EXECUTIVE SUMMARY

The subject of this Final Local Environmental Assessment is a 2.6-mile light rail transit (LRT) project extending from the existing Dallas Area Rapid Transit (DART) Blue Line Ledbetter Station to the campus of the University of North Texas at Dallas (UNT Dallas), including two new stations as shown in **Figure ES-1**. The proposed project is known as the South Oak Cliff Corridor Blue Line Extension.

An environmental assessment (EA) is a process to assess the effect on the environment of a project and determine if any effects warrant mitigation. Although this project is wholly funded with local funds, DART is committed to implementing projects that meet environmental standards set forth at the federal, state, and local level.

The purpose of this EA is to inform the public of potential environmental, social, and economic impacts associated with the proposed LRT project and the No-Build Alternative. The No-Build Alternative represents the base condition for identifying impacts associated with the proposed project. The EA serves as the primary document to facilitate review of the proposed project by federal, state, and local agencies and the general public. The EA documents the purpose and need for the project and describes the alternatives considered. It addresses in detail the anticipated transportation and environmental impacts of the project based on the current 5% level of design and identifies any appropriate mitigation measures that may be required to minimize such impacts.

The Executive Summary highlights the most important findings of the EA process relative to:

- Purpose and need
- Alternatives considered
- Affected environment
- Transportation impacts
- Environmental consequences
- Public and agency involvement

Purpose and Need

The proposed project would be a proactive measure to address projected population and employment growth in the southern Dallas area. The project would also increase connections to major employment, commercial, and educational activity centers improving regional mobility. Current north-south access routes become heavily congested approaching downtown Dallas and extension of the light rail line would provide an alternative transportation mode. Since the Dallas-Fort Worth area is a moderate non-attainment area for ozone, and vehicles are a major source of ozone-forming chemicals, transportation alternatives are a tool for reducing emissions. Lastly, by providing light rail service to UNT Dallas, the South Oak Cliff Corridor Blue Line Extension would allow faculty, staff, and students access to this four-year university. With the opening of the Denton County Transportation Authority's (DCTA) A-train in 2011, the UNT Dallas campus will be connected to the main UNT campus in Denton via rail.

