CHAPTER 1
PURPOSE AND NEED
1. PURPOSE AND NEED

The Metropolitan Transit Authority (METRO)\(^1\) of Harris County, Texas, in cooperation with the Federal Transit Administration (FTA), has initiated the Environmental Impact Statement (EIS) phase of project development for the Southeast Corridor in Houston, Texas. An Alternatives Analysis Report was completed for the corridor in February 2004.\(^2\) The EIS phase of the project includes preparation of a Draft Environmental Impact Statement (DEIS) and a Final Environmental Impact Statement (FEIS), in conjunction with preliminary engineering. The Notice of Intent (NOI) to prepare an EIS was published in the Federal Register on January 9, 2002.

This DEIS consists of two separately bound volumes. Volume 1 contains the DEIS and is organized into several chapters. Volume 2 contains the plan drawings for the project’s conceptual alignment and station locations, typical cross sections, and related project features.

This chapter presents the need for transportation improvements in the Southeast Corridor and describes the purpose of the proposed project. It contains an overview of the project corridor in relation to the region, with a focus on land use, population and employment, travel demand, and existing transportation facilities and services. It also describes the specific transportation needs to be addressed and project goals and objectives. The chapter concludes with a discussion of the role of the EIS in the decision-making process.

1.1 Project Description

The Southeast Corridor is identified in both the Houston-Galveston Area Council (H-GAC) 2025 Regional Transportation Plan (RTP) (H-GAC, June 2005) and the 2025 METRO Solutions plan (METRO, July 2003) as a priority for a transportation investment.\(^3\) Prior to initiating the DEIS, METRO conducted an alternatives analysis (AA) to identify transportation issues and to evaluate a range of mode and alignment alternatives to address transportation needs in the Southeast Corridor. The conclusions of the AA recommended both a new fixed-guideway transit line and improved bus service within the corridor.

Based on the results of the AA and following a successful voter referendum in 2003 approving the METRO Solutions plan, the METRO Board of Directors adopted a Locally Preferred Investment Strategy (LPIS) for the Southeast Corridor. The LPIS provides for the implementation of fixed-guideway transit facilities and services in the Southeast Corridor. The Board also adopted a Minimum Operable Segment (MOS). The MOS is approximately 6.8 miles in length and extends from downtown Houston.

\(^1\) Acronyms and abbreviations are defined at their first use in each chapter. A complete list of acronyms and abbreviations used in this DEIS is contained in Appendix A.


\(^3\) This DEIS incorporates by reference all technical information, studies, and other public documents produced for the Southeast-Universities-Hobby Corridor Planning Study Alternatives (AA) and the METRO Solutions Transit System Plan that support the DEIS. These documents are considered part of the environmental compliance record and can be requested for review at the METRO offices.
southeast to Scott Street and along Scott Street and Griggs Road to the vicinity of Interstate Highway (IH)-610. The MOS is located geographically within the limits of the LPIS, which extends southeast to Hobby Airport. The MOS would be the first phase of the LPIS to be implemented.

The MOS adopted by METRO represents the base MOS alignment of the build alternatives evaluated in this DEIS. Its logical termini connect two major activity centers within the Houston Metropolitan area – downtown Houston and the universities area, which contains the University of Houston (UH) and Texas Southern University (TSU). The MOS has utility that is independent of other future projects and does not depend on future investments to achieve its purpose and need.

The fixed-guideway transit service under the build alternatives could be operated using either light rail transit (LRT) or bus rapid transit (BRT) vehicles. Although LRT was the transit technology adopted by the METRO Board for the Southeast Corridor in the METRO Solutions Transit plan, the plan was modified in 2005 to provide for implementation of BRT in the initial phase with conversion to LRT in 2025. The technology of BRT was proposed by METRO as an alternative for implementation in the Southeast Corridor in order to improve the cost effectiveness of the project for federal funding. This DEIS evaluates both LRT and BRT convertible to LRT in the future as build alternatives to be considered for implementation of fixed-guideway transit service in the Southeast Corridor. To ensure that all reasonable alternatives are evaluated in the DEIS, BRT as a transit technology without conversion to LRT in the future has been added to the build alternatives under evaluation. Thus, the three build alternatives under evaluation in this DEIS consist of an LRT Alternative, a BRT Convertible Alternative, and a BRT Alternative.

