placing a retaining wall will alter the visual appearance of the area and could have an effect on the Storytelling Place. Additionally, the placement of the fence on the right-of-way line at the top of the escarpment will alter the visual appearance of the area and could have an effect on the Storytelling Place.

Without planning to minimize harm and appropriate mitigation, the proposed LRT system elements have the potential to yield a constructive use arising from proximity. Coordination and consultation with the Comanche Nation is on-going to ensure that the LRT system elements design will have no affects on the integrity of the Comanche Storytelling Place.

(iii) The project results in a restriction on access, which substantially diminishes the utility of significant publicly owned park, recreation area, or historic site.

The only permitted access to the Storytelling Place is from the east through Devon-Anderson Park. The LRT line and its elements will eliminate informal access across the railroad corridor. The railroad corridor predates the parkland and there are no licensed or authorized crossings of the railroad corridor in the vicinity of the Storytelling Place. Access across the DART right-of-way adjacent to parkland is further discussed in Section E5.4.3 of this document. The LRT project will not restrict or diminish any authorized access to the Storytelling Place.

(iv) The vibration impact from operation of the project substantially impairs the use of a Section 4(f) resource.

There are no structures associated with the Storytelling Place. The design of the LRT will not result in a vibration impact to the Comanche Storytelling Place.

E5.3.4 Findings for Traditional Cultural Properties

The Southeast Corridor light rail project will not require a direct use of the Comanche Storytelling Place in Devon-Anderson Park. The potential effects to the Storytelling Place will be mitigated through planning to minimize harm and a sensitive design that attempts to preserves the existing visual characteristics of the area. On-going coordination with the Comanche Nation will ensure that the design of the LRT alignment will avoid effects to this resource. In a letter dated December 6, 2002, the SHPO determined there will be “no historic properties affected” by the DART project in the vicinity of Devon-Anderson Park.

E5.4 Parklands

Table E3 lists the 14 parklands and one proposed park within the study corridor. There are also two school playgrounds adjacent to the alignment, but these are not subject to Section 4(f).

Table E3 Parklands and Recreation Lands Subject to Section 4(f)

Name	Owner	Section 4(f) Direct Use ?	Section 4(f) Constructive Use?
Celebration of Life Park	City of Dallas	No	No
John W. Carpenter Plaza	City of Dallas	No	No
Fair Park	City of Dallas	Yes	No
James Madison High School	Dallas Independent School District	No	No
Liberty Park	City of Dallas	No	No
Pine Park	City of Dallas	No	No
Mildred L. Dunn Recreation Center and Park	City of Dallas	No	No
Lawnview Park	City of Dallas	No	No
Silberstein Elementary School	Dallas Independent School District	No	No
Glover Park	City of Dallas	No	No
Grover Keeton Golf Course	City of Dallas	No	No
Gateway Park	City of Dallas	No	No
Devon-Anderson Park	City of Dallas	No	No
Lower White Rock Creek Greenbelt	City of Dallas	No	No
Great Trinity Forest Park (proposed)	City of Dallas/State of Texas	No	No

E5.4.1 Direct Use of Parkland

Of the 15 park and recreational lands, only Fair Park would require a direct use of park property. The area of parkland that would be used by the proposed project corresponds directly to the area of historic property identified in Section E5.1.1.1 that lies within the boundary of the Fair Park Historic District/National Historic Landmark (Fair Park HD/NHL). The direct use of the park property that is co-located with the Fair Park HD/NHL would be justified for the same reasons as described in Section E5.1.1.1 of this 4(f) Statement. All other project improvements at Fair Park would occur within areas that are within the overall boundary of Fair Park parklands but are designated for street use. The western boundary of Fair Park parkland (and thus the western edge of the designated street-use area) shifts in several places. At the intersection of Pacific Avenue and Parry Avenue, the boundary lies just to the west of the median in Parry Avenue, or about 55 feet east of the west right-of-way line of Parry Avenue at that intersection. At the south side of the intersection of Parry Avenue and Exposition Avenue, the boundary shifts 95 feet farther west, and then continues southward. The boundary is about 42 feet east of the west right-of-way line of Parry Avenue between Exposition Avenue and First Avenue. Near Second Avenue, it shifts eastward about 50 feet to near the east curb line of R.B. Cullum Boulevard.

The result is an area designated for street use of varying widths that adjoins the Fair Park HD/NHL boundary to the east. Within this designated area, portions of the LRT line and

portions of the LRT station would be placed from south of Pacific Avenue to First Avenue, and portions of the LRT line would be placed South of First Avenue.

E5.4.2 Temporary Use

The areas of the Fair Park parkland identified for direct use in Section E5.3.2.1 would also be affected on a temporary basis during construction. Areas that are within the area of parkland designated for street use would also be affected on a temporary basis during construction of the LRT improvements. As noted under the definitions under Section E3.1, such temporary use is not a Section 4(f) use. Conditions to protect adjoining areas of the Fair Park parkland during the construction process will be developed as part of the consultation process.

Of the other 12 parks along the LRT alignment, only the Grover Keeton Golf Course would be likely to be affected during construction. The access road to the golf course crosses the LRT alignment and may need to be closed for brief periods.

E5.4.3 Constructive Use

Based on the same discussion as reported in Section E5.1.3, there would not be a constructive use of the Fair Park parklands. None of the other parks along the LRT alignment would be subject to a constructive use. All of the parks exist in an urban environment where the influences of transportation systems are part of their operational and functional characteristics. The alignment uses an existing railroad corridor, which is adjacent to several parks and in two areas, parkland is located on both sides of the alignment. DART owns 100 feet of right-of-way and the LRT alignments would be within this corridor. LRT does not introduce a new barrier since the railroad pre-dates the development of the neighborhoods and parks. The parks have existed adjacent to operating railroad rights-of-way in the past, so the passage of LRT vehicles nearby would not introduce an activity that has not previously existed.

Current access to Grover Keeton is from Jim Miller Road to Grover Keeton Road, which crosses the alignment at-grade. Though there are no formal trails or paths from the neighborhoods to Grover Keeton Park and Gateway Park, residents have indicated that an unimproved gravel driveway from Scyene to a storage/maintenance area north of Grover Keeton Park is used for pedestrian access into the parks. Although the City of Dallas has no formal master plan for Lower White Rock or Devon-Anderson parks, the classification the Park Department has

assigned to the property governs the use and potential use. The park area is classified as "Conservancy/Linkage," a National Park and Recreation Association (NPRA) recognized classification. The NPRA definition is the protection and management of the natural/cultural environment and use for passive recreation. Recreation use might include viewing and studying of nature/wildlife habitat and nature trails. NPRA does not have any specific acreage or size standards for this classification other than they should be sufficient to protect the resource and provide appropriate usage.

During the DEIS comment period, several persons indicate a perceived constructive use of parkland because of the fencing that would be placed along the alignment near parks. It is DART policy to place fence along areas where DART will operate above 45 miles per hour, in areas where there are decreased sight distances for the train operator, or in areas needed to minimize safety risks to children such as near schools or parks. The purpose of the safety fencing would be to ensure safe access is provided at controlled intersections and to discourage unauthorized use of the right-of-way. The introduction of safety fencing in areas of pedestrian activity and where informal crossings of the alignment are located would impact the ability of persons to cross the alignment at will. Because of the heavily wooded nature of the area which creates limited sight-distance, at-grade crossings of the LRT alignment between the parks will not be allowed to ensure the safety of the public and transit patrons. Except for the two at-grade crossing previously cited, there are no licensed or authorized crossings of the railroad between the parks and persons currently crossing the tracks between the parks are trespassing on DART right-of-way. The Dallas Park and Recreation Department recognizes that DART would be operating within their own right-of-way and that use of the right-of-way for park purposes would require a recreation use license which the city does not have. Because the railroad right-of-way already exists, the Parks Department does not consider its use for LRT creates a constructive use of parkland.

To accommodate access between and into parks along the alignment, three crossings will be included to provide recreational and maintenance access to the parks. Two will be at-grade and one under the LRT. The at-grade crossings at the Grover Keeton Road and the improved gravel driveway from Scyene to a storage/maintenance area north of Grover Keeton Park will remain. A pedestrian under crossing just south of Bruton Road along the creek crossing will be added. The LRT bridge over the stream will be widened and a bench created to provide an

informal, natural passage under the LRT. These crossings have been sited at locations consistent with DART's safety and design policies.

E5.4.4 Finding for Parklands

A direct use of approximately 0.84 acres of the Fair Park parklands is required for implementation of the proposed project. However, there is no feasible and prudent alternative to the use of the parklands and a process to incorporate all possible planning to minimize harm has been established. Other project improvements would occur within an area of Fair Park parkland that is designated for street use. Despite the direct use of parkland at Fair Park, on-going coordination with the SHPO and the City of Dallas Parks Department will ensure that the design of the LRT alignment will avoid effects to the property. In a letter dated July 8, 2002, the SHPO recommended that a MOA be developed to address use, design and construction of the LRT Project. This agreement is included in Appendix G of the FEIS. A copy of the July 8, 2002, letter is contained in Attachment E3.

E5.5 Discussion of Planning to Minimize Harm

E5.5.1 Fair Park

DART has undertaken consultation and planning efforts to ensure that the proposed LRT station adjacent to the ceremonial entrance results in minimal harm to the Fair Park HD/NHL. As previously noted, the design of Fair Park in the 1930s (its period of significance for listing as a National Historic Landmark) included trolley service to the ceremonial entrance. The conceptual design of the LRT station has been developed to capture design elements of previously existing ticket booths. DART has consulted with SHPO (under Section 106) on the design of the LRT station to avoid adverse effects to the property. In a letter dated February 20, 2002, SHPO concurred with the proposed design as shown in Figure E.13. This letter is included in Attachment E3.

Portions of all of the types of station elements described above are likely to be placed on property that is within the Fair Park HD/NHL boundary, but outside of the existing ornamental fence at the Ceremonial entrance. The remainders of these elements would be placed in the parkland area reserved for street uses.

Figure E.13 Rendering of Proposed Fair Park LRT Station



Source: Carter & Burgess, 2002

At the 1st Avenue signalized crossing into Fair Park, DART has committed to maintaining the lowest possible audible setting for the signal bells to avoid a constructive use to the adjacent Fair Park Music Hall. Additionally, DART has agreed to train whistle ban at this intersection. On-going coordination with Fair Park and the Music Hall may limit this whistle ban to Music Hall events.

The proposed LRT system will alter, without diminishing, access to historic Fair Park. The Washington Street gate along Parry Avenue at the northwest corner of Fair Park will be closed to automobile traffic. This closure will eliminate potential conflicts between automobile traffic and LRT traffic. A new automobile gate will be provided a few hundred feet to the east along Haskell Avenue on the north side of the park. A little used service road and gate at the southeast corner

of the park will be closed for the LRT line. Traffic currently using this road will be internally rerouted within the park.

In an effort to minimize harm of the temporary use of Fair Park during construction, DART will work with Fair Park to schedule construction not to coincide with the major Fair Park events such as the State Fair of Texas.

As previously stated, DART is committed to on-going consultation with the SHPO to assure that adverse effects do not occur to the Fair Park HD/NHL. Although DART will also continue consultation with other interested parties, compliance with Sections 106 and 110 on behalf of FTA is recognized as the overriding standard to assure that harm is minimized.

E5.5.2 Good-Latimer Tunnel

DART has undertaken consultation and planning efforts to minimize harm for the Good-Latimer options. Each option would have different effects and require different actions to minimize harm.

E5.5.2.1 Option A

DART has undertaken consultation and planning efforts to minimize harm for the Good-Latimer options. Elimination of the Deep Ellum Station would not eliminate the impacts to the tunnel. Engineering studies have determined the tunnel is not structurally capable of sustaining the weight of LRT facilities (either line sections or the proposed station).

Under Option A, razing the tunnel and filling in the area would mean the loss of the tunnel. However, Option A would not require the direct or constructive use of two other properties – the St. James AME Temple and the Knights of Pythias Temple. DART proposes that the adverse effect of physical destruction of the Good-Latimer Tunnel will be mitigated through documentation. The documentation for the Good-Latimer Underpass shall be prepared in accordance with the Historic American Engineering Record (HAER) Level I. This documentation will include measured drawings depicting existing and historic conditions, photographs with large-format negatives of interior and exterior views and a written narrative that places the tunnel and remaining system elements in the context of the community

development of Dallas. DART is committed to continue coordination efforts with the SHPO to ensure that the appropriate measures are achieved.

One of the features of the Good-Latimer Tunnel, although it does not contribute to the historic designation of the facility, is a role the tunnel entry walls provide as a venue for murals. Many community members consider this mural space, and its role in creating a gateway entry to the Deep Ellum area, an important asset. Although technically it would not reduce harm to the Section 4(f) resource, the DART Board of Directors has allocated \$1.5 million for the creation of a new Deep Ellum Gateway if Option A is selected. DART would work with the community to develop a gateway design that is sensitive to the area. Additionally, if practicable, DART will attempt to retain significant pieces of the tunnel fabric for placement in a local and public setting with appropriate interpretation.

These mitigation measures were recommended in an August 15, 2002, letter from a coalition of preservationists and Deep Ellum stakeholders which included Preservation Dallas, Meadows Foundation of Texas, Deep Ellum Association, and the Friends of Fair Park. A copy of this letter is contained in Attachment E3.

E5.5.2.2 Option B

Although Option B has been designed to be an avoidance alternative to filling in the Good-Latimer Tunnel, it also has significant impacts. These impacts cannot be reduced without compromising DART design and safety standards, station requirements, or City of Dallas traffic requirements. Any action of this type would severely impair DART ability to operate or would further exacerbate area traffic and circulation problems.

Option B includes an aerial structure to cross over the southern entry into the tunnel. Using single columns where feasible to support the aerial structure would minimize its appearance and help reduce visual impacts in the tunnel. The alignment has been developed to minimize impacts to the Knights of Pythias Temple but still place an elevated LRT structure near the building which would distract from the character of the property.

Additionally, in order to serve the Deep Ellum community, a pedestrian way has been designed that utilizes property historically associated with the National Register-eligible Knights of Pythias

Temple. This would constitute a direct use of the property. Elimination of this pedestrian way would severely impair DART's ability to serve the area and station. The Deep Ellum Station would serve as a destination station and would not include parking, drop-off, or bus transfer facilities. This means the primary access to the station will be by walking. Because of the many concerns associate with the tunnel, including safety and ADA requirements, DART will not consider use of the tunnel for pedestrian access.

Elimination of the Deep Ellum Station could reduce impacts to the Knights of Pythias. However, this would not meet the goals and objectives for the project. There is high demand for the Deep Ellum Station which would be within walking distance of the Wilson Historic District, over 20 non-profit organizations, the Latino Cultural Center, the Deep Ellum Entertainment District, the Dallas CBD, and hundreds of residential units.

E5.5.2.3 Option C

Like Option B, Option C is an avoidance alternative to filling in the Good-Latimer Tunnel that has significant impacts. These impacts cannot be reduced without compromising DART design and safety standards, station requirements, or City of Dallas traffic requirements. Any action of this type would severely impair DART ability to operate or would further exacerbate area traffic and circulation problems.

For Option C, efforts to reduce harm have focused on ensuring minimal incursion onto the St. James AME Temple site at 624 N. Good-Latimer. Under Option C, the LRT alignment would be shifted to the east in order to align with an LRT station on the east side of Good-Latimer, just south of Swiss Avenue. This shift requires crossing the southwest corner of the property. The alignment has been developed to minimize impacts to the property. However, due to the space requirements for the station and LRT design requirements, the transition to the east side of Good-Latimer would impact the parking areas and access to the St. James AME Temple. This property is individually eligible for listing on the NRHP and the impact to property and access would be considered both a direct impact and constructive use.

Elimination of the Deep Ellum Station could reduce impacts to St. James AME Temple. However, this would not meet the goals and objectives for the project. There is high demand for the Deep Ellum Station which would be within walking distance of the Wilson Historic District,

over 20 non-profit organizations, the Latino Cultural Center, the Meadows Foundation of Texas, the Deep Ellum Entertainment District, the Dallas CBD, and hundreds of residential units.

E5.5.3 Comanche Storytelling Place

DART has consulted with the Comanche Nation regarding the Storytelling Place and scenic overlook. This consultation included discussions and mitigation measures to ensure the project will not affect the site. Although considered by the Comanche People as part of an overall cultural landscape, the area of primary importance is the limestone outcropping of rock that forms a bowl-shaped configuration that is luminescent in the moonlight. This area is outside of the DART right-of-way and will not be directly impacted by the construction of the LRT.

As stated previously, the design will cut into the face of the escarpment that extends into the right-of-way and put up a retaining wall. Because of the importance of the natural limestone outcropping at the Storytelling Place, as requested by the Comanche Nation, DART will construct the retaining wall of limestone in order to blend in with the natural setting.

Additionally, DART will eliminate the fence along the right-of-way line at top of the escarpment and the retaining wall be extended to height that preserves the view and meets DART safety requirements.

Other mitigation that DART has committed to at this location is that the fence, from Station 504+00 to Station 508+00, opposite the Storytelling Place will be coated in a black vinyl material to blend in with the background. Catenary poles will be spaced as far from the view from the escarpment as practically possible. Catenary poles, if practical, will also be kept to a minimum height. Additionally, the archeological survey of the corridor will be provided to the Comanche Nation for their efforts for National District recognition.

E5.5.4 Parkland

As stated previously, two at-grade crossings and one pedestrian underpass of the LRT will be included in the design to accommodate access between and into parks along the alignment. These crossings have been sited at locations consistent with DART's safety and design policies.

Current Federal Railroad Administration (FRA) rules preclude such the concept of a whistle ban at the two at-grade crossings adjacent to Grover Keeton Park where DART will share right-of-

way with freight operations. The noise and vibration analysis prepared for the LRT system indicated that marginal exceedance of impact threshold would affect only a portion of the green at hole No. 1 at the Grover Keeton Golf Course. This type and level of impact to a very small portion of the overall parkland would not be a substantial constructive use.

In consideration of these two at-grade crossings, DART has been tracking the proposed FRA Rule on the Use of Locomotive Horns. This proposed rule would implement a statutory requirement that locomotive horns sound at each rail grade crossing unless certain exceptions are met. While DART prefers the safety afforded by the whistle, these intersections will be designed with unmountable median barriers so as not to preclude the community seeking to establish quiet zones in the future.

E5.6 Agency Consultation and Roles

As the federal lead agency/grantor for the proposed project, the FTA is legally responsible for compliance with the National Historic Preservation Act (NHPA) and Section 4(f) of the Transportation Act. All activities conducted by DART are on behalf of, and subject to approval of, the FTA.

E5.6.1 Fair Park

DART has undertaken and continues consultation with agencies with regulatory purview over the Section 4(f) resources in the corridor. These agencies are the City of Dallas Parks and Recreation Department, SHPO, and the National Park Service. The City of Dallas is the owner of Fair Park. The SHPO has administrative responsibilities over the resources of the park listed in the NRHP. These administrative responsibilities include Section 106 of the NHPA and the Texas Antiquities Code. Section 106 requires that every federal agency “take into account” the undertaking’s effects on historic properties; this occurs through a consultation process with the SHPO. As a National Historic Landmark, Fair Park is under the administrative responsibility of the National Park Service with regard to Section 110 of the NHPA. Section 110 requires that the responsible federal agency assume responsibility for the preservation of historic properties they own or control and, to the maximum extent possible, undertake such planning and actions as may be necessary to minimize harm to any National Historic Landmark.

DART understands and is committed to agency consultation throughout the remainder of the project development process in order to fulfill all the responsibilities and processes of Section 4(f) of the Transportation Act, Sections 106 and 110 of the NHPA, and Chapter 26 of the Texas Parks and Wildlife Code. This consultation will assure that the on-going design refinement process continues to avoid impacts to the parks and historic resources along the alignment.

Consultation has also taken place with groups that have an interest in these resources, including the City of Dallas Landmark Commission, City of Dallas Park and Recreation Board, City of Dallas Urban Design Advisory Committee, entities with facilities on the Fair Park campus, Friends of Fair Park, Preservation Dallas, and the community. Appendix C of the DEIS includes a list of meetings and presentations for both the MIS and PE/EIS and coordination meetings with other agencies.

E5.6.2 Good-Latimer Tunnel

The SHPO has determined that the tunnel is eligible for listing in the NRHP. The tunnel is subject to use (razing and bringing the roadway up to grade with surrounding properties) under the primary LRT alignment. DART has undertaken consultation with organizations that are concerned about potential impacts to the Good-Latimer Tunnel. Among these are the City of Dallas, Dallas Landmark Commission, Deep Ellum Association, Deep Ellum Foundation, Preservation Dallas, the Meadows Foundation, and nearby property owners and residents. Appendix C of the DEIS includes a list of meetings and presentations for both the MIS and PE/EIS and coordination meetings with other agencies. Additionally, Attachment E2 includes copies of correspondence from these parties, comments received during the public hearings held in March 2002, as well as a copy of an editorial from *The Dallas Morning News* supporting filling in the tunnel. Of the verbal and written comments received, the overwhelming majority of people supported filling in the tunnel.

E5.6.3 Comanche Storytelling Place

Since the Storytelling Place was identified in April 2002, DART has undertaken and continues consultation with the Comanche Nation. On August 12, 2002, representatives of FTA, SHPO, DART, the Comanche Nation, and local environmental groups met at the Storytelling Place to discuss impacts of the DART LRT Project. As detailed in E5.5.3, DART has worked with the Comanche Nation in the development of plans to minimize harm to the Storytelling Place. In the

future, the Comanche Nation will be given the opportunity to review all plans that may potentially impact this site.

E6.0 Conclusions

Assuming the selection of Good-Latimer Alignment A, two uses of Section 4(f) properties will be associated the construction of the Southeast Corridor LRT line. The razing of the Good-Latimer Tunnel constitutes a direct use of this Nation Register of Historic Places eligible structure. At Fair Park, the LRT line and system elements will be placed within the boundary of protected parkland and the Fair Park HD/NHL. This also constitutes a direct use of this Section 4(f) property. This Section 4(f) Statement demonstrates that there is no feasible and prudent alternative to the use of these two Section 4(f) properties. The proposed Southeast Corridor alignment has been strongly supported the City of Dallas, local stakeholders, and the public. Measures to minimize harm have been incorporated into the planning process. The use of the Good-Latimer Tunnel will be mitigated through documentation while the use of Fair Park will be mitigated through a sensitive design that captures previously existing elements of the historic park. Coordination and consultation between FTA, DART, SHPO, City of Dallas, and the National Park Service is on-going.

FTA and DART recognize the Comanche Storytelling Place as a unique resource along the Southeast Corridor LRT line that is potentially eligible for the NRHP as a Traditional Cultural Resource. The potential effects of the LRT line on this resource will be mitigated through a sensitive design that has been approved by the Comanche Nation.

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ATTACHMENT E1
HISTORIC RESOURCES SURVEY

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Supplemental Request for
Determination of Eligibility

for the

**SOUTHEAST CORRIDOR
LIGHT RAIL TRANSIT PROJECT**

City of Dallas, Dallas County, Texas

November 2001

Prepared For:

Federal Lead Agency:

Federal Transit Administration

Applicant:

Dallas Area Rapid Transit (DART)

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Appendix C - State of Texas Historic Resource Inventory Forms for the DART Southeast Corridor Light Rail Transit Project

Category 1—Properties Previously Listed in the National Register of Historic Places

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Introduction

The Federal Transit Administration (FTA) has determined that the proposed DART Southeast Light Rail Transit Project (DART SE LRT) in Dallas, Texas, is an undertaking as defined in 36 CFR §800.16(y) because it has the potential to cause effects on historic properties and, therefore, requires compliance with Section 106 of the National Historic Preservation Act as amended (Section 106, 16 U.S.C. 470f) and its implementing regulations (36 CFR Part 800). This Request for Determination of Eligibility Report is being prepared to seek the concurrence of the SHPO with the identification of properties that may be eligible for inclusion in the National Register of Historic Places.

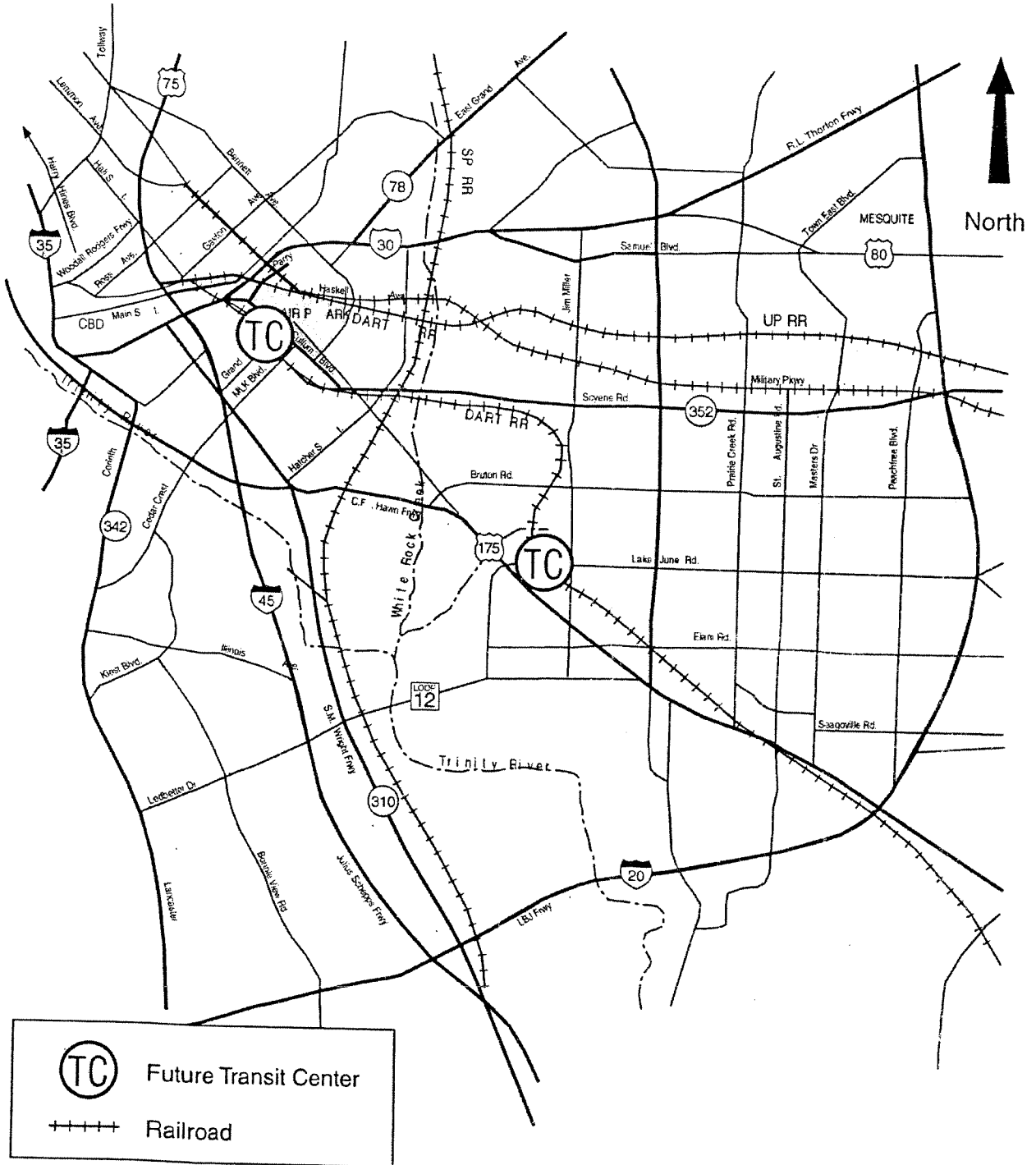
Project Description

On May 9, 2000, after an extensive Major Investment Study of the Southeast Corridor, the DART Board of Directors approved the staff recommendation to extend the existing light rail alignment from the Dallas Central Business District through South Dallas/Fair Park, Grover Keeton Golf Course and to terminate at Elam Road and Buckner Boulevard in Pleasant Grove. DART SE LRT involves construction of a light rail transit line within the existing street and freight railroad right-of-way, in part along a route that historically contained streetcar service.

Build Alternative

The alignment of the proposed Build Alternative follows Bryan Street east from the existing Pearl Street Station under North Central Expressway to Good-Latimer Expressway. At Good-Latimer, the alignment turns and follows the roadway until just south of Gaston Avenue. It then turns eastward and follows the former Union Pacific Railroad (UP RR) right-of-way to Haskell Avenue where it turns southwest and parallel to Parry Avenue and the west side of Fair Park, passing by the National Women's Museum and the Music Hall. The alignment then turns to the southeast to the former Southern Pacific Railroad (SP RR) parallel to Trunk Avenue, where it remains within the former SP RR right-of-way until just west of Second Avenue. The alignment continues to use the former SP RR right-of-way, which parallels Scyene Road, then turns south through the Grover Keeton Golf Course. The alignment crosses Lake June Road and turns southeast roughly parallel to US 175 to Elam Road at Buckner Boulevard. (See Figure 1.)

Figure 1: DART Southeast Study Area



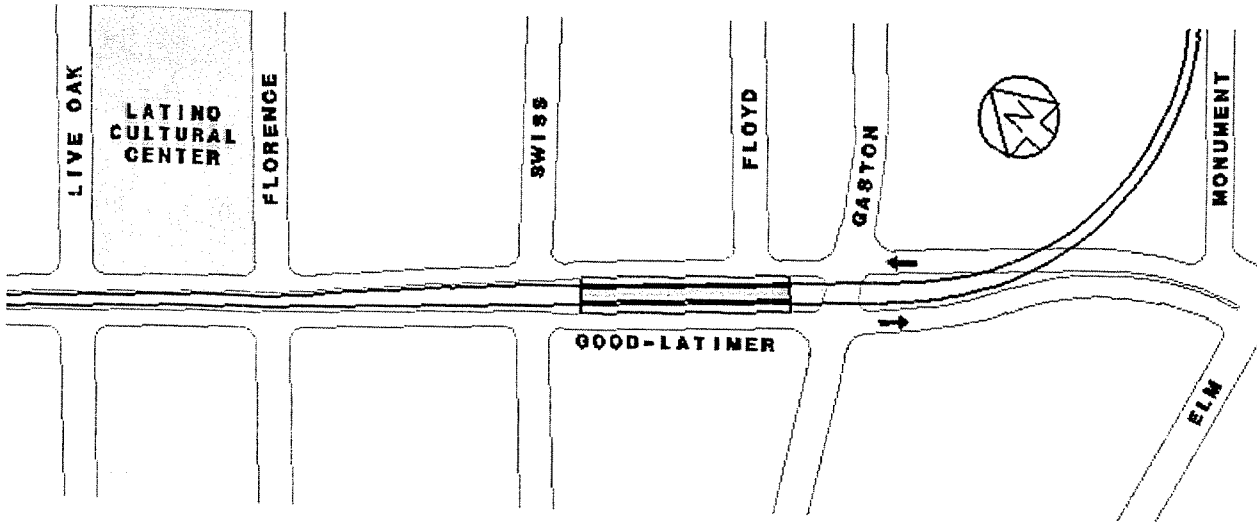
Good-Latimer Area

Currently, Good-Latimer Expressway goes under Gaston Avenue via a 300-foot long tunnel. The tunnel was originally constructed in 1930 to facilitate the flow of traffic under the congested tracks of the Houston & Texas Central (H&TC) Railroad (Dallas Landmark Commission Landmark Nomination Form, Deep Ellum, prepared October 25, 1995 by the Research & Media Group.). As described previously, the proposed DART SE LRT alignment follows Good-Latimer and then turns onto the former UP RR. The existing tunnel cannot be used for light rail transit. The tunnel has not been maintained properly, is deteriorating, and cannot support the weight of light rail transit. Other concerns include frequent flooding of the tunnel, poor lighting, and the perceived safety of pedestrians (transit users). To the community, the tunnel represents a local landmark and a [geographical, but not historical] gateway to the Deep Ellum area. Local artists through an art program decorate the retaining walls. Because of the potential engineering and social impacts in the area, two options have been developed to transition from Good-Latimer to the former UP RR. The options have been designated Good-Latimer Option A and Good-Latimer Option B and are shown on Figures 2 and 3, respectively.

Good-Latimer Option A

This LRT alignment option would follow the median of Good-Latimer and then cross the northbound lanes of Good-Latimer. It would require filling in the existing tunnel to bring the travel lanes of Good-Latimer to the same level as Gaston Avenue and the surrounding properties.

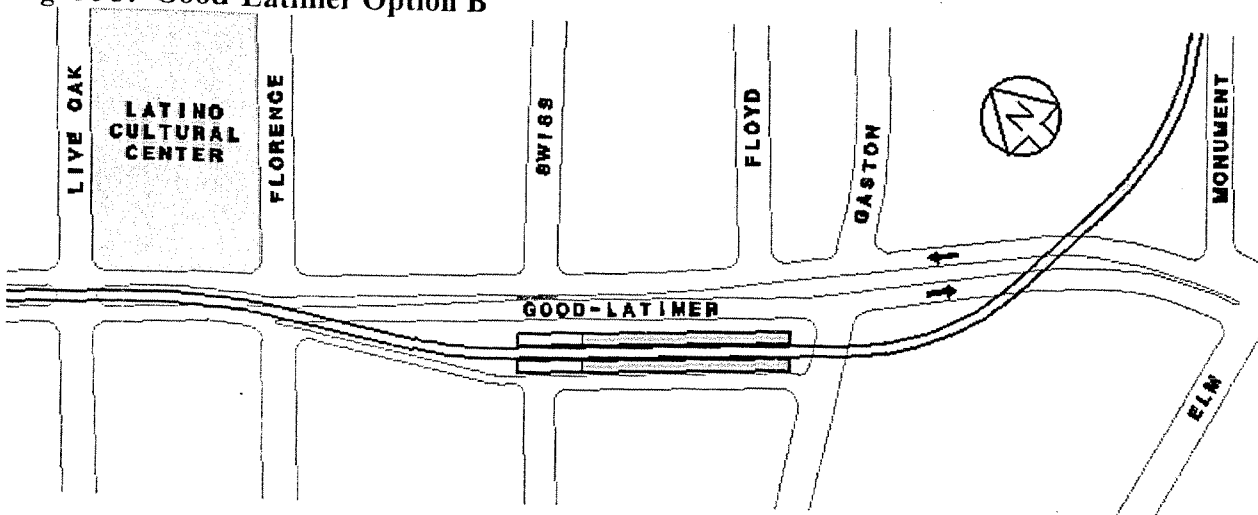
Figure 2: Good-Latimer Option A



Good-Latimer Option B

This option would allow the existing tunnel to stay in place by shifting the DART SE LRT alignment to the west. This alignment option would also require the construction of a new one-way street west of the DART SE LRT to allow access to adjacent properties.

Figure 3: Good-Latimer Option B



Identification Effort

Section 106 of the National Historic Preservation Act of 1966, as amended, requires that federal agencies take into account the effects of their projects on properties in or eligible for inclusion in the National Register of Historic Places. In accordance with this law and with the guidelines for its implementation promulgated by the ACHP, the FTA and DART have undertaken an affirmative search and analysis of archaeological, historic, and architectural resources that could be affected by this project. Among the first steps in this process, is the identification of the Area of Potential Effects.

Area of Potential Effects

As defined in the Section 106 guidelines, the Area of Potential Effects (APE) means “the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects cause by the undertaking” [36 CFR §800.16(d)].

The APE definition for the DART SE Light Rail is shown in the box below.

Area of Potential Effects Definition

The APE for archaeological resources includes any ground area that would be disturbed by excavation, grading, or construction.

The APE for architectural and historical resources includes the parcels within and adjacent to the DART Southeast Corridor Light Rail Transit Project alignment, parcels containing and adjacent to transfer power substations, and parcels within a reasonable view shed of aerial structures.

The APE boundary was mapped based on an application of the above definition to the conceptual-preliminary engineering available for DART SE Light Rail at the time of this DER. The APE map is included in this DER as Appendix A.

Records Search

The determination of eligible historic and archaeological sites is a major component of Section 106 related research. Since eligibility for inclusion in the National Register is dependent on four distinct criteria, proper evaluation also involves extensive site specific archival research concentrating in the areas of architectural, historical and archaeological significance. Taking the results of the record search into account, subsequent field studies focus upon the identification of properties which have retained substantial integrity of their historic fabric, and could be considered for inclusion in the National Register.

Archaeological Resources

The majority of the DART SE LRT would be constructed in the existing street or railroad right-of-way. Because of the relatively small areas of previously undisturbed ground that would be affected by construction, a more detailed analysis of archaeological resources, including the results of Native American coordination, will be submitted under separate cover. The following analysis was prepared by AR Consultants of Dallas for the DART SE LRT.

The preferred alternative crosses the White Rock Creek and Elam Creek floodplains, areas where archaeological sites have been previously been recorded more than half a century ago by members of the Dallas Archeological Society (DAS). The floodplains were considered to be areas of high archaeological potential in the 1978 Dallas Archaeological Potential report, but subsequent investigations in the area have since reassessed the potential as being medium, although with some areas of high potential such as the area of the White Rock Lake Spillway site.

Archaeological resources have not been recorded within any of the studied alternatives, but previous DAS archaeological surveys and investigations in conjunction with development projects over the past twenty years have recorded prehistoric archaeological sites in the area. More specifically, five prehistoric sites have been recorded near the route and adjacent to White Rock Creek, both in the floodplain and in the nearby uplands. Two of these sites are described as being located on the bluff overlooking the creek and being immediately adjacent to the route of

the preferred alternative between Scyene Road and Burton Road. Other sites have been recorded as being on a ridge next to the creek bank and in the floodplain near a flowing spring. Sites have also been recorded downstream from the crossing of Elam Creek. Artifacts from these sites include arrow points, Caddoan pottery, lithic debris, and mussel shells. These sites were recently reevaluated by the DAS and two were determined to be intact, while one of the sites has been completely destroyed since it was recorded more than fifty years ago.

Historic Buildings and Structures

DART reviewed existing information on historic buildings and structures within the area of potential effects, by undertaking a records search to determine the proximity of previously documented historic and architectural resources to the project and to help establish a context for resource significance. National, state and local inventories of architectural/historic resources were examined in order to update this previous information, and identify significant local historical events and personages, development patterns, and unique interpretations of architectural styles. The following inventories and sources were consulted:

- The National Register of Historic Places, National Register Information System, updated through August 2001;
- Registered Texas Historical Landmarks;
- Texas Historic Engineering Site Inventory;
- Texas Historical Commission, Texas Historical Site Atlas, <http://atlas.thc.state.tx.us>
- City of Dallas Landmarks

National Register Criteria for Evaluation

In order to evaluate the historic significance of a property, the National Register of Historic Places criteria for evaluation, set forth in 36 CFR Part 60.4, must be applied, as follows:

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and

(a) That are associated with events that have made a significant contribution to the broad patterns of our history; or

(b) That are associated with the lives of persons significant in our past; or

(c) That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

(d) That have yielded, or may be likely to yield, information important in prehistory or history.

