



are primarily long-haul commuters who drive to the park-and-ride lot in south Irving and ride the train into downtown Dallas or downtown Fort Worth.

The first type of transit user described above is usually a resident of the northwestern suburbs of Dallas who would rather drive just part of the way towards their employment destination and use the transit system for the remainder of it. These transit users are likely using the system to reach employment centers in and around downtown Dallas. As residential development increases within the corridor and to the northwest and as employment opportunities increase in and around downtown Dallas, more and more long-haul commuters will likely choose the park-and-ride option rather than driving in the increasing traffic congestion that will likely occur on highways leading into Dallas.

The second type of transit user described above is usually a “transit-dependent” person who does not have access to an automobile. DART’s transit system enables these people to work at employment centers all over the Dallas area that would normally be accessible only to someone with an automobile. This allows transit-dependent people living in the corridor to work outside the corridor, and vice versa. Considering the large amount of employment within the study corridor, DART’s transit system is very important to the economic vitality of the corridor. It provides job opportunities for people from all areas and demographics, and it provides employers with a wider range of the labor pool. As employment opportunities increase within the corridor and transit-dependent residential development increases, the transit system will become even more important to employers and employees alike.

The third type of transit user often prefers the speed and reliability of a train over other forms of transportation. The implementation of a light rail will provide increased opportunities for this type of transit user.

1.4 NEED FOR ACTION

Current and projected travel patterns, levels of roadway congestion, growth in population and employment in the region and in the corridor require that the proposed project be built in order to address the need for transportation improvements.

The need for transportation improvements is illustrated by the following:

- The Dallas-Fort Worth region is currently (as of April 2005) designated as a Serious non-attainment area for 1-Hour Ozone and a Moderate non-attainment area for 8-Hour Ozone by the Environmental Protection Agency;
- The entire study area falls within a region identified for the year 2030 as an “area of severe peak-period congestion” by the *Mobility 2025 Plan* (Amended April 2005) and the *Mobility 2030 Plan* (January 2007) produced by the North Central Texas Council of Governments (NCTCOG);
- Existing and planned roadway improvements are insufficient to meet the demand within this corridor;
- Travel time delay and congestion levels in the corridor are increasing; and
- A significant amount of employment and population growth is forecast for the corridor.

1.4.1 Specific Transportation Needs in the Corridor

The SH 114 corridor, bounded by IH 35 E (Stemmons Freeway) on the east and The George Bush Turnpike (SH 161) on the west, is an important and growing employment center featuring high-



density, mixed-use developments like Las Colinas and major educational facilities such as The University of Dallas and North Lake College. The overall study area added almost 52,000 jobs between 1990 and 1998. The corridor connects rapidly-growing suburbs northwest of Dallas to downtown Dallas, which is expected to have over 160,000 jobs in 2030. The corridor also serves DFW Airport, which is one of the busiest airports on the planet and is a critical employment center in its own right.

Congestion has worsened, resulting in increased travel times for drivers and transit riders. Freeway congestion has grown, leading to further congestion on surface streets. The region's air quality has declined, and steps must be taken to improve it. These conditions and the expected growth that will lead to further worsening of these conditions indicate the need for major transportation improvements. These needs are:

- Need to reduce travel times in the corridor
- Need to increase transit effectiveness in the corridor and connectivity in the region
- Need to provide additional people-carrying capacity in the corridor
- Need to contribute to improvements in unacceptable regional air quality

1.4.2 Purposes of the Proposed Action

The construction of the Irving/DFW LRT line from Downtown Dallas to Irving and, eventually, DFW Airport will serve the following purposes:

- **Improve Transit Effectiveness and Performance**

The construction of the LRT line will improve transit performance in the corridor by offering more reliability and shorter travel times than the current all-bus network, which generally operates in mixed traffic, is able to provide. The line will complement other planned transit improvements in the corridor, such as the construction of HOV lanes and the restructuring of bus routes through Irving, to promote a multi-modal, user-friendly transit network.