This DEIS also evaluates an alignment option to the base MOS alignment in the segment of the corridor along Scott Street south of Wheeler Street. This alignment option would follow Wheeler Street and Martin Luther King Boulevard southeast to connect with the base MOS alignment at Griggs Road and east to the terminus in the vicinity of IH-610. The build alternatives with the base MOS alignment as adopted by the METRO Board and the proposed alignment options are shown in Figure 1-1.

In addition to the three build alternatives, the DEIS includes the evaluation of a No Build Alternative. The No Build Alternative consists of existing transportation services and facilities plus the METRO transit services and facilities that will be in operation in FY 2007 and the regional roadway/highway system that will be in place in 2025. It includes the METRORail Red Line, but incorporates no other new advanced high-capacity transit services. The No Build Alternative will be used for comparison to determine the environmental impacts of the build alternatives.

Because federal approvals and permits, and proposed funding assistance are required to construct the Southeast Corridor project, the proposed project is subject to review under the National Environmental Policy Act (NEPA). The relevant NEPA regulation is the joint FTA and Federal Highway Administration (FHWA) environmental regulation Part 771, Environmental Impact and Related Procedures: Final Rule (23 Code of

Southeast Corridor

METRO

1-2

July 2006
Figure 1-1. Build Alternatives

Source: Parsons Brinckerhoff, 2006.
Federal Regulations (CFR), August 28, 1987). Paragraph 771.115 of this regulation defines three classes of action, which require different levels of environmental analysis and documentation. Class 1 actions, which require an EIS, are defined as “actions that significantly affect the environment”. Major rail projects, both new starts and modernization, fall into this category. The Southeast Corridor project is considered by the FTA regulations to be a major transit project; thus, preparation of an EIS is required for environmental review of the project under NEPA.

1.2 Description of the Project Study Area

The Southeast Corridor project and study area for the DEIS is located within the metropolitan area of Houston, in Harris County, Texas, as shown in Figure 1-2. The corridor extends from downtown Houston in a southeast direction towards Hobby Airport. It is defined as the area bounded by IH-45 on the east, US Route 59/State Highway (SH) 288 on the west, and Almeda-Genoa Road on the south.

The study area for the project, or build alternatives, includes the portion of the Southeast Corridor from downtown Houston south to Bellfort Road, which is approximately 1 mile south of IH-610. In addition to downtown Houston (sometimes referred to as the central business district, or CBD), the corridor includes several established residential neighborhoods, TSU, and UH.

1.2.1 Study Area Setting

The project study area encompasses a portion of downtown Houston, which contains the commercial core of the Houston metropolitan area, and is also home to a growing residential population. There is an increasing number of high-density residential developments downtown and east of downtown, including condominiums, apartments, and lofts, comprised of both newly constructed buildings and the adaptive reuse of historic properties. Immediately east of downtown in the study area, large public and public/private investments have been made in: Minute Maid Park, a 40,950-seat professional baseball stadium; an expanded George R. Brown Convention Center; a 1,200-room Convention Center Hotel (Hilton Americas); a 20,000 seat multi-purpose arena (Toyota Center); and the expanding retail and restaurant venues to support this complex. Figure 1-3 shows the location of downtown Houston and other activity centers within, or in proximity to the study area.

Industrial, distribution, and warehouse-oriented uses are concentrated southeast of downtown. The convergence of multiple railroad lines and the presence of roadway access for freight trucks have made this area suitable for light manufacturing and transportation related industries. This area is experiencing extensive residential redevelopment, with numerous high-density townhomes and condos completed in 2005 or currently under construction. Interspersed in this vicinity are blocks of older, small single-family homes.

A predominant land use within the portion of the study area south of IH-45 is residential, including a mix of housing sizes, conditions, and ages. A multi-family housing complex for retirees was constructed in 2005 on Scott Street, and new single-family homes are also located in the study area. Renter-occupied housing
Project Location and Study Area

Figure 1-2

Source: Parsons Brinckerhoff, 2006.
Figure 1-3. Locations of Activity Centers

Source: Parsons Brinckerhoff, 2006.
units comprise 47 percent of the housing stock in the study area, and 43 percent of housing is owner-occupied. Approximately 10 percent of housing units in the study area are vacant. A large amount of housing in several areas within the corridor is in need of rehabilitation and structural improvement. Over 2,000 properties in the corridor, or approximately 5 percent, have long-term tax liens. This is an indication of lack of investment by the property owners.