Among other criteria considerations, a property which has achieved significance within the last 50 years is not considered eligible for inclusion in the National Register unless certain exceptional conditions are met. The 50-year age criterion for the DART SE Light Rail has been set at 1953, which is 50 years before 2003, the year its major construction effects are anticipated to end.

The National Register Criteria are written broadly to recognize the wide variety of historic properties associated with our prehistory and history. To help agencies make reliable decisions of significance, the National Register Branch of the National Park Service has developed additional guidelines, including National Register Bulletin 15, entitled *How to Apply the National Register Criteria for Evaluation*, which states:

For a property to qualify for the National Register it must meet one of the National Register Criteria for Evaluation by: being associated with an important historic context and retaining historic integrity of those features necessary to convey its significance.

Historical Context

The historic context serves as the framework within which the National Register Criteria are applied. A building or structure must possess significance in American history, architecture, engineering, or culture when evaluated within the historic context of a relevant geographic area. An historic context illustrates significance according to themes, periods of significance, property types and geographic area. The following section is intended to help establish a context for

evaluating National Register significance for properties located within the Area of Potential Effects. Known examples of a specific property type or architectural style are often indicated for reference purposes, but this is not intended to be a complete listing.

Founding and Early Development of Dallas

Dallas is on the Trinity River in the center of Dallas County in North Central Texas. The city was founded by John Neely Bryan, who settled on the east bank of the Trinity near a natural ford in November 1841. The ford, at the intersection of two major Indian traces, provided the only good crossing point for miles. Two highways proposed by the Republic of Texas soon converged nearby, increasing the desirability of the site as a location to settle. In addition, Bryan had unknowingly settled on land granted by the republic to the Texan Land and Emigration Company of St. Louis, headed by William S. Peters. Bryan eventually legalized his claim, and the extensive promotional efforts of the Peters colony attracted other settlers to the region.

In 1844, J. P. Dumas surveyed and laid out a town site comprising a half-mile square of blocks and streets. The origin of the name Dallas although speculation points out that prominent personages of that time included George Mifflin Dallas, vice president of the United States from 1845-49, his brother, Commodore Alexander J. Dallas, United States Navy; and Joseph Dallas, who settled near the new town in 1843. Dallas County was formed in 1846, and Dallas was designated as the temporary county seat. In 1850, voters selected it as the permanent county seat. The Texas legislature granted Dallas a town charter on February 2, 1856, Dr. Samuel Pryor, elected the first mayor, headed a town government consisting of six aldermen, a treasurer-recorder, and a constable.

Dallas quickly became a service center for the rural area surrounding it. By the 1850s, it had dry-goods stores, groceries, a drugstore, an insurance agency, a boot and shoe shop, brickyards and saddle shops, as well as a weekly newspaper, the *Dallas Herald*, founded in 1849. In 1852, French immigrant Maxime Guillot established the first factory, manufacturing carriages and wagons. Alexander and Sarah Horton Cockrell, who purchased Bryan's remaining interest in the town site for \$7,000 in 1852, built a three-story brick hotel, a steam sawmill, and a flour mill. With the breakup of the nearby La Réunion colony in the late 1850s, skilled European craftsmen

and artists moved into Dallas, including brickmakers, cabinetmakers, tailors, milliners, brewers, and musicians. By 1860, the population was 678, including ninety-seven African Americans as well as French, Belgians, Swiss, and Germans.

On July 8, 1860, a fire originating in the W. W. Peak Brothers Drugstore spread to the other buildings on the town square and destroyed most of the businesses. Suspicion fell on slaves and Northern abolitionists, and as a result three slaves were hanged and two Iowan preachers were whipped and run out of town.

In 1861, Dallas voters voted 741 to 237 to secede from the Union. Dallas was selected as one of eleven quartermaster and commissary posts in Texas for the Trans-Mississippi Army of the Confederacy. After the war, freed slaves flocked to Dallas in search of jobs and settled in freedmen's towns on the periphery of the city. By 1870, the population was about 3,000.

Transportation and Commerce

The key to economic expansion in Dallas had always been better transportation in and out of the attempts to navigate the Trinity River had proved impractical. Dallas businessmen turned their attention to securing rail service and succeeded in attracting the Houston and Texas Central in 1872 and the Texas and Pacific in 1873, making Dallas one of the first rail crossroads in Texas. By 1885, there were five railroad lines in Dallas, making Dallas a hub in the growing transcontinental transportation system.

Like Atlanta, Dallas found itself in a strategic geographical location for the transport of abundant regional products to northern and eastern manufacturing plants. Cotton became the region's principal cash crop, and Elm Street in Dallas was its market. Dallas became the world center for the leather and buffalo-hide trade. Merchants who opened general stores along the railroad route as rail construction crept north settled in Dallas and founded their flagship stores there. By 1880, the population had more than tripled, to 10,385.

During the last quarter of the nineteenth century, banking and insurance emerged as major industries under the leadership of such men as William Henry Gaston, William L. Cabell, and J. T. Trezevant. With their close involvement in civic affairs, Dallas businessmen launched the State Fair of Texas, organized a board of trade, and founded a merchants exchange to promote the city's favorable business climate. Dallas acquired telephones (1881), electricity (1882), and several daily newspapers, principally the *Dallas Morning News* (1885) and the *Dallas Times Herald* (1888).

As was appropriate in a growing metropolis, in the early 1870's streetcar service joined the rail lines in serving the citizens of Dallas. In 1873, the first streetcar line was added heading north of downtown. In 1889, this mode of transit was given a further boost as electrification began to be added to Dallas' streetcar lines. Low cost transportation helped the city grow, as real estate developers scrambled to fulfill the middle class' dream of a freestanding residence on a piece of land convenient to transportation but out of the bustle of downtown. By the 1920s and 1930s, multiple trolley lines were serving downtown Dallas and the areas along the proposed DART SE alignment, including those of the Texas Electric Railway.

After annexing the neighboring town of East Dallas on January 1, 1890, Dallas ranked as the most populous city in Texas in 1890, with 38,067 residents. Three years later, in the wake of a national financial panic, five Dallas banks and several industries failed. Cotton prices dropped to less than five cents a pound. Only sixty-two new manufacturing firms were established in Dallas during the 1890s. The panic also affected unionized labor, which had just begun to organize. The American Federation of Labor granted a charter to the Trades Assembly of Dallas in 1899. Among its early causes was championship of the eight-hour workday and legislation outlawing the firing of union members.

Twentieth Century Growth and Expansion

By the turn of the century, the economy had recovered, and Dallas was the leading book, drug, jewelry, and wholesale liquor market in the Southwest. It was the world's leading inland cotton market, and it still led the world in manufacture of saddlery and cotton-gin machinery. Its

population stood at 42,638. In 1905, businessmen formed the 150,000 Club, aimed at increasing the city's population to 150,000 by 1910. Although the numerical goal was not met until 1920, the population did increase to 92,104 by 1910, and the city doubled in area to 18.31 square miles, partly through annexation of Oak Cliff in 1904. Dallas built its first steel skyscraper, the fifteen-story Praetorian Building, in 1907.

In the second decade of the twentieth century, Dallas began to implement the city plan commissioned from George E. Kessler after a disastrous flood in 1908. Oak Cliff and Dallas were connected by the Houston Street Viaduct, at the time the longest concrete structure in the world; the Union Terminal Company consolidated six downtown railroad depots; and the railroad tracks were removed from Pacific Avenue. Dallas was selected as the site for a Federal Reserve Bank in 1914, and Ford opened an auto assembly plant in the city. A wave of immigrants from Mexico helped swell the population to 158,976 by 1920, when Dallas ranked as the forty-second-largest city in the nation.

The post-World War I era was marked by the reemergence of the Ku Klux Klan. With 13,000 members, the Dallas chapter was the largest in Texas, and the national "imperial wizard" was a cut-rate dentist from Dallas named Hiram Wesley Evans. Some 75,000 citizens greeted Evans on "Klan Day" at the 1923 State Fair. The *Dallas Morning News* led the attack on the Klan, helping Ma (Miriam A.) Ferguson defeat Dallas judge Felix Robertson, the Klan candidate, in a Democratic runoff for governor in 1925.

Dallas women had been in the forefront of movements in Texas for reform in child-welfare practices, pure food and drink legislation, sanitation, and other causes. By 1920, they were also entering the workforce in increasing numbers. In 1927, the local chapter of the National Association of Business and Professional Women estimated that there were 15,000 women working in 125 occupations, trades, and professions in Dallas. Dallas was also a major center for the textile industry, which employed many women as dressmakers. Minority businessmen also began to organize. The Dallas Negro Chamber of Commerce (later re-named the Dallas Black

Chamber of Commerce) was organized in 1925, and the Mexican Chamber of Commerce (now the Hispanic Chamber of Commerce) was formed in 1940.

The Great Depression put 15,000 Dallasites on the relief rolls by 1933, and retail sales and bank deposits plummeted. The population, which had soared to 260,475 by 1930, climbed only to 294,734 in 1940. The pain of the depression was eased somewhat for Dallas by the discovery of oil in East Texas in 1930. Dallas bankers such as Nathan Adams of the First National Bank were the first in the nation to conceive of the idea of lending money to oil companies using oil reserves in the ground for collateral. Dallas soon became a center for petroleum financing.

In a massive engineering effort begun in 1930, the channel of the Trinity River was moved, straightened, and confined between levees to prevent future flooding. Dallas businessmen also succeeded in making Fair Park the site of the Texas Centennial celebration, thus providing work for local builders, contractors, advertisers, concessionaires, and construction workers. The city played host to ten million visitors, including President Franklin D. Roosevelt.

One of the premier suburbs in Texas, Highland Park, developed within Dallas during the early part of the twentieth century. In it was built the first large-scale shopping center in the nation, Highland Park Village, in 1931. Highland Park incorporated, and its battles with Dallas over annexation lasted into the 1940s.

Until World War II, Dallas ranked as a minor manufacturing center in the nation. Its three leading industries were food processing, apparel manufacturing, and printing and publishing. Then war-related industries, such as North American Aviation, pushed industrial employment in Dallas to more than 75,000 in 1944. Dallas businesses experienced a boom after World War II comparable to that following the coming of the railroads. In 1949, five new businesses opened each day and thirteen new manufacturing plants opened every month. In 1950, the population stood at 434,462. During the 1950s and 1960s, Dallas became the nation's third-largest technology center, with the growth of such companies as Ling-Tempco-Vought (LTV Corporation) and Texas Instruments. In 1957 two developers, Trammell Crow and John M.

Stemmons opened a Home Furnishings Mart that grew into the Dallas Market Center, the largest wholesale trade complex in the world. The opening of Dallas-Fort Worth International Airport in 1974 attracted numerous corporate headquarters to Dallas and consolidating the city's reputation as a national financial and business center. The population grew from 679,684 in 1960 to 844,401 in 1970, and from 904,078 in 1980 to 1,006,877 in 1990. The 1990 census reported the ethnic groups in the city as white, 47.67 percent; black, 28.88 percent; Hispanic, 20.88 percent; Asian, 2.18 percent; and American Indian, .48 percent. Racial integration of public facilities began on August 15, 1961, when a carefully orchestrated plan sent African Americans to lunch counters and businesses throughout the city for equal service. This plan, which proceeded without incident, was the work of a biracial committee appointed by the Dallas and Negro chambers of commerce, which devised a publicity campaign and notified business owners in advance. Integration of the public schools proceeded more slowly, and the school district remained under court supervision into 2001.

Dallas suffered its most traumatic experience on November 22, 1963, when President John F. Kennedy was assassinated while riding in a motorcade through Dealey Plaza, only yards from the site where John Neely Bryan had settled in 1841. Two days later, his alleged assassin, Lee Harvey Oswald, was killed before television cameras by a Dallas nightclub owner, Jack Ruby. In 1989, after twenty-five years of debate about how the city should commemorate the event, the Sixth Floor, a museum, opened in the former Texas School Book Depository. In 1993, Dealey Plaza was declared a National Historic Landmark District, the city's second after Fair Park.

Ecclesiastical History

The religious composition of the city has changed considerably over the years. Early Protestant settlers looked to traveling missionaries for religious services. The first Episcopal parish was organized in 1856. Catholics celebrated the first Mass in Dallas in 1859. Permanent places of worship were built as the city began to grow: Lamar Street Methodist (later First Methodist), City Temple Presbyterian, and First Baptist, all in 1868. Early black churches included Bethel African Methodist Episcopal (1869-72), New Hope Baptist (1872), and St. Paul Methodist (1873). The first Jewish synagogue, Temple Emanu-El, was built in 1873, and the first Catholic

parish was established in 1872, when Dallas was still in the Diocese of Galveston. Congregationalists organized in 1875, Seventh Day Adventists in 1876, Lutherans in 1878, Unitarians in 1889, Christian Scientists in 1894, and Mormons in 1897. The variety of communions helped to make Dallas a religious stronghold by the turn of the century, and the continued growth of churches marked Dallas as a city of churchgoers. In the early 1980s, Dallas had six churches among the nation's 100 largest: First Baptist, Lovers Lane United Methodist, Cliff Temple Baptist, Beverly Hills Baptist, First United Methodist, and East Grand Baptist. Three more on the list were in suburbs: Highland Park United Methodist, Highland Park Presbyterian, and Park Cities Baptist. Subsequently, as the population has diversified, so have the religious faiths. Buddhists, Eastern Orthodox, Hindus, Muslims, and Sikhs are now found in Dallas. Southern Baptists have the largest representation in the Dallas area, followed by Catholics, black Baptists, and United Methodists.

Art and Music

The Art Saloon of Adolph Gouhenant (actually a photograph gallery), located on the south side of the courthouse square in the 1850s, was an early expression of artistic interest in Dallas. An 1857 diary reference to a visit "to the court house to look at the paintings of the Hudson scholars" may mark the earliest art exhibit in Dallas. Art shows at the annual state fairs after 1886 exposed the public to art, while plans for the Carnegie Library, which opened in 1901, included an upstairs art gallery. The success of early shows there, which featured such regional artists as Frank (Charles F.) Reaugh and Edward G. Eisenlohr led to the organization of the Dallas Art Association, which began assembling a permanent collection. After several moves and name changes, the Dallas Museum of Art now occupies a building designed by Edward Larrabee Barnes in the Dallas Arts District. By 1873, Dallas had a theater, Field's Opera House, where the first performance of an opera in the city took place in February 1875. The influx of German immigrants with the railroads led to the formation of the Dallas Frohsinn, a male singing society and member of the Texas State Sangerbund, which hosted statewide singing meets in 1883, 1892, 1904, and 1914. The Dallas Symphony Orchestra traces its roots to performances in 1900, and the Dallas Opera was launched in 1957. By the early 1920s, Dallas was home to one of the earliest radio stations in Texas, WFAA.

During the 1920s and 1930s, popular music was centered in the Deep Ellum district on the eastern edge of downtown, close to one of Dallas's original freedmen's towns. Major black jazz and blues musicians such as Huddie "Leadbelly" Ledbetter and Blind Lemon Jefferson performed at Ella B. Moore's Park Theater, Hattie Burtleson's dance hall, and other local clubs. To quote the 1940 WPA Guide to Texas, "Deep Ellum, Elm St. between Preston and Good Sts, . . . lies along both sides of Elm Street, with the section surrounding it for about two blocks north and south . . . It had its beginning in Freedman's Town, a settlement of freed slaves, in 1865. In its mart of secondhand stores, pawn shops, cafes and poolrooms, automobile graveyards and parts stores, it is possible to buy anything from a threadbare cloth-of-gold evening gown to a folding bathtub . . . Pitchmen hawk their wares, while in the street frenzied evangelists exhort, often unnoticed . . . At dusk the district begins to vibrate, and along Negro Dallas' great white way the Grand Lodge of the Knights of Pythias, Colored, looms above the Harlem movie house, cafes, pool halls, and Gypsy Tea Room..."

Today Dallas has a wide variety of popular music and entertainment venues including the Summer Musicals, Starplex, and productions by the Dallas Jazz Orchestra, the Classical Guitar Society, the Dallas Chamber Orchestra, the Dallas Black Dance Theater, and the U.S.A. Film Festival. Dramatic productions in the nineteenth century were available as early as 1872 in Thompson's Variety Theater. The Little Theater of Dallas was established in 1921 & won the national Belasco Cup several times; it was followed by such other companies as the Civic Theater, the New Theater League of Dallas, and the critically acclaimed Margo (Margaret Virginia) Jones company. The Dallas Theater Center was founded in 1955 and is housed in a building on Turtle Creek designed by Frank Lloyd Wright. Other groups include Theatre Three, Teatro Dallas, the Dallas Children's Theater, and the Dallas Shakespeare Festival.

Educational Institutions

Educational institutions have been present in Dallas since its earliest years. Private schools and academies preceded the founding of the public school system in 1884. The present Dallas Independent School District, with more than 130,000 students, is the eighth largest school district in the nation. Charles McDaniel Rosser, M.D., a young physician founded the first medical

school in Dallas in 1900 and it was renamed Baylor College of Medicine in 1902. Institutions of higher learning include Southern Methodist University, founded in 1911; Paul Quinn College, a formerly black private institution that moved from Waco in 1990; Bishop College, another historically black institution founded in Marshall in 1881; and the University of Texas Southwestern Medical School, founded in 1943. Several campuses of Dallas County Community College, established in 1965, are located within the city.

Sports

Sporting events and teams in Dallas have their roots in the nineteenth century, when horse racing was popular enough to support a Dallas Jockey Club, founded in 1869. Horse racing was a major attraction at the State Fair of Texas from 1886 until 1909. The national bicycling craze inspired the formation of the Dallas Wheel Club in 1886, and races were held at Cycle Park from its construction in 1896 until its conversion to an open-air theater. Baseball was played in Dallas as early as 1877, when a touring team played a local team. By 1882, Dallas had its first semiprofessional team, the Brown Stockings, which won the league championship in 1883 and 1884. The Dallas Hams, a professional team, won the Texas League pennant in 1888; Dallas continued to field minor league teams until 1970. Football made its first appearance in Dallas with the organization of a Dallas Football Club in 1891. A team formed at Dallas High School in 1900 is thought to have been the first high school team in Texas. SMU sent a team to the 1935 Rose Bowl, and Doak Walker drew crowds to the Cotton Bowl in the late 1940s. Two professional teams, the Dallas Cowboys and the Dallas Texans, competed for fans in the early 1960s, until owner Lamar Hunt moved the Texans to Kansas City in 1963. The Dallas Cowboys (who now play in Irving) won Superbowl titles in 1972, 1978, 1993, and 1994.

Fair Park

Although Fair Park, as it is known today, is the result of a massive building effort during the 1930s, its history as a fair ground begins as early as 1886 when the site was chosen for the Dallas State Fair and Exposition. Originally containing 80 acres, various Fair Presidents purchased additional land until the fair grounds contained approximately 117 acres in 1903. Turning down a developer's offer to purchase the land, the fair corporation sold the property to the state in 1903

for \$125,000, under the condition that the Fair Association would be granted control of the fair grounds for the duration of the annual fall fair. The State Fair of Texas, as it was now known, continued until the advent of World War I. In 1918, the fairgrounds became Camp Dick, a temporary Air Force camp, and the annual fair was canceled until 1921. Following the war, operations resumed and construction within the fair grounds continued. Fair Park Auditorium (Music Hall) was built in 1925 and work on the Fair Park Stadium (Cotton Bowl) began in 1930. In 1934, after the state appropriated \$100,000 to initiate organization of a centennial celebration, the City of Dallas began competing with Houston and San Antonio to win the honor of hosting the affair.

Led in large part by Dallas Chamber of Commerce president, R. L. Thornton, Jr., Dallas was eventually chosen over the other two potential sites. Preparation began at once to transform Fair Park into a place befitting the Texas Centennial Exposition. The property was expanded and George L. Dahl was chosen to serve as Centennial Architect. Dahl, with the help of a large staff consisting of prominent architects and designers, was responsible for the renovation of many existing buildings and the construction of dozens of new structures. Between June 6th and November 30th of 1936, 6,353,827 people attended the Exposition. The Exposition was revived the following year, renamed the Greater Texas and Pan American Exposition.

During the following decades, some of the buildings constructed during 1936-37 have been lost to natural disaster or demolition, and some have been remodeled; however, the majority of the buildings from that period remain relatively unchanged. Fair Park continues to be used for the annual fair and also hosts a variety of special events, such as the World Cup 1994 soccer games. In addition, during the week local school groups visit the numerous museums located at the southern end of the park.

Housing

Bryan's original survey for Dallas used the Trinity River as the western boundary, with streets laid out at right angles to the river. A competing survey drawn by Warren A. Ferris, done for John Grisby, was laid out at 45 degrees off cardinal directions. A third survey made for the Peters colony laid out sections using cardinal directions. The results are an odd series of

doglegged streets downtown. Annexation of adjacent communities added another layer of surveying patterns to the Dallas street map. Although the first residential subdivision, the Cedars, was built south of downtown in the 1880s, most residential development has been toward the north and east. Segregated housing confined African Americans to a few overcrowded areas.

In 1949, a group of small established communities south of Dallas were annexed to the City while experiencing an unprecedented boom in housing to meet the urgent post-war need for homes. These areas continued to grow into an area now generally referred to as Pleasant Grove. For many years, and to some extent in the modern day, this area remained culturally and economically separate from the larger municipality of Dallas due to its unique physical relationship to the rest of the city, cut off by White Rock Creek.

Violence occurred as blacks began to integrate neighborhoods in South Dallas during the 1950s. Freedman's Town, the oldest of the freedmen's towns, in the State-Thomas area northeast of downtown, virtually disappeared with commercial development in the 1980s except for a historic cemetery that was literally unearthed during the widening of Central Expressway. The principal Hispanic barrio, immediately north of downtown, has also been displaced by commercial development.

The building boom of the 1970s and 1980s produced a distinctive contemporary profile for the downtown area, influenced by nationally prominent architects. At the same time, the establishment of the West End Historic District in the 1980s preserved a group of late-nineteenth-century brick warehouses that have been adapted for use as restaurants and shops. Similar efforts have been made in Deep Ellum, where the 1920s-era storefronts now house clubs and restaurants.

Consulting and Interested Parties

The Section 106 guidelines require that a Federal agency evaluate all properties within the APE and identify historic properties by seeking information from consulting parties, and other individuals and organizations likely to have knowledge of, or concerns with, historic properties in the area. The following organizations having interests, involvement, or concerns relating to historic preservation were contacted for the proposed Light Rail project:

- City of Dallas, Planning & Development, Historic Preservation Division
- City of Dallas Landmarks Commission
- Dallas County Historical Commission
- Dallas Historical Society
- Preservation Dallas
- Deep Ellum Association
- Fair Park Board
- Friends of Fair Park
- City of Dallas Park and Recreation Department

In addition, community workshops were held prior to the selection of the Light Rail Alternative and stakeholder meetings have continued during the preliminary engineering process. A list of public meetings and presentations is included as Appendix B.

Field Survey

A field survey of all buildings and structures within the DART SE Light Rail APE was undertaken by FTA/DART according to standard Section 106 guidelines and related procedures. Field investigations were conducted by a qualified¹ architectural historian, Catherine E. Barrier of Myra L. Frank & Associates, Inc. The field investigations were conducted on March 28th, 29th, and 30th, 2001. During the field investigations, the boundaries of the preliminary APE were confirmed, and an assessment was made of all extant buildings and structures within the

APE to determine if their age and integrity warranted application of National Register criteria.

The field survey of historic and architectural resources included the following steps:

- A field survey consisting of a visual on-site examination of every parcel within the APE, including an assessment of integrity;
- Identification of the age of all major buildings, structures, objects, and districts located within the APE;
- Photography of each district feature, major structure, building, or object within the APE that was identified as older than 1954 or of outstanding significance;
- Review in the field findings of previous surveys and inventories of significant historic properties.
- Following the field survey, site specific research was conducted at the following:
 - Archives of the Dallas Public Library
 - City Directories of Dallas, Texas.
 - Building Permits

In addition, historical information was requested from the following organizations and individuals:

- City of Dallas Landmarks Commission
- Friends of Fair Park
- Central Electric Railfans' Association
- City of Dallas Park and Recreation Department

The results of the identification effort are reported in the tables in the following section, and on Texas Historic Resources Inventory Forms which are attached as Appendix C.

Finding of Eligibility-Buildings and Structures

In accordance with 36 CFR 800.4(c)(2), FTA and DART are seeking SHPO concurrence with its determination that the following properties within the DART SE Light Rail APE are listed in or eligible for listing in the National Register of Historic Places:

¹ *i.e.*, meeting the Secretary of the Interior's Professional Qualifications Standards (48 FR 44738-9)

Finding of Eligibility				
Table 1: Properties Listed in the National Register				
Address	Resource Name	Year Built	Significance	Key Reference /APE Map Page
3800 Commerce	John E. Mitchell Co. Plant	1928	Listed 03-04-1991	H / 4
3301-3333 Elm St., 212 and 232 Trunk Ave.	Continental Gin District	1888-1914	Listed 02-14-1983	F / 3
Parry Ave on the northwest, the Texas & Pacific Railroad tracks on the northeast, Cullum Blvd on the southwest, and Pennsylvania Ave on the southeast	Fair Park (Texas Centennial Exposition Buildings)	1936-37	Designated a National Historic Landmark 09-24-1986	O / 4

Finding Of Eligibility	
Table 2: Properties Previously Determined Eligible For Listing In The National Register	
None.	

Finding Of Eligibility
Table 3: Properties Found Eligible For Listing In The National Register For Which
Concurrence Is Requested

Address	Resource Name	Year Built	Significance	Key Reference /APE Map Page
<i>Commerce Street Warehouse District (contributing properties within APE)</i>				
4044 Commerce	Lincoln Paint & Color Co. Bldg.	1945	Contributor to the Commerce Street Warehouse District, which appears eligible for the National Register under Criteria A and C	I / 4
4100 Commerce	Alexander Motor Company Building	1929	Contributor to the Commerce Street Warehouse District, which appears eligible for the National Register under Criteria A and C	J / 4
4118 Commerce	W. Gottlich Co. Manufacturing Bldg.	1929	Contributor to the Commerce Street Warehouse District, which appears eligible for the National Register under Criteria A and C	K / 4
4140 Commerce	NS A&B Simons Building;Texlite Building	1927	Contributor to the Commerce Street Warehouse District, which appears eligible for the National Register under Criteria A and C	L / 4
3801 Parry	Old Tige	1920	Contributor to the Commerce Street Warehouse District, which appears eligible for the National Register under Criteria A and C	N / 4
3809 Parry	Howard Wolfe Building and Garage	1929	Contributor to the Commerce Street Warehouse District, which appears eligible for the National Register under Criteria A and C	M / 4
<i>Deep Ellum Historic District (contributing properties within APE)</i>				
2605 Elm	Fink Paint Co. Bldg.	1944	Contributor to the Deep Ellum Historic District, which appears eligible for the National Register under Criteria A and C	E / 1
2609 Elm	Southern Refrigeration Co. Bldg.	1940	Contributor to the Deep Ellum Historic District, which appears eligible for the National Register under Criteria A and C	D / 1
2615 Elm	American Transfer & Storage	1924	Appears eligible individually under Criterion C and as a Contributor to the Deep Ellum Historic District, which appears eligible for the National Register under Criteria A and C	C / 1
2625 Elm	Manufacturers Expo Bldg.	1924	Contributor to the Deep Ellum Historic District, which appears eligible for the National Register under Criteria A and C	B / 1
<i>Individually Eligible Properties</i>				
624 N. Good-Latimer	St. James AME Temple	1919	Appears eligible individually under Criterion A and C	A / 1
3601 Main	National Biscuit Company	1930	Appears eligible individually under Criterion C	G / 3

Finding Of Eligibility
Table 4: Properties Constructed Before 1954 That Do Not Appear To Meet The National Register Criteria For Evaluation

Address	Resource Name	Year Built	Reference ID Number
1005 4th	Hipped Roof Cottage SF Residential Structure	1913	1
3731 Bertrand	Craftsman Bungalow SF Residential Structure	1936	2
415 Buckner	Cole Distributor's	1953	3
6326 C F Hawn	Taqueria Chihuahua	1953	5
6334 C F Hawn	R M Cylinder Head	1950	6
6520 C F Hawn	Budget Automotive	1952	4
7230 C F Hawn	Dallas Spray Equipment	1950	7
4112 Commerce	Too Blue Scenic	1927	8
4130 Commerce	Mid Century Commercial Structure	1954	9
301 N. Crowds	Yahoo!	1954	10
3901 Demaggio	Minimal Traditional SF Residential Structure	1928	11
3907 Demaggio	Hipped Roof Cottage SF Residential Structure	1905	12
3911 Demaggio	Minimal Traditional SF Residential Structure	1942	13
DP&L Jim Miller	Utility Substation	1924	14
3815 East Side	Vernacular Commercial Structure	1948	15
7711 Elam	Minimal Traditional SF Residential Structure	1930	16
7717 Elam	Vernacular SF Residential Structure	1920	17
7725 Elam	Early Twentieth Century Vernacular SF Residential Structure	1900	18
7733 Elam	Vernacular SF Residential Structure	1938	19
7803 Elam	Minimal Traditional SF Residential Structure	1935	20
7916 Elam	Minimal Traditional SF Residential Structure	1955	21
3209 Elihu	Hipped Roof Cottage SF Residential Structure	1912	22
3226 Elihu	Hipped Roof Cottage SF Residential Structure	1912	23
3235 Elihu	Dutch Colonial Revival SF Residential Structure	1912	24
3333 Elm	McCathern, Mooty, & Buffington, LLP	1914	25
2601 Gaston	Moderne Commercial Structure	1930	26

Finding Of Eligibility
Table 4: Properties Constructed Before 1954 That Do Not Appear To Meet The
National Register Criteria For Evaluation

Address	Resource Name	Year Built	Reference ID Number
404 N. Good-Latimer	Slocum Printing Co.	1928	75
617-619 Good Latimer	Vernacular Commercial Structure	1949	27
3200 Grand	Moderne Commercial Structure	1946	28
3212 Gunter	Queen Anne SF Residential Structure	1903	29
3221 Gunter	Hipped Roof Cottage SF Residential Structure	1910	30
3225 Gunter	Colonial Revival SF Residential Structure	1922	31
3228 Gunter	Colonial Revival SF Residential Structure	1903	32
3232 Gunter	Vernacular SF Residential Structure	1927	33
4007 Hatcher	Vernacular Commercial Structure	1940	34
3923 Kenilworth	Minimal Traditional SF Residential Structure	1926	36
3927 Kenilworth	Minimal Traditional SF Residential Structure	1940	37
3931 Kenilworth	Minimal Traditional SF Residential Structure	1939	38
3935 Kenilworth	Minimal Traditional SF Residential Structure	1941	39
3937 Kenilworth	Minimal Traditional SF Residential Structure	1942	40
3939 Kenilworth	Minimal Traditional SF Residential Structure	1946	41
3800 Main	The Lannin Company	1932	42
3202 Metropolitan	Queen Anne SF Residential Structure	1946	43
614 Old South	Vernacular SF Residential Structure	1922	44
621 Old South	Minimal Traditional SF Residential Structure	1950	45
538 Palmetto	English Revival SF Residential Structure	1930	46
550 Palmetto	Minimal Traditional SF Residential Structure	1940	47
3630 Reed	Early Twentieth Century Vernacular SF Residential Structure	1941	48
7702 Rilla	Minimal Traditional SF Residential Structure	1948	49
7703 Rilla	Minimal Traditional SF Residential Structure	1948	50
7706 Rilla	Minimal Traditional SF Residential Structure	1948	51
7710 Rilla	Minimal Traditional SF Residential Structure	1948	52
7716 Rilla	Minimal Traditional SF Residential Structure	1948	53

Finding Of Eligibility
Table 4: Properties Constructed Before 1954 That Do Not Appear To Meet The National Register Criteria For Evaluation

Address	Resource Name	Year Built	Reference ID Number
7722 Rilla	Minimal Traditional SF Residential Structure	1948	54
7726 Rilla	Minimal Traditional SF Residential Structure	1948	55
7730 Rilla	Minimal Traditional SF Residential Structure	1938	56
7734 Rilla	Minimal Traditional SF Residential Structure	1948	57
7806 Rilla	Minimal Traditional SF Residential Structure	1948	58
7812 Rilla	Minimal Traditional SF Residential Structure	1948	59
7816 Rilla	Minimal Traditional SF Residential Structure	1952	60
7822 Rilla	Minimal Traditional SF Residential Structure	1948	61
7826 Rilla	Minimal Traditional SF Residential Structure	1948	62
7830 Rilla	Minimal Traditional SF Residential Structure	1948	63
7834 Rilla	Minimal Traditional SF Residential Structure	1948	64
7902 Rilla	Minimal Traditional SF Residential Structure	1948	65
7908 Rilla	Minimal Traditional SF Residential Structure	1948	66
7912 Rilla	Minimal Traditional SF Residential Structure	1952	67
7918 Rilla	Minimal Traditional SF Residential Structure	1948	68
7922 Rilla	Minimal Traditional SF Residential Structure	1958	69
7926 Rilla	Minimal Traditional SF Residential Structure	1952	70
7122 Rosemont	Vernacular SF Residential Structure	1930	71
7132 Rosemont	Early Twentieth Century Vernacular SF Residential Structure	1920	72
7204 Rosemont	Minimal Traditional SF Residential Structure	1930	73
7208 Rosemont	Early Twentieth Century Vernacular SF Residential Structure	1920	74
4527 Scyene	Colonial Revival Cottage SF Residential Structure	1925	76
3200 South	Minimal Traditional Multi-Family Residential Structure	1950	77
667 Southeast	Minimal Traditional SF Structure	1938	78
670 Southeast	Minimal Traditional SF Residential Structure	1935	79
2606 Swiss	Giddings & Wells Body Shop	1924	80

Finding Of Eligibility
Table 4: Properties Constructed Before 1954 That Do Not Appear To Meet The National Register Criteria For Evaluation

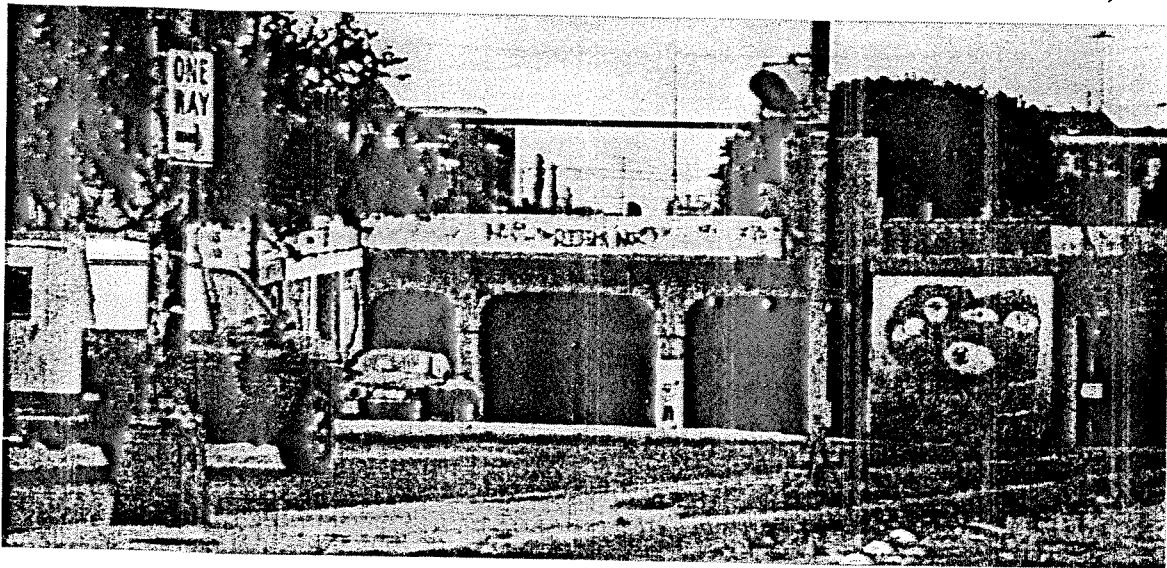
Address	Resource Name	Year Built	Reference ID Number
306 Walton	Texas Screen Process Supply Company	1938	81
3808 Willow	Utilitarian Industrial Structure	1937	82
3838 York	Minimal Traditional SF Residential Structure	1926	83
<i>Bridges within the APE</i>			
US 75 Overpass at Bryan Street	Highway Overpass	1951	84
Good-Latimer Underpass	Underpass	1930;52	85
SPRR Jacksonville Milepost 314.54	Timber Railroad Bridge	1932	86
Sycene Road Bridge over White Rock Creek	Highway Overpass	1931	87
SPRR Jacksonville Milepost 314.34	Timber Railroad Bridge	1941	88
SPRR Jacksonville Milepost 314.17	Timber Railroad Bridge	1941	89
SPRR Jacksonville Milepost 313.12	Timber Railroad Bridge	1945	90
SPRR Jacksonville Milepost 312.71	Timber Railroad Bridge	1946	91
SPRR Jacksonville Milepost 312.20	Timber Railroad Bridge	1945	92
SPRR Jacksonville Milepost 310.75	Timber Railroad Bridge	1942	93
SPRR Jacksonville Milepost 310.05	Timber Railroad Bridge	1940	94

Historic Resources Inventory forms for each of the properties listed above are located in Appendix C. The forms are arranged first according to their National Register eligibility status category as given in the tables above, and then alphabetically by street address. Forms were not prepared for properties with buildings constructed after 1954, unless there was an indication that the property may have importance significant enough to override the National Register's 50-year age criteria consideration.

Good-Latimer Underpass

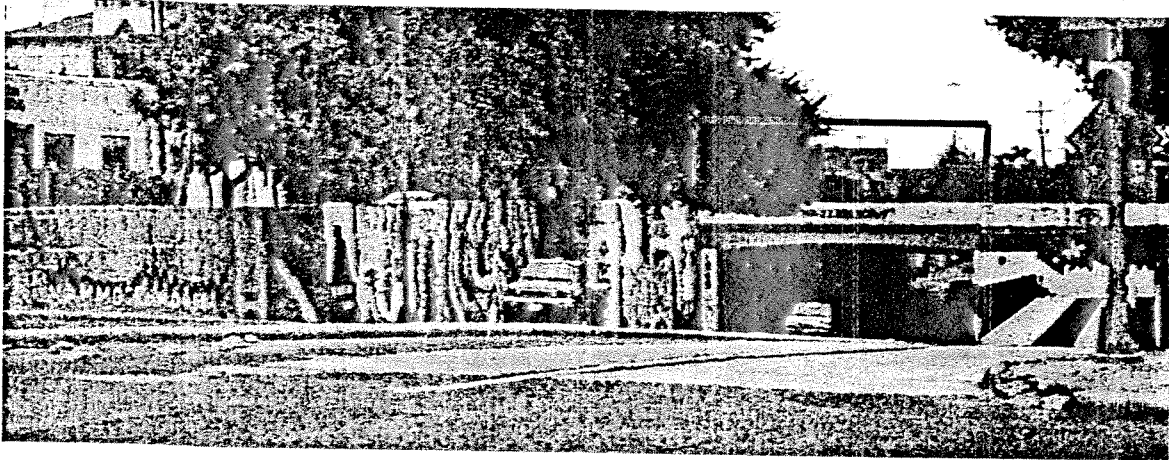
The Good-Latimer Underpass was originally constructed in the late 1920s or 1930 to facilitate the flow of traffic under the congested tracks of the Houston & Texas Central (H&TC) Railroad (Dallas Landmark Commission Landmark Nomination Form, Deep Ellum, prepared 10.25.95 by The Research & Media Group). A visual survey of the structure show what appear to be two distinct areas of construction. The first section, to the northwest, is comprised of two large arches to accommodate two lanes of traffic and a smaller to allow pedestrian access, marked with the date 1930 and stylistically consonant with that period (See Figure 4).