- **Increase Regional Connectivity**

The existing DART LRT/bus/commuter rail system provides access to job opportunities in the corridor and elsewhere in the Service Area and region, especially for transit-dependent populations. By improving the effectiveness and performance of the overall transit network, the construction of the Irving/DFW LRT line will expand those opportunities for current and prospective transit riders both in the corridor and in the region as a whole. Access to the growing number of jobs in the corridor from areas outside the corridor, such as southern Dallas or the growing communities northwest of Dallas and access to central Dallas from the Northwest will be improved. Access to DFW Airport will also be improved, initially through a shuttle service between the airport's central terminal area and the project and eventually through the project's extension into DFW Airport. The combinations of residence and employment locations accessible by transit in the region will increase with implementation of this project.

- **Offer an Alternative to Single-Occupancy Vehicle (SOV) travel**

Traffic congestion in the corridor has increased and will continue, and options for increasing roadway capacity are limited. These limitations are both physical (right-of-way and land use pattern) and financial (limited available funding). Improving the transit system offers an alternative to Single-Occupancy Vehicle (SOV) travel in the corridor and within the DART Service Area.

- **Increase People-carrying Capacity in the SH 114 Corridor**

Regional demand for travel in the corridor will increase, and additional capacity is needed to meet this demand. Northwest-southeast travel patterns include residents from the northwest



traveling to jobs in the corridor and in downtown Dallas, and residents from elsewhere in the region traveling to jobs in the corridor (reverse commute).

- **Improve Accessibility and Increase Economic Development Opportunities**

The Irving/DFW LRT Line will provide access for residents and visitors to the employment centers, educational institutions, health services, entertainment, and a major international airport in the corridor. This increased accessibility will strengthen economic conditions to existing activity centers, and provide an opportunity for development of further economic activity at other locations in the corridor. The Irving/DFW line is also expected to encourage opportunities for Transit-Oriented Development (TOD) within the corridor, which seeks to reduce automobile dependence by concentrating commerce, services and residences around rail stations. DART has already experienced successful TODs at locations such as Mockingbird Station in Dallas, Galatyn Park in Richardson, and downtown Plano.

The transportation needs described demonstrate that improvements are needed to meet the anticipated demands of travelers in the corridor and region.

The DART LRT, commuter rail and bus system offers travel choices for current and prospective transit riders. The proposed expansion of the LRT system in the Irving/DFW corridor will further add to those choices for transit users in the corridor and from throughout the region.

1.5 PLANNING CONTEXT

The evaluation of transportation needs in the Northwest Corridor has been oriented toward the Federal Transit Administration's (FTA) planning and project development process. The decision-making framework and the process used in selecting the recommended improvements are described below.

1.5.1 Decision Framework

The decision-making process is framed by DART's 1995 amendment to its *Transit System Plan*, which identified a need in the Northwest Corridor. As shown in **Figure 1-4**, DART completed a Needs Assessment in 1997. This initial step examined the corridor needs and defined the issues to be addressed in the MIS. The needs assessment also defined a comprehensive Public and Agency Involvement Program that provided specific opportunities for review and input from the general public, public agencies and other stakeholders. In the spring of 1998, DART initiated the MIS process for the Northwest Corridor. These efforts were coordinated with the NCTCOG (the Metropolitan Planning Organization for the region), and other affected agencies such as the cities of Dallas and Irving and the Texas Department of Transportation.

1.5.2 Selection of the LPIS and Subsequent Refinements

The Northwest Corridor MIS provided a decision-making process for determining transportation investments in the Northwest Corridor and relied upon technical analyses and community and agency input for determining the preferred alternative. On February 22, 2000, the DART Board of Directors approved an LPIS that combined LRT improvements in the corridor with Highway/High Occupancy Vehicle (HOV) and Transportation System Management (TSM) components (low-cost transportation improvements and freeway bottleneck removal projects).

The LPIS alignment for the Irving/DFW LRT Line crossed the Trinity River, paralleled Spur 482 and SH 114, and terminated at the north end of DFW International Airport east of International Parkway and south of SH 114.