The UH and TSU campuses are large activity centers within this area, with the UH campus and football stadium located adjacent to the proposed project alignment. Many of the major arterials throughout the study area contain strip commercial developments. Palm Center, a governmental center with multiple public services, is located on Griggs Road in the southern portion of the study area. In addition, there is one major shopping center, Gulfgate, which is near the intersection of IH-45 and IH-610 on the outer boundary of the study area.

1.2.2 Development and Growth

Table 1-1 presents a summary of the demographic and income characteristics of the Southeast Corridor in relation to Harris County and the eight-county metropolitan region, which includes Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller counties. In 2000, the population of the corridor totaled 207,833, as compared to 3.4 million in Harris County and 4.6 million in the region.

A comparison of demographic characteristics indicates that the corridor contains higher proportions of minority and low-income residents than the region as a whole. Over 75 percent of corridor residents are minorities, as compared to 41 percent in Harris County and 38 percent in the region. Almost 40 percent of households in the corridor have incomes less than $15,000, according to H-GAC estimates, which is more than double that of both Harris County and the region. Similarly, the proportion of households with incomes greater than $50,000 is less than 7 percent; substantially lower than the 43 percent rate of Harris County and 45 percent for the region.

Table 1-2 identifies employment and population growth in the study area, based on H-GAC information for 2000 and projections for 2025. As identified in the table, population and employment in the corridor are expected to continue to increase through 2025. Employment in the study area is expected to increase by approximately 22 percent and population by 33 percent. The largest growth in residential population is projected to occur in and adjacent to downtown Houston, as revitalization efforts promote residential development and living downtown. Growth rates in the study area are lower than the anticipated growth rates for Harris County as a whole.

Increased travel demand is expected to accompany the projected growth in population and employment in the region and Southeast Corridor. The H-GAC forecasts indicate that daily person trips in the region are expected to grow from 15 to 24 million daily, or by 64 percent, between 2000 and 2025. By comparison, the number of person trips daily in

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4 City of Houston Department of Planning and Development, Super Neighborhood Resource Assessment, (a summary of each super neighborhood profile in the corridor).
Table 1-1. Summary of Demographic and Income Characteristics

<table>
<thead>
<tr>
<th>Demographics</th>
<th>Corridor (%)</th>
<th>Harris County (%)</th>
<th>Region (%)^a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>207,833</td>
<td>3,400,578</td>
<td>4,589,598</td>
</tr>
<tr>
<td>White</td>
<td>50,352 (24.2%)</td>
<td>1,997,123 (58.7%)</td>
<td>2,863,909 (62.4%)</td>
</tr>
<tr>
<td>Black or African</td>
<td>115,914 (55.8%)</td>
<td>628,619 (18.5%)</td>
<td>780,232 (17.0%)</td>
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<tr>
<td>Asian</td>
<td>4,656 (2.2%)</td>
<td>174,626 (5.1%)</td>
<td>224,890 (4.9%)</td>
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<tr>
<td>Other^b</td>
<td>36,911 (17.8%)</td>
<td>600,210 (17.6%)</td>
<td>720,567 (15.7%)</td>
</tr>
<tr>
<td>Hispanic^c</td>
<td>65,435 (31.5%)</td>
<td>1,117,751 (32.9%)</td>
<td>1,335,573 (29.1%)</td>
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</tbody>
</table>

Household Income

<table>
<thead>
<tr>
<th></th>
<th>Corridor</th>
<th>Harris County</th>
<th>Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $15,000</td>
<td>39.9%</td>
<td>14.9%</td>
<td>14.3%</td>
</tr>
<tr>
<td>$15,000 to less</td>
<td>24.1%</td>
<td>12.6%</td>
<td>12.0%</td>
</tr>
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<td>$25,000 to less</td>
<td>17.3%</td>
<td>13.2%</td>
<td>12.6%</td>
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<tr>
<td>$35,000 to less</td>
<td>12.0%</td>
<td>16.1%</td>
<td>15.9%</td>
</tr>
<tr>
<td>$50,000 or more</td>
<td>6.7%</td>
<td>43.1%</td>
<td>45.1%</td>
</tr>
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</table>

Notes:
^a The Region includes Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller counties.
^b This includes the following Census categories: American Indian and Alaska Native, Native Hawaiian and Pacific Islander, Some Other Race, and Two or More Races.
^c This includes Hispanic persons of any race.
Source: 2000 Census, Table SF1 and SF3, and Houston-Galveston Area Council Travel Demand Forecasting Data (METRO, March 19, 2002).