Figure 4: Good-Latimer Underpass View from South (NW portion Marked)



The second section, to the southeast, is a larger arch accommodating two lanes of traffic of more utilitarian styling (See Figure 5). The H&TC trackway in this area was dismantled in 1952 for the construction of the Northwest Central Expressway Railroad (Dallas Landmark Commission Landmark Nomination Form, Deep Ellum, prepared 10.25.95 by The Research & Media Group), and it seems reasonable to surmise that this later construction was done at around the same time as the dismantling of the tracks. It is unclear from a visual examination whether the northwest portion was the original overpass (which was added on to), or whether the southeast portion of the existing underpass was originally constructed in the same design as the northwest portion and has been replaced.

Figure 5: Good-Latimer Underpass View from the North (SE portion Marked)



The most striking element of the current appearance of the underpass is the decoration of the retaining walls leading to and through the underpass structure (See Figure 6). These decorations are in the form of murals created by local artists which seem to have been organized to help define the underpass as a “gateway” to the revitalized artists’ and music district that the Deep Ellum neighborhood has become since the 1980s. It appears that the murals are designed and installed on a rotating basis as a community project, with older murals painted over with new designs.

Figure 6: Good-Latimer Murals (View from South)



Significance of the Good-Latimer Underpass

The older portion of the underpass is minimally decorated, and appears to be an undistinguished example of Dallas underpass construction from this period, making it ineligible for listing on the National Register under Criterion C. The newer portion of the underpass is of utilitarian design, and appears to be an undistinguished example of Dallas underpass construction from this period, making it ineligible for listing on the National Register under Criterion C.

The older portion of the underpass was apparently associated with the activities which defined the National Register Eligible Deep Ellum District (Dallas Landmark Commission Landmark Nomination Form, Deep Ellum, prepared 10.25.95 by The Research & Media Group), although this association apparently was not sufficient to include the structure as a contributing structure to the Deep Ellum city landmark district nomination. The Deep Ellum district was significant primarily between the turn of the last century and World War II as an African-American shopping and cultural area. In any case, the integrity of its appearance from that time has been severely compromised by the alterations to the southeast portion of the underpass, rendering it ineligible for listing under Criterion A. The heyday of the Deep Ellum district was past by the early 1950s, and therefore the newer portion of the underpass does not appear to be associated with any movements or themes which would render it eligible for the National Register under Criterion A. Neither portion of the underpass appears to be associated with a historic personage, and therefore the underpass is not eligible for listing on the National Register under Criterion B.

It appears, therefore, that the significance of the underpass is not historic, but rather, if it has any significance it is to the community as a gateway to the current revitalized Deep Ellum district.

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List of Preparers

John Hoppie, DART

Project Manager

Tom Shelton, Carter-Burgess

Project Description

Catherine Barrier, Architectural Historian, Myra L. Frank & Associates, Inc.

Principal Investigator, Body of Eligibility Report, Historical Context, Research,
Historic Resources Inventory Forms

Alan Skinner, Ph.D., AR Consultants

Archaeological Resources

Anne Merwin, Historic Researcher, Myra L. Frank & Associates, Inc.

Additional Research

John English, Historic Researcher, Myra L. Frank & Associates, Inc.

Additional Research

**Supplemental History Provided by Ms. Francis James
during the Comment Period for the DEIS**

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Southeast Corridor History

The right of way for the Southeast Corridor of the Dallas Area Rapid Transit has a very interesting history starting in 1870s in Dallas. Fast growing Dallas needed the lumber from the piney woods of East Texas. In early 1878, a railroad organized and was called the Dallas Palestine and Southeast Railroad Co. Among its charterers were Alex Sanger, C.A. Keating, S.W.S. Duncan, C.B. Buckner, W.H. Gaston, W.C. Conner, and Jules Schneider. For some reason, not of record, they abandoned this charter and took out another one on November 6 of the following year under the name of Texas Trunk Railroad Company to build to Beaumont through East Texas territory. Work got underway and by August 1881 there were thirty-six miles of line in operation. The little railroad had nothing but local traffic which did not yield enough revenue to pay operating expenses and in December of the same year, Thomas Simpson was appointed Receiver. He held the office only about a month when he was succeeded by H.T. Nash, who held it until 1883 when C.A. Keating was appointed. Keating not only kept it going but extended it fifteen more miles to Cedar to reach a rich agriculture section. Even this new territory did not add enough business to maintain the road and it was finally sold in 1883. The most valuable of its assets were 107,520 acres of land it had received from the State, but, indicative of what railroads generally received for

such lands, they brought only \$7,500 at this sale, or about seven cents per acre. This little railroad has the distinction of having had more receivers than any other railroad in Texas, in fact it is doubtful whether any in the United States had seven in the first fifteen years as this one did.

Through all of these changes and receiverships the road retained its corporate name. Its stock passed formally into the hands of the Southern Pacific in 1895.

This history is taken from the book A History of Texas Railroads by S.G. Reed published in 1941 by the St. Clair Publishing Company in Houston, Texas. Pages 232-233 quotes.

Southeast Corridor

Buckner Station Site

The southwest corner of Buckner Blvd. and Elam Road is in the heart of the area of Dallas known as Pleasant Grove. When settlers began arriving in North Texas in the 1840s, they looked for land that would afford them water, trees to build a cabin, and fertile soil to grow a crop. Jesse Elam was the pioneer who used his Peters Colony certificate to locate on 640 acres in 1845 and this corner of Buckner and Elam was the northeast corner of his section of land.

He was shown in the first census of Dallas County in 1850 as a 68 year old farmer, born in Georgia. Along with his own large family, other Elams also came to this area. The community surrounding this corner was known as Elam. Other neighbors were the families of Cornelius Cox, Richard Bruton, William Hunnicutt, Albert and Abraham Carver, James and John Beeman, George Markham, born in England, Gideon Pemberton, and William and Martin Pruitt. There were a lot more brothers and cousins all named Elam with their wives and children. Many of these families intermarried and still live in the area. Across what is now Buckner Blvd. was where Sally Perry, a 51 year old widow who came to Texas with two children patented her 640 acres of land.

Not every farmer could manage a complete section (one square mile of land) so they would sell off portions as other settlers arrived. Sometimes the land was sold for as little as \$1.00 per acre. As soon as these settlers could manage they joined together to build a log cabin to be used as a school and church. They began worshipping together in the one room cabin but managed to organize a church of their own denomination as soon as enough like minded settlers arrived. They would take turns on holding the services and teaching the Sunday Schools. There are descendants of these families who are still worshipping at Pleasant Grove churches that were formed by these pioneers.

For about three miles in all directions from the Elam/Buckner corner, this area of Dallas County became known as Pleasant Grove. The fact that there were so many trees caused an early school teacher looking around to say, "This is a Pleasant Grove," and to this day, the name has remained. Until the turn of the century this was mostly a rural community. Until the railroads came to Dallas in 1872, the only cotton grown was for the family's own use - after that it became a cash crop, because it could now be transported by rail to Houston and oversea markets. This changed the face of the area and the size of the farms.

By 1878 when the Dallas Palestine and Southeast Railroad was completed. It had been designed to bring lumber from the piney woods of East Texas to

Dallas to be used for building. The corner of Elam and Buckner was where a section house was built and the Elam Post office was opened in 1884. The Post Office was in a general merchandise store operated by Silas Pruitt. There was also a blacksmith shop at this site. There is family lore about the train coming through twice a day. If there were no passengers to get on or get off, the mail bag was merely tossed off at the station as the train went by. The name of this railroad was changed to Texas Trunk and is now the right of way that is being utilized for the Southeast Corridor of Dart.

The community established a school district and by the turn of the century the high school was known as the Pleasant Grove High School. The cost of maintaining a growing school district in the area was one of the reasons this area was finally annexed to the City of Dallas in 1949. By that time there were enough hard surface roads that the residents could safely go back and forth to the City to their jobs.

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ATTACHMENT E2
PUBLIC COMMENT ON GOOD-LATIMER TUNNEL

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CITY OF DALLAS
LANDMARK COMMISSION

December 4, 2001

Gregory Smith, National Register Programs Director
Texas Historical Commission
PO Box 12276
Austin, TX 78

Re: Good Latimer Tunnels – Potential Eligibility for National Register
Dallas Area Rapid Transit Light Rail Project

Dear Mr. Smith:

On December 3, 2001 the Landmark Commission voted to provide your office its opinion related to the historic significance of the Good Latimer Tunnels located immediately to the east of downtown Dallas. The Dallas Area Rapid Transportation (DART) authority has developed several options to construct a light rail line in this area. In recent months DART has gravitated towards the option that would demolish and fill the tunnels

The Landmark Commission believes that the Good Latimer Tunnels are potentially eligible for listing in the National Register of Historic Places under Criterion A for their significance as an integral part of the system of bridges, overpasses, tunnels and other structures proposed in the Ulrickson Plan for Dallas of 1927 - 1929.

The Plan called for removal of railroad grade crossings, consolidation of railroad lines, moving and channelization of the Trinity River between levees, and other interrelated, large scale public works projects that resulted in massive and important transportation system improvements. The first tunnel, constructed in 1930, was contemporaneous with development of the Trinity levees and viaducts, the Lamar-McKinney railroad underpass, the underpasses on Corinth Street and several other structures first described in the Ulrickson Plan. The expansion of the Good Latimer underpass occurred in 1952 with the construction of the adjacent tunnel, which occurred when another urban development plan was implemented to create a vehicular loop around the central business district to accommodate additional significant growth in vehicular traffic.

The Good Latimer Tunnels are significant as a contributing element in a potential National Register-eligible thematic nomination for transportation related structures associated with the Ulrickson Plan of 1927 - 1929 and other municipal planning efforts to improve vehicular and railroad traffic patterns and protection of the central business district from flooding.

We think the Good Latimer Tunnels should be preserved.

Thank you for your interest in this important historic project,

Allison Reaves-Poggi, Chair
Dallas Landmark Commission



DALLAS AREA RAPID TRANSIT
RECEIVED

MAR 07 2002

CAPITAL PLANNING & DEVELOPMENT

March 5, 2002

Mr. John Hoppie
Project Manager
Dallas Area Rapid Transit
P.O. Box 660163
Dallas, TX 75226

Re: Southeast Corridor DEIS Comments

Dear Mr. Hoppie:

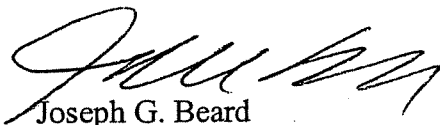
As a majority landowner in the Deep Ellum Area, I would like to take this opportunity to state that Westdale recognizes the importance of DART and is in full support of enclosing the 300-foot long tunnel that currently goes under Gaston Avenue. Although this tunnel has become an attraction celebrating artistic expression, I feel that enclosing it would be far more beneficial for the area aesthetically, while offering a wealth of commercial potential.

Upon reviewing Figure 5.17, Good-Latimer Visual Concepts, of the Southeast Corridor DEIS, I want to go on record that I am in favor of the Good-Latimer Alignment Option A, as illustrated in Figure S.4. While the illustrations in Figure 5.17 are artistic renditions, I am in agreement that Option A should provide a new gateway with new visual assets. Westdale currently owns property adjacent to where the gateway would be located should Option A be chosen. The potential commercial development of Westdale's land and the area is far greater with Option A.

I am not in support of Option B because visual impacts would be greater than Option A. Even though the Knights of Pythias Temple, which is owned by Westdale, is currently vacant, Option B could have a negative impact visually in the future once the building has been developed.

Thank you for allowing me to share my comments on the Southeast Corridor DEIS. I look forward to the progress and people that the LRT will bring to the Deep Ellum Area.

Sincerely,



Joseph G. Beard
President

THE MEADOWS FOUNDATION

WILSON HISTORIC DISTRICT

3003 SWISS AVENUE

DALLAS, TEXAS 75204-6090

LINDA P. EVANS
PRESIDENT AND
CHIEF EXECUTIVE OFFICER

(214) 826-9431
FAX (214) 824-0642
TOLL FREE (800) 826-9431
EMAIL: levans@mfi.org

March 12, 2002

DALLAS AREA RAPID TRANSIT
RECEIVED

MAR 12 2002

CAPITAL PLANNING & DEVELOPMENT

Mr. Doug Allen
Executive Vice President
Program Development
Dallas Area Rapid Transit
P. O. Box 660163
Dallas, Texas 75266-7213

Dear Mr. Allen:

Subject: DART Rail Line Plans for Good-Latimer Street

The Meadows Foundation has watched the development of DART's light rail plan for Good-Latimer and has been supportive of your plans to bring DART down the middle of Good-Latimer. Our staff has attended the public briefings on the various proposals, discussed them with DART staff, and reviewed the written materials. Your efforts to communicate with the public are to be commended, and I greatly appreciate your taking time recently to meet with Bob Weiss and me. However, the information you have given us regarding your plans for a possible new alternative route for the Good-Latimer tracks, (labeled C on your drawings) has made it necessary for The Meadows Foundation to go on record today with our thoughts on how best to safely align the tracks on Good-Latimer while preserving the businesses on both sides of the street.

We are unequivocally opposed to option C that would place the tracks on the east side of Good-Latimer and would displace ongoing businesses as well as threaten the historically designated St. James A.M.E. Temple. We support placing the tracks down the middle of Good-Latimer, which would protect the Landmark church and disrupt the least number of businesses. The Meadows Foundation has long been a supporter of the City of Dallas and efforts to improve our community. We do not take this stance easily. We understand that the Good-Latimer tunnels may be eligible to be considered for historical recognition. Therefore, any rail alignment proposal should be reviewed thoughtfully.

Mr. Doug Allen
March 12, 2002
Page 2

Through our experience in funding historic preservation, we know the importance of preserving our past, but not at the expense that would be represented here. Over 20 years, The Meadows Foundation has granted over \$15 million across Texas for historic preservation work. We have funded small projects and large ones. We have funded studies done by the State Historical Commission and appreciate their important work.

In Dallas, we have supported Old City Park and most recently the restoration of St. James A.M.E. Temple at 628 Good-Latimer at a cost of \$1.7 million. The St. James church is now a City Landmark building. The gem of our restoration activity, of course, is the Wilson Historic District that now encompasses 22 acres and houses 28 nonprofit agencies, including Preservation Dallas whose counsel we value. The Meadows Foundation has restored 25 buildings and built 3 new ones during the course of this project. Our office is located at 3003 Swiss, just 4 blocks east of Good-Latimer. The Wilson Block or the 2900 block of Swiss Avenue is listed on the Federal, State, and City historic registers.

During the 20 years of developing the Wilson Historic District, the Foundation has spent over \$50 million on the project and spends approximately \$3 million a year to police and maintain it. As a gift to the City and at a cost of \$800,000 over the past 18 years, we restored and maintain the City's Central Square Park across from our headquarters.

More recently, The Meadows Foundation commissioned an economic impact study, done by Insight Research Corporation, to determine the economic value added by the Wilson Historical District. During the course of the project, \$256 million in economic value has been generated and approximately \$7 million in non-payroll taxes have been paid to various taxing entities.

To mention all of this is simply to say that The Meadows Foundation has had a long history of supporting historic preservation projects and learned much about how to do it. We have earned our credentials to comment today. And one way not to do historic preservation is to cause profound economic dislocation and threaten an already more significant and historically designated structure. That is why we support Option A.

We cannot support your proposed Option C to bring the line on the east side of Good-Latimer for the following reasons.

First, the St. James A.M.E. Temple is one of the most significant African American buildings in Dallas, designed by William Sidney Pittman and funded and built by African Americans. The Meadows Foundation purchased this structure and spent

\$1.7 million to restore, adapt it for reuse and protect it for generations to come. The City of Dallas recognized this fact by granting it Landmark status. Proposed Option C would place the tracks too close to the building and, in fact, take part of the parking lot. As the owner, we will contest any eminent domain action that would jeopardize the safety of the church. DART has presented us with a difficult choice. We believe the St. James A.M.E. Temple is more historically important than the Good-Latimer tunnels. In our opinion, it is not prudent to threaten and change a historically designated building to preserve tunnels that might be eligible for such consideration.

Second, we believe the most feasible and prudent economic decision is to run the tracks down the center of Good-Latimer and bring Gaston to grade. Under Option C, four businesses would have to be closed, relocated, and eminent domain used to purchase their property. Although we do not know how much this would cost, it would appear to be an unnecessary expenditure and added cost to taxpayers. We believe Option B would present the same problems. This area benefits from the small businesses operating here in the creation of jobs and the generation of taxes, all of which stabilize the area. Why force them out when there is a more feasible and prudent alternative for the track alignment?

Third, several years ago the Foundation purchased the building located at 402 Good-Latimer with the intent to gift it to Shared Housing, a local non-profit organization helping low income people with housing issues. We recently gifted the building to them with the understanding that when restored, it would become their permanent home. One of the considerations for the purchase of this building was the fact that, between DART bus and rail service, the Shared Housing program would become more accessible to the clients they serve. In addition, The Meadows Foundation partnered with the City of Dallas to grant approximately \$125,000 in public funds for the renovation of the facility. The building has now been renovated and Shared Housing has moved in. Clients are being served. The Meadows Foundation opposes any potential action that would destabilize this agency's work and negatively impact the people they serve. This is not the intent of historic preservation, especially when there is a more prudent and feasible alternative.

Fourth, according to Dallas Police Department accident statistics for the calendar year 2001, there were 23 vehicular accidents between the 200 and 500 blocks of North Good-Latimer. Of these, eleven accidents involved the 400 block of Good-Latimer and the tunnels, with seven considered major. In addition, 5 more accidents involved the Swiss Avenue and Good-Latimer intersection near the tunnel service road. Although we realize that drivers cause vehicular accidents, it is our belief that poor visibility and design now render the tunnels unsafe for modern vehicles.

Mr. Doug Allen
March 12, 2002
Page 4

Fifth, we have observed the artwork painted on the tunnels and have wondered if this was part of the original construction. It appears that the tunnels have already been adaptively reused for economic reasons that are unrelated to historical preservation purposes. The Foundation remained neutral and silent while this art project took place. It strikes us as odd for the State Historical Commission to suggest that the tunnels are potentially eligible for some type of historical designation after they have been altered by the work of artists.

The Meadows Foundation recognizes that some Deep Ellum business owners believe that removing the tunnels would potentially cause adverse economic consequences. If the tunnels were to be removed, we would support a plan to create a new gateway as a replacement, and believe this would be the prudent, feasible, and responsible action for DART to take.

Finally, the east side of Good-Latimer is The Meadows Foundation's strategic border for its Wilson Historic District. We assembled the land for the Latino Cultural Center and gifted it, along with \$250,000, to the City of Dallas. It is exciting to see construction underway. The St. James A.M.E. Temple restoration was a labor of love and a statement of how important The Meadows Foundation believes historic preservation can be to preserve our heritage. It is significant that the Latino Cultural Center and the St. James A.M.E. Temple are side by side, reflecting the past and future of Dallas. Further down the street, we find Shared Housing, a group of dedicated individuals committed to improving the lives of low-income people in our community. These projects reflect our position that the area along Good-Latimer is crucial to the success of the surrounding area. It is also an important boundary for the Wilson Historic District.

We hope you will agree with us that Option A is more prudent and feasible than Option C. We know that by working together, we can find the right solution for the rail alignment that can satisfy everyone's interests and better serve our community.

We appreciate the opportunity to express our views and thank you for your careful consideration of our position. We look forward to working with you as your plans develop.

Sincerely,



Linda P. Evans

COMMENT CARD

MAR 12 2002

**Southeast Corridor
Environmental Impact
Statement Study**

Name/Nombre: Jeanne Martui

Address/Dirección: 3025 Commerce St.

City/Ciudad: Dallas Tx

Zip Code: 75226

Telephone/Teléfono: 214 915-4555

Please make public
Comments/Comentarios: Record.

I am a property
owner, a business
proprietor and a
resident of Deep Ellum.
I have significant
financial investment
(long term) in this area.
I am in favor of
ONLY option A

I want to have the
tunnel filled in
and a new
gateway installed.

Comment Card

Tarjeta de Comentarios

SE Corridor Public Hearings, March 2002

Audiencias Públicas del Corredor Sureste, marzo 2002

Name / Nombre: CARLENE Washington

Address / Dirección: 3101 Peabody ave.

City / Ciudad: Dallas

Zip Code / Zona Postal: 75215

Telephone / Teléfono: (214) 426-2128

E-mail / Correo Electrónico: _____

Comments / Comentarios:

I will like to see
option A of Good-
Lattimer Expressway
Area. It will be better
for every one. Why
move or take away
business and people from
there place, why, why...
So please go with
Alignment Option A - A.

DALLAS AREA RAPID TRANSIT

DALLAS AREA RAPID TRANSIT

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MAR 14 2002

~~MAR 12 2002~~

CAPITAL PLANNING & DEVELOPMENT

CAPITAL PLANNING & DEVELOPMENT

DELPHI  GROUP
I N C O R P O R A T E D

March 12, 2002

DALLAS AREA RAPID TRANSIT
RECEIVED

MAR 18 2002

Via US Standard Mail:

Mr. Ernie Martinez
Dallas Area Rapid Transit
PO Box 660163
Dallas, TX 75266-9672

CAPITAL PLANNING & DEVELOPMENT

RE: Vehicular Tunnel at Good Latimer and Gaston in the Deep Ellum District

Dear Ernie,

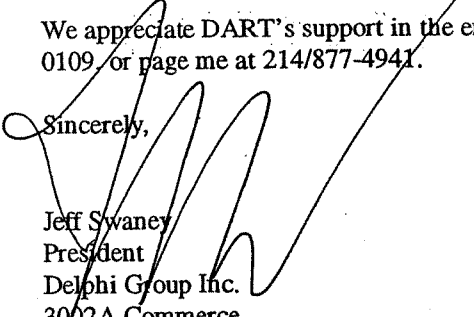
With 15 years as a major property owner, resident and business owner in the Deep Ellum District, I want to express my strongest support for the infilling of the above-mentioned tunnel. It is imperative for proper vehicular ingress/egress, DART, and pedestrian connectivity that this tunnel location be brought to grade. I am aware that there is a movement among groups of people in the Deep Ellum area, many of which are not stakeholders in the area, to maintain the tunnel in its current location. I am opposed to their stance and request DART in its final conclusions bring the area to grade.

I have also been made aware of the possibility of a \$1.5MM stipend from DART to create a public art alternative to the existing tunnel art at the DART station, either by using pieces of the existing tunnel façade, or creating other artistic elements in concert with the Deep Ellum character. I am in support of those funds being appropriated and suggest the Deep Ellum Foundation Board of Directors, on which I sit, in conjunction with DART, be responsible for the oversight of the use of those funds.

I also strongly advocate DART having in place a well thought-out traffic management program to allow ingress/egress into the Deep Ellum area via Goodlatimer and other arteries during any construction period.

We appreciate DART's support in the endeavor. If you have any questions, please feel free to reach me at my office at 214/761-0109, or page me at 214/877-4941.

Sincerely,



Jeff Swaney
President
Delphi Group Inc.
3002A Commerce
Dallas, TX 75226
(214) 761-0109 Direct
(214) 761-0032 Fax
jaswaney@delphigroupinc.com

cc: ~~John Hoppe, DART~~
Rosa Rosteet, DART
Jack Wierzenski, DART
Rick Slaven, 2M Companies
Bob Weiss, Meadows Foundation

3002A Commerce
Dallas, TX 75226
Phone: 214/761-0089
Fax: 214/761-0032

John Hoppie - One comment, one question on the SE Corridor DEIS

From: no-spam@thank-you.com
To: <jhoppie@dart.org>
Date: 3/15/02 10:28 AM
Subject: One comment, one question on the SE Corridor DEIS
CC: <schumach@rsn.hp.com>

Mr. Hoppie:

Please push for Good-Latimer alignment option A. The existing tunnel is unattractive, and dangerous for both traffic and pedestrians. It would be a mistake to preserve it, especially if doing so would increase the costs or decrease the operating performance of the SE rail line. If the city of Dallas wants to remove and preserve the tunnel artwork at another location then that should be at the city's expense.

Does (or can) the Buckner station include a park-and-ride lot? That would seem to be the most effective location for capturing inbound commuters from 175.

regards,
Richard Schumacher

DALLAS AREA RAPID TRANSIT
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MAR 15 2002

CAPITAL PLANNING & DEVELOPMENT

John Hoppie - Good Latimer Bridge

From: "Stephen G. Turner" <sgtl@flash.net>
To: <jhoppie@dart.org>
Date: 3/18/02 6:36 PM
Subject: Good Latimer Bridge

Mr. Hoppie,

I spoke to you last week at the library in Pleasant Grove and said that I would send you an e mail regarding my feeling of the options about the Good Latimer railroad/art bridge.

I support option B, which will run the Dart LRT west of Good Latimer and the elevate it over the bridge. This will let Dart get things going and not disturb the bridge or the new apartments on the east side of Good Latimer and not be in conflict with the other Historic buildings on the east side.

Steve Turner
8765 Ferndale Rd. #166
Dallas, Texas 75238-3514

DALLAS AREA RAPID TRANSIT
RECEIVED
MAR 18 2002
CAPITAL PLANNING & DEVELOPMENT

The Villas on Holland, Inc.

4210 Holland Av., #107, Dallas, TX 75219-2835; Ofc. & Fax 214-219-1214; Cell 214-770-1214

March 18, 2002

DALLAS AREA RAPID TRANSIT
RECEIVED

MAR 28 2002

CAPITAL PLANNING & DEVELOPMENT

Jesse D. Oliver, Chairman
DART
P.O. Box 660163
Dallas, TX 75266-7200

Re: Opposed to Deep Ellum Tunnel

Dear Mr. Oliver:

The Dallas Morning News had an article on the Deep Ellum Tunnel on Sunday, March 17, 2002.

I am an Oaklawn apartment community property owner. I am opposed to keeping the Deep Ellum Tunnel. Good-Latimer is three lanes each way except at the tunnel where it narrows to two lanes each way. I have had two near accidents at the tunnel because drivers did not realize that their right lane merged with the middle lane. **The tunnel is a safety hazard and should be eliminated.** At the same time I want to be sensitive to the arts community and have the same type of art displayed on permanent panels at the entrance to Deep Ellum as is currently painted on the walls of the current tunnel. However, **a highway safety hazard should not be kept because of its historical status.**

Please distribute this letter to the other members of the DART Board of Directors.

Sincerely,



Al Daniels, President
The Villas on Holland, Inc.

copy: Laura Miller, Mayor, City of Dallas

02 MAR 22 PM 1:04

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VENDING SERVICE, INC.

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2601 Swiss Ave.
(214) 826-5680

Dallas, Texas 75204-5837
Fax (214) 824-3290

e-mail: adolphs@ibm.net

DALLAS AREA RAPID TRANSIT
RECEIVED

MAR 26 2002

CAPITAL PLANNING & DEVELOPMENT

March 18, 2002

DART Community Affairs - 7232
DART
P.O. Box 660163
Dallas TX 75266-9672

Dear Sirs:

I attended the DART Southeast Corridor Public Hearing on 3/12/02. I spoke at that hearing against the Good Latimer Expressway Alignment Option "C". However, I realized after my three minutes that more needed to be said.

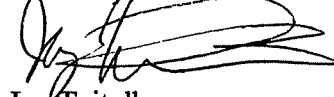
I have attended all meetings in regard to the Southeast Corridor since they began in 2000. For at least the last year or more, I have been assured that Alignment Option "A" or "B" were the only Alignment Options being considered for the Good Latimer corridor.

This was very important to us for our long-range planning as we are located at 2601 Swiss Avenue at the corner of Swiss and Good Latimer. We purchased this property in May, 1991, and have occupied it ever since. Our business has grown, and we need every square inch we have. Alignment Option "C" will invade our existing property to the point we will be displaced and forced to move.

Based on the representations from DART over the past year as to the certainty of using Alignment Option "A" or "B" we began interior modifications of our building. We have been working on these modifications for months. They are nearly finished but still in process. We used our people after hours for virtually all of the work - at overtime rates. We have quite an investment in labor and materials for these changes.

As we have accounts all over the metroplex, we love our location. We have nearly immediate access to all freeway systems for Dallas and Fort Worth. Should we be displaced, it will be very difficult, if not impossible, to obtain at least 20,000 square feet of building and a parking lot of the size we require in this area due to competition from Baylor Hospital and the Meadows Foundation for available space. We are strongly opposed to Alignment option "C". We feel Option "A" for the Good Latimer Expressway is the best choice for all parties. If Option "A" cannot be accomplished, then we still support Option "B".

Sincerely



Jay Teitelbaum
President

21 March 2002

Dallas Area Rapid Transit
1401 Pacific Avenue
Dallas, Texas 75266-7245

DALLAS AREA RAPID TRANSIT
RECEIVED

MAR 26 2002

Attention: Mr. John Hoppie
DART Planning Project Manager

CAPITAL PLANNING & DEVELOPMENT

**DART SouthEast Corridor
Environmental Impact Statement Study**

Dear Mr. Hoppie:

I attended the Public Hearing on Tuesday, 12 March 2002, regarding the DART SouthEast Corridor.

I support DART in their plan to build a light rail line from Downtown Dallas to Fair Park and Pleasant Grove. The DART SouthEast Corridor line will be an excellent improvement for the City and the Metroplex.

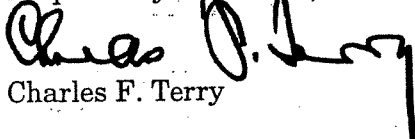
As a property owner and business owner at the northeast corner of Gaston and Good-Latimer, I was not happy to learn that DART is now considering a third possibility for the alignment of the proposed light rail line on Good-Latimer. This third alignment shifts the light rail line and the Deep Ellum Station to the east side of Good-Latimer.

I am very much opposed to this possible third alignment, Option C, since it apparently will take away my building and property. It will also take away all or parts of other properties, including the historic Saint James AME Church, Adolph's Coffee Service, Giddings & Wells Body Shop, Dallas Shared Housing Center and part of the Gaston Yards Apartments. Option C will seriously alter and adversely affect the nature and fabric of this neighborhood.

The two previous alignments, Options A and B, are better solutions to the location of the DART SouthEast Corridor light rail line along Good-Latimer. In my opinion, Option A down the center of Good-Latimer is definitely the best solution.

I strongly recommend that the DART staff and the DART Board take a firm stand in opposition to Option C as presented at the Public Hearing. I also recommend that DART reject Option C and give it no future consideration.

Respectfully submitted,



Charles F. Terry

DART SouthEast Corridor Letter

The Dallas Morning News

Established October 1, 1885

Publishers

George Bannerman Dealey 1885-1940

E.M. (Ted) Dealey 1940-1960

Joe M. Dealey 1960-1980

James M. Moroney Jr. 1980-1985

John A. Rector Jr. 1985-1986

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Stuart Wilk
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Vice President, Editorial Page Editor

Friday, March 22, 2002

EDITORIALS

Tunnel Obstacle

Good-Latimer underpass shouldn't delay rail

It would be tempting to say that Texas historians have a bad case of tunnel vision when it comes to an important phase of the Dallas Area Rapid Transit light rail system.

But there is nothing humorous about the prospect of a planned DART rail line to Fair Park and southeast Dallas being delayed because the old Good-Latimer Expressway tunnel may be designated historic.

The tunnel, which was constructed in 1925, stands in the way of DART's rail line route. The aging tunnel already has outlived its projected 50-year life span and is not situated in a way that could serve as the base for the transit line.

Yet an environmental review has brought a response from the Texas Historical Commission that the tunnel may be a candidate for the National Register of Historic Places.

The fact that the Good-Latimer Expressway tunnel was built to provide early-day automobiles a way to get under the railroad tracks on the east edge of downtown hardly justifies historic status. The blunt truth is that the tunnel is nondescript concrete connector.

Even the artwork that adorns the walls of the dimly lit tunnel is whitewashed every few years so that new murals can be painted.

DART officials now have to come up with

costly and far less acceptable alternatives for the rail route. One proposal would require the demolition of several Deep Ellum businesses. Another would force DART to demolish as many as 24 fairly new apartment units.

The Federal Transit Administration, which will decide whether there is a "prudent way" to spare the tunnel, must move quickly when it receives all the facts. Further delays and added costs to the Fair Park line would be outrageous.

DART officials have negotiated in good faith with the Texas Historical Commission. And they have made an impressive offer to the artists, who have been involved in the mural project in the tunnel.

The transit agency will commit as much as \$1.5 million to establish a ground-level site where murals and other artwork can be created in Deep Ellum. DART may even be willing to re-create a tunnel environment at the site.

But time is of the essence. The current schedule calls for the line that will serve Baylor Medical Center, Deep Ellum, Fair Park and southeast Dallas to be completed by 2007. That already is too long.

DART deserves the green light to find ways to speed up the completion day for this vital rail link — not slow it down.

School Redistricting

OLD W



Texas Reciprocal Member Card with the eight participating Texas museums listed. The reward for supporting them with a \$250 contribution.

Armed with my "new" camera, I traveled to Fort Worth to see the newest show at the Kimbell Art Museum. I found that they don't reciprocate special exhibitions — they just don't list them on the list of Texas museums that do reciprocate. The DMLA Kimbell members of this society are in during special exhibitions.

Now, Fort Worth, is that fair?
Nan Alexander,

No probe of task force

Re: "FBI apparently investigating North Texas drug task force" March 20.

Readers of this article may have incorrectly inferred that the Dallas Division of the FBI is conducting a probe of the North Central Texas Narcotics Task Force, which is based in Denton. The FBI in Dallas does not comment upon ongoing investigations, but because of the incorrect inference that has been drawn by your readers, we believe it necessary to state that we have pending no investigations of the North Central Texas Narcotics Task Force on narcotics investigations.

Though the FBI is conducting an investigation in Denton County with the cooperation of the Dallas force and Denton County Sheriff Weldon Lucas, we would not want your readership to mistakenly assume that the focus of this is the task force.

Edward H. Lueck
Assistant Special Agent in Charge FBI

The Dallas Morning News

Established October 1, 1885

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E.M. (Ted) Dealey 1940-1960

Joe M. Dealey 1960-1980

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Vice President, Editorial Page Editor

Sunday, March 31, 2002

LETTERS

Oscar and demographics

While it's great that Halle Berry and Denzel Washington won their Oscars, people are fooling themselves in thinking that their winning will open more doors in film for African-Americans. Hollywood is all about demographics; the desired demographic today is young, male and white. Moreover, studios are becoming increasingly dependent on the foreign market, which also skews much toward the same demographic.

Again, I think it's wonderful that Ms. Berry and Mr. Washington won because they were terrific in their respective roles. But I'm afraid that many great actors due to their race, age and gender — including blacks, Hispanics, and women — will continue suffering from a lack of good roles.

L. Postel, Dallas

DART's best route

Re: "Tunnel Obstacle — Good-Latimer underpass shouldn't delay rail," Editorials, March 22.

Your editorial about the best route (Option A) for the planned DART rail line to Fair Park and southeast Dallas was correct in its conclusion and supports the position of the Meadows Foundation. Based on our long-standing interest in this area, we expressed support for Option A at a recent DART public hearing. Option A will minimize disruption to existing businesses, protect new residential developments along the route and safeguard an already designated historically significant building.

We have been involved in developing the neighborhood over the past 21 years through our creation of the Wilson Historic District. Among our most important projects was assembling the land

at the corner of Good-Latimer and Live Oak for the Latino Cultural Center and gifting it to the city for construction of the facility. Option A will make this facility even more accessible to the public.

In addition, the historic Saint James A.M.E. Temple, which sits along Option C, was purchased and restored by the foundation in 1998. It now provides office space for nonprofit agencies serving the people of Dallas. It is one of the most significant African-American buildings in our city, designed by William Sydney Pittman, and financed and built by African-Americans. To encroach upon it with a rail line threatens its very existence, and would be a disservice to the memory of those who built it and disrespectful to the purpose of historic preservation. Option A prevents this possibility.

We are equally concerned that Options B and C will force businesses along these routes to close or relocate, and require the exercise of eminent domain to acquire the needed property. Such options do not appear prudent in light of the unnecessary expenditures and

the disruption of businesses that create jobs, generate taxes and contribute to the economic vitality of the neighborhood.

We appreciate the difficult task before DART and our City Council in determining the best route for this much-needed rail line linking downtown with Fair Park and southeast Dallas. We firmly believe that extending the route down the middle of Good-Latimer (Option A) is the most prudent and feasible of all options.

Linda P. Evans,
president and CEO,
The Meadows Foundation,
Dallas

Don't belittle mayor

To me your piece, "Dear Ms. Fix-it," March 24, seems just an attempt to belittle Mayor Laura Miller's real agenda.

Would you have done a similar article if Tom Dunning were mayor, equally trivializing his plans? I don't think so.

Hal Fish, Dallas

LETTERS POLICY

We value letters from readers. We receive far more than we can print so we publish a representative sample. Letters are edited for length and clarity. Please include your name, address with ZIP code along with a daytime phone number. Letters become the property of *The Dallas Morning News*.

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CITY OF DALLAS

April 5, 2002

SENT VIA FACSIMILE

214 / 749-3670

Page 1 of 1

Mr. John Hoppie
Southeast Corridor Project Manager
DALLAS AREA RAPID TRANSIT
P.O. Box 660163
Dallas, Texas 75266-0163

RE: Good Latimer Tunnel
City of Dallas Landmark Commission Decision

Dear Mr. Hoppi:

On April 1, 2002 the Landmark Commission discussed and resolved to provide its decision related to the National Register eligibility of the Good Latimer Tunnel. The Landmark Commission voted and approved to provide the following language to you:

"The Dallas Landmark Commission concurs with the Texas Historical Commission that the Good Latimer Tunnel is eligible for the National Register listing as a contributing structure as part of a potential Multiple Property listing of the circa 1930 citywide transportation and Trinity River improvements. The Landmark Commission resolves to request consulting party status, if there is a Section 106 review to DART and the FTA, and further requests a delay of the April 8th Section 4(f) comment period to allow the Landmark Commission to provide comments."

Please provide information to the Landmark Commission as how to these processes will proceed given our request. Thank you for working with the Landmark Commission. You can reach me at 214/340-9210 if you have any questions or contact Jack Guerra at 214/670-3620 for any information that can be distributed.

