



ALL SYSTEMS GO!

Capital Metropolitan Transportation Authority 2910 East Fifth Street Austin, Texas 78702

Draft
All Systems Go Future Connections Study
Identifying the Central Austin Corridor for Further Study

Introduction

The Future Connections Study is a planning effort of the All Systems Go Long-Range Transit Plan. Following extensive input from the community, the Capital Metro Board of Directors approved the All Systems Go Plan in August 2004. An essential part of the plan—Urban Commuter Rail Transit—was approved by Capital Metro voters in November 2004.

The All Systems Go Plan includes areas identified for transit circulation improvements to expand the reach of the initial Urban Commuter Rail investment. This first Future Connections Study (FCS) focuses on Central Austin.

FCS considers the range of connection needs that could be served by a circulation service. This report examines twelve initial circulation needs identified by Capital Metro working with the community and recommends that one corridor be identified for future study. This corridor links the Urban Commuter Rail station planned for Fourth and Trinity Streets west to the Seaholm district, which includes a potential station on the future Austin-San Antonio Regional Commuter Rail line, and also links the Fourth and Trinity station north to the State Capitol Complex. The corridor then connects to the University of Texas (UT) campus, then eastward to the planned Martin Luther King Jr. Boulevard Urban Commuter Rail station, and northward through the Robert Mueller Airport Redevelopment Site. The corridor then terminates in the vicinity of a proposed new Urban Commuter Rail station near Airport Boulevard and 51st Street. The entire corridor is shown in Figure 4.

Furthermore, this report recommends that Capital Metro proceed with an alternatives analysis within the identified corridor, including the identification of specific technologies and alignments in accordance with the Goals and Objectives of the All Systems Go Future Connections Study (the Goals and Objectives are appended to this report). The study will also assess the feasibility of and need for one or more transfer facilities as a component of improved circulation services within the study area.

Background

Capital Metro initiated the Future Connections Study in April 2005. The study process depends on the involvement of the community through several channels, including the following:

- Community Advisory Steering Committee, a wide range of community leaders, to advise Capital Metro in developing a plan that meets the needs of the Capital Metro region as well as the Central Austin community;
- Community Advisory Group forums, targeting Central Austin’s neighborhoods, businesses, and other stakeholders, to review each step of the study in detail;
- Technical Advisory Committee, representing various public agencies and utilities to review technical issues;
- Public meetings, open houses, and workshops, to provide everyone in the Capital Metro region with information and opportunities for input;
- Briefings to city boards and commissions, neighborhood associations, civic groups, and any other group that requests a briefing; and
- Project website <www.allsystemsgoconnections.org>, providing information about the project as well as an additional opportunity for citizen input.

Working with the community as outlined above, the study has identified the following goals:

1. **Improve Place Connectivity**

There is a recognized need to improve the regional transportation system by connecting existing and emerging destinations within Central Austin. This includes not only improving the connectivity among and within the various destinations but to also improve the connection of these destinations to the region as a whole. This need is expressed as a need to improve place connectivity within Central Austin.

2. **Improve Transit Connectivity**

In addition to improving place connectivity, there is a recognized need to improve the regional transportation system by providing connections among modes, including the Urban Commuter Rail, Regional Commuter Rail, and bus technologies. Heavy transit demands within Downtown Austin place a large number of transit vehicles on key streets within Central Austin. A desire to better tie existing and future transit services together has been voiced by downtown businesses and residents. The need to improve the connectivity between transit modes and services is expressed as a need to improve transit connectivity. In addition, a downtown bus transfer facility has been identified as a means to address this goal.

3. **Improve Circulation within Central Austin**

Getting around in Central Austin frequently requires automobile trips. The community has expressed a desire for better transit circulation so that at least some of the trips within this area could be made via transit.

In addition to these three transit needs, there are four goals concerning community needs:

4. **Maximize Community Benefits**
5. **Maximize Accessibility**
6. **Maximize Environmental Benefits**
7. **Maximize Economic Benefits for the Community**