Table 1-2. Employment and Population Projections

<table>
<thead>
<tr>
<th>Activity Center</th>
<th>Employment</th>
<th>Percent Growth, 2000-2025</th>
<th>Population</th>
<th>Percent Growth, 2000-2025</th>
</tr>
</thead>
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<tr>
<td>Study Area Total</td>
<td>217,881</td>
<td>265,971</td>
<td>22.1</td>
<td>119,999</td>
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<tr>
<td>CBD</td>
<td>156,469</td>
<td>179,100</td>
<td>26.1</td>
<td>8,920</td>
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<tr>
<td>Outside of CBD</td>
<td>61,412</td>
<td>68,593</td>
<td>11.7</td>
<td>111,079</td>
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<tr>
<td>Total Harris County</td>
<td>1,946,200</td>
<td>2,908,978</td>
<td>49.5</td>
<td>3,314,596</td>
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<tr>
<td>Total Region</td>
<td>2,363,293</td>
<td>3,610,980</td>
<td>52.8</td>
<td>4,589,598</td>
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</tbody>
</table>

Source: Houston-Galveston Area Council and METRO General Planning Consultant, September 2002.

the corridor is projected to increase by 41 percent, or by almost 500,000 daily to a total of 1.7 million in 2025. Daily vehicle miles of travel (VMT) in the region are expected to grow from approximately 110 to 165 million, an increase of 59 percent over the period between 2000 and 2025. VMT in the study area is projected to increase by 3.6 million daily, or by 53 percent, between 2000 and 2025.

H-GAC, with input from Texas Department of Transportation (TxDOT), METRO, local governments, and the community, has developed a long-term transportation plan to keep people and goods moving. The 2025 RTP offers multiple transportation alternatives and modes in major corridors throughout the region. However, even
with the planned $17 billion investment in the transportation system over the next 18 years, the trend of increasing congestion is expected to continue because of the continued population and employment growth in the region (2025 RTP, June 2005).

1.2.3 Transportation Facilities and Services

Several modes of transportation facilities and services exist within the project study area. These include roadways, public transit, transit centers, park-and-ride lots, freight railroads, and rail yards.

1.2.3.1 Roadways

Figure 1-4 shows the major roadways located in the study area. An extensive network of freeways, major arterials, collectors, and local streets serves the study area. The IH-45 and US 59/SH 288 freeways serve as the eastern and western boundaries of the study area. IH-610 is a perimeter route extending in an east-west direction along the southern portion of the study area. The network is essentially, a complete roadway system; however, there are a few locations where natural and man-made barriers result in missing links.

As identified in the Alternatives Analysis Report, all of the freeways and several of the arterials currently operate under congested conditions during peak hours. As a result of age of the infrastructure and a general lack of maintenance, some facilities suffer from poor pavement conditions.

1.2.3.2 Public Transit

Figure 1-5 identifies the existing transit services and facilities operated in the study area by METRO. The Southeast Corridor is served by a comprehensive network of local bus routes including two crosstown routes (26/27 on Old Spanish Trail, and 73 on Bellfort), and several circulator routes. In addition, there is one commuter express bus route, which connects downtown Houston to Hobby Airport and an area to the southeast of the airport including two park-and-ride lots, Memorial Hospital East, and San Jacinto College South. This collection of bus routes in the study area provides roughly 19,000 weekday bus revenue miles of service. This constitutes nearly 23 percent of all local bus service in the METRO service area. The weekday average revenue service speed is 12.5 miles per hour, which is also the METRO average speed for local bus service. The Southeast Transit Center provides connectivity to other routes throughout the region. The routes serving the Southeast Transit Center consist of 3 Southmore-Bellfort Branch, 3 Southmore-Gulfgate Branch, 26 Outer Loop Crosstown, 27 Inner Loop Crosstown, 29 TSU/UH/Hirsch, 30 Cullen, 52 Scott, 60 South MacGregor, and 87 Yellowstone.