Sincerely,

Allison Reaves-Poggi, Chair
City of Dallas Landmark Commission

- c: Leif Sandberg, Manager, Department of Planning and Development
John Rogers, Assistant City Attorney, City Attorney's Office
Jack Guerra, AICP, Chief Planner, Historic Preservation Section
John Sweek, FTA Regional Contact
Federal Transit Administration Region 6, 819 Taylor Street, Room 8A36, Fort Worth, TX 76102
F. Lawrence Oaks, Executive Director, Texas Historical Commission, P.O. Box 12276, Austin, TX 78711-2276



April 5, 2002

John Hoppie
System Planning Manager
Dallas Area Rapid Transit
P.O. Box 660163
Dallas, TX 75266-7245

RE: ***Southeast Corridor Draft Environmental Impact Statement (DEIS)***
Dallas Area Rapid Transit, February 2002

Dear Mr. Hoppie:

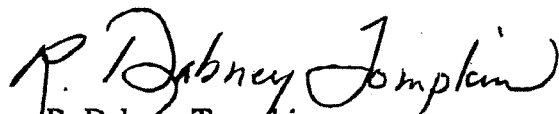
Preservation Dallas submits this letter as comment on the recently released *Draft Environmental Impact Statement* regarding the proposed alignment of the Southeast Corridor of the Dallas Area Rapid Transit. This letter follows correspondence submitted by Preservation Dallas to DART on July 24, 2001. We respectfully request that this document be entered into the public record on the *Draft Environmental Impact Statement*.

The Board of Trustees of Preservation Dallas believes that the tunnels are significant for their historical association with the Ulrickson Committee Report of 1925-27 as well as a neighborhood landmark and palette for public art. In our letter of July 2001, we encouraged DART to explore alternatives to demolition and removal of the tunnels. We understand that the *Draft Environmental Impact Statement* proposes two alternatives and a third alternative is presented in response to the State Historic Preservation Officer's letter of February 1, 2002.

We believe that all of three alternatives fail to adequately address concerns for the historic resources in the vicinity of the Deep Ellum tunnels. As the city's primary advocacy organization for historic preservation and inner city living, we are concerned about the historic properties and neighborhood assets as well as long-term economic viability in the area. The Board of Trustees of Preservation Dallas believes that other alternatives may be possible for the Good-Latimer Expressway in order to avert demolition and meet the goals of the community.

Thank you for your consideration of this letter. Please keep us informed as DART prepares its final plans for the Deep Ellum station.

Sincerely,
MARCEL QUIMBY
Marcel Quimby, FAIA
President


R. Dabney Tompkins
Chair, Preservation Issues

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201 - 2002

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Thomas W. Taylor
Frank D. Welch
Bob Whismant
Bobby Wood

COMMENT CARD

**Southeast Corridor
Environmental Impact
Statement Study**

Name/Nombre: Linda Micson

Address/Dirección: P.O. Box 710711

City/Ciudad: Dallas, TX

Zip Code: 75371

Telephone/Teléfono: (972) 229-0112 pg. 472

Comments/Comentarios:

I am opposed
to option C
and in favor
of option A.

COMMENT CARD

Southeast Corridor Environmental Impact Statement Study

Name/Nombre: RJ SMITH

Address/Dirección: 526 GOLDEN MEADOWS

City/Ciudad: DUNCANVILLE TX

Zip Code: 75116

Telephone/Teléfono: (972) 780 9728

Comments/Comentarios:

I AM AGAINST OPTION "C",
I PREFER OPTION "A" OR "B"
IF "A" CANNOT BE DONE.

RJ Smith

COMMENT CARD

Southeast Corridor Environmental Impact Statement Study

Name/Nombre: LARRY CARTER

Address/Dirección: 730 W. CHURCH

City/Ciudad: GRAND PRAIRIE

Zip Code: 75050

Telephone/Teléfono: () 972-262-7706

Comments/Comentarios:

I AM AGAINST
ALIGNMENT OPTION C.

ALIGNMENT OPTION A
SEEMS TO BE THE
BEST CHOICE FOR THE
GOOD LATIMER EXPRESSWAY
AREA.

Thanks,
Larry
Carter

COMMENT CARD

Southeast Corridor Environmental Impact Statement Study

Name/Nombre: FRED EARLEY
 Address/Dirección: 3713 Willowood
 City/Ciudad: GARLAND TEXAS
 Zip Code: 75040
 Telephone/Teléfono: (972) 414-0760

Comments/Comentarios:
I THINK THE TUNNELL TO
DEEP ELLUM IS DANGESOUS AND
A EYE SORE.
PEOPLE DON'T EVEN WALK THROGH
IT AT NIGHT OR EVER IN THE
DAY TIME.
AND IF DART CAN'T GO
THROGH THE TUNNELL IT WILL
TAKE AWAY BUILDING THAT
PEOPLE WALK IN. I THINK
IT WILL COST THE CITY MORE
MONEY BY NOT GOING THROGH
THE TUNNELL.

COMMENT CARD

Southeast Corridor Environmental Impact Statement Study

Name/Nombre: JAMES F. AARON
 Address/Dirección: 2510 N. Hwy 175
LOT 955
 City/Ciudad: SEAGORICE
 Zip Code: 75159
 Telephone/Teléfono: ~~972~~ 270-3708

Comments/Comentarios:
OPPOSED TO
OPTION C
FOR THE GOOD
LATERAL EXP.

COMMENT CARD

Southeast Corridor Environmental Impact Statement Study

Name/Nombre: A. FEITELBAUM
 Address/Dirección: 5200 KELLER SPRINGS
323
 City/Ciudad: DALLAS TX
 Zip Code: 75248
 Telephone/Teléfono: (972) 233-5479

Comments/Comentarios:
Believe IN MY OPINION
OPTION "C" IS TOO
COSTLY AND WOULD BE
TOO TIME CONSUMING.
"A" IS MY PREFERENCE.
AS LEAST EXPENSIVE
AND MOST PRACTICAL.

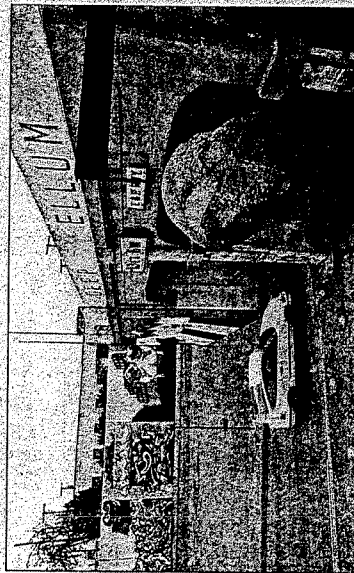
Council backs closing mural-lined tunnel for light rail

By DAVE MICHAELS
Staff Writer

DART secured an important endorsement for a future light-rail route Monday when the Dallas City Council agreed to support an alignment that would close the historic Good-Latimer Expressway tunnel.

Council members did not take a formal vote, but nine members said they were convinced that sealing the mural-lined tunnel was the best way to complete the Deep Ellum station for the Southeast Corridor alignment.

"It was clear that committee members supported filling in the tunnel," said council member Sandy Greyson, chairwoman of the transportation committee that heard Monday's presentation. "The city and DART took extra time to thoroughly look at the sig-



RICHARD MICHAEL PRUITT/Staff Photographer

The Good-Latimer Expressway tunnel, which was built in 1930, is considered a gateway from East Dallas to Deep Ellum.

It was not of a resolution supporting Dallas Area Rapid Transit's plan. The full council will vote on the resolution May 22.

On May 13, Ms. Greyson's committee will consider the language.

The City Council's backing is not required for DART to begin building its route over the tunnel, which was constructed in 1930 as part of Dallas' first major public-works campaigns. It has been known more recently for the bright and varied murals that drape its walls and provide a colorful connector between Deep Ellum and East Dallas.

The Deep Ellum Association is also supporting DART's plan, after months of opposing it. Hurdie Burk, the executive director, said DART's offer to pay \$1.5 million toward a new gateway for Deep Ellum — that would use local artists the same way the tunnel projects did — helped persuade many owners to support the alignment.

The city's support probably improves DART's case before the Federal Transit Administration, which has to bless the project because the tunnel is eligible for inclusion on the National Register of Historic Places.

"Since there are two city of Dallas roadways, and they are responsible for the tunnel, their support goes a long way in our argument that there is not a prudent or feasible alternative," said John Hoppie, the project manager for DART's Southeast Corridor.

The council vote next month is basically a formality, because several members who had expressed doubts about closing the tunnel now support the DART proposal.

Council member Veletta Forsythe Lill said she thought closing the tunnel — dubbed Option A by DART officials — was preferable to two plans that would have threatened other historic structures.

One of those options would

have required running the DART line close to the St. James AME Temple Church, acquiring property from several businesses and razing them, and taking out 24 units at the Gaston Yard apartments. The other would have squeezed out seven businesses, several loft apartments and run too close to another historic building, the Union Bankers building.

"Option A is the best in terms of preserving our other resources and from an urban design perspective," Ms. Lill said.

Mr. Burk also said the association did not want area businesses and residences to be sacrificed.

"When it comes to replacing people and businesses, I would rather the tunnel go," Mr. Burk said.

E-mail dmichaels@dallasnews.com

May 22, 2002

WHEREAS, on May 28, 1997, a Thoroughfare Plan Amendment was passed by the City Council for the City of Dallas that established a special four-lane divided cross section to accommodate light rail transit (LRT) in the median of Good-Latimer Expressway from Bryan Street to the DART-owned Union Pacific (UP) railroad right-of-way; and,

WHEREAS, on December 15, 1999, a resolution was passed by the City Council of the City of Dallas endorsing the Southeast Corridor Major Investment Study preferred alignment with LRT in the median of Good-Latimer Expressway; and,

WHEREAS, Dallas Area Rapid Transit (DART) has completed the Southeast Corridor Draft Environmental Impact Statement (DEIS) with a 45-day public comment period from February 22, 2002 through April 8, 2002; and,

WHEREAS, the DEIS assessed the impacts of a LRT line extending northeast from the existing Pearl Street Station along Bryan Street to Good-Latimer Expressway, south on Good-Latimer Expressway to the Union Pacific Railroad right-of-way before continuing south and east along Parry Avenue to Fair Park and the Southern Pacific Railroad right-of-way to Pleasant Grove; and,

WHEREAS, in the Southeast Corridor, DART has identified three alignment options along Good-Latimer Expressway (Option A, Option B and Option C) with a station to serve Deep Ellum and the Latino Cultural Arts Center; and,

WHEREAS, Option A requires filling the Deep Ellum Tunnel to bring Good-Latimer Expressway up to an at-grade intersection with Gaston Avenue while Options B and C would maintain the existing tunnel and grade separation between Good Latimer Expressway and Gaston Avenue; and,

WHEREAS, Option A conforms to the Thoroughfare Plan by placing light rail in the median of Good-Latimer Expressway while maintaining four lanes of traffic and would not displace any businesses or residents; and,

WHEREAS, Option B differs from the Thoroughfare Plan by diverting the LRT line from the median of Good-Latimer Expressway to the west side of the street to cross Gaston Avenue at-grade before spanning over the tunnel on aerial structure, would require the displacement of seven businesses and eight residential units, and could adversely affect the potential for future redevelopment of City of Dallas landmark designated property; and,

WHEREAS, Option C differs from the Thoroughfare Plan by diverting the LRT line from the median of Good-Latimer Expressway to the east side of the street to cross Gaston Avenue at-grade, would require the displacement of 24 residential units and five commercial properties, and would compromise the access of a City of Dallas landmark designated property; and,

May 22, 2002

WHEREAS, the Deep Ellum Tunnel is eligible for the National Register of Historic Places, but is in poor structural condition and is no longer needed to facilitate vehicular traffic in the area; and,

WHEREAS, removal of the Deep Ellum Tunnel would have the least impact considering the numerous historic resources in the area, and would have the greatest potential to promote redevelopment, improve vehicular and pedestrian safety and enhance access to the LRT station.

Now, Therefore,

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF DALLAS:

Section 1. That the City Council supports DART's Southeast Corridor LRT alignment Option A that fills the Deep Ellum Tunnel and places light rail transit in the median of Good-Latimer Expressway between Bryan Street and the DART-owned Union Pacific Railroad right-of-way.

Section 2. That this resolution shall take effect immediately from and after its passage in accordance with the provisions of the Charter of the City of Dallas and it is accordingly so resolved.

Distribution: Public Works and Transportation, Sandra Williams, OCMC, Room 101
Public Works and Transportation, Carol Alexander, L1BN
City Attorney
Office of Financial Services

APPROVED BY
CITY COUNCIL

MAY 22 2002

Shirley Geif
City Secretary

APPROVED

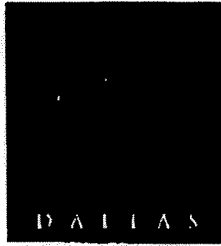
[Signature]
HEAD OF DEPARTMENT

APPROVED

[Signature]
CITY CONTROLLER

APPROVED

[Signature]
CITY MANAGER



August 15, 2002

John Hoppie
Systems Planning Manager
Dallas Area Rapid Transit
P.O. Box 660163
Dallas, TX 75266

RE: Mitigation for Deep Ellum/Good Latimer Tunnel

Dear Mr. Hoppie:

In March 2002, DART released a *Draft Environmental Impact Statement* offering two options for development of a Deep Ellum rail station. Option A requires the removal of the Deep Ellum or Good Latimer Tunnel. In a decision subsequent to the public release of the *Draft EIS*, the State Historic Preservation Office determined the tunnel eligible for listing in the National Register of Historic Places.

We understand that DART will initiate and hold additional public hearings to determine appropriate management of the environmental and historical issues under Section 4F of the Federal Transportation Act.

If Option A is determined to be the most prudent and feasible alternative, we support the mitigation of the tunnels in the following ways:

- Documentation by measured drawings to a Level I of Historic American Engineering Record (HAER) for transportation structures depicting existing and historic conditions;
- Level I photographs with large-format negatives of exterior and interior views and a written history and description;
- Documentation and a written narrative that places the tunnel and the remaining elements of the system in the context of the community development of Dallas as stated in the letter of eligibility from the Texas Historical Commission;
- Development of a community committee to work through acceptable urban design opportunities to retain a gateway that is separate from the Deep Ellum station;
- Retain significant pieces of the tunnel fabric for placement in a local and public setting with appropriate interpretation.

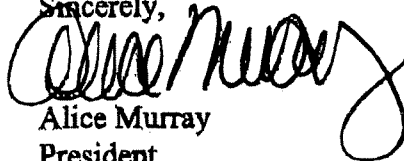
DART – Mitigation Deep Ellum/Good-Latimer Tunnels

Page 2

The future development in the vicinity of the proposed Deep Ellum station is an unequalled opportunity to incorporate several highly significant historic properties (St. James AME and the Union Bankers/Knights of Pythias) into an exciting urban space. The DART commitment for \$1.5 million for art in a gateway area will add a creative element with a unique neighborhood expression. This opportunity demands a coordinated community effort that we are committed to lead.

Please consider this as our support for the DART project and to the future development of the neighborhood. If you have any questions, please contact us.

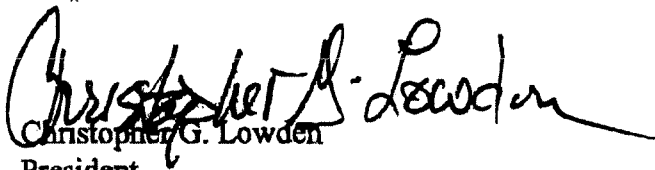
Sincerely,



Alice Murray
President
Preservation Dallas

Linda Evans
CEO
Meadows Foundation of Texas

Michael Caine
President
Deep Ellum Association



Christopher G. Lowden
President
Friends of Fair Park

ATTACHMENT E3
CORRESPONDENCE

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Dallas Area Rapid Transit
P.O. Box 660163
Dallas, Texas 75266-0163
214/749-3278

November 17, 2000

Reference: DART Northwest Line to Carrollton EIS
DART Southeast Corridor EIS

Dear Agency Representatives:

Dallas Area Rapid Transit (DART) has recently initiated efforts to prepare an Environment Impact Statement (EIS) for both of the above-referenced projects. Both projects have completed Major Investment Studies (MIS), arriving at a Locally Preferred Investment Strategy featuring Light Rail Transit (LRT) recommendations. The Federal Transit Administration (FTA) has authorized DART to commence this phase of project development, issuing a Notice of Intent to Prepare an EIS in the Federal Register on Friday, November 3, 2000.

Public Scoping Meetings for these two projects have been announced for late November (Southeast Corridor) and early December (Northwest Corridor). These meetings are detailed in the accompanying Notices of Intent.

For the purposes of initiating interagency coordination with federal, state, and local agencies, DART is conducting an Interagency Coordination Meeting during the Scoping period. You are invited to attend this meeting, scheduled for the following time and location:

DART Interagency Scoping Meetings

December 6, 2000

DART Board Conference Room 1C, First Floor

1401 Pacific Avenue

Dallas, Texas 75201

10:00 a.m. - 12 noon -- Southeast Corridor EIS

12 noon - 1:00 p.m. -- Lunch (provided by DART)

1:00 p.m. - 3:00 p.m. -- Northwest Line to Carrollton EIS

You will note from this schedule that we are planning for a full day of activities in order to kick off these two important regional transportation projects. Lunch will be provided. It is our hope that you will make the time to attend these meetings so that we can initiate these projects with the fullest information possible.

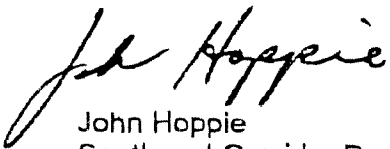
In order to provide you with background prior to these meetings, we are including with this letter **Scoping Information Reports** for both projects. These documents highlight the potential environmental, land use and transportation issues associated with each

project. Where applicable, information from the preliminary **Environmental Baseline Reports** prepared during the MIS phase is attached to provide additional information for each corridor. Your early input on these issues, as well as your assistance with identifying other issues not included, would be greatly appreciated.

If you are not able to attend the meeting, but have information or comments that will be useful for the environmental process, please forward the information to the respective Project Manager at your earliest convenience.

If you have any questions, please contact either of us. We look forward to seeing you at the meetings.

Sincerely,



John Hoppie
Southeast Corridor Project Manager
214/749-2525
jhoppie@dart.org



Kay Shelton, AICP
Northwest Corridor Project Manager
214/749-2841
kshelton@dart.org

Attachments - Notice of Intent (SE and NW)
- Scoping Information Report (SE and NW)

Mr. James Steely
Deputy State Historic Preservation
Officer
Texas Historical Commission
P.O. Box 12276
Austin, Texas 78711-2276

Mr. Joe Swick
Environmental Protection Agency
1445 Ross
Dallas, Texas 75202

Mr. Wayne Lea
Chief Regulatory Branch
U.S. Army Corps of Engineers
P.O. Box 17300
Fort Worth, Texas 76102-0300

Mr. Melvin Lewis
Regional Director
TNRCC
1011 E. Arkansas Lane
Arlington, Texas 76010-6499

Ms. Nan Terry
Environmental Specialist
Federal Aviation Administration
2601 Meacham Boulevard
Fort Worth, TX 76193

Mr. David Visney
Regional Manager
Federal Railroad Administration
8701 Bedford-Eules Road, Suite 425
Hurst, TX 76053

Mr. Jesse Balleza
Community Planner
Federal Transit Administration
Region VI
819 Taylor Street, Room 8A36
Fort Worth, TX 76102

Mr. Bob Short
United States Fish and Wildlife Service
711 Stadium Drive, Suite 252
Arlington, TX 76011

Mr. Roy Frye
Texas Parks and Wildlife Department
4200 Smith School Road
Austin, TX 78744

Barbara Maley
North Central Texas Council of
Governments (NCTCOG)
616 Six Flags Drive, 4th Floor
PO Box 5888
Arlington, TX 76005-5888

Mr. Tim Juarez
Transportation & Planning Division
Texas Department of Transportation
125 E. 11th Street
Austin, Texas 78701-2483

Ms. Elvia Gonzalez
Environmental Division
Texas Department of Transportation
125 E. 11th Street
Austin, Texas 78701-2483

Mr. Bruce Nolley
Texas Department of Transportation
P.O. Box 133067
Dallas, Texas 75313-3067

John Brunk, PE
City of Dallas, Public Works &
Transportation
City Hall, Room L1BN
1500 Marilla Street
Dallas, TX 75201

Mr. Irvin Griffin
Senior Project Manager
Dallas County, Dept of Public Works
411 Elm Street, 4th Floor
Dallas, TX 75201

Mr. Jim Anderson
City of Dallas Landmark Commission
Planning & Development – 5CN
1500 Marilla Street
Dallas, TX 75201

Mr. Steve Rollins
Director of Planning
Denton County
306 n. Loop 288, Suite 112
Denton, Texas 76209-4887

Mr. Terry Mitchell
Asst. Director of Aviation
City of Dallas Aviation Department
LB 16, Love Field Terminal Building
Dallas, TX 75235

Richard Gehring
TxDOT, Dallas District
9700 E. R.L. Thornton Frwy
PO Box 3067
Dallas, TX 75221-3067

Mr. Dave Davis
City Traffic Engineer
City of Farmers Branch
13000 Wm. Dodson Parkway
Farmers Branch, TX 75234

Cesar Molina, PE
Transportation Department
1945 E. Jackson Road
PO Box 110535
Carrollton, Texas 75011-0535

Ms. Glenna Taite
Dallas Independent School District
3700 Ross Avenue
Dallas, TX 75204

Mike Germany/Ginny Melara
Transportation Department
Carrollton-Farmers Branch ISD
1445 North Perry Road
Carrollton, TX 75007

Ms. Mary Phinney, Administrator
Dallas County Parks and Open Space
Program
411 Elm Street
Dallas, TX 75202

Mr. Willis Winters
Asst Director of Planning & Dev.
Dallas Parks Department
1500 Marilla Street, 6FN
Dallas, TX 75201

Mr. Peer Chacko
Chief Planner
City of Dallas Planning
1500 Marilla Street, 5CN
Dallas, TX 75201

Mr. Andy Carroll
DART Project Manager
City of Dallas Public Works
1500 Marilla Street

Alan Hendrix
City of Dallas, Public Works
City Hall, Room L1BN
1500 Marilla Street
Dallas, TX 75201

Shon Merryman
Transportation Department
1945 E. Jackson Road
PO Box 110535
Carrollton, Texas 75011-0535

Christopher Barton
Chief Planner
1945 E. Jackson Road
PO Box 110535
Carrollton, Texas 75011-0535

Mr. Eddie Hueston
Fair Park Administration
P.O. Box 15909
Dallas, TX 75315

Ms. Yvonne Washington
Fair Park Administration
P.O. Box 15909
Dallas, TX 75315

Ms Renee Riggs
The Dallas Plan
City of Dallas
1500 Marilla
6BN
Dallas, TX 75201

Mr. Don Cranford
Dallas County
Department of Public Works
411 Elm Street
4th Floor
Dallas, TX 75201

Ms. Jan Didear
Dallas Independent School District
3700 Ross Avenue
Dallas, TX 75204

Ms. Rebecca Dugger
City of Dallas
Trinity River Project



Dallas Area Rapid Transit
P.O. Box 660163
Dallas, Texas 75266-0163
214/749-3278

June 13, 2001

Ms. Linda Roark
Preservation Consultant
Division of Architecture
Texas Historical Commission
P.O. Box 12276
Austin, Texas 78711-2276

Dear Ms. Roark:

Attached are two technical memoranda regarding selected issues in DART's Southeast LRT extension related to Section 106 of the Historic Preservation Act of 1966. Both of these memoranda will be incorporated into a letter requesting formal concurrence for a determination of eligibility for all properties along the Southeast Corridor and will eventually serve as a foundation for a Determination of Effects report.

The memorandum regarding the Deep Ellum Tunnel is being forwarded to you for your information since it our understanding that others have contacted you concerning our proposal to demolish to tunnel.

The memorandum regarding Fair Park is being forwarded to you to serve as early coordination. Fair Park is a National Historic Landmark and the most significant historic entity encountered along the Southeast Corridor LRT line. On May 30, 2001, DART held a Charrette to determine how to best integrate a DART LRT Station with the historic entrance to Fair Park and reintroduce a transit element to the area. Participants included the Dallas Landmark Committee, Friends of Fair Park, Dallas Parks Department and representatives of the various venues at Fair Park.

We would like to come to Austin to meet with you at your earliest convenience to discuss these issues. Steve Salin will be contacting you to schedule a meeting. Should you have any questions, Steve can be reached at (214) 749-2828, or I can be reached at (214) 749-2525.

Sincerely,

A handwritten signature in cursive script that reads "John Hoppie".

John Hoppie

Project Manager
Corridor and Environmental Planning

Enclosures

c: Steve Salin
Tom Ryden

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Dallas Area Rapid Transit
P.O. Box 660163
Dallas, Texas 75266-0163
214/749-3278

September 14, 2001

Mr. F. Lawrence Oaks
State Historic Preservation Officer
Texas Historical Commission
P.O. Box 12276
Austin, Texas 78711-2276

Attn: Ms. Linda Roark

Re: Southeast Corridor Light Rail Project
Request For Determination of Eligibility Report

Dear Mr. Oaks:

I am pleased to transmit for your review and concurrence two copies of the *Request for Determination of Eligibility Report* for the referenced project. The Federal Transit Administration (FTA) has determined that the proposed DART Southeast Corridor Light Rail Transit Project in Dallas, Texas, is an undertaking as defined in 36 CFR 800.16(y) because it has the potential to cause effects on historic properties and, therefore, requires compliance with Section 106 of the National Historic Preservation Act as amended (Section 106, 16 U.S.C. 470f) and its implementing regulations (36 CFR Part 800).

This *Request for Determination of Eligibility Report* provides a description of the project, identifies the Area of Potential Effects (APE), reviews the identification efforts, describes the historical context of the corridor, and provides FTA and DART's determination of eligibility.

In accordance with 36 CFR 800.4(c)(2), FTA and DART are seeking SHPO concurrence with its determination of eligibility for listing in the National Register of Historic Places of properties within the Southeast Corridor APE. Following your concurrence, the report will be incorporated into this project's Final Environmental Impact Statement. All comments provided by the SHPO will be included.

Mr. F. Lawrence Oaks
September 14, 2001
Page 2

Thank you for your timely attention to this matter. Please call me at (214) 749-2828 or John Hoppie, Southeast Corridor Project Manager, at (214) 749-2525, if you have any questions.

Sincerely,



for Steve Salin
Senior Manager
Corridor and Environmental Planning

enclosures

c w/o: Jesse Balleza
Tom Ryden
John Hoppie
Tom Shelton, C&B
Willene Watson



TEXAS
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The State Agency for Historic Preservation

RICK PERRY, GOVERNOR

JOHN L. NAU, III, CHAIRMAN

F. LAWRENCE OAKS, EXECUTIVE DIRECTOR

September 17, 2001

Mr. Steve Salin
Dallas Area Rapid Transit
P.O. Box 660163
Dallas, Texas 75266-0163

Re: *Project review under Section 106 of the National Historic Preservation Act
Proposed Southeast Corridor LRT, Dallas Area Rapid Transit,
Dallas, Dallas County (FTA/106)*

Dear Mr. Salin:

Thank you for meeting with Texas Historical Commission (THC) staff to provide preliminary project information on DART's Southeast Corridor LRT, including the proposed Fair Park station. This letter serves as initial comment on the proposed Fair Park station design from the State Historic Preservation Officer, the Executive Director of the THC.

As discussed in our meeting August 14, the THC is concerned that construction of a DART station in front of the main Fair Park entrance has the potential to affect this National Historic Landmark. We understand that this is a convenient location for the public, and would be of special benefit for those attending the State Fair. As you know, Section 110 of the National Historic Preservation Act requires federal agencies to minimize harm to such National Historic Landmark properties. As discussed, we look forward to receiving a draft agreement document for the overall undertaking.

It is fortunate that there is a design opportunity for this project, related to the ticket buildings constructed for the Centennial Fair, but demolished in subsequent years. We recommend relatively accurate reconstruction of the historic ticket buildings in their historic location, understanding that security is a concern and that the design will need to be based on historic photographs, since the original plans are not available. We recommend that other structures not be placed in on the central axis of the historic entrance gate.

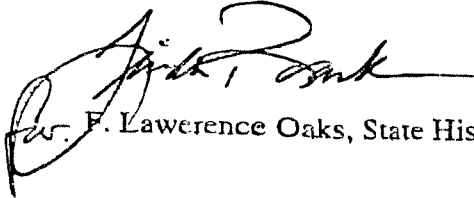
Design of the accessible platforms, and platforms for the other side of the tracks, should be as minimal and transparent as possible, and they should be placed as far from the central entrance axis as possible; preferably to the north of the central axis. There should be a total of five structures: the two reconstructed ticket buildings, two accessible platforms and one additional shelter. The three structures that are not reconstructions of the historic ticket buildings should be compatible with the historic ticket buildings and

September 17, 2001
Fair Park Station, DART SE Corridor
Page 2 of 2

design vocabulary of Fair Park. The plaza design should also be compatible. As we discussed, concrete should be used rather than pavers and lighting should be worked into reconstructed historic features (ticket booths, flag/light structures, catenary poles).

We hope to maintain a partnership that will foster effective historic preservation. Thank you for your cooperation in this federal review process, and for your efforts to preserve the irreplaceable heritage of Texas. **If you have any questions concerning our review or if we can be of further assistance, please contact Linda Roark at 512/463-9122.**

Yours truly,



F. Lawrence Oaks, State Historic Preservation Officer

cc: Jim Anderson, Dallas CLG
Jeff Dunn, Dallas County Historical Commission
FLO/LR



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JOHN L. NAU, III, CHAIRMAN

F. LAWRENCE OAKS, EXECUTIVE DIRECTOR

October 24, 2001

Steve Salin
Corridor and Environmental Planning
DART
PO Box 660163
Dallas, TX 75266-0163

Re: Project review under Section 106 of the National Historic Preservation Act of 1966: DART
Southeast Corridor, Dallas, Dallas County, Texas (N10, N20, N25)

Dear Mr. Salin:

Thank you for your correspondence describing the above referenced undertaking. Section 106 of the National Historic Preservation Act requires federal agencies, or their designated representatives, to take into account the effects of their undertakings on historic properties. Federal agencies, or their designated representatives, must request the comments of this office when they are considering an action, or if they are assisting, permitting, or licensing an action that may affect archeological sites or historic buildings. Under the Antiquities Code of Texas, state agencies and political subdivisions of the State are required to contact us relative to actions on non-federal public lands in the State of Texas.

The Texas SHPO needs additional information before we can provide comment on this undertaking. While the documentation of buildings in the project area appears adequate, the report featured no information about the Good-Latimer Tunnel, other than a reference on page 3. The tunnel may be eligible for listing in the National Register. Please send photographs of the tunnel and other transportation-related features along the proposed DART alignment (including other tunnels, bridges, overpasses), along with a written history and your assessment of these properties' eligibility for listing in the National Register. Texas Historical Commission staff will review all properties in the project area after this information is received.

Thank you for your interest in the cultural heritage of Texas, and for your compliance with this federal review process.

Sincerely,

A handwritten signature in black ink, appearing to read "Gregory W. Smith".

Gregory W. Smith
National Register Coordinator

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Dallas Area Rapid Transit
P.O. Box 660163
Dallas, Texas 75266-0163
214/749-3278

November 7, 2001

Mr. F. Lawrence Oaks
Executive Director
Texas Historical Commission
P.O. Box 12276
Austin, Texas 78711-2276

Attention: Gregory W. Smith

Re: Project review under Section 106 of the National Historic Preservation Act of 1966: DART Southeast Corridor, Dallas, Dallas County, Texas (N10, N20, N25)

Dear Mr. Oaks:

Thank you for your correspondence of October 24, 2001 regarding the above referenced undertaking. Attached is the additional information that you requested. This *Supplemental Request for Determination of Eligibility Report* contains the requested information and pictures of the Good-Latimer Underpass, as well as, other transportation-related features along the DART alignment. In addition, the report contains amended Table 3 and 4 from the original *Request for Determination of Eligibility* submitted in September 2001.

Please be advised that Mr. W. Dwayne Jones, Executive Director of Preservation, has volunteered to review or original submittal. Based on his comments we may submit additional revisions. If this is the case, we will repackage the original and supplemental report and submit it as one amended document in the very near future. However, as time is of the essence, we would appreciate your prompt consideration of the transportation-related features, especially the Good-Latimer Underpass, contained in this report.

Should you wish to discuss issues related to the Southeast Corridor LRT Project please contact me at (214) 749-2828.

Sincerely,

A handwritten signature in black ink, appearing to read "Steve Salin", written over a horizontal line.

Steve Salin
Senior Manager
Corridor and Environmental Planning

Enclosures

c: Jesse Balleza, FTA
W. Dwayne Jones, Preservation Dallas
Tom Ryden
John Hoppie

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F. LAWRENCE OAKS, EXECUTIVE DIRECTOR

February 1, 2002

Stephen L. Salin, AICP
Senior Manager
Corridor and Environmental Planning
Dallas Area Rapid Transit
P.O. Box 660163
Dallas, TX 75266-0163

Re: Project review under Section 106 of the National Historic Preservation Act of 1966,
DART Southeast Corridor, Dallas, Dallas County, Texas

Dear Mr. Salin:

Thank you for submitting additional information on the Good-Latimer Underpass for our review of the above referenced project. This letter serves as comment from the State Historic Preservation Officer, the Executive Director of the Texas Historical Commission (THC).

The THC review staff, led by Peter Ketter, has evaluated the "Supplemental Request of Determination of Eligibility" dated December 2001, and would like to provide the following comments.

The information contained in your report sufficiently establishes the significance of the Good-Latimer Underpass ("Deep Ellum Tunnel"), and it is **ELIGIBLE** for listing on the National Register of Historic Places. As the report acknowledges, the 1930 construction of the underpass was part of the city's broad program of infrastructure improvements undertaken in accordance with the Ulrickson Committee Report of 1925-27. The Ulrickson Report was a comprehensive plan for city improvements, the majority of which focused on the city's transportation network. The implementation of that plan was most certainly a significant event in the history of transportation in Dallas as well as the development of the city as a whole. The Good-Latimer Underpass is itself historically significant as an integral and vital component of important parts of the plan, including the connection of Pacific and Gaston Avenues, the connection of Good and Latimer Streets and grade separations between vehicular and rail traffic. The fact that the Good-Latimer Underpass is one of only a few remaining underpasses built in the manner and location indicated in the Ulrickson plan (page 3 of December 2001 report) only adds to its significance. It is therefore eligible under Criterion A, in the areas of Transportation and Community Planning and Development.

As an original component of the Central Expressway, the 1952 addition to the underpass further illustrates the progressive development of transportation strategies in Dallas and warrants extending the structure's period of significance to 1952. The integrity of the 1930 section was not significantly compromised by the addition, and the two phases are easily distinguishable. The original part was left largely intact and still clearly illustrates its historic function, to separate both pedestrians and two directions of vehicular traffic from the cross traffic above. The 1952 addition is also identifiable with its purpose and reflects changing trends in transportation planning, which focused on moving larger volumes of traffic at higher speeds. The removal of rail lines from above has not significantly altered the feeling, association or setting of the underpass. The structure is still readily identifiable with its significance in the development of Dallas's transportation network.

Page 2

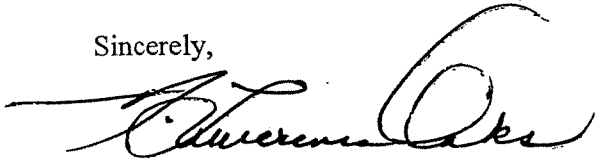
February 1, 2002

RE: Section 106 Review, *DART Southeast Corridor, Dallas, Dallas County, Texas*

We look forward to assisting you in finding appropriate measures to insure the preservation of the Good-Latimer Underpass and the other eligible historic properties in the APE of the Southeast Corridor Light Rail Transit Project. Please contact Linda Roark, Division of Architecture, at (512) 463-9122, for determinations of effect and any further coordination regarding the eligible properties.

We look forward to further consultation with your office and hope to maintain a partnership that will foster effective historic preservation. Thank you for your cooperation in this federal review process, and for your efforts to preserve the irreplaceable heritage of Texas. If you have any questions concerning our review, please contact Peter Ketter at (512) 463-5942 or Linda Roark.

Sincerely,

A handwritten signature in black ink, appearing to read "F. Lawrence Oaks". The signature is fluid and cursive, with a large, sweeping initial "F" and "O".

F. Lawrence Oaks, SHPO

cc: W. Dwayne Jones, Preservation Dallas
Jim Anderson, City of Dallas
Linda Roark, THC Division of Architecture



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The State Agency for Historic Preservation

RICK PERRY, GOVERNOR

JOHN L. NAU, III, CHAIRMAN

F. LAWRENCE OAKS, EXECUTIVE DIRECTOR

February 20, 2002

Mr. Steve Salin
Dallas Area Rapid Transit
P.O. Box 660163
Dallas, Texas 75266-0163

Re: *Project review under Section 106 of the National Historic Preservation Act
Proposed Southeast Corridor, Fair Park Station, Dallas Area Rapid Transit,
Dallas, Dallas County (FTA/106)*

Dear Mr. Salin:

Thank you for providing us with additional information and meeting to discuss the proposed Fair Park station design. This letter serves as initial comment on the proposed Fair Park station design from the State Historic Preservation Officer, the Executive Director of the THC.

As we discussed recently on the telephone, we appreciate receiving the computer renderings produced by DART to demonstrate various design possibilities for this station, and your intent to approach this project adjacent to Fair Park, a National Historic Landmark, with the greatest design sensitivity possible.

After reviewing the various renderings provided, we concur that placement of the canopies in the location of the two historic ticket booths, with an additional set of two canopies directly in front of those, would be the more compatible siting and offer less obstruction of the historic park entrance features. These four canopies would be of similar in size and shape to the historic ticket booths. The accessible canopies would be of very simple transparent design, located out from the other canopies, as proposed. We recommend that the eastbound and westbound canopies be the same design, rather than trying to differentiate with styles between the historic ticket booth locations and the new canopy locations. As discussed earlier, documentation clarifying the site's history could be provided with information incorporated into the station's design and with signage.

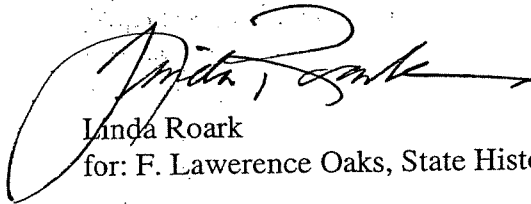
We concur with the proposed transparency of the preliminary canopy design, with somewhat heavy columns supporting a roof that recalls that of the historic ticket booth design. As we discussed, the columns offer an opportunity to do compatible bas relief designs within the scope of the public art component of the project, and there are also design possibilities for the floor that might incorporate interpretation of the historic ticket building and site configurations.