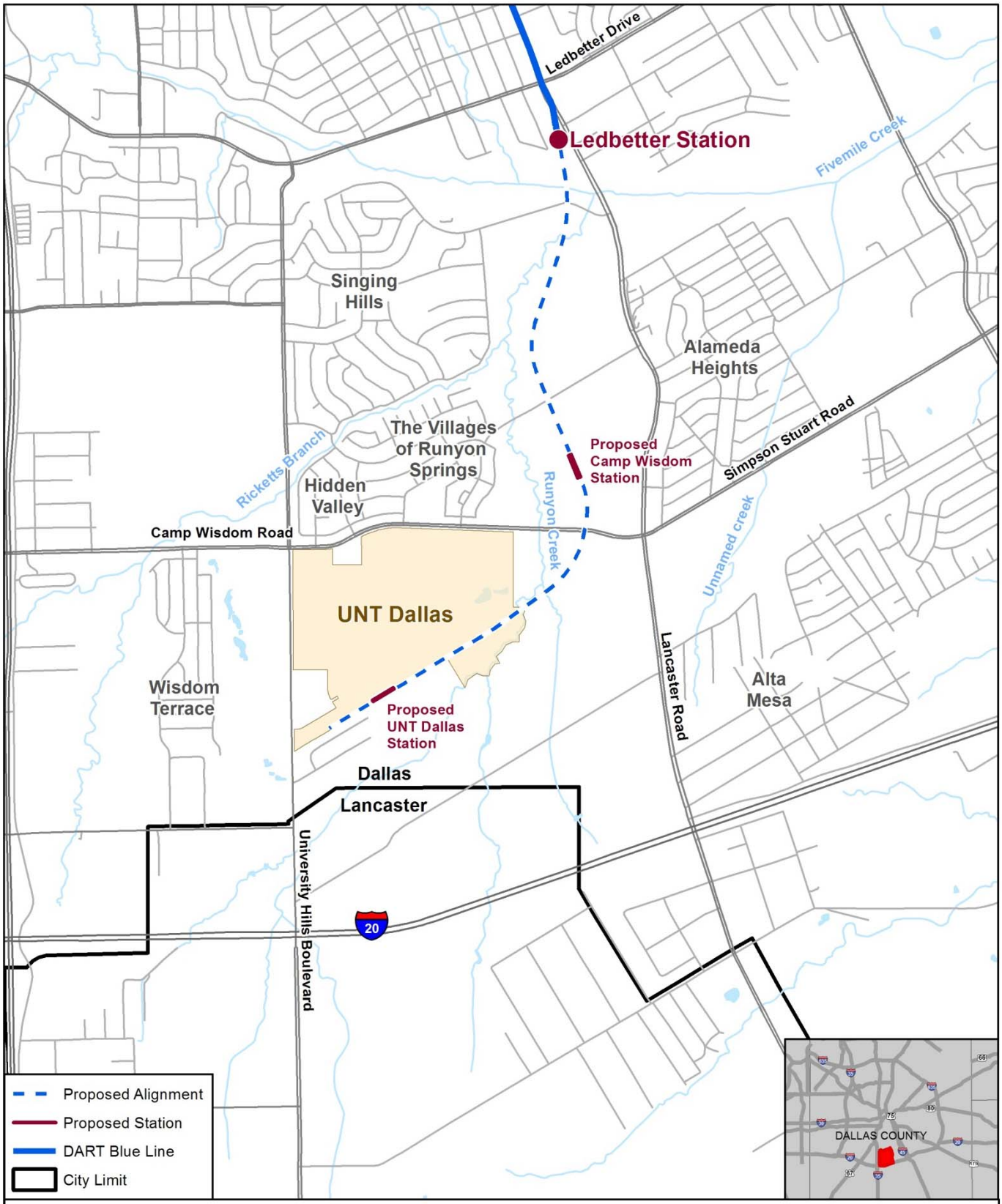

Figure ES-1
South Oak Cliff Corridor Blue Line Extension
Proposed Project Alignment

Source: CMEC, 2012

The purposes of the South Oak Cliff Corridor Blue Line Extension are as follows:

- **Improve Mobility for Local Area Residents and Increase Regional Connectivity**
  Local area residents currently have limited transit options and limited access to the DART service network. An improved transit connection to Ledbetter Station would provide more efficient and reliable transit access to all the employment, educational resources, medical services, and cultural/entertainment venues in the DART Service Area. The Build Alternative would expand the reach of the light rail system increasing connectivity in the region.
- **Increase Transit Effectiveness**
  Currently local area residents must travel by bus to Ledbetter Station and then transfer to the light rail system. By providing light rail transit service into the study area, fewer transfers are required for travel, resulting in reduced travel times.
- **Link the UNT Dallas Campus to the Regional Transit Network**
  The campus is projected to grow to 25,000 students and 3,000 employees over the next 20 years. Improved transit accessibility will provide residents with shorter, more convenient transit trips to the educational and employment opportunities provided by UNT Dallas. With a connection to DART's light rail network and A-Train service to Denton provided by DCTA, residents will have a high level of transit service between campuses of UNT in downtown Dallas and Denton, as well as other higher education institutions within the DART Service Area.
- **Increase Economic Development Opportunities**
  The City of Dallas has identified the UNT Dallas area as a strategic opportunity for economic development in its *forward Dallas! Comprehensive Plan*. The area is expected to see accelerated growth due to the nearby campus. With UNT Dallas as a regional attractor and in combination with the implementation of high-quality transit connections, the large tracts of undeveloped land are expected to attract new residential, retail, and commercial development. Property and sales tax revenue from this new development can support improvements in municipal services.

As noted above, the proposed project is intended to provide high capacity, efficient, and reliable transit service to the growing UNT Dallas campus, improve transit mobility for local area residents, respond to regional growth demands, increase transit effectiveness, enhance economic development opportunities, and support regional transit connectivity. The purpose and need for the project is included in **Chapter 1**.

Alternatives Considered

Two alternatives were considered in this EA, a No-Build Alternative and a Build Alternative. The No-Build Alternative includes transportation and transit projects that have a reasonable expectation of funding and are programmed for implementation. This alternative is used as a basis for comparison against the potential environmental impacts that would be associated with the proposed LRT Alternative. The proposed action, referred to throughout this document as the Build Alternative, is a 2.6-mile light rail transit project between Ledbetter Station and the University of North Texas Dallas campus derived from the Alternatives Analysis (AA) process. Both alternatives are described in **Chapter 2** of this EA.