While the Southeast Corridor is strongly linked to downtown Houston by means of several bus routes that provide direct service for large parts of the corridor, there is little direct bus service to the Midtown area. Farther south, the 26/27 Outer/Inner Loop Crosstown provides access to the Texas Medical Center (TMC) and the Veteran’s Administration (VA) Hospital, but without a high frequency of service. These routes form matching complete clockwise and counter-clockwise loops
Existing Roadways

Figure 1-4

Southeast Corridor

1-10 July 2006

Figure 1-4. Existing Roadways

Source: Parsons Brinckerhoff, 2006.
Figure 1-5: Existing Transit Services and Facilities

Source: Parsons Brinckerhoff, 2006.
inside IH-610, but most of their passengers to or from points within the corridor must transfer from other bus routes. The 73 Bellfort Crosstown has a higher level of service and provides access to the TMC, Greenway Plaza, and the Galleria. Within the Southeast Corridor, the route operates south of IH-610. The 73 is well used, but again mainly by means of transfers to and from other corridor bus routes.

1.2.3.3 Freight Railroads

The Union Pacific Railroad (UPRR) runs in an east-west direction along the southern boundary of the study area. Another active railroad, the Burlington Northern Santa Fe Railway (BNSF), runs the length of the corridor, from the northwestern corner of the CBD southward and slightly eastward. Both railroads serve a variety of industrial sites located along their routes, but mostly operate through freight trains in the area. Freight trains on both railroads cross Griggs Road at-grade just north of IH-610. The train crossings result in delay to vehicular traffic.

1.3 Need for the Proposed Action

Transportation improvements are needed in the Southeast Corridor to accommodate existing and future travel demands resulting from growth in population and employment and to address concerns related to limited transportation choices and provision of transit services between corridor activity centers. Other concerns relate to mobility of transportation-disadvantaged populations, provision of transportation facilities and services to support economic development, neighborhood revitalization, and air quality. All of these concerns can be expressed in terms of the need for transportation improvements.

1.3.1 Specific Transportation Needs in the Corridor

Travel demand in the region and Southeast Corridor is expected to increase in the future, as a result of growth in population and employment, and will therefore cause congestion to worsen. Planned improvements to the roadway system are limited and will not be able to accommodate all of the future travel demand in the corridor, nor will additional improvements to the roadway system be able to reduce congestion. Furthermore, the existing transit system does not have the capacity, nor does it offer the level of service, to attract any major portion of the existing travel demand, much less the anticipated growth in travel demand. With increased congestion in the future, the level of service of the existing system is likely to decrease even more.

There is a need to increase the capacity and level of service of the existing transit system by providing a high capacity, higher speed transit alternative that can accommodate a higher portion of travel demand so that a more balanced transportation system can be provided within the region. The METRO Solutions plan is designed to address this need by providing for bi-directional, advanced high capacity transit in several corridors, including the Southeast Corridor.

1.3.1.1 Transportation System Deficiencies

The study area highway system is currently incapable of adequately serving the number of trips generated between these centers and the Southeast Corridor;
furthermore, the existing level of transit service is not sufficient to attract a major portion of the trips. In 2025, a total of 112,000 person trips daily are projected between the CBD and the universities area.\textsuperscript{5} Another 51,000 person trips daily are projected between the TMC and the Southeast Corridor and 37,000 person trips daily to the Southeast Transit Center. Although the combined frequency of service on the bus routes serving the corridor may be high, many of the bus routes serving these activity centers are circuitous in routing and the number of stops is so frequent that the travel times on buses are not competitive with travel by automobiles. The service is often delayed because of congestion on highways leading to the centers and on streets within the centers. Thus, the provision of improved transit service between and within these centers is an important concern of the region.

Without an improvement in the capacity and level of service of the existing transit system, the accessibility of the activity centers to the remainder of the corridor and region, and the ability of the activity centers to attract increased levels of development will be reduced in the future. This need could be met by a reliable, alternative transit mode that offers competitive travel times, such as that considered in METRO Solutions plan and in this DEIS. The mode must provide the capacity and flexibility to connect the activity centers, penetrate and serve the core of the centers, and facilitate circulation between and within the activity centers.

\subsubsection{1.3.1.2 Air Quality Concerns}

The Houston metropolitan area is a severe nonattainment area for the one-hour ground-level ozone standard. Transportation improvements in the Southeast Corridor must not degrade air quality and should strive to reduce mobile source emissions in the future. The 2025 RTP includes a conformity analysis for meeting the one-hour ozone standard. However, Houston will have a greater challenge in meeting the eight-hour ozone standard that went into effect in April 2004. Providing alternatives to single occupancy vehicle travel is a key ingredient in reducing mobile source emissions. Transportation improvements that promote transit and ride sharing contribute favorably towards cleaner air. Particular attention to the metropolitan air quality status must be an integral component in evaluating transportation improvements in the Southeast Corridor.