FEBRUARY 20, 2002
FAIR PARK STATION, DART SE CORRIDOR
PAGE 2 OF 2

We look forward to reviewing further design developments for this station portion of the project, including development of the public art component. Our continued general recommendation is for simple compatible features that blend with the character of existing historic park features, as discussed and preliminarily indicated in the rendering: concrete paving that is colored to differentiate track and pedestrian crossing areas, where necessary; simple bollards spaced as far apart as possible to reduce their number; simplified light standards based on the historic park design, etc.

We hope to maintain a partnership that will foster effective historic preservation. Thank you for your cooperation in this federal review process, and for your efforts to preserve the irreplaceable heritage of Texas. **If you have any questions concerning our review or if we can be of further assistance, please contact Linda Roark at 512/463-9122.**

Yours truly,

A handwritten signature in black ink, appearing to read "Linda Roark", written over a large, light-colored circular stamp or watermark.

Linda Roark
for: F. Lawrence Oaks, State Historic Preservation Officer

cc: Jim Anderson, Dallas CLG
Jeff Dunn, Dallas County Historical Commission

FLO/LR



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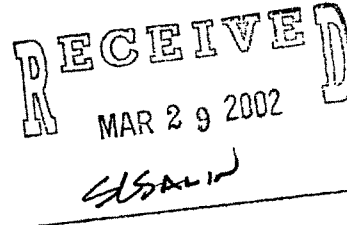
RICK PERRY, GOVERNOR

JOHN L. NAU, III, CHAIRMAN

F. LAWRENCE OAKS, EXECUTIVE DIRECTOR

March 21, 2002

Mr. John Hoppie
Dallas Area Rapid Transit
P.O. Box 660163
Dallas, Texas 75266-0163



Re: *Project review under Section 106 of the National Historic Preservation Act of 1966
DART Southeast Corridor Draft Environmental Impact Statement (DEIS),
Dallas, Dallas County (FTA/106)*

Dear Mr. Hoppie:

Thank you for providing our office with documentation regarding the subject project. This letter serves as comment on the proposed undertaking from the State Historic Preservation Officer, the Executive Director of the Texas Historical Commission.

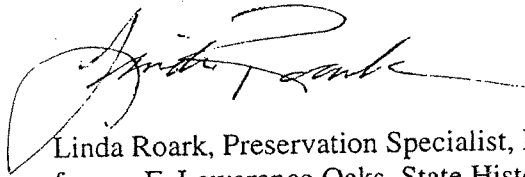
The review staff, led by Linda Roark, has completed its review of the DART Southeast Corridor Draft Environmental Impact Statement (DEIS) and has the following comments and recommendations:

- We do not have enough information at this time to complete review of the proposed “no adverse effect” determinations offered, and it appears that modifications to the proposed work (e.g., option C) may influence these determinations. However, we are concerned that the potential exists for adverse effects on some historic properties and need more information regarding the proposed design and location of the project as it relates to historic properties. For example:
 - The Knights of Pythias Temple at 2551 Elm Street, is noted in the “visual and aesthetic impacts” section to receive significant impacts from either option A or B. The potential exists that such significant impacts could adversely affect the Temple.
 - If an elevated structure is proposed adjacent to Fair Park, to cross over R. B. Cullum Boulevard, there is a potential for an “adverse effect” on Fair Park.
- We are concerned that the analysis of anticipated effects is confusingly written. For example it is variously stated that the undertaking both will and will not have an “adverse effect” on the Good-Latimer Tunnel under the various criteria of effect examined. If the undertaking would have an “adverse effect” under one criterion, it is confusing to state that there is “no adverse effect” for the same action under another criterion. Additionally, the statement that option A (burying the Good-Latimer Tunnel) and option B (constructing an elevated track over the Tunnel) would not adversely affect the Tunnel appears to be inaccurate from the information provided. We understand that there is third option (C) being considered, for which no information is included in the DEIS.

- The analysis of anticipated effects includes only those effects listed in 36 CFR Part 800 as *examples* of adverse effects. It should be considered that other adverse effects are possible, including those that may be cumulative, or remote in distance or time.
- Appendix E, Section 4(f) Evaluation: Section E3.6, regarding the Texas Antiquities Code, states that "(o)wner consent for designation of privately owned properties is not required." Owner consent for designation of publicly owned properties is not required, but is required for privately owned properties.

We continue to recommend that an agreement document be developed to guide the review of this undertaking in regard to work that could affect the historic character and integrity of historic properties, and look forward to further consultation with your office. Thank you for your cooperation in this federal review process, and for your efforts to preserve the irreplaceable heritage of Texas. If you have any questions concerning our review or if we can be of further assistance, please contact Linda Roark at 512/463-9122.

Yours truly,



Linda Roark, Preservation Specialist, Division of Architecture
for: F. Lawrence Oaks, State Historic Preservation Officer

cc: Steve Salin, Dallas Area Rapid Transit
Jesse Balleza, Federal Transit Administration, Region 6
Jim Anderson, Dallas CLG
Jim Dunn, Dallas County Historical Commission

FLO/LR



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The State Agency for Historic Preservation

RICK PERRY, GOVERNOR

JOHN L. NAU, III, CHAIRMAN

F. LAWRENCE OAKS, EXECUTIVE DIRECTOR

March 25, 2002

Stephen L. Salin, AICP
Senior Manager
Corridor and Environmental Planning
Dallas Area Rapid Transit
P.O. Box 660163
Dallas, TX 75266-0163

RECEIVED
MAR 29 2002

SUSAN

Re: Project review under Section 106 of the National Historic Preservation Act of 1966,
DART Southeast Corridor, Dallas, Dallas County, Texas

Dear Mr. Salin:

While reviewing the "Draft Environmental Impact Statement" for the above referenced project, it has come to our attention that, after evaluating the Good-Latimer Underpass, we neglected to provide any comment regarding the eligibility of the remaining properties in the Area of Potential Effects (APE). This letter, therefore, serves as comment on those properties from the State Historic Preservation Officer, the Executive Director of the Texas Historical Commission (THC).

The THC review staff, led by Peter Ketter, has reviewed the "Request for Determination of Eligibility" dated August 2001, and the "Supplemental Requests for Determination of Eligibility" dated November 2001 and December 2001, and would like to provide the following comments.

We acknowledge that the following properties in the APE are **LISTED** in the National Register:

- 3800 Commerce, John E. Mitchell Co. Plant (NR 1991)
- 3301-3333 Elm St., 212 and 232 Trunk Ave., Continental Gin Company (NR 1993)
- Fair Park (NHL 1986)

We **CONCUR** that the following properties are **ELIGIBLE** for listing in the National Register as contributing elements of a Commerce Street Warehouse District:

- 4100 Commerce, Alexander Motor Company Building
- 4118 Commerce, W. Gottlich Company Manufacturing Building
- 4044 Commerce, Lincoln Paint & Color Company Building
- 3801 Parry, Old Tige
- 3809 Parry, Howard Wolfe Building and Garage
- 4140 Commerce, Texlite Building

We **CONCUR** that the following properties are **ELIGIBLE** for listing in the National Register as contributing elements of a Deep Ellum Historic District:

- 2605 Elm, Fink Paint Co. Building
- 2625 Elm, Manufacturers Expo Bldg.
- 2615 Elm, American Transfer & Storage
- 2609 Elm, Southern Refrigeration Co. Bldg.

March 25, 2002

RE: Section 106 Review, *DART Southeast Corridor, Dallas, Dallas County, Texas*

We **CONCUR** that the following properties are individually **ELIGIBLE** for listing in the National Register:

- 3601 Main, National Biscuit Company
- 624 N. Good-Latimer, St. James AME Temple
- 2551 Elm St., Knights of Pythias Temple

We **DISAGREE** with your assessment of the following two properties, identified as not eligible in Table 4 of the November 2001 Supplemental Request:

- Good-Latimer Underpass (see THC letter dated February 1, 2002) - **ELIGIBLE**
- 3333 Elm – **LISTED** as part of the Continental Gin Company (NR 1993) – see above

We **CONCUR** that the remaining 92 properties listed in Table 4 of the November 2001 Supplemental Request are **NOT ELIGIBLE** for listing in the National Register. No further review is required regarding those properties.

We look forward to further consultation with your office and hope to maintain a partnership that will foster effective historic preservation. Thank you for your cooperation in this federal review process, and for your efforts to preserve the irreplaceable heritage of Texas. If you have any questions concerning our review, please contact Peter Ketter at (512) 463-5942 or Linda Roark at (512) 463-9122.

Sincerely,



Peter Ketter, Historian
for F. Lawrence Oaks, SHPO

cc: Linda Roark, THC Division of Architecture



TEXAS HISTORICAL COMMISSION

The State Agency for Historic Preservation

RICK PERRY, GOVERNOR

JOHN L. NAU, III, CHAIRMAN

F. LAWRENCE OAKS, EXECUTIVE DIRECTOR

May 6, 2002

Mr. John Hoppie
Dallas Area Rapid Transit
P.O. Box 660163
Dallas, Texas 75266-0163

Re: *Project review under Section 106 of the National Historic Preservation Act of 1966
Good-Latimer Tunnel, DART Southeast Corridor, Dallas County (FTA/106)*

Dear Mr. Hoppie:

The Texas Historical Commission requested, but has not received, additional information from DART on proposed options A and B for the Good Latimer Tunnel, Deep Ellum Station and rail design, and the extent of anticipated effects on historic properties. We understand that option C is locally unpopular, would demolish historic properties and is not being pursued. At this time, we believe that it is necessary to comment as best we can with the information obtained on the options proposed. This letter serves as comment on this area of the proposed undertaking from the State Historic Preservation Officer, the Executive Director of the Texas Historical Commission.

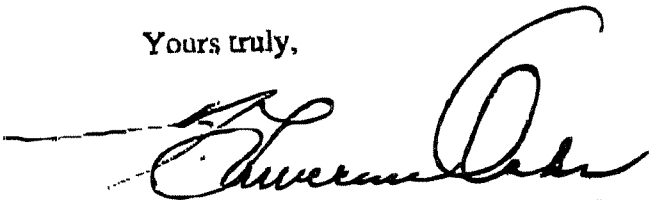
From the information in the draft Environmental Impact Statement (figures 2.16 and 2.17), Option A appears to take more of the property historically associated with the National Register-eligible Knights of Pythias Temple than Option B, since in Option A the relocated N. Good-Latimer Expressway would take part of the property historically associated with the Temple. Option B would also preserve the National Register-eligible Good-Latimer Tunnel. It appears, from the information we have been given and were able to gather, that Option B is feasible and prudent for the rail and station design in this area.

We understand that the Deep Ellum community was originally concerned about the loss of the Good-Latimer Tunnel proposed in Option A, since the tunnel serves as a gateway to the community, and that DART has offered the community \$1.5 million dollars to create a new gateway in conjunction with Option A. We suggest that with Option B of this project the historic Good-Latimer Tunnel can be preserved for its historic value, continue to serve the transportation needs of the community, and be enhanced by artwork and lighting to improve perceived negative aspects of its design. The project design should be developed to avoid potential adverse effects on the National Register-eligible Knights of Pythias Temple; the rail line should be kept as far from the property as possible and as close to grade as possible.

GOOD-LATIMER TUNNEL
MAY 6, 2002
PAGE 2 OF 2

We recommend that a Memorandum of Agreement be developed to address the overall effects of the Southeast Corridor project and look forward to further consultation with your office regarding this and other aspects of the project design. We hope to maintain a partnership that will foster effective historic preservation. If you have any questions concerning our review please contact me at 512/463-6100, or Division of Architecture staff Linda Roark at 512/463-9122.

Yours truly,



F. Lawrence Oaks, State Historic Preservation Officer

cc: Steve Salin, Dallas Area Rapid Transit
Jesse Balleza, Federal Transit Administration, Region 6
Jim Anderson, Dallas CLG
Jeff Dunn, Dallas County Historical Commission
FLO/LR



**TEXAS
HISTORICAL
COMMISSION**

The State Agency for Historic Preservation

RICK PERRY, GOVERNOR

JOHN L. NAU, III, CHAIRMAN

F. LAWRENCE OAKS, EXECUTIVE DIRECTOR

July 8, 2002

Mr. Stephen Salin
Dallas Area Rapid Transit
P.O. Box 660163
Dallas, Texas 75266-0163

Re: *Project review under Section 106 of the National Historic Preservation Act of 1966
DART Southeast Corridor Determination of Effects Report, Dallas, Dallas County
(FTA/106)*

Dear Mr. Salin:

Thank you for providing our office with additional documentation regarding the subject project. This letter serves as comment on the proposed undertaking from the State Historic Preservation Officer, the Executive Director of the Texas Historical Commission.

The review staff, led by Linda Roark, has completed its review of the DART Southeast Corridor Determination of Effects Report, dated May 2002, and has the following comments and recommendations:

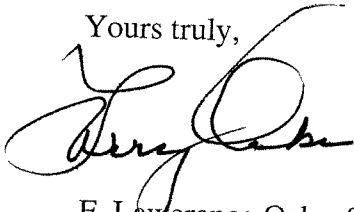
- 4140 Commerce Street, the B. F. Goodrich Building (referred to as the Texlite Building in the Effects Report) and 3809 Parry, the Goodyear Tire and Rubber Company Building (Howard Wolfe Building and Garage) were listed in the National Register of Historic Places on March 1, 2002.
- We concur that streets in the area of eligible and listed historic properties are located in a dense urban area, and that in some cases there is historic precedent for trolley transportation on streets in the area of identified historic properties. We also concur that DART construction (stations ancillary buildings, catenary poles, wires, and sound insulation construction) will introduce new visual elements in the street right-of-way. We recommend that an appropriate design review process be included in the agreement document to be developed, to ensure compatible design of new visual elements with historic properties in the project area of potential effect and avoid the potential for adversely affecting historic properties. If this is done, then we concur with your anticipation that the properties listed in Table 2, report page 9, will not be adversely effected by this undertaking.
- We concur that taking land from Fair Park, a National Historic Landmark, and DART construction adjacent to the Park have the potential to adversely affect this historic property, and that an agreement document should be developed to address taking, design, construction and other issues for the overall project.

JULY 8, 2002
DART SE CORRIDOR
PAGE 2 OF 2

- We concur that demolition of the Good-Latimer Tunnel would have an adverse effect on the historic property, and that development of appropriate mitigation documentation should be stipulated in the agreement document.
- We concur with your plan to conclude the determination of eligibility for the Comanche National Storytelling Place before assessing potential project effects.

We look forward to reviewing a draft agreement document and the revised EIS. Thank you for your cooperation in this federal review process, and for your efforts to preserve the irreplaceable heritage of Texas. **If you have questions concerning these comments please contact Linda Roark at 512/463-9122.**

Yours truly,



F. Lawrence Oaks, State Historic Preservation Officer

cc: Jesse Balleza, Federal Transit Administration
Jeff Dunn, Dallas County Historical Commission
Jim Anderson, Dallas CLG

FLO/LR

DART

Dallas Area Rapid Transit
P.O. Box 660163
Dallas, Texas 75266-0163
214/749-3278

October 24, 2002

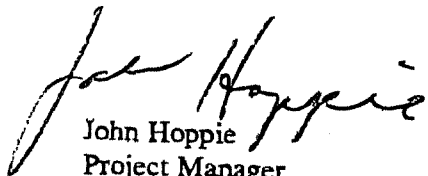
Mr. Mark Denton
Archeology Division
Texas Historical Commission
P.O. Box 12276
Austin, TX 78711-2276

Dear Mr. Denton:

Please find enclosed one copy of the draft report entitled *Cultural Resources Survey of a Portion of the DART Southeast Light Rail Corridor, Dallas Area Rapid Transit Light Rail System, Dallas County, Texas* for your review. Geo-Marine, Inc., under Antiquities Permit 2936 conducted this archeological investigation for Carter & Burgess, Inc., and Dallas Area Rapid Transit as part of the Environmental Impact Statement process.

I look forward to hearing from you.

Sincerely,



John Hoppie
Project Manager
Southeast Corridor

Enclosure

C: w/o John Sweek, FTA
Steve Salin

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U.S. Department
of Transportation
**Federal Transit
Administration**

REGION VI
Arkansas, Louisiana,
New Mexico, Oklahoma,
Texas

819 Taylor St. Suite 8A36
Fort Worth, TX 76102
817-978-0550
817-978-0575 (fax)

November 12, 2002

Mr. F. Lawrence Oaks
State Historic Preservation Officer
Texas Historical Commission
P.O. Box 12276
Austin, TX 78711-2276

Attn: Mark Denton

Re: Determination of Effect
DART Southeast Light Rail Corridor,
Devon-Anderson Park, Culturally
Significant "Storytelling Place"

Dear Mr. Oaks:

When the cultural significance of the "Storytelling Place" located in Devon-Anderson Park adjacent to the railroad corridor proposed for the Dallas Area Rapid Transit (DART) Southeast Light Rail Project came to light during public meetings on the Environmental Impact Statement, DART undertook extensive investigations to determine the extent of the site and its potential for designation as historically significant. Specifically, DART and this office began consultation with Mr. Jimmy Arterberry of the Comanche Nation, who was identified as the Tribal Historic Preservation Officer, and arranged a field review of the site with Mr. Arterberry, Comanche nation Chairman Johnny Wauqua and your staff. The review was conducted on August 12, 2002. Local residents also participated at the site. Written documentation included briefing papers by Mr. Arterberry and Ms. Linda Pelon, a local historian recognized by the Comanche as an expert on their culture and history in this area. Additionally, Chairman Wauqua of the Comanche Nation has issued a Proclamation, dated May 23, 2002, designating the Storytelling Place a sacred site and inheritance of the Comanche cultural legacy.

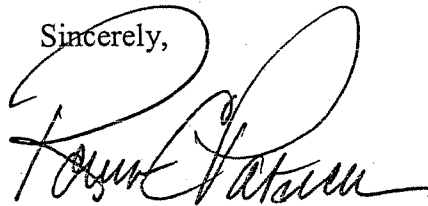
As suggested during the tour of the area, DART directed Geo-Marine, Inc. to conduct cultural resources investigations along the segment of the Southeast Corridor through Devon-Anderson Park and the crossing of several tributaries of White Rock Creek, a distance of about 3.5 miles. The survey, documented in Cultural Resources Survey of a Portion of the DART Southeast Light Rail Corridor, Dallas Area Rapid Transit Light Rail System, Dallas County, Texas, dated September, 2002 found no historically nor culturally significant evidence within the railroad right of way.

With respect to the Culturally significant Comanche Storytelling Place sacred site the report concludes that the proposed construction within the railroad right of way will have no effect on historic properties along the subject portion of the project. It also states that construction changes already agreed to by DART will minimize impacts to the site.

With our support, DART and the Comanche are in consultation on a continuing basis and have agreed on measures to minimize construction impacts and enhance safety at the Storytelling Site. In an August 16, 2002 letter to this office Mr. Arterberry acknowledges agreement with DART relative to the proposed construction and protections to the site.

Therefore, we propose to proceed with a Finding of No Adverse Effect subject to the continued cooperation between DART and the Comanche Nation and DART's commitment to the proposed construction mitigations. Should you have any questions or comments, please contact myself or John Sweek, Community Planner at 817-978-0550.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert C. Patrick", written over a circular scribble.

Robert C. Patrick
Regional Administrator

cc: Mr. Jimmy Arterberry, THPO, Comanche Nation
~~Mr. John Hoppie, DART~~



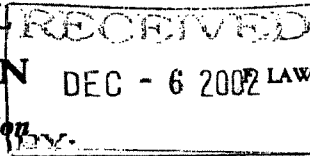
TEXAS
HISTORICAL
COMMISSION

The State Agency for Historic Preservation

RICK PERRY, GOVERNOR

JOHN L. NAU, III, CHAIRMAN

F. LAWRENCE OAKS, EXECUTIVE DIRECTOR



December 2, 2002

John Hoppie
Dallas Area Rapid Transit
P. O. Box 660163
Dallas, TX 75266-0163

Re: Project review under the Antiquities Code of Texas Antiquities Permit #2936, DART Southeast Light Rail Corridor Archeological Survey, Draft Report (DART)

Dear Mr. Hoppie:

Thank you for your correspondence describing the above referenced project. This letter presents the comments of the Executive Director of the Texas Historical Commission, the state agency responsible for administering the Antiquities Code of Texas. We have reviewed GeoMarine's draft report for Antiquities Permit #2936, and with the exception of one minor change that is needed with the text, we concur with their conclusions and recommendations.

Because we concur with the over all conclusion of this archeological report that there will be "no effect on historic properties," we must ask that you ensure that the second to the last sentence of the "Recommendations" section of the report (on Page 55) is amended. We believe that the use of the term "impact" and this entire sentence creates confusion as to whether there will be an affect to the reported "storytelling place." This change however, is the only alteration that we feel is needed and we will await 20 copies of the final report with the above referenced correction.

We look forward to further consultation with your office and hope to maintain a partnership that will foster effective historic preservation. Thank you for your cooperation in this state review process, and for your efforts to preserve the irreplaceable heritage of Texas. If you have any questions, please contact Mark H. Denton of our staff, at (512) 463-5711.

Sincerely,

for
F. Lawrence Oaks
Executive Director

LO/mhd

cc: Duane E. Peter (GeoMarine, Inc.)

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TEXAS
HISTORICAL
COMMISSION

The State Agency for Historic Preservation

RICK PERRY, GOVERNOR

JOHN L. NAU, III, CHAIRMAN

F. LAWERENCE OAKS, EXECUTIVE DIRECTOR

December 6, 2002

Robert C. Patrick
Regional Administrator
US Department of Transportation
Federal Transit Administration
819 Taylor Street, Suite 8A36
Fort Worth, TX 76102

Re: Project review under Section 106 of the National Historic Preservation Act of 1966, Cultural Resource Survey of Portions of the DART Southeast Light Rail Corridor (FTA)

Dear Mr. Patrick:

Thank you for your correspondence concerning the above referenced project. This letter presents the comments of the Executive Director of the Texas Historical Commission and State Historic Preservation Officer. We have reviewed your letter dated November 12, 2002, and we have also recently reviewed GeoMarine's report that was forwarded to us by Mr. Hoppie of the Dallas Area Rapid Transit (DART). Based on this information, we believe that no historic properties will be affected within the 3.5 mile "Devon-Anderson Park" corridor segment of the DART right-of-way.

In that regard, we suggest a minor technical amendment related to 36CFR800. The correct determination for this project is that there will be **"no historic properties affected"** rather than a **"finding of no adverse effect."**

Thank you for your cooperation in this federal review process, and for your efforts to preserve the irreplaceable heritage of Texas. We look forward to further consultation with your office and hope to maintain a partnership that will foster effective historic preservation. **If you have any questions please contact Mark H. Denton of our staff, at (512) 463-5711.**

Sincerely,

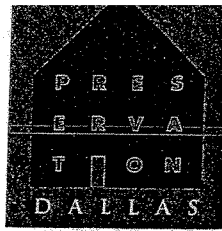
A handwritten signature in cursive script, appearing to read "Mark H. Denton".

for
F. Lawrence Oaks
Executive Director

LO/mhd

cc: John Hoppie (DART)

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January 21, 2003

John Hoppie
System Planning Manager
Dallas Area Rapid Transit
P.O. Box 660163
Dallas, TX 75266-7245

RE: Comments on 4(f) Statement for DART Southeast Corridor Project

Dear Mr. Hoppie:

Thank you for the extensive review of alternatives for the Southeast Corridor project. Preservation Dallas submitted its issues and concerns in prior correspondence, and suggested levels of mitigation in a letter dated August 15, 2002. We appreciate your attention to the issues outlined in the correspondence.

Preservation Dallas offers two additional comments:

- (1) We encourage you to work with the City of Dallas Landmark Commission in its review of design alternatives for the Fair Park Station. The Certificate of Appropriateness process should be followed and the recommendations of the Fair Park Task Force and Commission should be considered in your future design endeavors. This consultation should occur before final design decisions are made.
- (2) During the research and documentation for mitigation (i.e. HAER), a thorough historical analysis of the Good-Latimer Tunnels should be prepared. The historical context presented in the 4(f) document is very general and broad, and thus does not give adequate coverage of the development patterns of the city.

We appreciate your response to the community's concerns and look forward to working with you on the mitigation of the Good-Latimer Tunnels and new station at that location. If you have questions, please contact us.

Sincerely,

W. Dwayne Jones
Executive Director

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CITY OF DALLAS

January 22, 2003

F. Lawrence Oaks, Executive Director
State Historic Preservation Officer
Texas Historical Commission
Post Office Box 12276
Austin, Texas 78711-2276

Dear Mr. Oaks:

On Tuesday, January 14, 2003, the City of Dallas Landmark Commission reviewed two proposals by Dallas Area Rapid Transit (DART). These are 1) the proposed location of a station at the primary/Parry Avenue entrance to Fair Park, and 2) mitigation efforts relating to the filling-in of the Good Latimer tunnel for a station north of Elm Street in Deep Ellum.

The Landmark Commission, by unanimous vote, offers the following comments to you regarding item #1, the proposed Parry Avenue DART station at Fair Park.

Upon our review of information submitted on January 14, 2003, the City of Dallas Landmark Commission accepts the proposed DART alignment, the proposed station location at the ceremonial entry gate to Fair Park, and the schematic designs as submitted on their site plan drawing dated December 11, 2002.

This comment is made with the following finding of fact: That the proposed station utilizes the historic location of the 1936 ticket booth, and while visually intrusive to the "current" entrance, it is appropriate. Also, the proposed DART rail alignment re-establishes the original trolley lines that existed at the time of Fair Park's prime period of significance.

The Landmark Commission, also by unanimous vote, offers the following comments to you regarding item #2, the proposed mitigation efforts relating to the Good Latimer tunnel station location:

The mitigation of the Deep Ellum/Good Latimer tunnel should include an extremely strong historic context covering all remaining elements of the Ulrickson Plan that will support the development of a National Register of Historic Places nomination by the local community. A public interpretive element should be included either through interactive or static AMA quality museum display. The Landmark Commission also suggests that DART

Texas Historical Commission
DART Proposals
January 22, 2003

explore other visual/architectural means of documentation in addition to HABS/HAER such as laser grammetry.

The City of Dallas Landmark Commission appreciates the opportunity to comment on these important proposals, and also appreciates your attention to these issues.

Sincerely,



Allison Poggi, Chair
Landmark Commission

c: Landmark Commissioners
John Hoppie, Dallas Area Rapid Transit

P:\historic\FAIR PARK\CORRESPONDENCE\LTR AP TO SHPO 011503



CITY OF DALLAS

February 10, 2003

John Hoppi
DART
1401 Pacific Avenue
Dallas TX 75201

**RE: Review of your Certificate of Appropriateness Application
Fair Park DART stop**

Dear John:

Enclosed is a copy of the Certificate of Appropriateness (CA) application that you submitted for review by the Landmark Commission on 2/3/2003.

Your request for conceptual review of the Fair Park DART stop was approved in concept with the following conditions:

Conceptual approval of the stations with wave form seating and stainless steel roof, with a request of added consideration given to relocating markers, use of Fair Park standard colors and graphics, alternate durable materials lighting all color to match Fair Park standards, not constructing handicap platforms, exploring increased pedestrian flow across Parry Ave. station stop, no planters. Construct documents to be submitted for final review. Based on Secretary of Interior Standards #3, & #9 with the finding of written approval of Park Board and the Texas SHPO.

Please resubmit for a final Certificate of Appropriateness that addresses these conditions

Should you have any questions regarding this application, please contact us at (214) 670-4538. Thank you for your cooperation.

Jim Anderson
Department of Development Services
Historic Preservation Section

Enclosure

Certificate of Appropriateness (CA)

City of Dallas Landmark Commission

Name of Applicant: John Hoppie, Dallas Area Rapid Transit
Mailing Address: 1401 Pacific Avenue
Daytime Phone: 214.749.2525 Fax: 214.749.3670
Relationship of Applicant to Owner: Owner

Property Address: 1300 R.B. Cullum Blvd (Fair Park)
Historic District: Fair Park Historic District

Building
Inspection:
Please see
signed drawings
before issuing
permit:

Yes _____

No _____

Planner's Initials

Proposed Work

Please describe your proposed work simply and accurately. Attach extra sheets and supplemental material as requested in the submittal criteria checklist.

See Attached _____

Signature of Applicant: John F. Hoppie

Date: 1/27/03

Application Deadline:

Application material must be **completed and submitted by the first Thursday of each month, 5:00 p.m.**, before the Dallas Landmark Commission can consider the approval of any change affecting the exterior of any building. This form along with any supporting documentation must be filed with a Preservation Planner at City Hall, 1500 Marilla 5CN, Dallas, Texas, 75201. You may also fax this form to 214/670-0728. Please do not fax paint colors or color photographs.

Please use the enclosed criteria checklist as a guide to completing the application. Incomplete applications cannot be reviewed and will be returned to you for more information. You are encouraged to contact a Preservation Planner at 214/670-4538 to make sure your application is complete.

Other:

In the event of a denial, you have the right to an appeal within 30 days after the Landmark Commission's decision. You are encouraged to attend the Landmark Commission hearing the first Monday of each month at 2:00 pm in Council Chambers of City Hall. Information regarding the history of past certificates of appropriateness for individual addresses is available for review in 5CN of City Hall.

Please review the enclosed Review and Action Form

Memorandum to the Building Official, a Certificate of Appropriateness has been:

- Approved.** Please release the building permit. IN CONCERT ONLY
- Approved with Conditions.** Please release the building permit in accordance with any conditions.
- Denied.** Please do not release the building permit or allow work.

Sherell J. Cockrell
Sherell J. Cockrell, Director
Department of Planning and Development

2/10/03
Date

Certificate of Appropriateness

City of Dallas

Historic Preservation

Rev. 3/27/01, 2-11-02

Proposed Work

Station Location

Development of the Fair Park station at the west entrance of Fair Park re-institutes transit rail service that was provided to Fair Park decades ago by interurban and trolley lines. Based on community input, the Southeast Corridor rail alignment was modified to serve the ceremonial entrance to Fair Park on the east side of Parry Avenue. The center of the station platform is placed at the intersection of Exposition and Parry symmetrical to the park entrance. A pedestrian plaza will be developed encompassing the station and fronting Parry Ave to reinforce the Exposition Avenue gate.

A traditional neighborhood commercial district is found on Exposition north of Parry across from the Fair Park entrance and several vacant tracts used for event parking offer potential for redevelopment. Numerous residential loft properties have developed in recent years that are within walking distance of the station.

Station Design

The Fair Park station will consist of a typical side platform layout to be integrated into a new entrance plaza for the park. The station boarding area and tracks will be placed in the approximate location of the existing access drive falling partially within the park and partially within the Parry Street right-of-way. The trackway and boarding area/plaza will be constructed of enhanced concrete paving consistent with the preservation standards of the historic district.

The design of the station canopies has been developed from the historic context of the Fair Park gate during the Centennial Exposition in 1936. The park entrance at that time included ticket buildings located on the pedestrian entrance plaza adjacent to the trolley lines serving the park. The proposed new canopies are to be representative of the form of the original ticket buildings however, replicated in an ethereal and contemporary form of the original design. The canopy structures will replicate the cantilevered roof form of the original ticket buildings and will be supported by fluted limestone columns. The columns are a departure from the original enclosed buildings but serve to replicate the footprint of the original enclosure. The roof structure which was apparently plywood

originally, will consist of a composite glass and stainless steel skin to produce a semi transparent appearance suggesting an ethereal form of the original. Other elements of the station design include glass windscreens, raised planters, limestone seating, ticket vending machines and pay phones.

Lighting has always played a large part at the entrance to Fair Park and will be included within the spirit of the new structures. Lighting for the station area will be accommodated with contemporary light standards, an internally illuminated roof structure and supplemented by up-lighting of the architectural elements.



CERTIFICATE OF APPROPRIATENESS - REVIEW AND ACTION FORM
DALLAS LANDMARK COMMISSION

CA Address: Fair Park Dart Line

District: Fair Park

Type: Standard

SubType: Discussion

Nature of Work:

Conceptual briefing on the DART line that will serve Fair Park

A. Staff Recommendation:

Conceptual approval; with further consideration of:

1. Possibly removing or reducing size of internal columns (non-corner columns).
2. Move markers out of the path of pedestrians. Explore proper location of other added site features.
3. Colors per Fair Park standards.
4. Graphics per Fair Park Standards.
5. Historic compatibility of free-standing structures.
6. Remove handicap structures if possible or design temporary handicap structures
7. Roof structures preference for stainless steel over painted.

Preservation Planner

1/31/2003

Date:

B. Task Force Recommendation:

Conceptual approval; with further consideration of:

1. Transparency of structures.
2. Interaction of other elements such as fare machines, trash receptacles, telephones ect.
3. Colors per Fair Park standards.
4. Graphics per Fair Park Standards.
5. Historic compatibility of free-standing structures.
6. Temporary handicap structures.
7. Roof structures preference for stainless steel over painted.

Task Force Chair

1/29/2003

Date:

C. Landmark Commission Action:

Conceptual approval of the stations with wave form seating and stainless steel roof, with a request of added consideration given to relocating markers, use of Fair Park standard colors and graphics, alternate durable materials lighting all color to match Fair Park standards, not constructing handicap platforms, exploring increased pedestrian flow across Parry Ave. station stop, no planters. Construct documents to be submitted for final review. Based on Secretary of Interior Standards #3, & #9 with the finding of written approval of Park Board and the Texas



CERTIFICATE OF APPROPRIATENESS - REVIEW AND ACTION FORM
DALLAS LANDMARK COMMISSION

SHPO

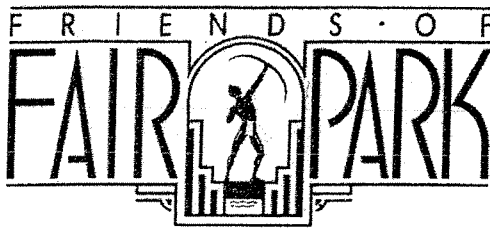
A. Dennis Poggi

Landmark Commission Chair

3/6/2001

Date:

rev. 4/02



March 7, 2003

Mr. John Hoppe
Dallas Area Rapid Transit
1701 Pacific
Dallas, Texas 75201

Dear Mr. Hoppe,

I want to thank you and all the team working on the South Dallas/Fair Park light rail alignment and stations. The time and energy you have all committed to this project certainly shows in the briefing you presented to the Friends of Fair Park Board of Directors on February 19.

The seating areas respect the history and style of the park while providing a practical solution to the need for comfort when waiting for the train. It seemed to us that the choice of materials and lighting successfully bridged the gap between aesthetics and ease of maintenance.

I am pleased to report that we unanimously passed a resolution supporting the plans and looking forward to our continuing working relationship as the remaining decisions regarding the details of the concept are finalized. We definitely think the art deco typeface for the station is more compatible with Fair Park than the other choices.

Friends of Fair Park is anxiously awaiting the first light rail service to our area. We know that it will increase attendance at the park and, at the same time, decrease traffic congestion. Please let us know if we can be of further assistance.

Sincerely,

Steve Levine
President
Friends of Fair Park

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United States Department of the Interior

OFFICE OF THE SECRETARY

Washington, D.C. 20240

AUG 7 2003

ER 03/534

RECEIVED
Planning
AUG 12 2003

Stephen L. Salin, AICP
DART Interim AVP Capital Planning and Development
Dallas Area Rapid Transit
P.O. Box 660163
Dallas, Texas 75266-0163

CASALIN

Dear Mr. Salin:

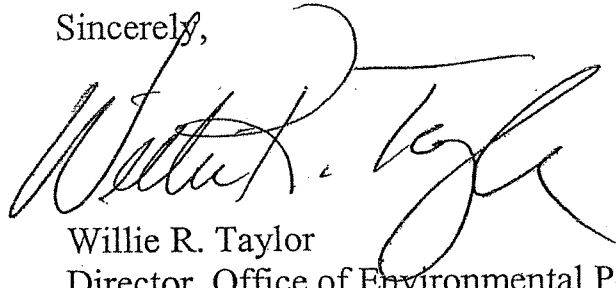
We appreciate the opportunity to review the interim information provided regarding the Section 4(f) Evaluations for the **DART Northwest and Southeast Corridors Light Rail Transit Projects** in Dallas County, Texas.

Following our reviews of the Draft Section 4(f) Evaluations provided to us over the last two years, we initially had concerns that the documents did not contain sufficient information to adequately determine the effects or "use" of recreation properties and cultural resources. Without this information, it was difficult to understand if the appropriate level of mitigation had been addressed or if some resources could have been avoided altogether. We were also initially concerned that the appropriate level of Section 106 compliance had not been conducted.

From the information provided to us for this review, including the comment responses to the Section 4(f) Evaluation and the Memorandum of Agreement with the Texas State Historic Preservation Officer and the Advisory Council on Historic Preservation, we recognize that a more thorough effort has been conducted on the part of the Federal Transit Administration and the Dallas Area Rapid Transit to more adequately analyze the effects to historic and recreation resources and consult with the Texas State Historic Preservation Officer. We appreciate and support this additional effort.

Thank you again for the opportunity to provide these comments, and we look forward to reviewing the Final EIS and Section 4(f) Evaluation for approval.

Sincerely,

A handwritten signature in black ink, appearing to read "Willie R. Taylor". The signature is fluid and cursive, with a large loop at the end.

Willie R. Taylor
Director, Office of Environmental Policy
and Compliance

cc:

Mr. John Sweek
Federal Transit Administration
819 Taylor Street, Suite 8A36
Fort Worth, Texas 76102

ATTACHMENT E4
INFORMATION ON THE COMANCHE STORYTELLING PLACE

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John Hoppie
Project Manager
Southeast Corridor
Dallas Area Rapid Transit

April 18, 2002

Dear Mr. Hoppie:

The Comanche Nation is in receipt of your request, for information relating to the sites of impact within the project area.

Located in Devon-Anderson Park, is a natural spring and on the escarpment ridge near the spring is a place described by the Comanche people as a storytelling site. This area was used as a means of cultural transitions for children and young adults, historically. It was a gathering place where stories were shared and games were played. This area is very significant to the history of the Comanche people as well as the city, state and country.

I have been to this area and located a number of significant resources available historically as well as futuristically, (i.e.: timber, water, medicinal plants, minerals, nuts, berries, fish and game).

Also, within this segment of the "Great Trinity Forrest", is a view looking to Cedar Hill, significant in the communications from one band of Comanches to another. Gateway Park is very near and within this segment as well, containing the Indian Marker Tree (Comanche Turning Tree) whose seedlings have been recognized as a contribution to the National Arbor Society.

Ms. Linda Pelon has been actively involved in research relating to the Comanche people and has been recognized as an Ambassador, by former Chairman Coffey, and can be contacted at (214) 381-9324 for additional information relating to this area. Please feel free to contact me at (580) 492-3754 for further assistance in this matter if necessary.