The Build Alternative was derived from the South Oak Cliff Corridor Blue Line Extension AA process that was initiated by DART in 2011 and concluded in early 2012. The South Oak Cliff Corridor Blue Line Extension AA evaluated a range of transit alternatives in the study area. Commuter rail, light rail, streetcar, and bus were all assessed for compatibility with project goals. This is a proactive project that implements local and regional planning goals. The AA resulted in a Locally Preferred Alternative (LPA), which was approved by the DART Board of Directors in January 2012.

The No-Build Alternative assumes no new bus routes but does include service improvements to meet the needs of expected growth in the area. It includes all projects contained in the DART financial plan. These projects include the recently opened Blue Line extension to Rowlett (December 2012) and the Orange Line extension to the Dallas-Fort Worth International Airport (phased opening beginning July 2012 with full service December 2014).

The Build Alternative includes all the projects in the No-Build Alternative, plus the proposed project. The Build Alternative results in modification to the No-Build bus system to provide feeder bus service directly to the proposed LRT stations while continuing bus service to the surrounding neighborhoods.

The proposed project heads south from Ledbetter Station across undeveloped land before crossing Camp Wisdom Road on an aerial structure and then turning west along the southern boundary of the University of North Texas at Dallas campus and ending approximately 1,000 feet east of University Hills Boulevard. Two new stations are proposed: Camp Wisdom Station located north of the Dallas Police Department South Central Station, and UNT Dallas Station located on the university campus.

Preliminary engineering (PE) plan and profile drawings of the Build Alternative are included as **Appendix C** of this document, under separate cover.

The civil construction cost of the Build Alternative is estimated to be $101 million in 2012 dollars, and the overall capital cost is estimated to be $192 million, not including vehicles or system-wide program allocations.

Affected Environment

The existing natural and built environmental conditions in the study area were identified by professionals qualified in their field. The existing conditions information formed the basis of impact assessment investigations for each environmental category. Impact assessments in the study area were conducted for the following environmental categories:

- Land use
- Socioeconomic characteristics
- Transportation
- Air quality
- Noise
- Vibration
- Visual and aesthetic resources
- Historic resources
- Archeological resources
- Parks and recreational resources
- Ecosystems
- Geology and soils
- Water resources
- Hazardous and regulated materials

Detailed information regarding the baseline conditions of the affected environment in the study area is provided in **Chapter 3** of this document.

Transportation Impacts

Under the No-Build Alternative, transit service coverage would only expand to meet increased growth in population and employment. However, as the population and employment base grows within the study area, so would associated transportation demand, and the resulting potential traffic congestion and delays would make the bus transit service of the No-Build Alternative less reliable, regardless of transit service capacity or route expansion.

The Build Alternative would expand the geographic coverage of fixed guideway transit service from the existing Ledbetter Station to UNT Dallas along new right-of-way. This would allow a continuous, limited-stop transit service along an exclusive guideway with two new LRT stations. A redesigned feeder bus system, which would utilize smaller buses appropriate for the proposed small bus operations, would bring transit riders to these LRT stations. Consequently, the combination of the new LRT stations and the new feeder bus service would more efficiently cover the same geographic area serviced by the No-Build Alternative.

Based on the forecast of 2035 rail station activity, the proposed project would help increase the system-wide rail ridership from 193,488 with the No-Build Alternative to 196,113 for the Build Alternative, accounting for approximately 2,625 new daily passengers, equivalent to a 1.3 percent increase.

Home-based work trips are a measure used by the travel demand model of the number of trips between home and work. The implementation of the proposed project is projected to increase the regional share of transit related home-based work (HBW) trips by 0.9 percent. The proposed project is also anticipated to have a beneficial impact on the regional transportation system through reduction of vehicle miles traveled (VMT) by 143,254 miles daily, when compared to the No-Build Alternative. More information on transportation impacts is included in **Chapter 4**.