\subsubsection{1.3.1.3 Neighborhood Revitalization and Economic Development}

Densely built older housing and businesses that have declined in recent years characterize much of the project study area close to the proposed project alignment. With improved transportation connections to downtown Houston, the universities, and the TMC, these neighborhoods could become more attractive to people seeking affordable housing within easy reach of these activity centers. The proposed project could help to encourage revitalization of neighborhoods and help focus development of neighborhood-scale businesses at station locations. The development of transit improvements that support revitalization of the neighborhoods within the study area is one of the objectives of the project. Any new transit development needs to be at a scale compatible with the neighborhood plans and aspirations. In addition, the Build

\textsuperscript{5} METRO and METRO General Planning Consultant based on data from the H-GAC trip distribution model.
Alternative would provide transit service to the high-density residential developments recently completed and under construction east of downtown, reducing reliance on automobile travel for residents.

### 1.3.1.4 Mobility of Transportation Disadvantaged Residents

There are large transportation-disadvantaged populations within the project study area. Downtown Houston, the universities, and the TMC, which is adjacent to the corridor, hold important concentrations of activity and employment for the corridor and the entire Houston region. Most of the retail, service, health-care, entertainment, and hospitality jobs near the study area are located within these activity centers. Many of these jobs are low- or moderate-pay positions that are filled by residents from minority or low-income households or households without or with limited access to an automobile. Because an automobile is not always an option for these populations, they are often dependent on public transportation for their mobility. While the existing transit system provides the transportation-disadvantaged populations access to downtown Houston, the universities, and the TMC, the service operates at low speeds and is subject to the same delays as automobile traffic. The limited levels of service and reliability restrict mobility and reduce access to job opportunities. Without improvements in public transportation, the transportation-disadvantaged populations will be limited in job opportunities and their mobility will be impaired. The proposed Southeast Corridor build alternatives would help address this need by providing reduced travel times and a high frequency transit service that is less subject to traffic delays than buses.

### 1.3.2 Purpose of the Proposed Project

The proposed project provides for the implementation of a fixed-guideway transit system in the Southeast Corridor that: provides the necessary capacity to accommodate existing and future travel demands; improves services to major activity centers, including downtown Houston, the universities area, and the TMC; improves the mobility of corridor residents and workers; supports neighborhood revitalization and economic development; and reduces the demand for automobile use and parking. The proposed build alternatives also would support METRO’s goals for protecting and enhancing community and environmental resources and would provide for a balanced transportation system through implementation of the METRO Solutions plan.

### 1.4 Project Goals and Objectives

FTA requires that the evaluation of alternatives address environmental impacts, project efficiency and cost-effectiveness, mobility, land use, equity, and financial feasibility. In addition, during the AA, project goals and objectives were developed based on the transportation needs identified for the Southeast Corridor project. Goals are general statements of what is to be accomplished. Objectives are statements that identify the extent to which the goals will be accomplished. Project goals and objectives are used in the development of reasonable alternatives for addressing the identified transportation needs. They also are used in the evaluation of alternatives: specifically, goals and objectives are used in determining how effectively the alternatives assist in meeting the needs of the study area.
Table 1-3 identifies the goals and objectives established for the project. The DEIS reports on the evaluation of how effectively the alternatives help accomplish the goals and objectives. The evaluation results are summarized in Chapter 7, Evaluation of Alternatives.