Sincerely,

Jimmy Arterberry
THPO/NAGPRA/OEP Director



Office of the Chairman

PROCLAMATION

Special Recognition of a "Comanche Storytelling Place" in Dallas County, Texas

WHEREAS, The Comanche Nation has existed since time immemorial, long predates the existence of the Nation, establishes the inherent sovereign powers and rights of Comanche self-governance: and

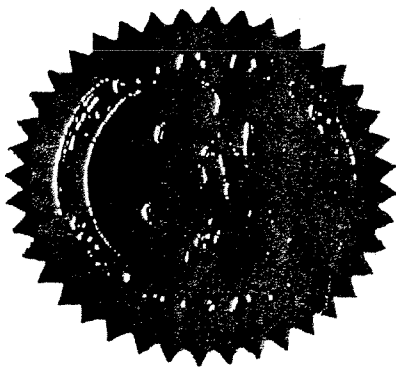
WHEREAS, The Comanche Nation is dedicated to progress and enhancement of the people of the Comanche Nation: and

WHEREAS, Dallas County, Texas, contains a "Comanche Storytelling Place", considered a legacy and inheritance of generations to come: and

WHEREAS, It is the responsibility of the Comanche people to protect this inheritance, like those before, as evidenced in the oral traditions relating to this sacred site: and

WHEREAS, This "Comanche Storytelling Place", has long been considered part of the Traditional Ancestral homelands of the Comanche people since creation, as related by Comanche elders: and

THEREFORE, I Johnny Wauqua, Chairman of the Comanche Nation, do hereby Proclaim this Comanche Storytelling Place a sacred site and inheritance of the Comanche cultural legacy.



Given Under my hand and
The Great Seal of the
Comanche Nation
On this 23rd day of May, 2002

Johnny Wauqua
Chairman

Briefing on A Comanche Storytelling Place

By Jimmy Arterberry

August 6, 2002

"A long time ago, it is said" (so-bvay-tsu), begins all Comanche stories.¹

In the oral tradition of creation, migration and shared relationships, Comanche people identify the importance of time, place and social purpose.

Life for a child starts exactly as the ancestors did, by oral instruction and visual aid.

Comanche culture relies on the ability to identify the elements of a social structure and the understanding of those relationships.

Storytelling places are conducive to the psychological and physiological training of Comanche children, and considered primary to the overall well being of man and nature.

Consensus of the Comanche people, to the location of storytelling places, enters into sacred dimensions, which are to be discussed only by the Comanche people.

The Trinity Forest storytelling place is located within the bounds of the required elemental characteristics for determining the location of a preferred campsite. Water supply, food sources, shelter, safety and access to forage for horses are required characteristics, for such a site.²

The Great Trinity Forests' White Rock Heritage District has been established as a "Comanche Storytelling Place", by proclamation of the Comanche people.³

Ethno historical research, archeological documentation, cartographic documentation and consultation between the Comanche Nation and the U.S. Department of the Army, Corps of Engineers, emphatically demonstrates the necessary components for the selected audience, are found at this preferred location.⁴

Shared elemental components are expressed through idioms used in all stories of the Comanche people, emphasizing the importance of relationships between man and nature. The limestone component found at the Great Trinity Forest Storytelling Place, located on the ridgeline in Devon Anderson Park, within the White Rock Heritage District, determines the type and amount of information that is to be presented, and at what time of the day and year that information could and would be

¹ Comanche Texts, Elliot Canonge, University of Oklahoma 1958

² The Comanches, Lords of the South Plains, Wallace & Hoebel, University of Oklahoma Press, 1952, pg. 14

³ Comanche Nation Proclamation, 2002

⁴ Native American Territorial Ranges in the Central Region of Texas, A Report Prepared to Support NAGPRA Consultation, May 2001, Published by the U.S. Army Corps of Engineers, Ft. Worth District

made available. There are many traditional ways, in making the determination as to where and when these lessons should and could occur. Relationships between all of the elemental components, the receiving component included, would be defined and refined through the use of storytelling at the chosen location.

The presence of Comanche people in the state of Texas and particularly in the Dallas area, in relation to this writing, has been illusive to the scientific communities in recent times, although descendants of the former inhabitants recognized by the aforementioned in their previous processes, continue to exercise inherent values described in relation to the geography.

Comanche people inherently conceive the importance of honoring the traditional values of the ancestors. Without defined relationships and traditional values, nature will not survive man, man will not survive nature and the results shall be exact, furthering the significance of identifying and protecting such a site, as the Dallas County, Texas, Comanche Storytelling Place, with all of its vital components.

The Great Trinity Forest's White Rock Heritage District

Prepared by Linda Pelon (August 2002)

Introduction

Places extraordinarily rich in natural resources are also often rich in cultural resources. As peoples live and die, and as cultures rise and fall, they are replaced by others who are also attracted to the wealth of resources that enhance the quality of human life. Evidence of these various occupations is stored in the land itself. If recognized and protected, these archeological sites--and the natural features associated with them--can become a priceless archive of information documenting a wide range of human lifestyles and adaptation strategies.

Such places are sometimes recognized and preserved as national or state parks, or survive because they are remote from population centers and the pressures of development. It is rare, perhaps miraculous, for such a place to survive into the 21st Century within the shadows of the skyline of one of our largest cities. A relatively undisturbed section of Dallas' Trinity River Valley near the confluence of White Rock Creek and the Trinity River¹ is one of these rare and special places where evidence of over 10,000 years of human presence is preserved. Cultural resources present here range from sites of early Native Peoples, through historic Indian tribes, to the land grants of Dallas' first pioneers. Sites associated with Freedmen's farming communities and some of Dallas' earliest African American urban neighborhoods were also located here.

This area has been recognized as a featured destination in Dallas' newly created White Rock Heritage District. It has also been selected for the Sierra Club's "Special Places of Texas" program and will be featured in a public relations campaign beginning in September of 2002. The value of this area for educational programs, ecotourism, and historic and heritage tourism should not be underestimated. It is a treasure to preserve and share in a respectful and sustainable manner.

In the Spring of 2002 a Draft EIS report for DART's Southeast Dallas Light Rail Line was published. Those proactively involved with inventorying cultural resources within the White Rock Heritage District became aware that the most significant natural and cultural resources identified within the Gateway and Devon-Anderson parkland were in harm's way from dramatically damaging--and understated--impacts from this transportation project.

This is the first of a series of papers documenting and discussing the cultural occupations of the White Rock Heritage District segment of Dallas' Great Trinity Forest. This information is intended for use in establishing eligibility as a National Register Historic Landmark District with Traditional Cultural Properties. These papers will also be used to alert others to the importance of the endangered cultural and natural resources within City of Dallas parkland along this proposed alignment of the Southeast DART light rail line.

This paper will focus on resources recognized by the Comanche Nation as significant to their Texas cultural heritage. First, background information will be

¹ The northern boundary is Scyene Road. To the east and west it includes the bottomland hardwood forests and other natural areas adjacent to the creek and floodplain, past the confluence of White Rock Creek with the Trinity River and south beyond Loop 12 to (and including) the Joppa Preserve.

provided documenting the contemporary relationship between the Comanche Nation and the surviving historic landscape of this part of the Great Trinity Forest. This will be followed by documentation supporting Comanche use of this area prior to 1840. Supporting evidence will be provided and organized by the following categories: cartographic, ethnohistorical, and geographical. Archeological information documented in the DEIS indicates that there are cultural resources in association with features discussed as part of the Comanche landscape in this Lower White Rock Creek corridor parkland. The DEIS also reports that this area has not been adequately studied.

The Comanche Nation's Contemporary Relationship with the Great Trinity Forest and Lower White Rock Creek

It is ironic and appropriate that the natural feature that refocused attention on this area was a "Marker Tree" or "Turning Tree" since one of the primary purposes of these trees was to mark a preferred Comanche location. While conducting thesis research on the Penatuhkah Comanches, a powerful Texas band at the zenith of Comanche power in the Nineteenth Century, I began to hear about Comanche Marker Trees/Turning Trees from Comanche elders and other Comanche informants. In 1995, after seeing a photograph of one of these trees featured in *Famous Trees of Texas* (Texas Forest Service 1984:177), I realized that a pecan tree fitting this description survived in Gateway Park. Because so little work has been published on the Comanche presence on the Trinity River, and because my research was focused on a West Central Texas band, I was surprised to find a tree of this description so far to the east.

Arborists and Dallas' regional forester were consulted to determine an approximate age of the tree and the consensus was that it was over 150 years old.² The area in the vicinity of the tree was explored from a Comanche perspective and was found to contain a treasure trove of resources important to the lifestyle of these nomadic people. In fact, the site fits a template for a preferred Comanche campsite. Archeological surveys previously conducted by the Dallas Archeological Society (DAS) documented extensive use of this area for camping by Native People. One DAS officer commented that the area was "so saturated with sites as to be considered one big campsite."

While it was surprising to many historians to find a tree fitting the description of a Comanche Marker Tree so far east as the Trinity River, knowledgeable Comanche individuals were not surprised. They had not forgotten about the importance of "Pih-heet Pah-e-hoona" (the Comanche name for the Trinity River; it translates as "Three Rivers"). Arborists agreed that the tree was old enough to have been used as a marker tree and research was completed to nominate the tree to the Dallas Historic Tree Registry. This information was also submitted to the Comanche Tribal Council. A proclamation was signed (April 7, 1997 by Chairman Wallace Coffey) recognizing the Gateway Park Marker Tree as "a living monument to our historic presence in the great state of Texas" and noting "the importance of this tree to Native American cultural heritage."

Comanche poet and educator Juanita Pahdopony was sent as an ambassador from the Comanche Nation to read this proclamation at the dedication ceremony for the tree on

² A section of this tree was taken for study after it blew over in 1998. Tree rings indicate the tree was at least 290 years old, per the consensus of arborists consulted. Bill Seaman, President of the Dallas Historic Tree Coalition, can provide additional details.

April 26, 1997. She was quoted in a report in the Dallas Morning News (April 27, 1997): “This represents a continuation of our culture. We are one with nature. This tree has a lot of stories to tell. It is too bad that we have not been here to hear them.” Within a few months of the dedication event, Chairman Coffey visited the site and completed traditional blessing ceremonies for the area from the scenic overlook on the escarpment ridge above the Keeton Golf Course [the proposed DART line runs immediately below this overlook].

Because the tree appeared damaged and unhealthy, Glenn Watson (Pipe Carrier for the Comanche War Scouts) visited the site often to pray for the tree in the traditional Comanche way until the tree was destroyed in a Memorial Day thunderstorm in 1998. The Marker Tree was often discussed on *Beyond Bows and Arrows* (the community radio program serving Dallas’ Indian community) resulting in many additional visits to the tree. Local Indian families brought their children to see it, and many included the tree in their prayers. Jimmy Arterberry, Tribal Historic Preservation Officer (THPO) and EPA Director for the Comanche Nation, visited the area in July of 2001 and identified additional natural features important to Comanche cultural heritage. These features included a “Storytelling Place” and a mature Red Cedar Woods that may have been a source for lodge poles. The Comanche Language and Culture Preservation Committee visited in June of 2002. They have expressed interest in returning this autumn to assist with dedication ceremonies for historic trees marking these places recognized as significant to their Texas heritage.

After almost 150 years of exile and disconnection from their Texas homelands, sacred places, and heritage sites the Comanche Nation has finally reconnected with the “Pih-heet Pah-e-hoona.” The preservation of these natural features and heritage sites, and the tranquil natural setting in which they exist, is of great concern to them and to many Texans who also value the diversity of heritages and histories of Texas.

Evaluation of a Historic Comanche Presence On Lower White Rock Creek

I am like the bird flying through the air. I am traveling and am always traveling...

Buffalo Hump, Texas Comanche Chief
1844 Treaty Negotiation with Sam Houston

“History” it is said, “is written by the conquerors.” And that is but one side of any human story. Ethnohistorical research methods go beyond the use of the written record and incorporate additional sources of information to create multi-faceted reconstructions of encounters between cultures. These techniques are also successfully used to reconstruct the histories of cultures without written languages. Oral historical and cartographic information, archeological evidence, and innovative techniques emerging from the discipline of historical geography (“reading the landscape”) are being successfully applied to gain more complex and accurate understandings of past events, interactions, life ways, and land uses. These techniques have been applied to this investigation regarding the occupation of the Upper Trinity River by Comanche people prior to the establishment of Dallas. This unfunded study is intended to assist with filling

the information void in the cultural resources report of the Dallas Area Rapid Transit's (DART) Draft Environmental Impact Statement (DEIS) for the alignment of a proposed DART light rail line through City of Dallas parkland containing Native American cultural resources. **The City of Dallas' Devon Anderson Park, containing a natural feature recognized by the Comanche Nation as a "Storytelling Place" will be a focal point for this study. This feature/landmark would be at least partially destroyed under the proposed plan for constructing this DART transportation project receiving federal funds.**

Information from sources close to the last surviving Texas chiefs and warriors has been included. Cartographic information from Nineteenth Century maps of Texas was used to document a Comanche presence in this area. Contemporary Comanche elders, leaders, tribal historians, and others with traditional knowledge were consulted. This information was combined information from the historic record and applied to "read the landscape" along Lower White Rock Creek near its confluence with the Trinity River in Southeast Dallas County.

A Comanche Perspective on Occupation

The first consideration is the definition of *occupation*. This is a concept that varies with cultures. For these "Lords of the South Plains," a Comanche concept of *occupation* included seasonal use of areas more permanently settled by other tribes. Relationships with other tribes were not unlike those in Europe under the feudal system. Agricultural tribes provided buffer zones in Comanche borderlands and were trading partners (Wallace and Hoebel 1986:14). The Three Forks area was documented as a peaceful trading area by European witnesses as early as 1680 (Mesquite Historical Society 1984:7-11). There are later references to Comanche participation in these annual Trade Fairs between the agricultural tribes and the prairie tribes. Ferris reported Comanche war parties patrolling the Indian trails in the Three Forks after surveying began in the late 1830s (Starling 1998:100). This makes a strong case for *occupation* from a Comanche perspective because Comanche warriors defended lands that they claimed. Treaty talks with Texas Indians at Bird's Fort in 1843 document the importance of consulting Comanche leaders prior to approval of a treaty. The presence of a tree fitting the description of a Comanche Marker Tree supports the argument for Comanche occupation of the Lower White Rock Creek section of Dallas' Trinity River Corridor. Two additional trees fitting the description of Comanche Marker Trees have been identified at strategic locations within what is now the City of Dallas providing additional evidence of use of this area as part of the Comancheria.³

³ A local trail historians report (personal conversation during site visit in 2002) that the tree at California Crossing appears to be aligned with the historic California Crossing Trail and points toward the historic low water crossing of the Trinity River. The other tree is on Cedar Ridge in a location strategic for surveillance and perhaps smoke signaling. Like Lower White Rock Creek, this is an area with archeological evidence of Indian occupation. It is also interesting to note that Cedar Ridge is visible from an overlook adjacent to the recognized Marker Tree on Lower White Rock Creek. Clearly, the potential for communication via smoke signaling existed between these two places with suspected Marker Trees.

Cartographic Evidence

*Although Spanish and Mexican authorities claimed the Three Forks region on vague maps, neither really controlled it. North central Texas still belonged to the Indians. It was a meeting ground of numerous tribes who camped and traded along Turtle creek, at Cedar Springs, and along White Rock Creek. Two major Indian footpaths (or traces) crossed the Three Forks from the east to west.... Following these Indian routes, bands of Wichitas (called variously Keechies, Ionies, Tawakoni, and Towash), as well as Cherokees, moved through the Three Forks to camp along the tree shaded streams. **The Indian traces were also a favored route for Comanche war parties that swept in off the Plains to raid isolated settlements and confront intruding surveyors bearing that hated instrument, the compass, ‘the thing that steals the land.’***

Susan Starling
Biographer of Warren Ferris
1998:100

Perhaps the map most immediately relevant to this study, in context of the recognition and protection of Comanche cultural resources near the Trinity River and for consideration for National Register eligibility, is the map published in *A Report to Support NAGPRA Consultation* by the U. S. Army Corps of Engineers (Patterson 2001:6). This map, The Comanche Tribe to the mid 1800s, includes the entire Trinity River watershed. This map is consistent with information provided by historic maps.

Although this paper is not intended to be an in-depth search of map collections, some cartographic sources were found supporting a Comanche presence in the upper Trinity River watershed. “World class” map collections at both UTA and SMU contain a wealth of cartographic information relevant to the Three Forks that should be included in evaluations of cultural resources. A superficial survey of cartographic information easily available through local libraries and directly relevant to an evaluation of Comanche use of the Three Forks is summarized below:

Map of the Great Kingdom of Tejas to Accompany the History of Comanche Land (Harston 1963:inside cover)⁴ This map was created by J. Emmor Harston, a source close to the last surviving Texas Comanche leaders and chiefs. It shows a boundary line for Comanche territory east of the Trinity River between the Neches and Sabine Rivers. Reporting information he gathered from Comanche elders in the last decades of the Nineteenth Century, Harston described “an easterly north-south trace traveled by both the Comanches and the Wichitas. From Antelope Springs, at the head of the Trinity River, a Wichita Trace led down that stream to the Neches River and on to the Gulf of Mexico. This trace was the boundary between the two tribes” (Harston 1963:201).

⁴ Harston informs the reader that “Tejas”, [or “Te-ich-as”] is a Comanche word meaning “eater.” He also reports that Comanche bands were named by what they eat—buffalo eaters, honey eaters, antelope eaters, etc.

Map of Texas Compiled from Surveys in the Land Office (by John Arrowsmith in 1841): This map (found in UTA's map collection) documents a "Comanche Trail" running west from the Pecan River fork of the Colorado River north/northeastward to cross the Brazos River just north of a "High Peak" [now called Comanche Peak] and then east/southeast to cross Noland Creek and eastward to cross the Trinity River below the Three Forks just south of Cedar Creek and then east to an "Indian Village" on the Neches River. From there the trail splits and one branch heads east to "Cherokee Cross" south of Cypress Bayou. A more southern fork head south/southeast and ends at the "Road from Bexar to Nacogdoches" just west of Nacogdoches.

Map of Texas Compiled from Surveys and Records in the General Land Office of the Republic (by Hunt and Randal in 1845): This detailed map of Texas (found in UTA's map collection) also includes an east/west "Comanche Trail" running from the headwaters of Pecan River (a fork of the Colorado River),⁵ crossing the upper Brazos River and then the Trinity River to the south of the Three Forks area in what is now northern Ellis County. From there it continues eastward to an "Indian Village" on the Neches River. This trail then splits into a trail headed east/northeast to the "Cherokee Crossing" of the Neches River. The more southern fork of the trail heads south/southeast and ends near Nacogdoches.

"As the bird flies," the Three Forks area is just north of the crossing of a major Comanche Trail connecting a Comanche center of power⁶ to frontier centers of commerce (Nacogdoches, a bustling multicultural outpost of frontier commerce and a major route to San Antonio). The Wichita Trace, described by Harston as following the Trinity River, could have been used for quick and easy access the Three Forks area from this Comanche trail. It would be reasonable to assume that the Wichita Trace was an important north/south trail connecting Indian trading routes with frontier trading routes via the major east/west Comanche Trail leading to Nacogdoches and connecting with the Road to San Antonio.

Indian roads were also documented within the Three Forks area by Warren Ferris, creator of the first surveys of the Three Forks. These roads were described in contemporary terms by Dallas historian Homer DeGolyer⁷ and reported by Ferris' biographer, Susan Starling. These two additional Indian Traces are (Starling 1998:100):

The Kickapoo Trace : "entered present Dallas County from the Southeast, near modern Seagoville, and proceed to a ford across the Trinity, at approximately the junction of Commerce Street and Industrial Boulevard in the present city of Dallas. From there the trace continued west, skirting the outcropping of Chalk Hill in Modern Oak Cliff,

⁵ This area, also called Pecan Bayou, was the central place for the powerful Penatuhkah Comanche Band in the middle of the Nineteenth Century. The importance of this area is well documented in a thesis by Linda Pelon in 1993, *Issues in Penatuhkah Comanche Ethnohistory*.

⁶ The Pecan Bayou area and Santa Anna Peaks, described as a "Comanche West Point and a training center for smoke signaling communications (Harston 1963:110-119). Santa Anna Peaks, and the adjacent town (Santa Anna, in Coleman County near Brownwood), are named for the great Comanche war chief Santa Anna or Santanna. The town of Santa Anna is working with the Comanche Nation to identify Comanche cultural resources in their area.

⁷ The DeGolyer Western History Library at SMU is named for him and his papers are archived there.

crossing Mountain Creek to the Indian campsites on Village Creek in present Tarrant County. This trace is described as “roughly following U.S. Hwy 175 (Starling 1998:105). It is interesting to note that Hwy 175 passes through the White Rock Creek area near what is now Devon Anderson Park. Also nearby is the spring at Pemberton Hill⁸ where trail historians Darwin Payne and Jim Dunkley believe Sam Houston camped before crossing White Rock Creek on his way to Bird’s Fort for treaty talks with Texas Indians. Houston was traveling with Indian guides who were using their trails and campgrounds.

The Caddo Trace: “crossed the northeast corner of what is now Dallas County, near present Sachse and Garland.”

Geographical Evidence Reading the Landscape from a Comanche Perspective

*Throughout the first two decades following the passage of the National Historic Preservation Act (1966), cultural resources were legally and intellectually defined as material culture—artifacts, features, archeological sites, crafts....However, the amendments to the 1966 act and to the American Indian Religious Freedom Act of 1978, among other pertinent legislation passed by congress and by the executive office since 1980, require consultation with American Indian groups who once inhabited lands now managed by the state and federal governments. **Ensuing interactions among agencies, tribes, and anthropologists have greatly expanded the definition of cultural resources to incorporate a far broader set of natural and cultural materials, features and places. It is in this context that the landscape approach was introduced into the American Indian cultural preservation programs (National Park Service 1994) (104)***

*One of the first steps toward expanding the notion of cultural resources in field studies entailed the integration of ethnographic, archeological, and ethnohistorical research in the evaluations of traditional cultural properties or TCPs. **TCP is a term introduced by the National Register Bulletin 38 (Parker and King c. 1990) to designate places of cultural and religious significance for American Indians that may or may not have associated material culture (e.g. a landform, a stand of old growth). It quickly became clear, however, that these properties could not be evaluated as discreet units but must be evaluated as part of a much larger whole...***

Maria Nieves Zedeno
(*Social Theory in Archeology*
Schiffer 2000:104-5)

Evidence of a Comanche presence and occupation of the Three Forks area of the Trinity River has been presented. As seasonal participants in an annual trade fair that gathered many tribes, it would be reasonable to assume that these “Lords of the South Plains” would have had first choice of camping areas and would have somehow claimed these sites. **The presence of a tree fitting the description of a Comanche Marker Tree in what is now called Gateway Park, adjacent to a cluster of natural features that fit the template for a preferred Comanche campsite, is unlikely to be unrelated to Comanche use of this area.** Descriptions of large Comanche encampments from the

⁸ The City of Dallas is in the process of acquiring the Pemberton Hill site for Great Trinity Forest parkland. This site should also be evaluated as part of a National Historic Landmark District

historic record include many references to campgrounds meandering for miles along spring fed, tree shaded creeks. Nearby ridges or other highpoints necessary for surveillance, camp security, and smoke signaling are associated with these camps (Pelon 1993:113-116).

An **abundance of preferred Comanche food sources** are also present at the these preferred camping areas including pecans, buffalo, deer, plums, persimmons, grapes, and turkey. Many of these resources still exist within this section of what is now called the Great Trinity Forest. The extensive groves of native pecan trees would have enhanced the appeal as a preferred Comanche campsite (Hall 1995) for the autumn trade fair, which is also the season for gathering pecans. **A nearby buffalo migration trail, now historic State Highway 352 or Scyene Road, adds convincing additional support to the argument that this area that was recognized and used by Comanches.** Also present in this area are **building materials** including Red Cedar, used for lodge poles and cradleboards and Bois d'arc(used for making weapons).

The ridgeline in this area would have provided both lookouts and windbreaks--highly valued amenities to Comanche campsites (Gelo 2000:301-305). A variety of lookout points create multi-directional panoramic views. The overlook facing south/southwest, just off what it now Scyene Road, would have been uniquely valuable because it provides a clear view all the way west to Cedar Ridge and Cedar Hill, and south toward the major Comanche trail crossing of the Trinity River in what is now northern Ellis County. This overlook could have provided a critical communication point for receiving and relaying smoke signals, a communication strategy used by Comanches (Gelo 2000:305-307). These signals communicated information necessary for the civil defense of campsites, as well as a wide range of other information.

These highpoints are also important to the sacred topography/geography of the Comanche people since they used such places as vision quest sites and medicine places. Plants used as Comanche medicines grow on and below these ridges near the Marker Tree site. Some of this plant material, including Evening Nightshade⁹ and Texas Buckeye seeds,¹⁰ contain chemical compounds producing altered states of consciousness associated with shamanic activities. The presence of these plants increases the probability that some of these isolated highpoints would have been considered sacred sites. A necessary component for a Comanche Medicine Place, the presence of a continuously flowing spring-fed stream, is contained in this landscape. A case study in cultural anthropology of Sanapia, a Comanche Medicine Woman contains a photograph of this traditional Comanche healer rinsing medicine plant in a flowing stream. Her biographer reports (Jones 1968:55-56):

⁹ Devereux 1997:117-118 [regarding. species of datura, belonging to the Nightshade family] The genus has had an even wider ceremonial application in the Americas, where it has been used for prophecy, divination, diagnosing illness (by providing access to spirit knowledge), medicine (to relieve swellings and to ease the pains of childbirth and rheumatism), in puberty initiation rites, and for the production of visionary states, as it characteristically tends to generate the classic shamanic experiences of spirit flight and transformation into animal form.

¹⁰ Devereux 1997:107 He reports that Texas and Mexican Buckeye have been found at Fate Bell Shelter, a site believed to have been used for shamanic purposes. "Texas Buckeye seeds are genuinely hallucinogenic and have been found with Saphora secundiflora seeds [mescal bean] in other, similar archeological contexts, and also with finds of peyote dating to 5000 B.C. in one rock shelter."

Sanapia follows a fairly rigid field preparation of the medicine plants she collects. As soon as possible after extracting them from the earth, they are taken to the nearest body of flowing water, where they are they are cut into manipulatable sizes and washed....The immersion in flowing water applies to roots or plant parts other than leaves or flowering bodies; but since Sanapia almost exclusively uses only the root of the plant for medicine, this concern with flowing water seems ubiquitous on medicine-plant-collecting trips.

The importance of the presence of this flowing, spring-fed stream should not be underestimated.¹¹ The easy access to this stream, the nearby highpoint, the presence of plants used in the practice of shamanism and in Comanche medicine--when combined with evidence of a historic Comanche presence in the area-- make a strong case for a landscape that would have been recognized and used as a Medicine Place by Comanche healers, and perhaps by some of their most critically ill patients.¹² This clustering of environmental resources also suggests use as a vision quest site.

The Storytelling Place

DART project leaders insist, for the purpose of their evaluation of the significance of the Storytelling Place to Comanche cultural heritage, on addressing the importance of this site in isolation from its context with the surrounding landscape.¹³ While this demand appears inconsistent with recent trends in evaluating traditional cultural properties,¹⁴ there are some points to be made by addressing site-specific issues. However it is important to note that when developing “behavioral cartographies” regarding “landscape in American Indian land and resource use studies” it has been recommended that “we first define landscape materially by systematically describing its material components and relationships among them” (Zedeno 2000:105). This paper has described these major landscape components within the areas of Great Trinity Forest parkland recognized by the Comanche Nation as traditional cultural properties and it has also described traditional uses for each of these places.

Although specific information regarding a storytelling place that is also recognized as a sacred site is not traditionally shared with those outside Comanche culture, there is indirect evidence that supports the use of the site a Devon Anderson Park

¹¹ I've visited this site frequently for over 15 years and have always observed a constant flow here, including during the peak of record-breaking droughts and heat waves. This stream flows under the railroad bridge very near it's origin. There is a documented archeological in association with this stream. The impact of this DART project on the stream and archeological site is of great concern.

¹² A Comanche Medicine Place/Vision Quest Place is recognized on the National Register of Historic Places. Medicine Bluff, in the Wichita Mountains, is described on the NR Marker as 300 foot high bluff that was used for vision questing, warriors would take their shield there to absorb power (Medicine) from the sun, and people near death would go there to be healed or to die.

¹³ An email from John Hoppie dated Aug. 1, 2002 stated, “I have consulted SHPO and FTA and we agree that the purpose of the August 12 meeting is to focus on issues directly related to the storytelling place as they pertain to DART's Southeast Corridor LRT project....You are welcome to join us on our site visit but we plan only to visit the Storytelling Place and do not plan to visit other sites. The Storytelling Place is the only environmental issue we plan on discussing at this meeting.”

¹⁴ Noted in Zedeno's quote at the beginning of this section on geographical evidence

as a storytelling place. First, and most obviously, it occurs in an area recognized as part of the Comanche territorial range for NAGPRA consultation purposes (Patterson 2001:6). Additional information presented from the historic record indicates that this area was once under the protection of the Comanche Tribe—which meets their definition of claiming and occupying it. A multifaceted view of interactions with the landscape emerges with land use potential that includes elements of preferred camping areas, trading, and the exploitation of a wealth of natural resources for food and building materials. A variety of archeological sites documented within this area provide evidence that this land actually was used for these purposes. The ridges and scenic overlooks would have been recognized as part of a sacred landscape containing wildlife associated with spiritual power and plants with the power to heal and/or to access altered states of consciousness associated with shamanic activities.

The Storytelling Place, located on a high ridge with a panoramic view of the forest and river valley, is located in the realm of the sacred from the point of view of a Comanche spiritual topography. It is above and apart from the nearby springs and creeks that define the preferred camping areas. The mixed hardwood forest and the prairie grass/wildflower meadows on the ridge provide habitat for wildlife associated with spiritual power. Bear, hawks, coyotes, owls, fox, and bobcats are some of the animals known to roam this area and most are still present. **These spiritually powerful animals are the main characters in many Comanche stories.**

Finally, the physical characteristics of this natural feature make it uniquely functional as a place to tell stories. It is a bowl shaped indentation—a naturally occurring amphitheater in the white rock—that glows in the moonlight. On a recent visit to this site by members of the Comanche Language and Culture Preservation Committee it was noted that the facial expressions of storytellers could be clearly seen in the moonlight illuminating this geological feature. Many important Comanche stories have as the main character a Giant Owl who lives in the moon and comes down to earth and interacts with the animals of the forest. Stories told with a full moon above, and the surrounding forest populated with spiritually powerful animals, would have made a lasting impression on an audience. **The unusual and impressive characteristics of this site and the presence of consciousness altering plants in this landscape make a strong case for its use as place for initiation ceremonies.** While this is not information that Comanche tradition bearers share with outsiders, there are many ethnographies that document the teaching strategies of cultures whose traditions are transmitted orally. Places that create a dramatic and lasting impression--and altered states of consciousness--are often associated with these strategies for passing on information vital to individual and cultural survival (Pheiffer 1982). For many nomadic cultures, these important ceremonies are traditionally held at the times and locations of large gatherings of bands.

Conclusion

Cartographic information presented creates a snapshot of the Three Forks not unlike the image of contemporary Dallas. It was a thriving center of commerce and a central place in the web of an extensive trading network. This strategic location in a

convergence of transportation routes, and its extensive natural resources enhancing the quality of human life in the Three Forks area, was shared by many cultures

Historical documentation has been presented to indicate that Comanches not only used the area but also defended it. And this defines “occupation” from a Comanche perspective. Those who occupy areas leave behind evidence of their presence and it should be assumed that there are many cultural resources remaining in relatively undisturbed areas that archeologists concede have not been adequately surveyed. Additional archeological information reconstructed from surface collections of sites destroyed by land development in the White Rock Creek corridor make the case for extensive use of the area by Native People for a variety of purposes.

A technique used by social scientists referred to as “reading the landscape” was used to identify a clustering of environmental resources in the vicinity of Devon-Anderson and Gateway Parks (the Great Trinity Forest parkland being evaluated for eligibility as a NR Historic Landmark District) that fits a template for a preferred Comanche place. A tree fitting the description of a Comanche Marker Tree (traditionally used to mark a preferred gathering place; a Marker Tree would also communicate to other tribes that the campsite was taken—an efficient method of reserving a favored campsite in an area where many tribes gathered to trade) was located in Gateway Park and recognized by the Comanche Nation as significant to Comanche cultural heritage in 1997.

In addition to cartographic, historical, geographical, and archeological documentation, cultural information about traditional places is also preserved through stories, art, song, family histories, and in many other ways. Some of these traditional ways of knowing may have intuitive, unconscious, or spiritual dimensions to them. These sources of information are often unfamiliar to (and disregarded by) the cognitive processes of engineers and other empirically oriented stakeholders with agendas counterproductive to preservation of traditional cultural properties. And some traditional ways of knowing are not shared with outsiders. Sufficient information has been presented to document the importance of the Three Forks region, including White Rock Creek’s Great Trinity Forest parkland, as traditional cultural property from a Comanche perspective. However, it should not be assumed that all information has, or should, be shared. And this brings up an important question that needs to be opened for discourse: Why does “the other” have the power to make the final determination regarding the significance of a Traditional Cultural Property? This is a culturally subjective decision. Arguably, once a threshold of evidence sufficient to document “occupation” has been met, a sovereign nation should be allowed to identify Traditional Cultural Properties by their own criteria for recognizing such sites.

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U. S. Department of Transportation
Federal Transit Administration
Attention: John Sweek
819 Taylor St. Suite 8A36
Fort Worth, Texas 76102
August 16, 2002

Dear Mr. Sweek:

The Comanche Nation, upon review of the materials presented in a meeting on August 12, 2002 with Dallas Area Rapid Transit and yourself, at DART Headquarters in Dallas, Texas would like to acknowledge an agreement with DART and FTA on a project involving the "Comanche Storytelling Place", located in Devon-Anderson Park, Dallas County, Texas.

This agreement involves transecting the Traditional Cultural Property, no more than 10 feet and minimizing the impact by providing a retaining wall composed of limestone, and at a height maximum for safety and preserving the view, opposite the project.

However, in the future this agreement involves consultation with the Comanche Nation prior to any activities associated with the above-specified location and the stipulation of "No Further advancement into the Comanche Storytelling Place".

It is the intent of the Comanche people to protect this sacred place, elevate its recognition as a National District, Traditional Cultural Property and work with the Texas Historical Commission, Dallas Parks and Recreation, Dallas Area Rapid Transit, White Rock Heritage District and Federal Transit Administration in doing so.

Thank you for your cooperation in this matter, and please feel free to contact me at (580) 492-3754 if I can be of further assistance.

Sincerely,

Jimmy Arterberry
THPO/NAGPRA/OEPP Director
Comanche Nation

cc: Mr. John Hoppie, DART
Mr. Mark Denton, Texas Historical Commission
Ms. Linda Pelon, White Rock Heritage District
Mr. Michael Hellmann, Dallas Parks and Recreation

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APPENDIX F – HAZARDOUS/REGULATED MATERIAL DATABASES

A search of federal and state regulatory agency databases was performed to identify potential hazardous/regulated materials sites and facilities located within one-quarter mile either side of the proposed LRT corridor. Environmental Data Resources, Inc. (EDR) supplied the data and facilities information. This research is considered as an initial screening-type investigation to indicate areas of potential concern for further study or precautionary actions. These limitations should be recognized when consideration is given to various alternatives for future actions. The databases searched are listed below.

FEDERAL REGULATORY DATABASES

The following databases for the EPA, National Technical Information Service (NTIS) and other federal agencies were searched according to the criteria stated above:

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System (Source: EPA) CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to be or are on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL. The database was current to December 28, 2000.

NPL: National Priorities List (Superfund) (Source: EPA) The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. The database was current to January 23, 2001.

Proposed NPL: Proposed National Priority List Sites (Source: EPA) The database was current to January 23, 2001.

CERCLIS-NFRAP: No Further Remedial Action Planned (Source: EPA) As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be

placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens to promote economic redevelopment of unproductive urban sites. The database was current to December 28, 2000.

CORRACTS: Corrective Action Report (Source: EPA) CORRACTS identifies hazardous waste handlers with Resource Conservation and Recovery Act (RCRA) corrective action activity. This report shows which nationally defined corrective action core events have occurred for every handler that has had corrective action activity. The database was current to April 20, 2000.

RCRIS: Resource Conservation and Recovery Information System (Source: EPA/NTIS) RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the RCRA. The database was current to June 21, 2000.

ERNS: Emergency Response Notification System (Source: EPA/NTIS) ERNS records and stores information on reported releases of oil and hazardous substances. The database was current to August 8, 2000.

BRS: Biennial Reporting System (Source: EPA/NTIS) The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities. The database was current to December 31, 1997.

CONSENT: Superfund (CERCLA) Consent Decrees (Source: EPA Regional Offices) Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters. The database was current to: Not Applicable.

ROD: Records Of Decision (Source: NTIS) ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup. The database was current to September 30, 1999.

DELISTED NPL: NPL Deletions (Source: EPA) The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate. The database was current to January 23, 2001.

FINDS: Facility Index System/Facility Identification Initiative Program Summary Report (Source: EPA) FINDS contains both facility information and 'pointers' to other sources that contain more detail. The following FINDS databases may be included in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System). The database was current to July 7, 2000.

HMIRS: Hazardous Materials Information Reporting System (Source: U.S. Department of Transportation) HMIRS contains hazardous material spill incidents reported to DOT. The database was current to May 31, 2000.

MLTS: Material Licensing Tracking System (Source: Nuclear Regulatory Commission) MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. The database was current to January 30, 2001.

MINES: Mines Master Index File (Source: Department of Labor, Mine Safety and Health Administration) The database was current to August 1, 1998.

NPL LIENS: Federal Superfund Liens (Source: EPA) Under the authority granted the USEPA by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of

1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability.

USEPA compiles a listing of filed notices of Superfund Liens. The database was current to October 15, 1991.

PADS: PCB Activity Database System (Source: EPA) PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities. The database was current to January 1, 2000.

RAATS: RCRA Administrative Action Tracking System (Source: EPA) RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database. The database was current to April 17, 1995.

TRIS: Toxic Chemical Release Inventory System (Source: EPA) TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313. The database was current to December 31, 1997.

TSCA: Toxic Substances Control Act (Source: EPA) TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site. The database was current to December 31, 1998.

FTTS: FIFRA/TSCA Tracking System - FIFRA - Federal Insecticide, Fungicide, & Rodenticide Act /TSCA Toxic Substances Control Act (Source: EPA) FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA, and EPCRA (Emergency Planning and Community Right-to-Know Act). The database was current to August 30, 2000.

FTTS INSP: FIFRA/TSCA Tracking System - FIFRA Federal Insecticide, Fungicide, & Rodenticide Act /Toxic Substances Control Act (Source: EPA) The database was current to August 10, 2000.

STATE OF TEXAS REGULATORY RECORDS

SHWS: State Superfund Registry (Source: Texas Natural Resource Conservation Commission) State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. The database was current to December 19, 2000.