Environmental Impacts

This Final Local Environmental Assessment identifies the potential environmental consequences of the No-Build and Build Alternatives. For the Build Alternative, potential environmental consequences were evaluated for the station areas and for a 100-foot wide right-of-way along the alignment. During final design the right-of-way may be narrowed to 80 feet in some places. The proposed project would be located on undeveloped land resulting in substantial property acquisitions. The associated land use impacts are identified in **Chapter 5**. Building on currently undeveloped land would also impact vegetation and wildlife habitat. These impacts and all other environmental consequences associated with the proposed alternative are described in **Chapter 5**. **Table ES-1** summarizes the impacts of the Build Alternative and related mitigation measures. (Refer to the *Mitigation Monitoring Program* contained in **Appendix H** for a detailed description of these impacts and the recommended mitigation measures.)

Table ES-1
South Oak Cliff Corridor Blue Line Extension
Summary of Impacts to Environmental Resources and Recommended Mitigation Measures

Resource	Impact	Mitigation Approach
Land Use and Community Character	Up to 47.5 acres of undeveloped land would be converted for transportation use. No adverse effects to community cohesion are expected. Land development for commercial and residential purposes would be consistent with current goals and trends and would not adversely affect notable features.	N/A
Community Facilities	The Dallas Police Department South Central Station is the only community facility that would be impacted by the project. Impacts include: - Displacement of 12-18 parking spaces, - Creation of low clearance entrance to parking lot, - Displacement of station monument sign, and - Potential visual intrusion in rear parking area.	Per DART Resolution No. 120006 adopting the LPA, DART is committed to minimizing impacts to the police station and associated parking. Mitigation measures include: - Replacement of lost parking spaces - Modified 5% design to shift the impacted driveway to the south to allow for a 15.8 foot clearance - Relocation of the station monument sign - Discussion with the police department regarding potential visual screening for the rear parking area
Property Acquisitions and Displacements	- 17 parcels along the alignment - Up to 47.5 acres to be acquired for the alignment - Includes approximately 15 acres to be acquired for stations - No households or businesses displaced - Two outbuildings displaced - Parkland - a 0.28 acre public mass transit easement is required for parcel 13.	Adhere to the DART Board of Directors' Real Estate Policy and Procedures; appropriate compensation for impacted buildings and right-of-way acquisition or easements.
Transportation	No at-grade crossing of existing streets	N/A
Air Quality	No adverse indirect impacts to air quality are anticipated. Air quality is expected to improve through regional planning in the future.	N/A
Noise and Vibration	Noise impacts would be expected to occur at one residence (parcel 6). No vibration impacts requiring mitigation are projected to occur.	Mitigation measures include construction of a sound barrier on the portion of the alignment on the affected parcel.
Visual and Aesthetic Resources	Various changes to existing views would be anticipated in the four visual assessment units but impacts are not expected to be significant.	Mitigation measures include use of materials and finishes for LRT system elements that are consistent with the existing character of the area; use of vegetation to screen views of the project.

Table ES-1 (Continued)
South Oak Cliff Corridor Blue Line Extension
Summary of Impacts to Environmental Resources and Recommended Mitigation Measures

Resource	Impact	Mitigation Approach
		Traction power substations would not be located close to residences or community facilities.
Cultural Resources (including Historic, Archeological and Parklands)	- No historic properties affected - No adverse effects to archeological resources identified - Approximately 0.28 acre of conservation land in Runyon Creek Park would be affected by the project.	- No mitigation required for historic properties. - In the event that archeological resources are discovered during construction activities, work would be halted immediately and transit authority representatives would be notified at once. Project construction specifications should state that any find is to be protected and work is not to proceed until the find has been assessed by a qualified archeologist, and the transit authority has been given notice to proceed by THC. - On April 24, 2013, DART received authorization from the City of Dallas for a public mass transit easement for the rail line to be constructed on shallow aerial structure in Runyon Creek Park. (See **Appendix G** for a more detailed discussion of Texas Parks and Wildlife Department Chapter 26 compliance, including the City of Dallas actions.) Although the DART right-of-way is exempt from the City of Dallas Tree ordinance, DART has committed to replacing trees of exceptional size and quality within the easement area. During final design, DART will engage an arborist and tree survey staff to identify quality trees in order to preserve them or provide compensation for replacement trees at a location to be determined by the City of Dallas. In addition, DART will commit to working with the City of Dallas to provide an appropriate license agreement for the future Ricketts Branch Trail so that it can utilize the DART right-of-way from the area where the trail will connect and then as it continues toward the future UNT Dallas Station. Use of the DART right-of-way will be in accordance with DART Policy III:09: *Hike and Bike Trail Use on DART Right-of-Way*.