**Table 1-3. Project Goals and Objectives**

<table>
<thead>
<tr>
<th>Goals</th>
<th>Objectives</th>
</tr>
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</table>
| Develop a multimodal transportation system | • Improve transportation system accessibility and connectivity.  
• Reduce the time necessary to travel to and between the primary job markets and activity centers (CBD, TMC, universities, Hobby Airport, other major centers of employment and services).  
• Improve transportation options for socially, economically, and physically disadvantaged groups.  
• Reduce dependency on automobiles.  
• Provide an alternative to highway travel delays and congestion by means of additional transit capacity and quality. |
| Improve the efficiency, reliability, capacity, and safety of existing transportation facilities | • Provide direct transit connection to major activity centers.  
• Provide area residents with enhanced transit options for a variety of trips within the corridor and region.  
• Provide more direct connections between the corridors of residential and commercial activities.  
• Provide safe, reliable, and secure transit services. |
| Preserve social integrity and support of urban communities | • Connect high volume pedestrian activity centers.  
• Serve existing and future high-density residential populations.  
• Provide transit investment supportive of redevelopment/development and land use plans.  
• Minimize traffic impacts on local streets within the study area.  
• Minimize impacts during construction.  
• Minimize right-of-way requirements. |
| Plan for transportation projects that enhance the quality of the environment | • Improve air quality by reducing automobile emissions and pollutants.  
• Protect sensitive areas such as wildlife habitats, wetlands, and historic and cultural sites.  
• Provide a transit option to mitigate excessive parking demand and encourage a sense of place and neighborhood. |
| Define a sound funding base | • Provide equitable transportation services and benefits to all geographic areas and constituencies.  
• Provide for equitable sharing of the costs of transportation improvements among those who benefit from them.  
• Maximize the economic benefits gained from transit capital investments. |

The goals and objectives established for the project are consistent with both the 2025 RTP and METRO Solutions plan for the metropolitan area. As documented in the 2025 RTP, regional transportation goals include:

1. Increase the number of travel choice for people and freight movement.
2. Adequately maintain current roads and transit services.
3. Provide safe and secure movement of people and commodities.
4. Promote coordinated land use and transportation development.
5. Improve access to and connections within transportation system.
6. Provide efficient movement of people and goods.
7. Provide an environmentally responsible system.
8. Provide a cost effective and affordable transportation system.

Additional transit goals were identified in the METRO Solutions 2025 Transit System Plan and METRO’s Vision for 21st Century High Capacity Transit (METRO, August 1999). In addition to calling for increases in transit routes and existing operations, these plans call for the introduction of advanced high capacity transit in corridors with the following characteristics and/or greatest potential for the following:

- Access to activity centers.
- High existing transit demand potential.
- High Projected route demand potential.
- Future congestion.
- Use of existing railroad corridors.
- Existing/planned transit facilities.
- Containment of sprawl.
- Transit supportive land use/policies and economic development impacts.
- Travel time advantages.

1.5 Planning Context

The planning context in which the DEIS for the Southeast Corridor project has been prepared is described herein in terms of: its context with respect to the decisions from previous planning studies, its relationship to the FTA planning and project development process for major capital investments, its role in the project development process, and the decision at hand.

1.5.1 Decision Framework

The decisions on transportation improvements in the Southeast Corridor are based on previous planning studies, including the METRO Solutions plan and the Southeast-Universities-Hobby Planning Study, Alternatives Analysis Report. The
Southeast Corridor DEIS builds on these decisions by providing the engineering, conceptual design, and analysis necessary to refine the LPIS and MOS, or build alternatives. The DEIS effort provides the analysis and study necessary to identify adverse social, economic, and environmental impacts and measures to avoid, minimize, and mitigate impacts of the alternatives; an evaluation of the benefits, costs, and environmental consequences of the alternatives against the stated goals and objectives for the project as set forth in the purpose and need for the project, and the implementation of the collaborative public involvement program necessary to guide development and implementation of the project.

1.5.1.1 METRO Solutions Transit System Plan

The METRO Solutions plan was developed by METRO through an extensive community participation effort to address Houston’s long-range transportation needs, and includes a fixed-guideway transit extension in the Southeast Corridor. The plan includes expansion of rail and bus transit systems, as well as development of nine new transit centers and nine new park-and-ride lots. Houston voters approved the plan on November 4, 2003.

The plan includes transit improvements for the southeast sector, which contains the Southeast Corridor. Proposed bus improvements would provide enhancements to existing routes, new routes, and extended operating hours. Specific enhancements include three new park-and-ride lots, four new transit centers (at UH, TSU, Gulfgate Center, and Hobby Airport), and bicycle racks on all buses. Proposed fixed-guideway transit extensions included in the Southeast Corridor include a line between downtown Houston and Hobby Airport and the Sunnyside Branch-Southeast Transit Center between the Southeast Transit Center and Airport Boulevard. The Southeast Corridor line is a part of METRO Solutions Phase II, which contains a series of projects to be completed by 2012.