SWF/LF: Permitted Solid Waste Facilities (Source: Texas Natural Resource Conservation Commission) Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites. The database was current to March 1, 2001.

CLI: Closed Landfill Inventory (Source: Texas Natural Resource Conservation Commission) Closed and abandoned landfills (permitted as well as unauthorized) across the state of Texas. The database was current to August 30, 1999.

LUST: Leaking Petroleum Storage Tank Database (Source: Texas Natural Resource Conservation Commission) Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. The database was current to March 1, 2001.

UST: Petroleum Storage Tank Database (Source: Texas Natural Resource Conservation Commission) Registered Underground Storage Tanks. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state

department responsible for administering the UST program. Available information varies by state program. The database was current to March 1, 2001.

AST: Petroleum Storage Tank Database (Source: Texas Natural Resource Conservation Commission) Registered Aboveground Storage Tanks. The database was current to March 1, 2001.

SPILLS: Spills Database (Source: Texas Natural Resource Conservation Commission) The database was current to January 16, 2001.

VCP: Voluntary Cleanup Program Sites (Source: Texas Natural Resource Conservation Commission) The Texas Voluntary Cleanup Program was established to provide administrative, technical, and legal incentives to encourage the cleanup of contaminated sites in Texas. The database was current to January 16, 2001.

Multimedia: Multi Media Enforcement Cases (Source: Texas Natural Resource Conservation Commission) Any enforcement case with more than one media (water, waste, etc.) violation. The database was current to August 31, 2000.

Ind. Haz Waste: Industrial & Hazardous Waste Database (Source: Texas Natural Resource Conservation Commission) Summary reports reported by waste handlers, generators and shippers in Texas. The database was current to December 31, 2000.

WASTEMGT: Commercial Hazardous & Solid Waste Management Facilities (Source: Texas Natural Resource Conservation Commission) This list contains commercial recycling facilities and facilities permitted or authorized (interim status) by the Texas Natural Resource Conservation Commission. The database was current to June 1, 1998.

AIRS: Current Emission Inventory Data (Source: Texas Natural Resource Conservation Commission) The database lists by company, along with their actual emissions, the TNRCC air accounts that emit EPA criteria pollutants. The database was current to December 11, 2000.

EDR PROPRIETARY DATABASES

Former Manufactured Gas (Coal Gas) Sites The existence and location of Coal Gas sites is provided exclusively to EDR by Real Property Scan, Inc. ©Copyright 1993 Real Property Scan, Inc.

CONCLUSIONS

Sites that have the highest potential for contamination and are located close to, or within, the proposed right-of-way are considered to be high-risk sites. Examples of high-risk sites include landfills and reported leaking underground storage tank sites that are located close to the project and do not have full closure status. 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 for right-of-way acquisition or construction of the project. Low-risk sites include active, modern gas stations and other facilities which are listed as only producing some quantity of a hazardous waste on the property. Sites identified as having a potential for contamination are further characterized and assessed in the discussion below:

CERCLIS Sites: One CERCLIS site was identified within the specified search boundaries. The EPA has conducted a preliminary assessment of this facility and in each case determined that no hazard was identified and no further action was necessary. This facility should not pose a high risk to right-of-way acquisition or construction of the project.

CORRACTS Sites: Two CORRACTS sites were located within the specified search boundaries. These sites were assigned a priority of "Medium", and their status was not reported. No other information was provided, and therefore the risk is indeterminable. Further research of these sites may be warranted.

RCRIS Sites: Forty RCRIS sites were identified within the specified search boundaries. Of these 40 sites, 36 were facilities that generated small quantities of hazardous waste, and four were facilities that generated large quantities of hazardous waste. These facilities should not pose a high risk to right-of-way acquisition or construction of the project provided they remain in compliance with state and federal regulations.

ERNS Sites: Five ERNS sites were located within the specified search parameters. Detailed information was obtained for only two of the sites. In one incident, a backhoe struck a gas line. In the other incident, an unknown amount of anti-freeze spilled into a storm sewer. These incidents occurred in 1993 and 1990 respectively. The two sites with detailed information should not pose a high risk to right-of-way acquisition or construction of the project. An assessment of risk for the other three sites is indeterminable due to lack of information.

HMIRS Incidents: Four hazardous material spill incidents were identified within the specified search boundaries. All of the incidents were reported at the same location, apparently a railroad yard. Two of the incidents consisted of small amounts (3.0 and 4.0 gallons) of methylcyclopentadien. One spill consisted of 0.5 gallon of sodium hydroxide solution, and the other reported spill was 12.0 gallons of petroleum oil. Based on the reported dates of these spills (1991 and 1992) and the relatively small amounts of materials, these incidents should not pose a high risk to right-of-way acquisition or construction of the project.

TRIS Sites: One TRIS site that released toxic chemicals to the air, water, and/or land in reportable quantities was identified within the specified search parameters. This facility should not pose a high risk to right-of-way acquisition or construction of the project provided it remains in compliance with state and federal regulations.

FTTS Sites: Three FTTS sites were identified within the search boundaries. Two of the investigations were asbestos-related, and one investigation was PCB-related. Although a violation was reported for one of the asbestos-related investigations, none of these facilities should pose a high risk to right-of-way acquisition or construction of the project.

TNRCC SPILLS Sites: Five SPILLS sites were identified within the specified search parameters. No information other than an address was provided in the database report, and therefore the risk is indeterminable. Further research of these sites may be warranted.

TNRCC TX VCP Sites: Two TX VCP Sites were identified within the specified search boundaries. One site was a former retail gasoline service station with soils-only contamination. A final certificate of completion was issued in January 1998. The other site is currently undergoing investigation/remediation for soils-only lead and metals contamination. The clean-

up remedy for this site consists of excavation and removal of the soils to an off-site location. A final certificate of completion has not been issued. The site undergoing investigation/remediation could pose a high risk to right-of-way acquisition or construction of the project.

TNRCC TX IHW Sites: Fifty-three TX IHW sites were identified within the specified search boundaries. Three of these 53 sites were duplicates. Of the remaining sites, were "conditionally exempt small quantity generators" of IHW, 12 were facilities that generated small quantities of IHW, four were facilities that generated large quantities of IHW, and 20 were facilities with incomplete information. These facilities should not pose a high risk to right-of-way acquisition or construction of the project provided they remain in compliance with state and federal regulations.

TNRCC AIRS Sites: One AIRS site was identified within the specified search parameters. The listed data for this site revealed zero emissions of EPA criteria pollutants and thus should not pose a high risk to right-of-way acquisition or construction of the project.

TNRCC LUST Sites: Thirty-four of 36 LUST sites listed in the EDR report were identified within the specified search boundaries. Of these sites, 21 have been adequately cleaned to the satisfaction of the TNRCC. The remaining 13 sites do not have full closure status from the TNRCC and are located close enough to the project to be considered potential high risk for contamination encountered during right-of-way acquisition or construction.

TNRCC UST Sites: Ninety-four of the 96 UST sites listed in the EDR report were identified within the specified search parameters. Some of the facilities are also listed as LUST sites (see LUST section). The UST facilities that are not also classified as LUST facilities should not pose a high risk to right-of-way acquisition or construction of the project provided that no subsurface releases of petroleum hydrocarbons occur prior to actual construction of the project.

TNRCC AST Sites: One AST site was identified with the specified search boundaries. This site is also listed as a LUST site, but it has been adequately cleaned to the satisfaction of the TNRCC. This site should not pose a high risk to right-of-way acquisition or construction of the

project provided no further releases of petroleum hydrocarbons occur prior to actual construction of the project.

Orphan Sites: The database report included a section entitled “Orphan Summary”. The locations of the facilities listed in this section cannot be mapped due to incomplete or inaccurate information. A cursory review of this section was conducted, but these sites should be investigated further during the final design phase of the project.

Texas Closed Landfill Inventory: The North Central Texas Council of Governments (NCTCOG) is currently conducting an inventory of closed and abandoned landfills located within the north central Texas region. An initial identification of closed and abandoned landfills has been performed. Many of the identified landfills were permitted by the State, but the most of the landfills were unauthorized and are now considered abandoned. Over the next two years, the NCTCOG will be further researching each of these sites to obtain more detailed information about site location, current land use, and ownership. In those cases where exact landfill boundaries can be identified, the county deed records office and the current landowners would be notified of the prior land use of the property for public health and safety reasons. This information as well as site maps would be compiled in the inventory for eventual inclusion in the regional solid waste management plan. NCTCOG’s Closed Landfill Inventory can be found on its website at <http://www.dfwinfo.com/envir/sw/abndfill/ablandfill.html>.

APPENDIX G – MEMORANDUM OF AGREEMENT

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**MEMORANDUM OF AGREEMENT
BETWEEN THE FEDERAL TRANSIT ADMINISTRATION AND
THE TEXAS STATE HISTORIC PRESERVATION OFFICER
SUBMITTED TO THE ADVISORY COUNCIL ON HISTORIC PRESERVATION
REGARDING THE
SOUTHEAST CORRIDOR LIGHT RAIL PROJECT
IN DALLAS, TEXAS**

WHEREAS, the U.S. Department of Transportation, Federal Transit Administration (FTA) is considering a grant application for financial assistance to Dallas Area Rapid Transit (DART), a regional transit authority organized and existing under the laws of the State of Texas, for the construction of a light rail transit (LRT) project in a southeast corridor of Dallas, Texas; and

WHEREAS, the FTA has determined that construction of the Southeast Corridor Light Rail Transit Project (the Project) in Dallas, Texas, will have an effect upon the Good-Latimer underpass and a certain portion of Fair Park, as hereinafter described, which are two properties that are included in or have been determined to be eligible for inclusion in the *National Register of Historic Places*, and has consulted with the Texas State Historical Preservation Officer (SHPO) pursuant to 36 CFR Part 800, regulations implementing Section 106 of the National Historic Preservation Act, (16 U.S.C. Section 470(f)); and

WHEREAS, the SHPO is authorized to enter into this Agreement in order to fulfill its role of advising and assisting Federal agencies in carrying out their Section 106 responsibilities under the following federal statutes: Section 101 and 106 of the National Historic Preservation Act of 1966, as amended, 16 U.S.C. § 470f, and pursuant to 36 CFR Part 800, regulations implementing Section 106, at §§ 800.2(c)(1)(i) and 800.6(b); and

WHEREAS, for purposes of this Agreement, the Project consists of the construction of a two-track surface, light rail line that will begin at the existing Pearl Street Station located in the central business district in Dallas, Texas, and will extend northeastward along Bryan Street, passing under North Central Expressway to Good-Latimer Expressway, from where the line will continue at grade on a southeasterly alignment for approximately 10 miles, utilizing portions of the Union Pacific Railroad right-of-way, Parry Avenue and the Southern Pacific Railroad right-of-way, before terminating at a station located between Elam Road and Buckner Boulevard (also known as Loop 12). A more detailed description of the Project's alignment is set forth in Attachment A to this Agreement, and

WHEREAS, the preferred alternative for the Project, as described above, has been determined through a public process that included a major investment study and the preparation of the Southeast Corridor Draft Environmental Impact Statement; and

WHEREAS, Project stations will be located in the median of Good-Latimer Expressway between Swiss Avenue and Gaston Avenue; in the Union Pacific Railroad (UP RR) right-of-way near Baylor Health Care System (HCS) in the block bounded by Walton, Indiana, Malcolm X, and Junius Streets; partially within Fair Park, on the east side of Parry Avenue at the entrance to Fair Park; west of the intersection of the SP RR right-of-way and Martin Luther King (MLK) Boulevard; west of the intersection of the SP RR right-of-way and Hatcher Street; at the intersection of the Scyene Road and Lawnview Street; south of the intersection of the SP RR right-of-way and Lake June Road; and west Buckner Boulevard at the rail terminus; and

WHEREAS, the portion of the Project along the Good-Latimer Expressway will be operated at grade entirely within the median of the expressway and will therefore require the elimination and removal of the existing Good-Latimer underpass (also known as the Deep Ellum tunnel) and the elevation of the right-of-way on the existing underpass to a grade that is the same as the surrounding streets and properties; and

WHEREAS, the FTA has determined that the “area of potential effects”, as that term is defined at 36 CFR §800.16(d), for the Project will include the 17 properties that are listed or eligible for listing in the National Register of Historic Places together with all significant architectural, engineering and historical elements, as identified in a Request for Determination of Eligibility Report submitted to the SHPO on September 14, 2001, a supplemental Request for Determination of Eligibility Report submitted on November 7, 2002, and a concurrence letter dated February 1, 2002, from the SHPO; and

WHEREAS, the FTA has determined, in consultation with the SHPO and the Advisory Council on Historic Preservation (the Council) that the construction of the Project on the alignment set out in Attachment A will have no adverse effect on the following historic properties: John E. Mitchell Co. Plant, 3800 Commerce; Lincoln Paint & Color Co. Building, 4044 Commerce; Alexander Motor Company Building, 4100 Commerce; W. Gottlich Company Manufacturing Building, 4118 Commerce; B.F. Goodrich Building (a.k.a. as the Textile Building), 4140 Commerce; Knights of Pythias Temple, 2551 Elm; Fink Paint Co. Building, 2605 Elm; Southern Refrigeration Co. Building, 2609 Elm; American Transfer & Storage, 2615 Elm; Manufacturing Expo Building, 2625 Elm; Continental Gin District, 3301-3333 Elm, 212 Trunk and 232 Trunk; St. James AME Temple, 624 N. Good-Latimer; National Biscuit Company, 3601 Main; Old Tige, 3801 Parry; and Goodyear Tire and Rubber Company Building (a.k.a. as Howard Wolfe Building and Garage), 3809 Parry; provided that certain conditions outlined in the Stipulations below are fulfilled; and

WHEREAS, the FTA has determined, in consultation with the SHPO and the Council, that the construction of Project on the alignment set out in Attachment A will have no adverse affect on Fair Park (Texas Centennial Exposition Buildings), a Designated National Historic Landmark and National Register District, bounded by Parry Avenue on the northwest, the Texas & Pacific Railroad tracks on the northeast, Cullum Boulevard on the southwest, and Pennsylvania Avenue on the southeast; provided that certain conditions outlined in the Stipulations below are fulfilled; and

WHEREAS, DART has predicted that the audible warning devices for an at-grade crossing will result in a moderate noise impact for four lofts in the Goodyear Tire and Rubber Company Building; and

WHEREAS, this moderate noise impact can be mitigated through building sound insulation techniques that are sensitive the historic nature of the structure; and

WHEREAS, the FTA has determined, in consultation with the SHPO and the Council, that the construction of the Project on the alignment set out in Attachment A will have an adverse affect on Good-Latimer Underpass (Deep Ellum Tunnel) located on Good-Latimer Expressway under Gaston Avenue and further, whereas, the parties have developed the measures outlined in the Stipulations below to reduce or mitigate the identified adverse effects of the Project; and

WHEREAS, a coalition of local preservationists and stakeholders which include Preservation Dallas, Meadows Foundation of Texas, Deep Ellum Association and the Friends of Fair Park; has recommend that mitigation for the removal of the Good-Latimer Tunnel include documentation prepared in accordance with the Historic American Engineering Record (HAER) Level I with appropriate measured drawings, photographs and written narrative; and

WHEREAS, the coalition of local preservationists and stakeholders has requested that significant pieces of the Good-Latimer Tunnel be retained for placement in a local and public setting with appropriate interpretation; and

WHEREAS, the FTA, in collaboration with DART, has demonstrated that there is no prudent and feasible alternative to the use of these two protected resources; and

WHEREAS, in the letter dated July 8, 2002, from the SHPO to Mr. Stephen Salin of DART in reference to "Project review under Section 106 of the National Historic Preservation Act of 1966, DART Southeast Corridor Determination of Effects Report, Dallas, Dallas County (FTA106)"; the SHPO has concurred that the demolition of the Good-Latimer Tunnel would have an adverse effect on the historic property, and the development of appropriate mitigation documentation should be stipulated in an agreement document; and

WHEREAS, DART has participated with the FTA in the consultation with the SHPO and has been invited to concur in the Memorandum of Agreement to reflect its commitment to the measures described in this agreement and to its obligations in a grant that will fund the construction of this Project;

NOW, THEREFORE, the FTA and the SHPO agree that the following measures and stipulations shall be implemented in order to take into account the effects of the undertaking on historic properties:

Stipulations

The FTA shall ensure that the following stipulations are implemented:

I. Conditions for Determination of No Adverse Effect of Specified Historic Properties

- A. The SHPO has provided a conditional concurrence with a determination of no adverse effect on the following properties: John E. Mitchell Co. Plant, 3800 Commerce; Lincoln Paint & Color Co. Building, 4044 Commerce; Alexander Motor Company Building, 4100 Commerce; W. Gottlich Company Manufacturing Building, 4118 Commerce; B.F. Goodrich Building (a.k.a. as the Textile Building), 4140 Commerce; Knights of Pythias Temple, 2551 Elm; Fink Paint Co. Building, 2605 Elm; Southern Refrigeration Co. Building, 2609 Elm; American Transfer & Storage, 2615 Elm; Manufacturing Expo Building, 2625 Elm; Continental Gin District, 3301-3333 Elm, 212 Trunk and 232 Trunk; St. James AME Temple, 624 N. Good-Latimer; National Biscuit Company, 3601 Main; Old Tige, 3801 Parry; Goodyear Tire and Rubber Company Building (a.k.a as Howard Wolfe Building and Garage), 3809 Parry; and the Fair Park Historic District/National Historic Landmark.
- B. DART will make every effort to ensure that the design of light rail structures and all other construction undertaken or funded by DART related to this undertaking, including but not limited to station platforms and canopies, artwork and gateways, tracks, catenary poles, overhead traction and power systems, traction power substations, communication bungalows, and sound insulation fences or other construction that may have an effect on historic properties will be designed to be compatible with affected historic properties and conform to the guidance contained in the Secretary of Interior's Standards and Guidelines for Rehabilitation of Historic Buildings (U.S. Department of the Interior, National Park Service, 1983 or as most recently amended). DART will further ensure that all such designs are developed in consultation with the SHPO and submitted to the SHPO for comment. Proposed designs will be provided to the SHPO for review at the 30%, 65% and 95% design stages.
- C. DART shall afford the SHPO thirty (30) days to review and respond to any reports, plans, specifications or other documentation provided for review pursuant to this MOA. Should the SHPO object, DART shall consult further with the SHPO to resolve objection. If DART determines that the objection cannot be resolved, DART shall notify the FTA, which will follow MOA Stipulation III.E for "Resolving Objections."
- D. As documented in a letter dated February 20, 2002 from the SHPO to Mr. Stephen Salin of DART in reference to "Project review under Section 106 of the National Historic Preservation Act of 1966, DART Southeast Corridor Draft Environmental Impact Statement (DEIS) Dallas, Dallas County (FTA106)",

DART and the SHPO have developed an agreement on the conceptual design of the Fair Park Station which will be located partially within the official boundaries of Fair Park, a National Historic Landmark and National Register Historic District. Station features shall include four canopies of similar size and shape to the 1936 historic ticket booths. Two of these canopies shall be placed in the location of the original ticket booths with the second set being placed on the opposite side of the track directly in front of the original location. These four canopies would be of the same design, which are intended recall the design of the historic ticket booths. A very, simple transparent designed, accessible platform will be placed at the front end of each side platform. The design of these facilities will be further developed by DART in consultation with the SHPO and provided to the SHPO for review and comment pursuant to Stipulation I.B.

- E. The moderate noise impact to the Goodyear Tire and Rubber Company Building will be mitigated through building sound insulation which will be designed to be compatible with the historic property and conform to the guidance contained in the Secretary of Interior's Standards and Guidelines for Rehabilitation of Historic Buildings (U.S. Department of the Interior, National Park Service, 1983 or as most recently amended). The design of this sound insulation will be further developed by DART in consultation with the SHPO and provided to the SHPO for review and comment pursuant to Stipulation I.B.

II. Documentation of the Good-Latimer Underpass (Deep Ellum Tunnel)

- A. Documentation shall be prepared for the Good-Latimer Underpass in a manner equivalent to Historic American Engineering Record (HAER) Level I, as recommended by a coalition of local preservationist and Deep Ellum Stakeholders. The HAER Level I standard is defined in the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation, Guidelines for Architectural and Engineering Documentation.
 - 1. The historical narrative developed for the Good-Latimer Underpass, pursuant to Stipulation II.A.1 shall interpret the tunnel within the context of other elements of the Dallas transportation system and contemporaneous community development.
 - 2. The SHPO shall have thirty (30) calendar days to review and comment on the documentation provided pursuant to Stipulation I.C.. Failure by the SHPO to provide comments in accordance with this stipulation may be taken to indicate approval by the SHPO. If the SHPO objects to the documentation provided in accordance with this stipulation, the FTA may decide the documentation is final, subject to Stipulation III.E.

3. Section 110(b) documentation.

- a. All final documentation resulting from actions pursuant to this MOA shall be provided to the SHPO, DART, the Dallas Public Library and the Dallas History Archive; and
- b. Archival quality reproductions of the photographs, measured drawings, and the completed architectural data form generated under Stipulation II.A.1. will be made a part of the permanent collections described in Stipulation II.B.
- c. All such reports will be responsive to contemporary professional standards, and to the Department of Interior's Standards and Guidelines for Archeology and Historic Preservation, Standards for Architectural and Engineering Documentation.

B. Public exhibit and permanent collection

1. A permanent collection and interpretative exhibit of materials and media conveying the role and significance of the Good-Latimer Underpass in Dallas' history will be developed by DART.
2. The permanent collection and interpretive exhibit will be housed at the DART museum facility in the historic Monroe Shops building (Museum) in accordance with 36 CFR Part 79.
3. The permanent collection will be owned by and under the jurisdiction of the DART. All materials that comprise the collection will be made available to researchers and the general public, subject to the operational rules and guidelines of the Museum and its staff.
4. The interpretative exhibit will incorporate, at a minimum:
 - a. Photographic documentation of the Good-Latimer Underpass, including select reproductions of the large-format photographs generated in compliance with Stipulation II.A of this MOA, printed at sizes appropriate for public display; and
 - b. Historic photographs of the Good-Latimer Underpass, reproduced at sizes appropriate for public display; and

- c. Historic engineering drawings of the Good-Latimer Underpass, reproduced at sizes appropriate for public display; and
 - d. Interpretative text accompanying the above-described graphic materials; and
 - e. Sufficient textual, cartographic, and photographic materials to convey the Good-Latimer Underpass as a component of the transportation infrastructure improvements implemented in Dallas during the 1930s.
5. The interpretative exhibit will be prepared for a general audience, although it may include information of specific academic, architectural, and engineering interest as well.
 6. The interpretative exhibit will remain on display at the Museum for a minimum of twenty-four (24) months following its completion, or following the opening of the Museum, whichever comes later. Thereafter, display of the exhibit will be at the discretion of the Museum.
 7. If due to closure, loss of funds, change of mission, or any other reason the Museum cannot continue to maintain and make available to researchers and the public the permanent collection created under this MOA, the FTA will ensure that at a minimum all materials in the collection are transferred to a local or state archival facility that meets the standards set forth in 36 CFR Part 79 and can care for the collection in accordance with 36 CFR 79. Transfer of the interpretive exhibit will be at the discretion of the Museum and the archival facility to which the materials are being transferred.

- C. DART will attempt to retain significant pieces of the Good-Latimer Underpass fabric for placement in a local and public setting with appropriate interpretation by:
1. Affording a coalition of local preservationists and Deep Ellum Stakeholders that include Preservation Dallas, Meadows Foundation of Texas, Deep Ellum Association and the Friends of Fair Park the opportunity to select significant features and materials of the structure to be salvaged; and
 2. Consulting with representatives of the coalition regarding the appropriate entity to receive legal title of the salvaged materials; and
 3. Coordinating efforts with the City of Dallas to transfer ownership of the salvaged materials to the appropriate entity; and
 4. Attempting to remove selected items in a manner that minimizes damage while ensuring safety; and
 5. Delivering salvaged materials to the selected setting.

III. Administrative Stipulations

- A. Definition. For the purposes of this MOA the terms “party” or “parties” means the FTA and the SHPO, each of which has authority under 36 CFR § 800.7 to terminate the consultation process
- B. Professional supervision. The FTA shall ensure that all activities carried out pursuant to this MOA are carried out by or under the direct supervision of a person or persons meeting at a minimum the Professional Qualifications Standards set forth in the Secretary of the Interior’s Standards and Guidelines for Archeology and Historic Preservation. However, nothing in this stipulation may be interpreted to bar the FTA or any agent or contractor of the FTA from utilizing the properly supervised services of employees and volunteers who do not meet the above standards.
- C. Alterations to project documents. Neither the FTA nor DART shall alter any plan, scope of services, or other document that has been reviewed and commented on pursuant to this MOA, except to finalize documents commented on in draft, without first affording the parties to this MOA the opportunity to review the proposed change and determine whether it shall require that this MOA be amended. If one or more such party determines that an amendment is needed, the parties to this MOA shall consult in accordance with 36 CFR § 800.6 to consider such an amendment.

D. Annual report and review

1. On or before 31 December of each year until the FTA and the SHPO agree in writing that the terms of this MOA have been fulfilled, the DART on behalf of FTA shall prepare and provide an annual report to the SHPO addressing the following topics:
 - a. Progress in the data collection and preparation of the documentation being prepared under Stipulation II.A;
 - b. Progress in design and installation of the interpretive exhibit being prepared under Stipulation II.B;
 - c. Any problems or unexpected issues encountered during the year; and
 - d. Any changes that the FTA or DART believe should be made in the implementation of this MOA.
2. The DART shall ensure that its annual report is made available for public inspection that potentially interested members of the public are made aware of its availability, and that interested members of the public are invited to provide comments to the SHPO, DART, and to the FTA.
3. The SHPO shall review the annual report and provide comments to the FTA.
4. At the request of any party to this MOA, a meeting or meetings shall be held to facilitate review and comment, to resolve questions, or to resolve adverse comments.
5. Based on this review, the FTA, DART, and the SHPO shall determine whether this MOA shall continue in force, be amended, or be terminated.

E. Resolving objections

1. Should any party or concurring party to this agreement or a member of the public object at any time to any actions proposed or the manner in which the terms of this MOA are implemented, the FTA and DART shall take the objection into account. The FTA and DART shall consult as needed with the objecting party and with the other party and concurring parties to this MOA to seek resolution of the objection. If FTA determines, within 30 days, that such objections(s) cannot be resolved, FTA will:

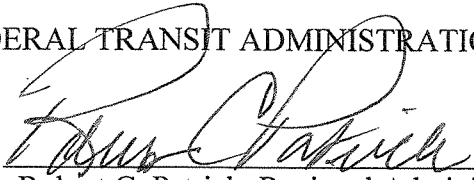
- a. Forward all documentation relevant to the dispute to the Council in accordance with 36 CFR § 800.2(b)(2). Upon receipt of adequate documentation, the Council shall review and advise FTA on the resolution of the objection within 30 days. Any comment provided by the Council, and all comments from the parties to the MOA, will be taken into account by FTA in reaching a final decision regarding the dispute.
 - b. If the Council does not provide comments regarding the dispute within thirty (30) working days after receipt of adequate documentation, FTA may render a decision regarding the dispute. In reaching its decision, FTA will take into account all comments regarding the dispute from the parties to the MOA.
 - c. FTA's responsibilities to carry out all other actions subject to the terms of this MOA that are not the subject of the dispute remain unchanged. FTA will notify all parties of its decision in writing before implementing that portion of the Undertaking subject to dispute under this stipulation. FTA's decision will be final.
- F. Amendments and Noncompliance. Any party to this MOA (exclusive of the concurring parties) may request an amendment to its terms or to the provisions of any attachment to the MOA. The party wishing to amend the MOA shall immediately consult with the other party to develop an amendment pursuant to 36 CFR §§ 800.6(c)(7) and 800.6(c)(8). The amendment will be effective on the date a copy signed by the parties is filed with the Council. If the parties cannot agree to appropriate terms to amend the MOA, any party may terminate the agreement in accordance with Stipulation III.G, below.
- G. Termination. If an MOA is not amended following the consultation set out in Stipulation III.F, it may be terminated by any party. Within 30 days following termination, FTA shall notify the signatories it will initiate consultation to execute an MOA with the signatories under 36 CFR § 800.6(c)(1) or request the comments of the Council under 36 CFR § 800.7(a) and proceed accordingly.

ATTACHMENT A


The Project consists of the construction of a two-track surface, light rail line that will begin at the existing Pearl Street Station located in the central business district in Dallas, Texas, and will extend northeastward along Bryan Street, passing under North Central Expressway to Good-Latimer Expressway, from where the line will the alignment would turn northeastward near Monument Street onto the former Union Pacific Railroad (UP RR) right-of-way (now owned by DART). The alignment would continue northeastward along the rail right-of-way, then turn east and southeast after passing Hall Street to cross under IH 30. Just before intersecting with Parry Avenue, the alignment would swing north, off the rail alignment, before curving south to the east side of Parry Avenue. The alignment would then continue on the east side of Parry, along the edge of Fair Park, past the Music Hall, before crossing Parry Avenue/R. B. Cullum Boulevard. In this section the rail alignment is partially within the Fair Park National Historic District and the National Register Historic District. The alignment would then continue southward across current residential properties to connect to former Southern Pacific Railroad (SP RR) right-of-way (now owned by DART). This segment of rail line would extend southeast parallel to Trunk Avenue. The alignment would continue southeast, then turn east along the railroad right-of-way south of Scyene Road. Following the existing railroad right-of-way the alignment turns southward, east of Lawnview Avenue, passing adjacent to Gateway Park, Grover C. Keeton Golf Course and Devon –Anderson Park. At Lake June Road the alignment would turn southeast along the railroad right-of-way, which is parallel to and north of US 175 (C.F. Hawn Freeway). The alignment would continue southeast to its terminal station between Elam Road and Buckner Boulevard (Loop 12). The Project also includes a new yard lead extending from the existing DART Service and Inspection Facility, along DART owned SP RR right-of-way to the Project alignment near the intersection of Trunk Avenue and Elihu Street.

IV. Execution of this Memorandum of Agreement by the FTA and the SHPO and DART, the submission of documentation and filing of this Memorandum of Agreement with the Council pursuant to 36 CFR § 800.6(b)(1)(iv) prior to FTA's approval of this undertaking, and implementation of its terms evidence that FTA has taken into account the effects of this undertaking on historic properties and afforded the Council an opportunity to comment.

FEDERAL TRANSIT ADMINISTRATION, REGION VI

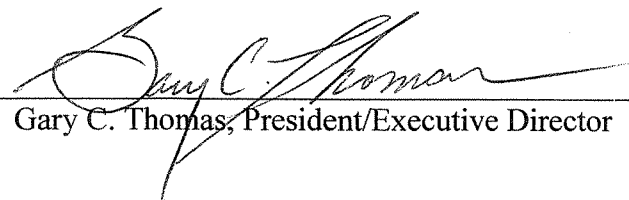
By:  Date: 4/17/03
Robert C. Patrick, Regional Administrator

TEXAS STATE HISTORIC PRESERVATION OFFICER

By:  Date: 5/23/03
F. Lawrence Oaks, Texas State Historic Preservation Officer

CONCUR:

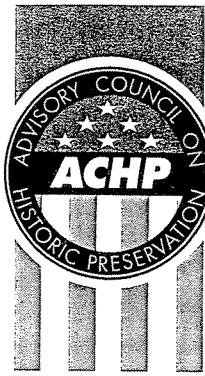
DALLAS AREA RAPID TRANSIT

By:  Date: 4/17/03
Gary C. Thomas, President/Executive Director

ACCEPTED:

ADVISORY COUNCIL ON HISTORIC PRESERVATION

By: See attached ACHP letter dated 8/28/03 Date: _____
Executive Director



August 28, 2003

Robert C. Patrick
Regional Administrator
Federal Transit Administration
Region VI
819 Taylor St., Suite 8A36
Fort Worth, TX 0550

REF: *Light Rail, Southwest Corridor, Dallas, TX.*

Dear Mr. Patrick:

On June 9, 2003, we received your notification of adverse effect for the referenced project, in accordance with Section 800.6(a)(1) of the ACHP's regulations, "Protection of Historic Properties" (36 CFR Part 800). Included with your notification was a signed Memorandum of Agreement (MOA) for the project and background documentation. The ACHP's regulations require that the Agency Official notify the ACHP of an adverse effect finding and provide the ACHP with an opportunity to participate in consultation if we so choose. We have no record of being notified by you of your finding of adverse effect prior to the receipt of the signed MOA and, thus, we were precluded from participating in consultation. Your failure to follow this procedural requirement may render the outcome of the consultation process subject to challenge by parties with an interest in the project.

However, we have reviewed the documentation provided and have decided to not reopen consultation at this time. We will, therefore, consider the MOA as having been filed with us in accordance with §800.6(b)(1)(iv). In the future, please be sure to provide us with sufficient advanced notice of any adverse effect determination prior to the execution of the Memorandum of Agreement.

Should you have any questions, please contact me at (303) 969-5110 or by e-mail at lkeatinge@achp.gov.

Sincerely,

Lee Keatinge
Program Analyst
Western Office of Federal
Agency Programs

ADVISORY COUNCIL ON HISTORIC PRESERVATION

12136 West Bayaud Avenue, Suite 330 • Lakewood, Colorado 80228
Phone: 303-969-5110 • Fax: 303-969-5115 • achp@achp.gov • www.achp.gov



Dallas Area Rapid Transit
P.O. Box 660163
Dallas, Texas 75266-0163
214/749-3278

September 17, 2003

Ms. Lee Keatinge
Program Analyst
Western Office of Federal Agency Programs
Advisory Council on Historic Preservation
12136 West Bayaud Avenue, Suite 330
Lakewood, Colorado 80228

Re: Light Rail, Southeast Corridor, Dallas, TX

Dear Ms. Keatinge:

In an August 28, 2003 letter to Mr. Robert Patrick, FTA Region VI Administrator, you provided comment on an adverse effect to a National Register eligible property by a Dallas Area Rapid Transit Project (DART). Your letter references "Light Rail, Southwest Corridor, Dallas TX." DART has provided ACHP with information on two light rail projects: the Northwest Corridor and the Southeast Corridor. Since you have previously provided comment on the Northwest Corridor Project, we are assuming that your letter refers to the Southeast Corridor Project. Please contact me at (214) 749-2525 or by e-mail at jhoppie@dart.org, if this is not the case.

Your letter to Mr. Patrick also indicates that you have no previous record of being notified of the finding of adverse effect. Our records indicate that, DART acting on behalf of FTA, provided a copy of the Southeast Corridor Draft Environmental Impact Statement (DEIS) to ACHP in February 2002. This document identified the potential adverse effect, although the final determination of eligibility was pending. Additionally, in January 2003, DART acting on behalf of FTA provided ACHP a copy of the Draft Southeast Corridor Section 4(f) Evaluation for Cultural Resources & Parkland. This document also identified the finding of adverse effect.

Because our records indicate that ACHP was provided these documents, please reconfirm by e-mail or return letter whether or not they have been received. In the meanwhile, we are reviewing our distribution process in order to track the whereabouts of the documents that were designated for the ACHP review. For future projects, DART with FTA will endeavor to increase communication and coordination with the ACHP regarding findings of adverse effect. Thank you for your participation in both DART projects.

Sincerely,

A handwritten signature in cursive script, appearing to read "John Hoppie", is written over a faint, larger version of the same signature.

John Hoppie
Southeast Corridor Project Manager

C: Robert C. Patrick, FTA Region VI Administrator

APPENDIX H – LIST OF ACRONYMS AND DEFINITIONS

<u>Acronym</u>	<u>Definition</u>
AA	Alternative Analysis
ACHP	Advisory Council on Historic Preservation
ADA	Americans with Disabilities Act of 1990
ADT	Average Daily Traffic
AIRS	Aerometric Information Retrieval System
APE	Area of Potential Effects
AST	Aboveground Storage Tank; TNRCC Petroleum Storage Tank Database for Aboveground Storage Tanks
AT&SF	Atchison, Topeka, and Santa Fe Railroad
ATM	Automated Transportation Management
BMP	Best Management Practices
BRS	Biennial Reporting System
BRT	Bus Rapid Transit
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CBD	Central Business District
CEI	Cost Effectiveness Index
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
CLI	Closed Landfill Inventory
CMAQ	Congestion Mitigation and Air Quality
CMS	Congestion Management System
CO	Carbon Monoxide
CORRACTS	Corrective Action Report sites
CWA	Clean Water Act
CWR	Continuous Welded Rail
DAP	Department of Antiquities Protection

DART	Dallas Area Rapid Transit
DAS	Dallas Archeological Society
dB	Decibels
dBA	Decibels (A-weighting)
DEIS	Draft Environmental Impact Statement
DOT	Department of Transportation
EA	Environmental Assessment
EDR	Environmental Data Resources, Inc.
EIS	Environmental Impact Statement
EO	Executive Order
EPA	Environmental Protection Agency
ERNS	Emergency Response Notification System
ETR	Employer Trip Reduction
FCLRT	Full Capacity Light Rail Transit
FEIS	Final Environmental Impact Statement
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIFRA	Federal Insecticide, Fungicide, & Rodenticide Act
FINDS	Facility Index System/Facility Identification Initiative Program Summary Report
FIRM	Flood Insurance Rate Map
FPPA	Farmland Protection Policy Act
FRA	Federal Railroad Association
FTA	Federal Transit Administration
FTTS	FIFRA/TSCA Tracking System
HC	Hydrocarbons
HCS	Health Care System
HMIRS	Hazardous Materials Information Reporting System
HOV	High Occupancy Vehicle
ICLRT	Intermediate Capacity Light Rail Transit
IH	Interstate Highway
IH 30	R.L. Thorton Freeway
IH 35	Stemmons Freeway
IH 45	Julius Schepps Freeway

ISTEA	Intermodal Surface Transportation Act of 1991
ITS	Intelligent Transportation Systems
L _{dn}	Day-Night Sound Level
L _{eq}	Equivalent Sound Level
LOS	Level of Service
LPA	Locally Preferred Alignment
LPIS	Locally Preferred Investment Strategy
LRT	Light Rail Transit
LRV	Light Rail Vehicle
LUP	Land Use and Zoning Policies
LUST	Leaking Underground Storage Tank; TNRCC Leaking Underground Storage Tank Database
LWCFA	Land and Water Conservation Fund Act
MINES	Mines Master Index File
MIS	Major Investment Study
MKT	Missouri, Kansas and Texas Railroad
MLK	Martin Luther King
MLTS	Material Licensing Tracing System
MOA	Memoranda of Agreement
MOS	Minimum Operable Segment
MPO	Metropolitan Planning Organization
MS4	Municipal Separate Story Sewer System
MTP	Metropolitan Transportation Plan
NAAQS	National Ambient Air Quality Standards
NCTCOG	North Central Texas Council of Governments
NEPA	National Environmental Policy Act of 1969
NFRAP	No Further Remedial Action Planned
NHPA	National Historic Preservation Act
NO ₂	Nitrogen Dioxide
NOI	Notice of Intent
NOx	Nitrogen Oxide
NPDES	National Pollution Distribution Elimination System
NPL	National Priorities List

NR	National Register
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
O&M	Operations and Maintenance
O ₃	Ozone
OHWM	Ordinary High Water Mark
OMS	Operational Management Strategies
OSHM	Official State Historical Markers
PADS	PCB Activity Database System
Pb	Lead
PD	Planned Development
PDD	Planned Development District
PE	Preliminary Engineering
PM ₁₀	Particulates less than or equal to 10 microns
PPM	Parts Per Million
PPV	Peak Particle Velocity
PST	Petroleum Storage Tank
R.B.	Robert B. (Cullum)
RAATS	RCRA Administrative Action Tracking System
RCRA	Resource Conservation and Recovery Act
RCRIS	Resource Conservation and Recovery Information System
RMS	Root Mean Square
ROD	Record of Decision
ROP	Rate-of-Progress
ROW	Right-of-Way
RR	Railroad
RTC	Regional Transportation Commission
RTHL	Recorded Texas Historical Landmark
RTL	Registered Texas Historical Landmark
S&I	Service and Inspection
SAL	State Archeological Landmark
SCS	Soil Conservation Service
SH	State Highway

SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SO ₂	Sulfur Dioxide
SOV	Single Occupant Vehicles
SP RR	Southern Pacific Railroad
SPILLS	Spills Database
Spur 366	Woodall Rodgers
STIP	State Transportation Improvement Plan
SUP	Special Use Permit
SWF	Solid Waste Facilities
SWP3	Storm Water Pollution Prevention Plan
TAC	Texas Administrative Code
TARL	Texas Archeological Resource Library
TCM	Transportation Control Measure
TDM	Travel Demand Management
TEA-21	Transportation Equity Act for the 21 st Century
THC	Texas Historical Commission
TIP	Transportation Improvement Program
TNRCC	Texas Natural Resource Conservation Commission
TPC	Train Performance Calculation
TPSS	Traction Power Substations
TPWD	Texas Parks & Wildlife Department
TRIS	Toxic Chemical Release Inventory System
TSCA	Toxic Substances Control Act
TSM	Transportation Systems Management
TX IHW	TNRCC Industrial and Hazardous Waste Database
TX VCP	TNRCC Voluntary Cleanup Program Sites
TxDOT	Texas Department of Transportation
TXU	Texas Utilities
UP RR	Union Pacific Railroad
US 75	Central Expressway
US	United States
USACE	United States Army Corps of Engineers

USC	United States Code
USDOT	United States Department of Transportation
USGS	United States Geological Services
USGS	United States Geological Survey
UST	Underground Storage Tank
V/C	Volume to Capacity Ratio
VCP	Voluntary Cleanup Program
VdB	Decibels – Vibration
VMT	Vehicle Miles of Travel
VOC	Volatile Organic Compound

The logo for Dallas Area Rapid Transit (DART) features the word "DART" in a bold, blue, sans-serif font. To the right of the text is a large, yellow, stylized arrow pointing to the right, which is partially overlaid by the text.

