The recommended River Rail Airport Study alignment is adopted for this study and it should be included in the minimum operable segment developed for the initial project in this corridor. The I-630 corridor can work well as a central spine for extensions to the northeast (Cabot), the southeast (Airport), the southwest (Benton), and the northwest (Conway), as well as accommodate a possible future westward West Little Rock extension.

This network could be operated in a number of ways, for example with one train operating between Cabot and Benton and another train operating between Conway and the Airport, overlapping through the length of the spine and providing more frequent service for the spine stations.

The I-630 corridor alignments have been designed to accommodate future extensions. The downtown-airport link is a key fixed guideway linkage and it is relatively short in the case of Little Rock.

The I-630 Corridor Study (November 1999) evaluated ways to improve mobility and safety in the 11-mile-long I-630/Chenal Parkway corridor over a 25-year period. The document provides near- and longer-term recommendations. It notes that with “higher employment densities or populations, light rail or HOV strategies may become more practical especially as part of a region-wide system.”

I-630 FIXED GUIDEWAY STUDY
2ND PUBLIC MEETING

Multiple studies over more than a decade have addressed the need for improved transit service in Central Arkansas.

- The **Central Arkansas Regional Rail Project** (September 1999 CATA) evaluated transit corridors and transit technologies to address “future congestion and mobility problems.” It identified a number of goals, including using transit as a development tool and improving mobility. This document ranks the I-630 corridor as a high priority and favorably rates lower-cost, proven transit technologies, such as commuter rail, streetcar/trolleys, and light rail. The document notes that continuing to add highway capacity and failing to provide for a future regional rail system will adversely affect the potential to implement a regional rail system.

- A **Regional Transit Vision for Central Arkansas** (January 2004 Metroplan) was incorporated into the region’s 2030 Long-Range Transportation Plan. The Vision Plan participants recommended building light rail in the I-630 corridor from west of I-430 through downtown with a connection to the downtown transit center and to the airport.

- The **Metro 2030 Long-Range Transportation Plan for Central Arkansas** (September 2005 Metroplan) calls for making multiple transportation improvements, including “add[ing] fixed guideway service (commuter rail, light rail, and/or bus rapid transit) in the long-term.” It is based on a selected hybrid Satellite Cities and Corridors preferred land use scheme, focused on “development in and around established urban and suburban cities, and also along existing freeway corridors” with transit supporting this land use development pattern, including light rail transit or bus rapid transit expansions along regional corridors.
**PURPOSE FOR I-630 FIXED GUIDEWAY STUDY**

**METROPLAN** is conducting the I-630 Fixed Guideway Study to identify and preserve a transit right-of-way in the I-630 corridor so that a fixed guideway transit line can be built in the future, perhaps within the next decade. The interest is to provide for and encourage future transit development, which might otherwise be precluded in the corridor as I-630 improvements are made and real estate development intensifies in the corridor.

The I-630 study corridor is defined for the purpose of this study to extend from roughly I-30 in downtown Little Rock to the I-430 vicinity in West Little Rock between Markham on the north and 12th Street/Kanis Road on the south. The study also addresses extending a fixed guideway from downtown to the airport, a major transit destination for a fixed guideway system.

**I-630 FIXED GUIDEWAY STUDY GOALS**

Four goals for building a fixed guideway in the Central Arkansas area are listed below.

**Goal #1:** Provide transit services to improve mobility and accessibility

**Goal #2:** Develop financially attainable transit services

**Goal #3:** Facilitate sustainable community development

**Goal #4:** Enhance Central Arkansas’ quality of life

**MODE TECHNOLOGY**

Multiple modes of transit technology are in use across the US. A review of those modes suggests that either Bus Rapid Transit (BRT) or Light Rail Transit (LRT) may be right for the I-630 fixed guideway corridor. A fixed guideway refers to any transit service that uses exclusive or controlled right-of-way or rails, entirely or in part. The other modes, which can involve multiple hybrids, include the following, which are probably not right for the I-630 corridor for the summary reasons listed.

- **Heavy Rail,** such as systems in Washington, DC, New York, and Atlanta, is powered by an electrified third rail at track level that requires an exclusive right-of-way and prohibits at-grade track crossings for pedestrians and other vehicles. These systems are more expensive to build and provide more capacity than required in the I-630 corridor.

- **Commuter rail** primarily provides peak-period service with limited mid-day service, if any, for commuters from outlying areas to a core area, often with limited intermediate stops. Commuter rail is typically provided on existing freight rail lines on a time-shared arrangement. The absence of an existing freight rail line in the I-630 corridor effectively precludes using this option.

- **Monorail** is typically used for entertainment venues, can be more expensive, and does not provide strong peak-period commuter capacity.

- **Streetcar/Trolley,** such as the River Rail system in Little Rock, is a traditional technology, which is operated at a slow speed typically with in-street running with multiple stops. This technology is frequently used to stimulate economic development in core areas; however, it is not well-suited for the travel time on end-to-end trips the length of the I-630 corridor.

Either BRT or LRT can provide adequate capacity and operating conditions for the I-630 corridor. The design criteria for LRT are more demanding than those for BRT, so the LRT criteria will be used in the I-630 conceptual design work on this study to preserve the future potential to choose either mode. The following text highlights some of the differences between BRT and LRT.

**Bus Rapid Transit (BRT)**

This is typically a higher speed bus operation with less frequent stops on largely exclusive right-of-way. The vehicle is typically larger than the average city bus. The investment community is typically less confident of the permanence of this fixed guideway mode than a light rail transit system resulting in less development around stations. It has a lower capital cost but higher operating costs per vehicle than light rail transit. The life cycle cost for this mode is typically more expensive than for light rail transit.

**Light Rail Transit (LRT)**

This mode is typically electrically powered with overhead catenaries and operates on a fixed rail alignment in exclusive and/or non-exclusive right-of-way. The overhead power source accommodates at-grade vehicular and pedestrian crossings of the rail line. This is traditionally a higher speed operation than a streetcar with fewer stops/stations. Station spacing is typically around one mile but can be closer in denser areas. This system attracts transit oriented development around stations.