1.5.1.2 Southeast-Universities-Hobby Planning Study Alternatives Analysis Report

The Southeast-Universities-Hobby Planning Study, Alternatives Analysis Report, evaluated environmental, transportation, traffic, economic development, community, and political factors relating to four route alternatives. The results indicate no fatal flaws that would prevent adoption and implementation of any of the four alternatives, although some do have the potential for adverse effects. Examples include a few locations where existing mature landscaping and trees would be affected, places where street widening may affect adjacent properties, alignment segments that traverse relatively large areas of flood plain, and locations where relatively large numbers of properties may be subjected to adverse noise and vibration. Through this evaluation process, the base MOS under the build alternatives, which is being analyzed further through this DEIS, was determined to be the most effective alignment option.

1.5.1.3 Selection of the LPIS

The LPIS is the local decision-makers’ preferred alternative from among those considered in the AA. The MOS terminus in the vicinity of Beekman Road is defined as the shortest length of the proposed fixed-guideway transit alignment under the
build alternatives that is cost effective, financially feasible, and will have a significant effect on resolving the transportation problems in the corridor.

The LPIS is one of four alternatives that were analyzed during the AA. The LPIS was selected based on evaluation of the alternatives against the goals and objectives for the project, environmental impacts, and public input. A series of public meetings were held between January and March 2003, during which the alternatives were presented to the community and comments were solicited. Neighborhoods along Cleburne Street, Dowling Street, and Scott Street, as well as representatives from TSU and UH, expressed a preference for the alternative that was selected as the LPIS.

Following the meetings, comments from the general public and cooperating agencies were assessed and incorporated into the Draft System Plan, and presented to the METRO Board of Directors in June 2003. The METRO Board approved the Final System Plan in July 2003, leading to a referendum approved by voters in November 2003. On November 20, 2003, the METRO Board adopted a resolution approving the LPIS for the Southeast Corridor and designating a MOS for initial development and preparation of a DEIS. The Board also directed the President and CEO to forward the LPIS to the H-GAC for inclusion in the region’s long-range and short-range transportation plans. The LPIS for the Southeast Corridor was approved for inclusion into the Regional Transportation Plan in June 2004.

1.5.2 Role of the EIS in the Project Development Process

The FTA planning and project development process within which federal, state, and local officials plan and make decisions regarding major transit capital investments contains five phases: (1) system planning; (2) alternatives analysis, formerly known as a major investment study; (3) preliminary engineering; (4) final design; and (5) construction. As projects are conceived and advanced through these phases, their design, costs, benefits, and impacts are more clearly defined, with alternatives being successively eliminated until the alternative remains that is the most cost-effective and provides the greatest benefit with the fewest adverse impacts. Final design and construction of the project then is initiated.

Preparation of the DEIS for the Southeast Corridor, together with its required circulation and review, provides the assurance that an evaluation is conducted of all reasonable design alternatives, that transportation and environmental impacts are assessed, and that public participation and comments are solicited to help guide the decision-making process. The identification and analysis of impacts of reasonable alternatives are necessary to meet the requirements of NEPA. The analysis of environmental impacts identifies the type and severity of environmental impacts under each of the alternatives. Measures to avoid and mitigate adverse environmental impacts then can be developed for the build alternative in the FEIS, along with estimates of the costs and effectiveness of such measures.

1.5.3 Decision at Hand

The purpose of the DEIS is to help METRO and other local decision-makers to select from among the alternatives under consideration a build alternative for implementation in the Southeast Corridor. Decisions to be made following the circulation of this document
include transit technology (i.e., LRT, BRT Convertible, or BRT) location of the fixed-guideway alignment, station locations, and the location of any required maintenance and storage yard and shop. Subsequent actions would include the adoption of the financing plan, and programming construction into a conforming long-range transportation plan and Transportation Improvement Program.

A FEIS will be prepared in the preliminary engineering phase of project development incorporating all the newly developed information as well as the comments and responses made regarding the DEIS during the public review and comment period. These comments will be addressed and commitments will be made for implementing mitigation measures.

Appropriate local, state, regional, and federal agencies will review the FEIS to determine if all comments reflecting community issues of concern have been addressed properly and to determine if interagency agreements and project mitigation measures have been incorporated into the document. The FTA may issue a Record of Decision (ROD) culminating the environmental review process. METRO may then apply to the FTA for permission to enter final design and construction for the project.