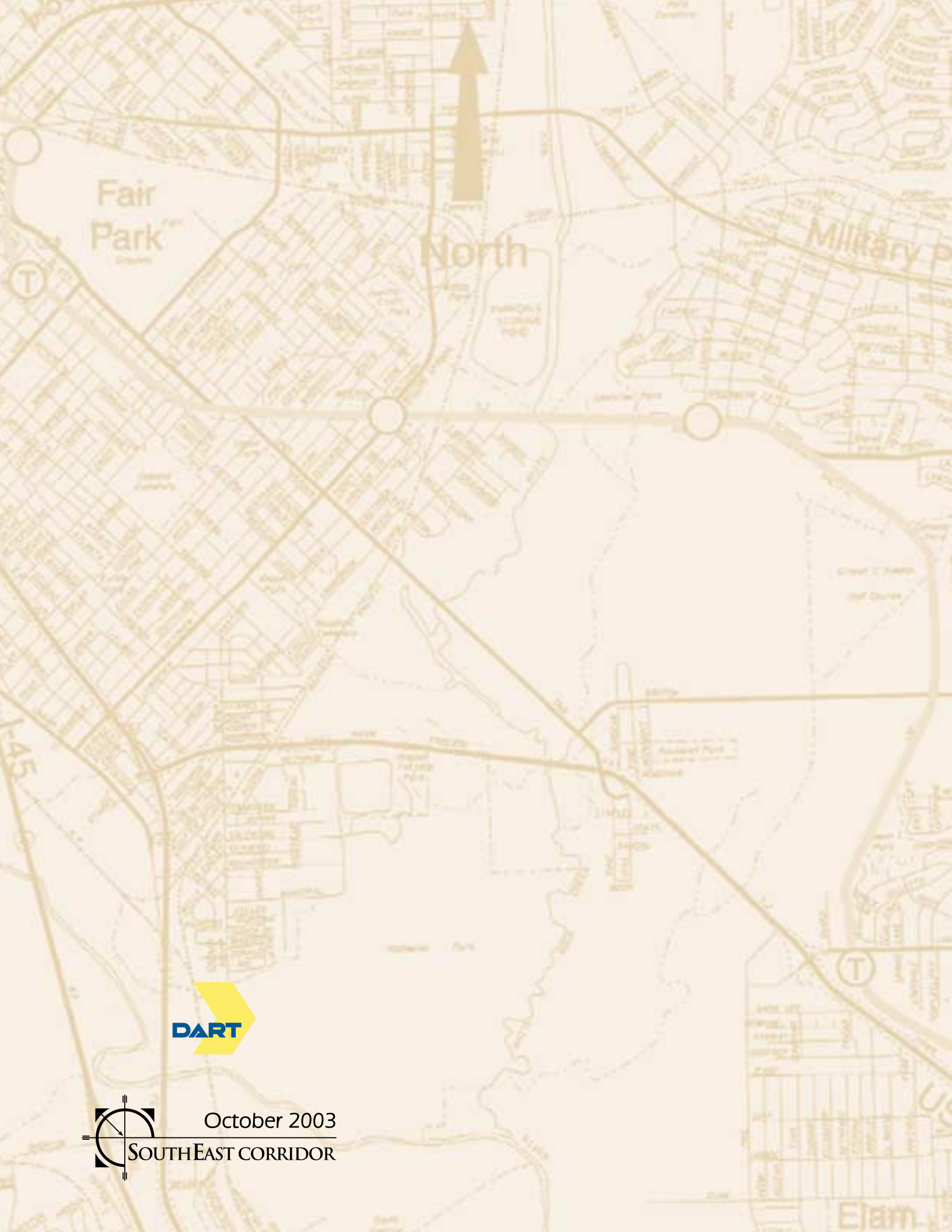
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U.S. Department of Transportation (USDOT)
Federal Transit Administration (FTA)
and Dallas Area Rapid Transit (DART)



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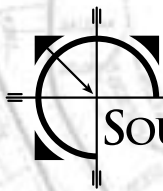
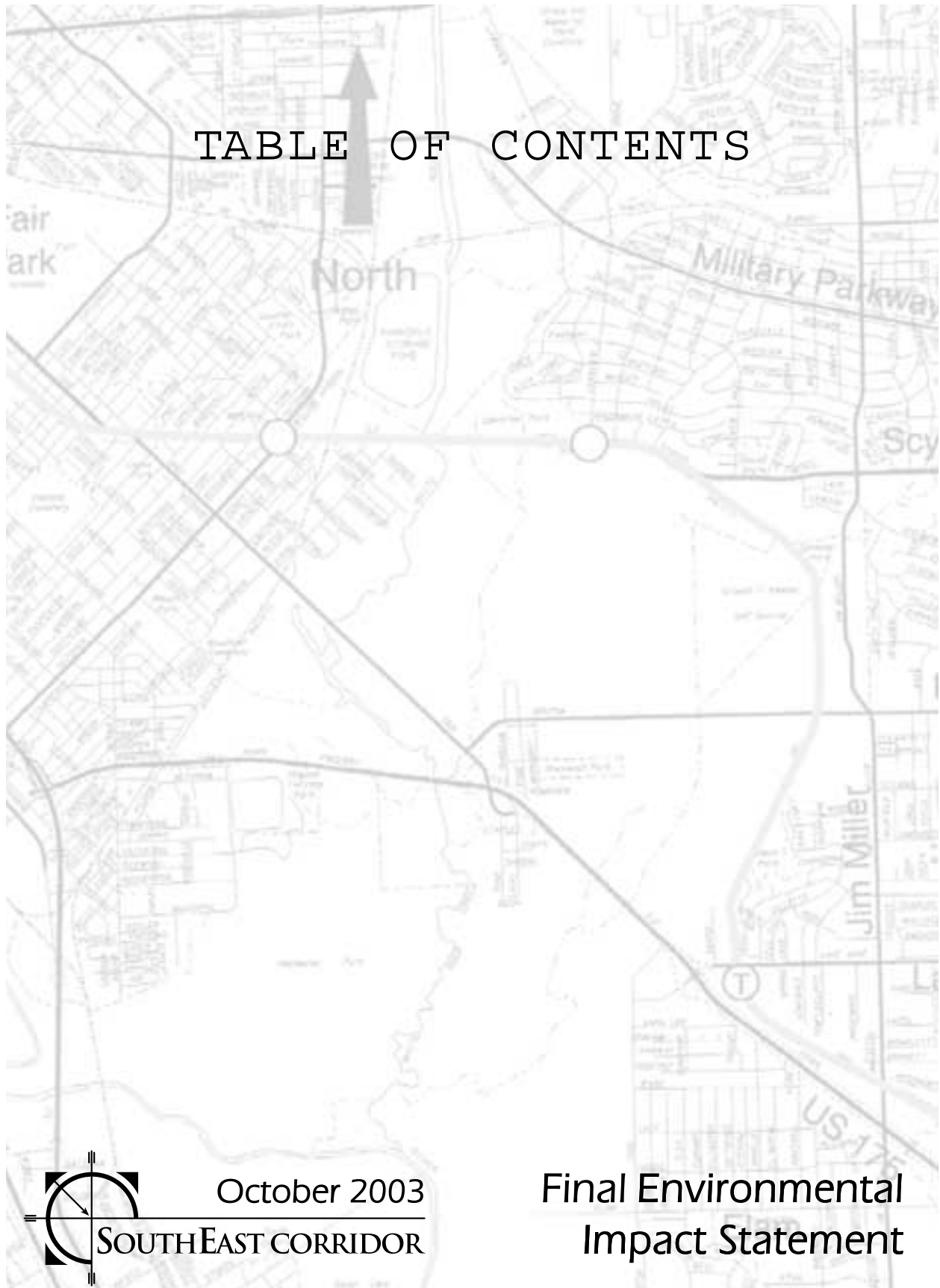


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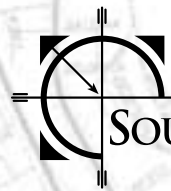
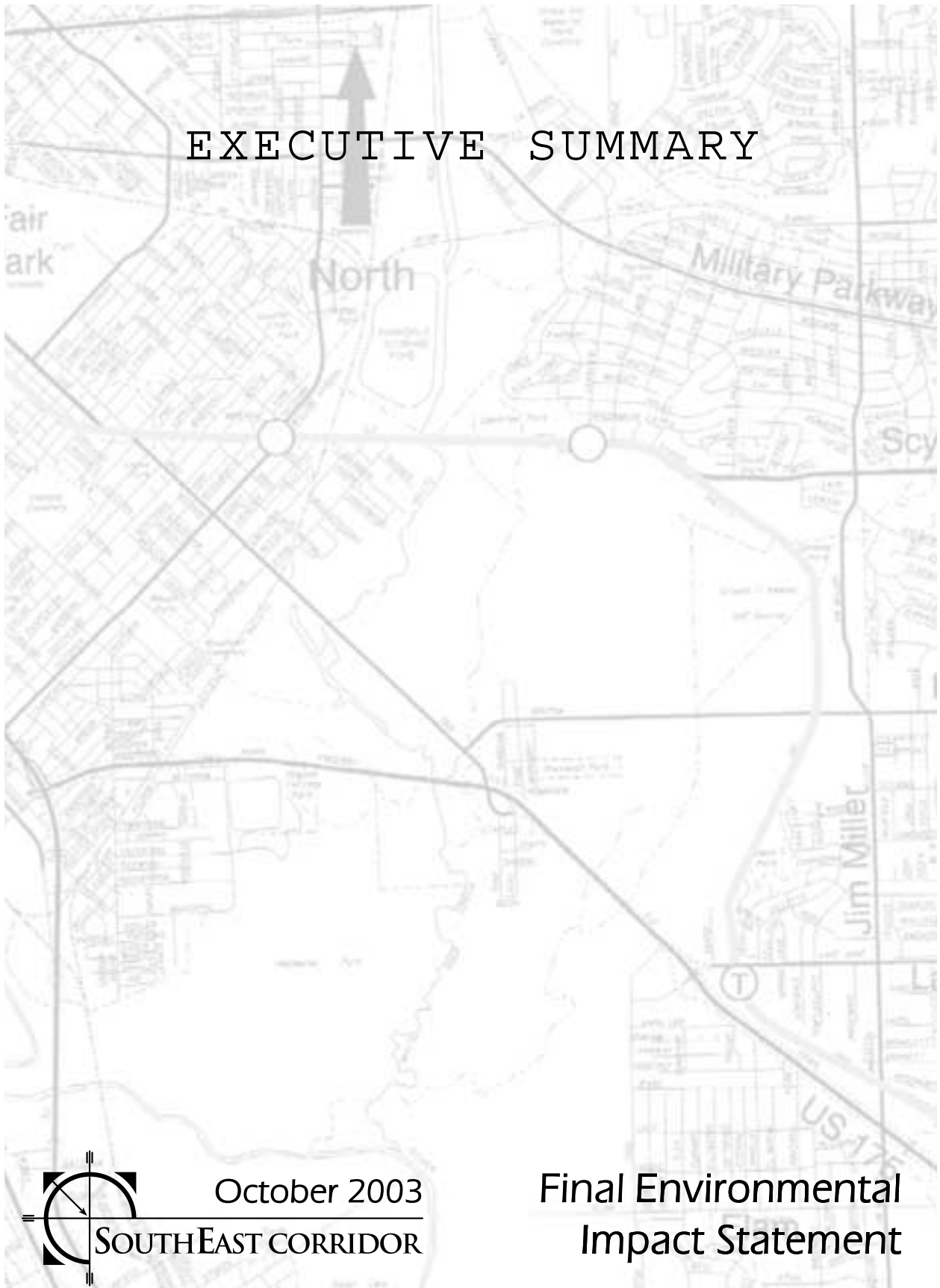


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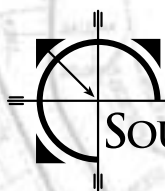
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CHAPTER 1
PURPOSE AND NEED

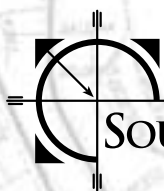


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CHAPTER 2
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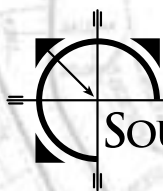
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CHAPTER 3
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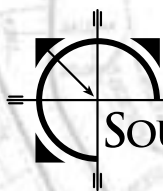


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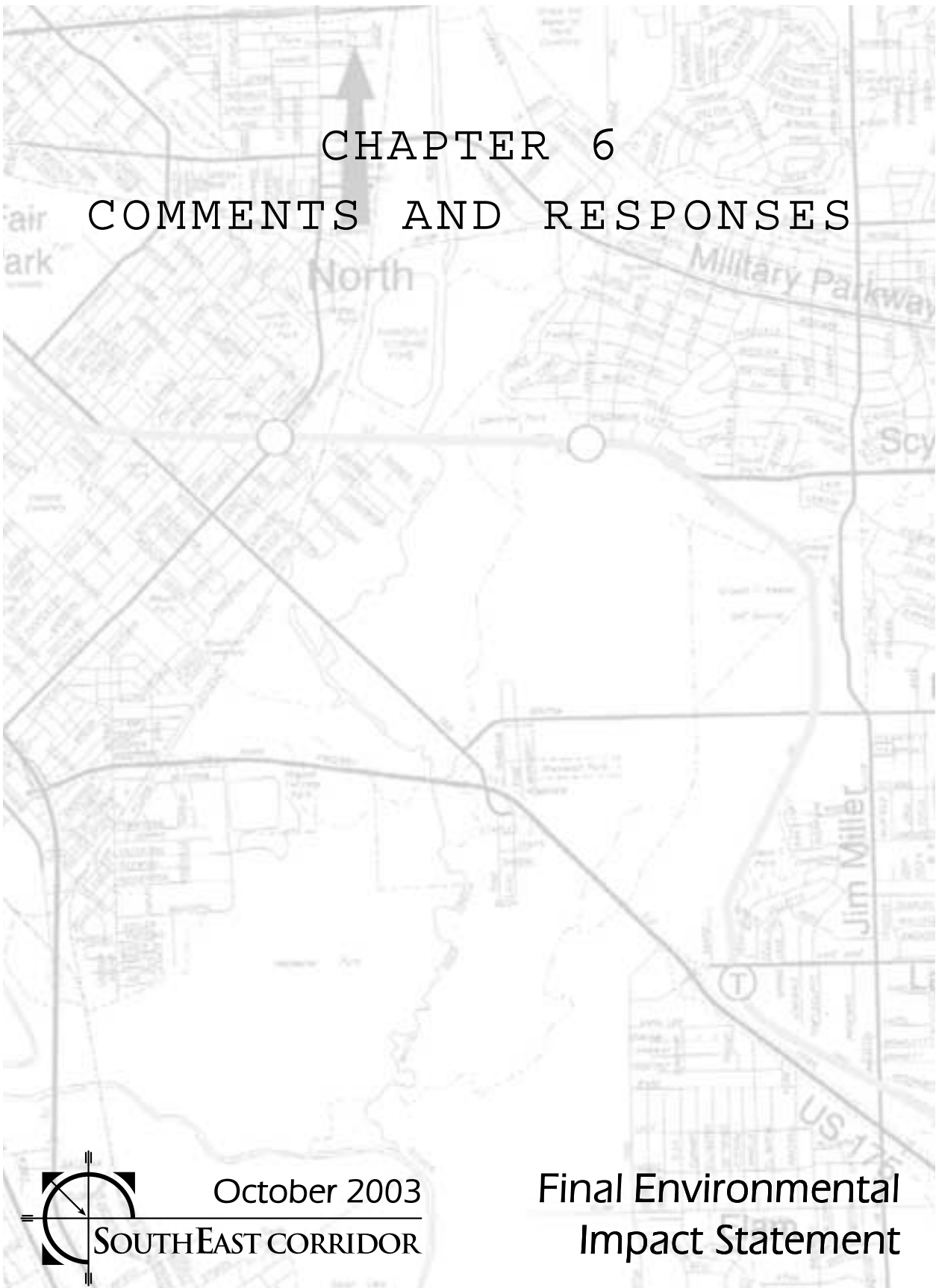
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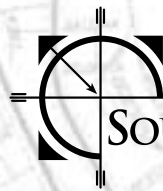
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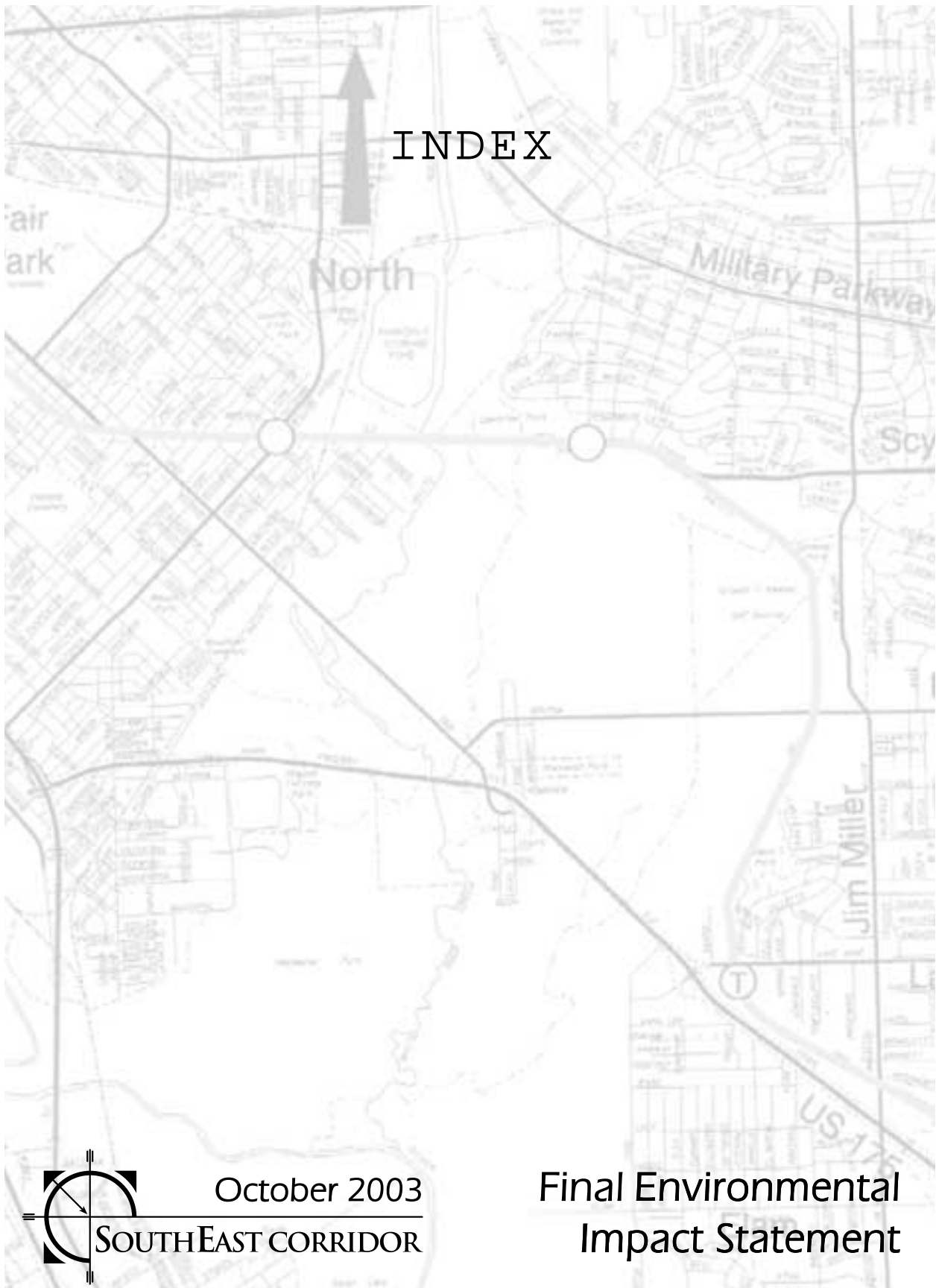
CHAPTER 6
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North

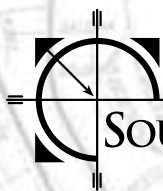
Military Parkway

Scy

Jim Miller

US 17

APPENDIX A
LIST OF RECIPIENTS

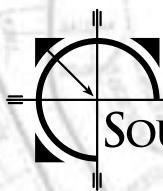


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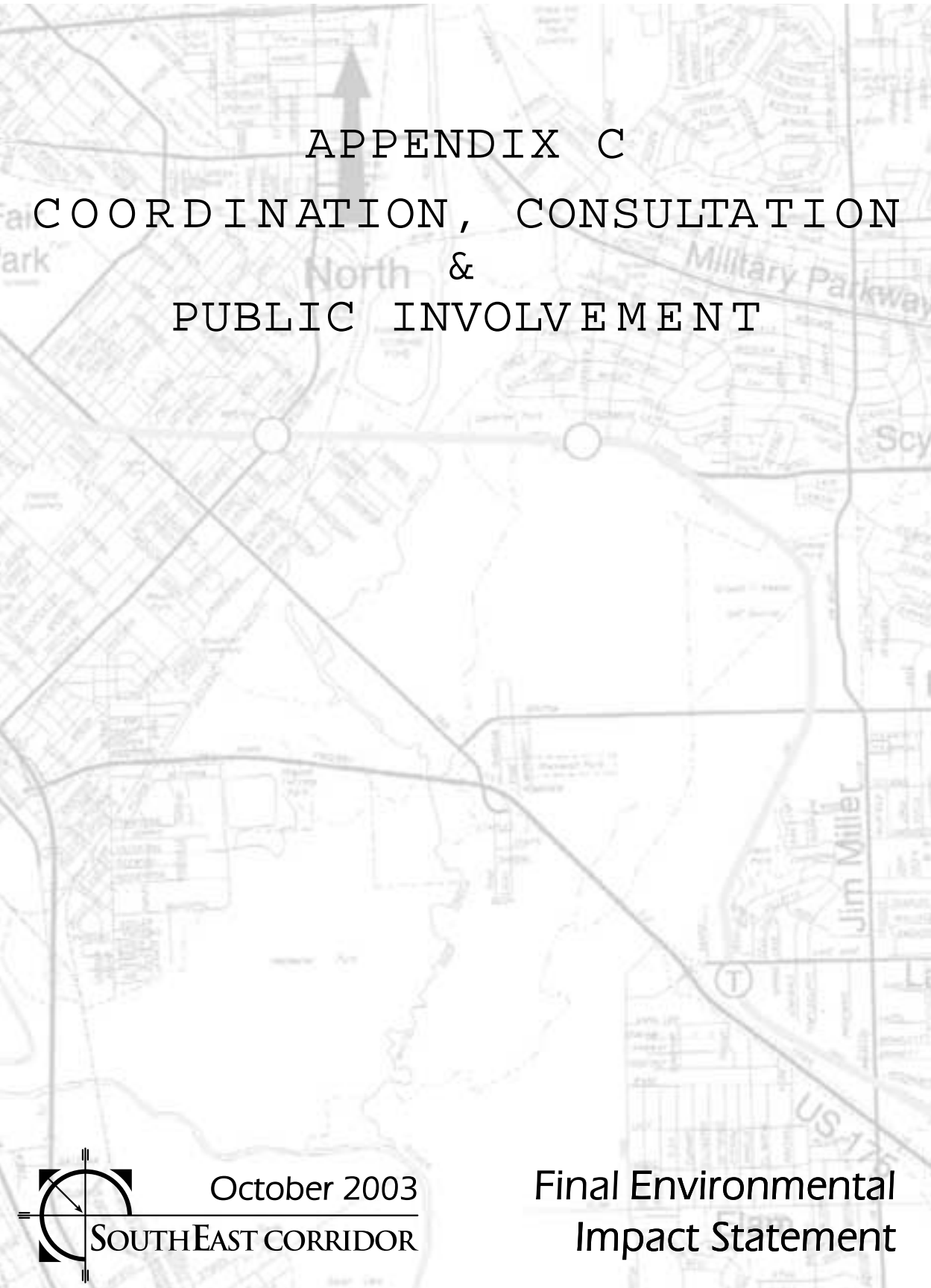


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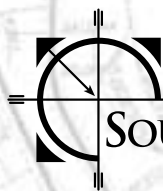


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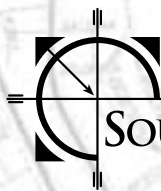


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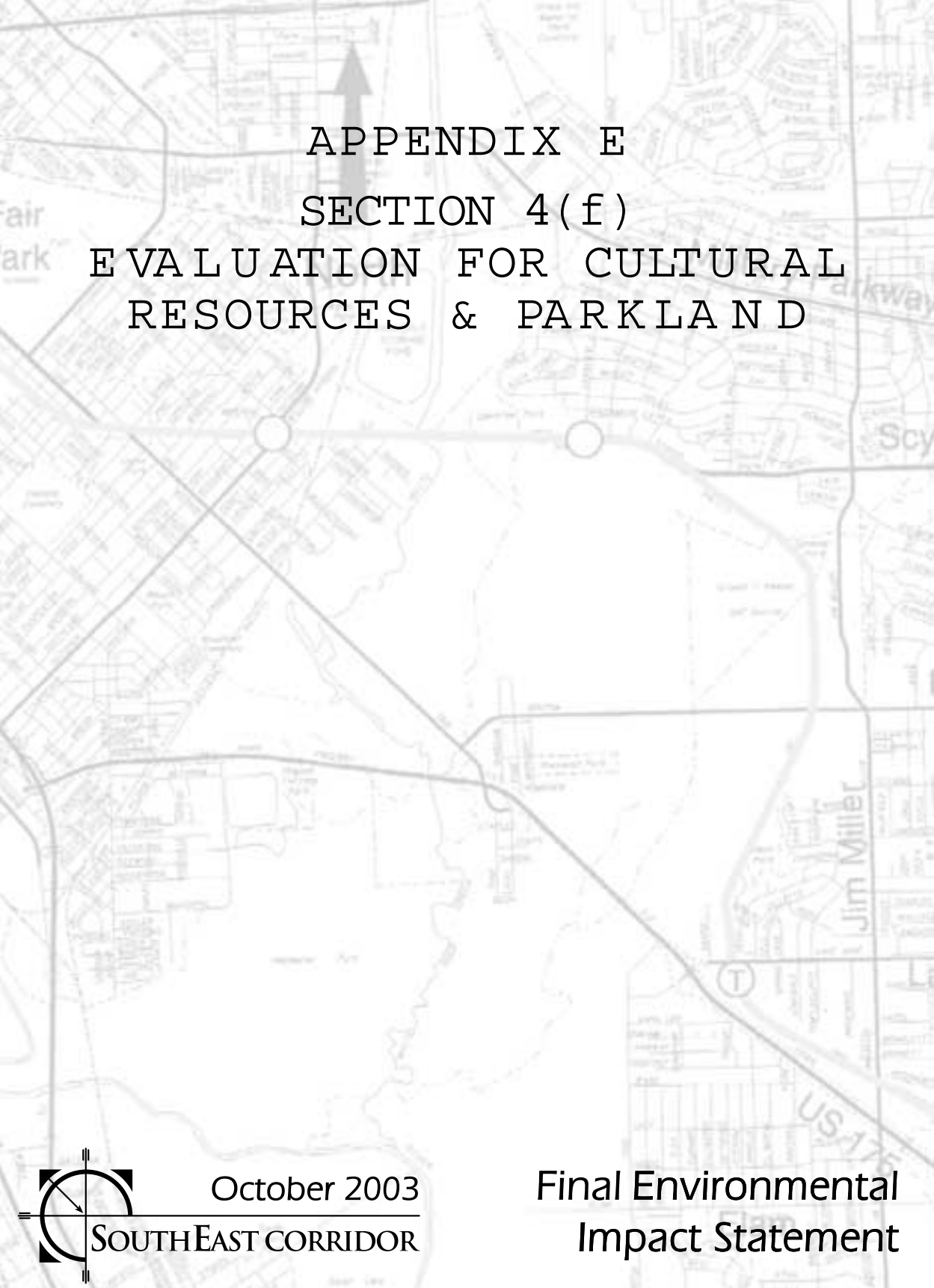


APPENDIX D
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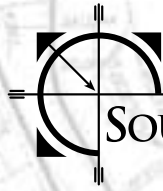


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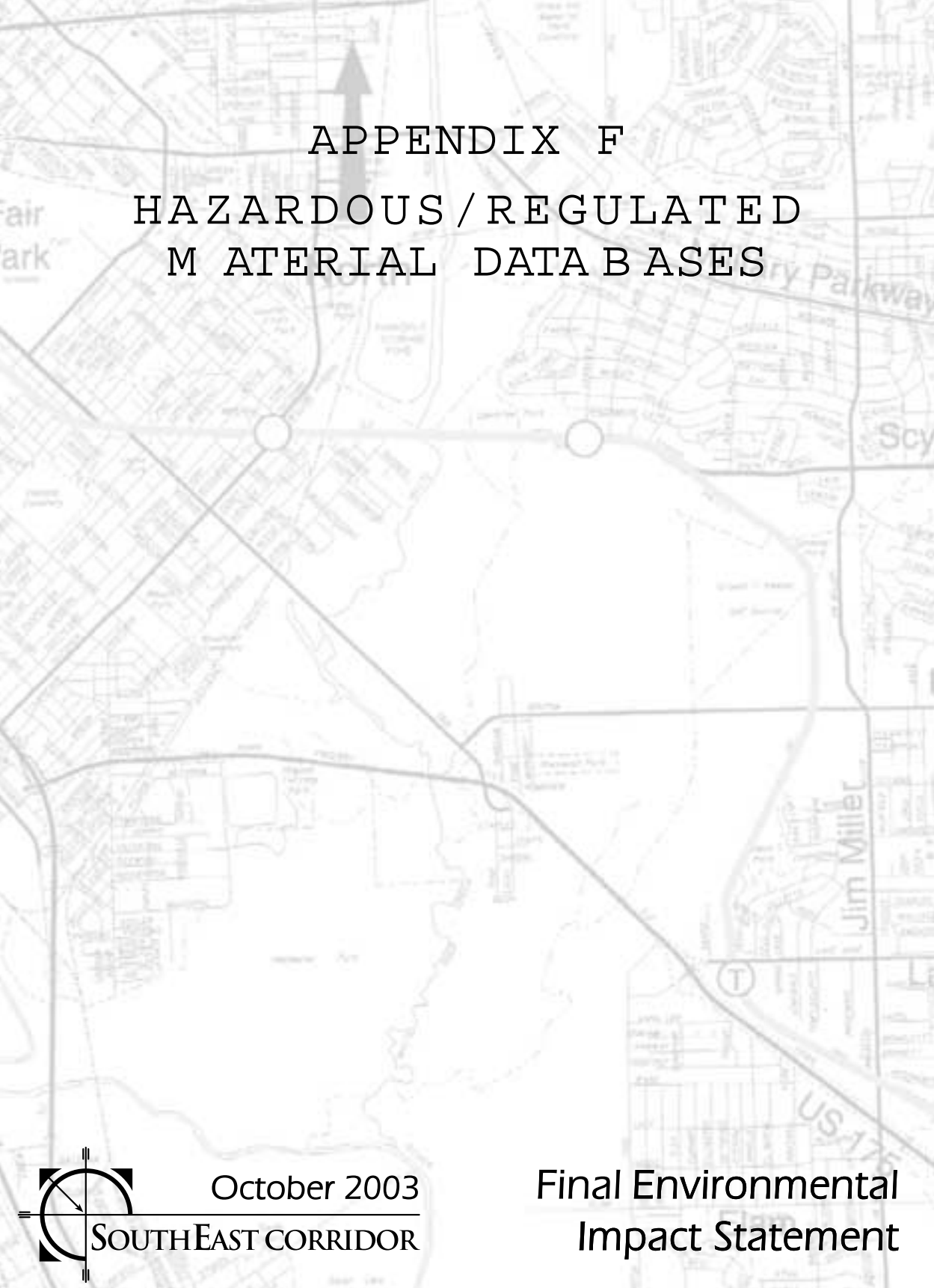


APPENDIX E
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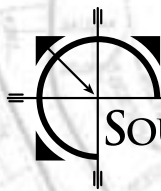


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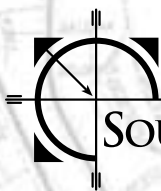


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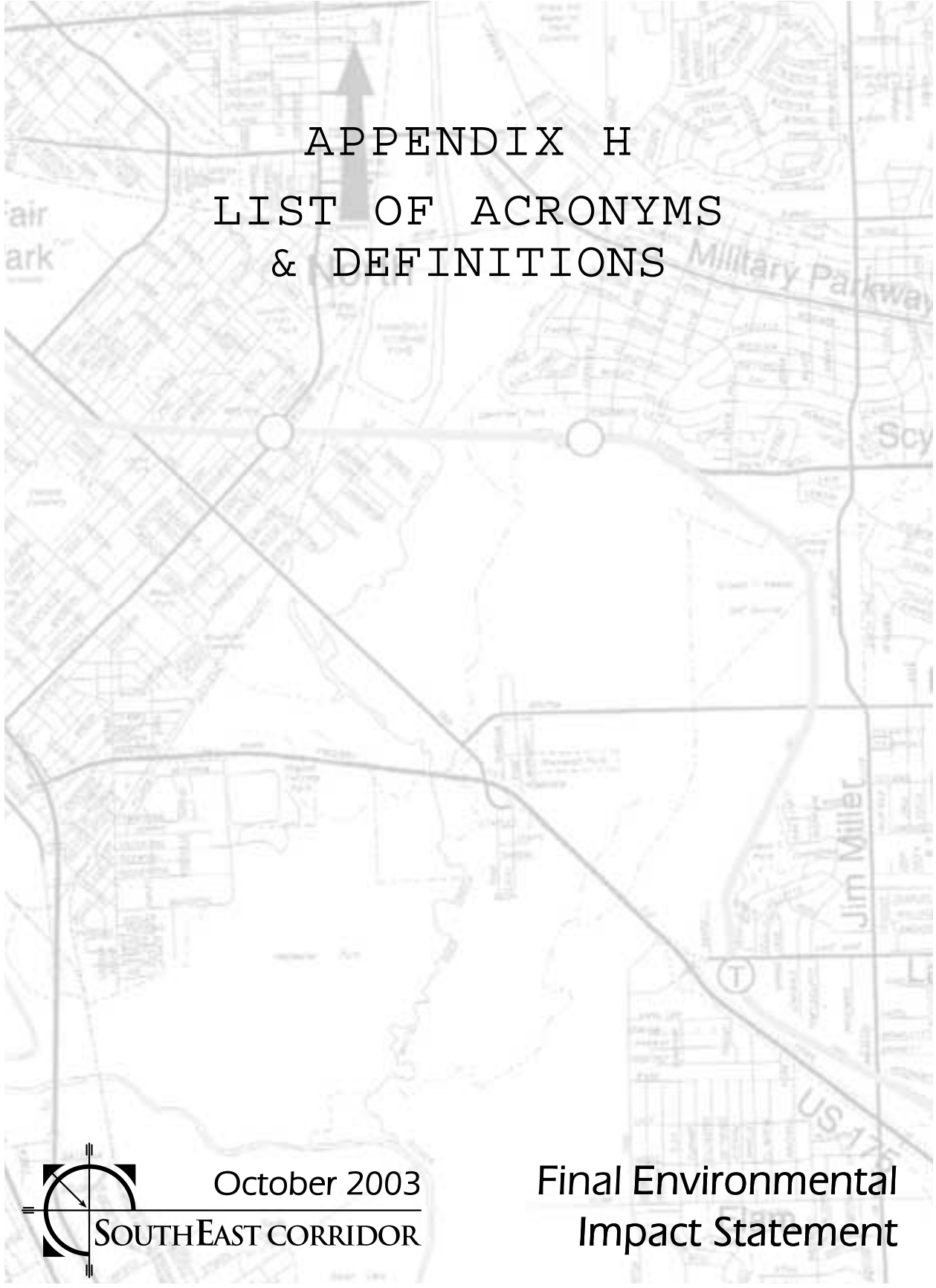
APPENDIX G
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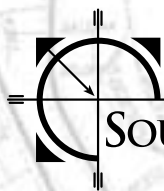
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APPENDIX H
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