Table ES-1 (Continued)
South Oak Cliff Corridor Blue Line Extension
Summary of Impacts to Environmental Resources and Recommended Mitigation Measures

Resource	Impact	Mitigation Approach
Ecosystems	- Up to 47.5 acres of vegetation would be affected; numerous trees would be removed - No threatened or endangered species habitat identified	Except for construction of the LRT line, construction related impacts for station and staging areas would require compliance with the City of Dallas Tree Ordinance. Equipment and heavy machinery would not be driven over vegetation when it is extremely wet and would not be stored on vegetation for long periods of time. Clearing of vegetation and future maintenance (mowing, clearing) would take place between August 1 and March 15 to avoid the migratory bird nesting season. Revegetation efforts would ensure disturbed stream banks are adequately stabilized. Disturbed areas would be revegetated using native species and would be in accordance with the City of Dallas Landscape and Tree Preservation Regulations.
Geology and Soils	No impacts are anticipated.	N/A
Water Resources	- No wetlands or waters of the U.S. affected (would be bridged; impacts would be limited to column placement) - No U.S. Army Corps of Engineers' (USACE) permit anticipated - Some additional runoff potential: temporary and limited to construction phase	Storm Water Pollution Prevention Plan (SW3P) would be prepared including BMPs. If final design results in wetlands or waters of the U.S. being affected, the USACE will be consulted.
Hazardous/ Regulated Materials	One site is located within the project right-of-way.	Special precautions will be taken to avoid system damage, disruption of service and/or safety hazards during LRT construction. Potential vibration concerns during both construction and operational phases will also be pre-evaluated and addressed as appropriate.
Safety and Security	No pedestrian crossing safety issues at stations identified	Fencing along right-of-way where guideway is at grade.
Construction	Temporary and limited duration impacts	Compliance with construction specifications and local ordinances; coordination with property owners.
Cumulative Effects	All resources were assessed for indirect effects. Land use and community character including noise and vegetation/wildlife habitat were assessed for potential cumulative effects.	Indirect and cumulative effects not expected to be significant; no mitigation proposed.

Source: DART and GPC, 2012

Public and Agency Involvement

Outreach efforts for the project, which are described in **Chapter 6**, engaged the participation of the general public including individuals and representatives from nearby neighborhoods and property owners in the path of the proposed project. A Community Work Group was established during the AA phase and carried through the EA process.

A Technical Work Group comprising representatives from the City, County, TxDOT, and UNT Dallas was established to provide continued engagement with agencies active in the area. This group was also established at the beginning of the AA phase and carried through the EA process to provide continuity of expertise with the project.

To provide policy guidance and coordination, an Executive Work Group made up of members from the City, DART Board of Directors, and the state representative for the area was established. This group provided high-level oversight of the project from the AA phase through the PE/EA phase.

Coordination with resource agencies was conducted at the beginning of the EA process. An initial letter was sent to introduce the proposed project and provide context. Coordination letters were sent to the following agencies:

- Caddo Nation, Comanche Nation, Tonkawa Tribe of Oklahoma, Wichita and Affiliated Tribes
- City of Dallas Historic Preservation Office
- Environmental Protection Agency
- Federal Emergency Management Agency
- Texas Department of Transportation – Public Transportation Division
- Texas Historical Commission
- Texas Parks and Wildlife Department
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service

Responses from resource agencies are included as **Appendix F** of this report.

Several public meetings were held to keep the general public informed of the ongoing process. Three meetings were held during the AA phase to introduce the project, present alternatives, and present the recommended locally preferred alternative. At the beginning of the PE/EA phase, a public meeting was held to kick-off the process. A second meeting was held on September 13, 2012 to present the environmental impacts identified through this process. An additional public hearing to support the DART Service Plan Amendment to locate the alignment, stations, and grade separations was held October 23, 2012. The hearing provided an opportunity for the public to voice comments on the proposed project before the DART Board of Directors.