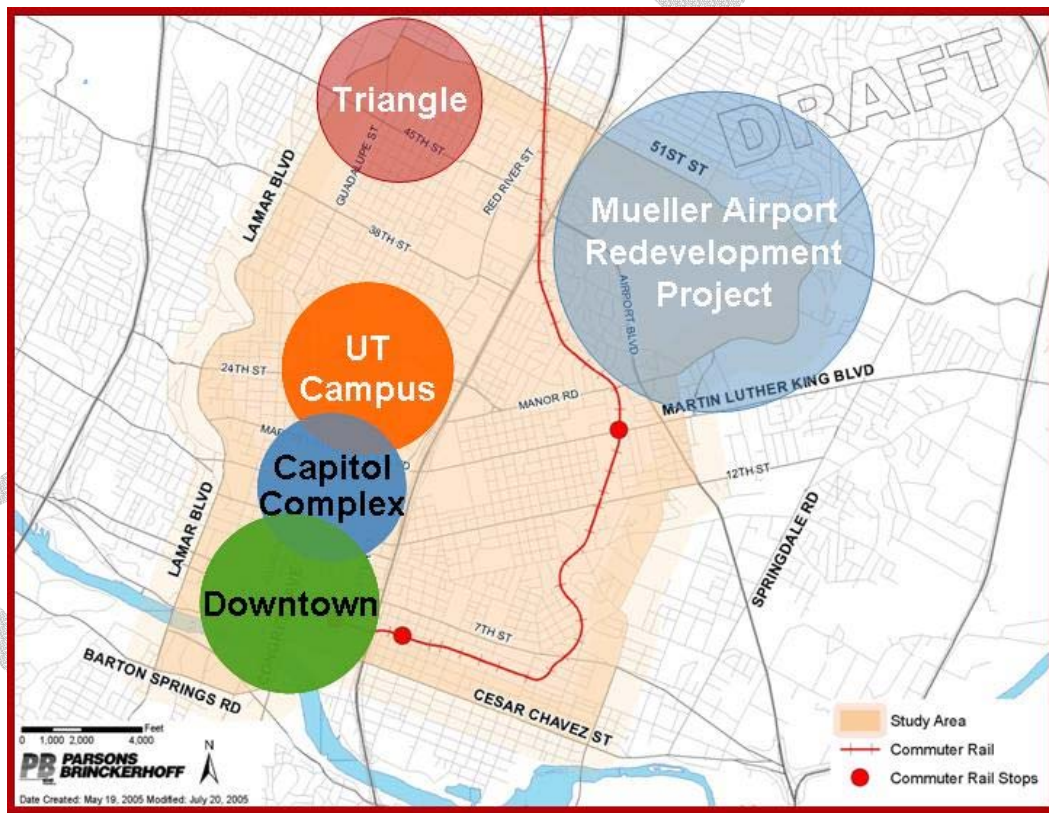
Together, the three basic needs identified by the community and the attributes of the potential transit solutions that are desired by the community express the purpose and need for the All Systems Go Future Connections

Study. The goals and objectives can be used to identify priorities for transit service within the study area. The purpose of the Future Connections Study is to examine transit options for circulator services within Central Austin, improving the connectivity among key destinations, improving the transit connectivity within the system, and improving circulation. Solutions to these transit needs should be beneficial to the community, maximizing the benefits to the natural and built environments, while providing opportunities for full accessibility and community economic benefits (the appendix has the full statement of Goals and Objectives).

Study Area

Through a public process, the All Systems Go Future Connections Study has identified the study area as shown in Figure 1. The study area can generally be described as bounded by Barton Springs Road/Congress Avenue/ César Chávez Street on the south; 51st Street on the north; Lamar Boulevard on the west; and Pleasant Valley Road/Webberville Road/ Airport Boulevard/Manor Road on the east. The study area lies entirely within the Austin city limits.

Figure 1 Study Area and Primary Destinations



The study area encompasses the most dense employment, residential, educational, and cultural centers within the region, including:

- The central business district (CBD), or Downtown Austin, housing many of the region's financial and office institutions;
- The State Capitol Complex, housing the executive, judicial, and legislative branches of the Texas state government as well as many State agencies; and
- The University of Texas at Austin main campus with more than 48,000 students.

In addition to existing major destinations, two significant emerging population and employment centers also fall within the study area. These are the Mueller Airport Reuse and Redevelopment Site (Mueller) and the Triangle development. Both of these sub-areas are planned as transit oriented developments that will be the focus of substantial future infill for both residential and employment destinations.

Connection Needs

Working with all of the public advisory committees, the study identified 12 connection needs within the study area. These connection needs might provide the circulation and distribution coverage envisioned by the public and by Capital Metro within the defined study area. These twelve connection needs are shown in Figure 2 and can be described as follows:

1. South Central Austin to Downtown
2. Downtown to East Austin (César Chávez Street Connection)
3. Convention Center Urban Commuter Rail Station to Seaholm Redevelopment Site
4. Capitol Complex to East Austin (11th/12th Street Connection)
5. Capitol Complex to West Central Austin (12th Street Connection)
6. Downtown/Capitol Complex to University of Texas
7. University of Texas to Martin Luther King Jr. Boulevard (MLK) Urban Commuter Rail Station
8. MLK Urban Commuter Rail Station to Mueller Redevelopment Site (south connection)
9. Mueller Airport Redevelopment to 51st Street (transit spine circulation and connection to north end)
10. Mueller Airport Redevelopment (51st Street) to Airport Boulevard/Highland Mall Urban Commuter Rail Station (north connection)
11. Hyde Park – North Central Austin to University of Texas
12. University of Texas/West Campus Loop

To identify the corridor for the detailed study, the twelve connection needs were evaluated at a conceptual level against the seven primary goals of this study:

1. **Improve Place Connectivity**
2. **Improve Transit Connectivity**
3. **Improve Circulation within Central Austin**
4. **Maximize Community Benefits**
5. **Maximize Accessibility**
6. **Maximize Environmental Benefits**
7. **Maximize Economic Benefits for the Community**

The following section details this evaluation process.

Figure 2 Connection Needs

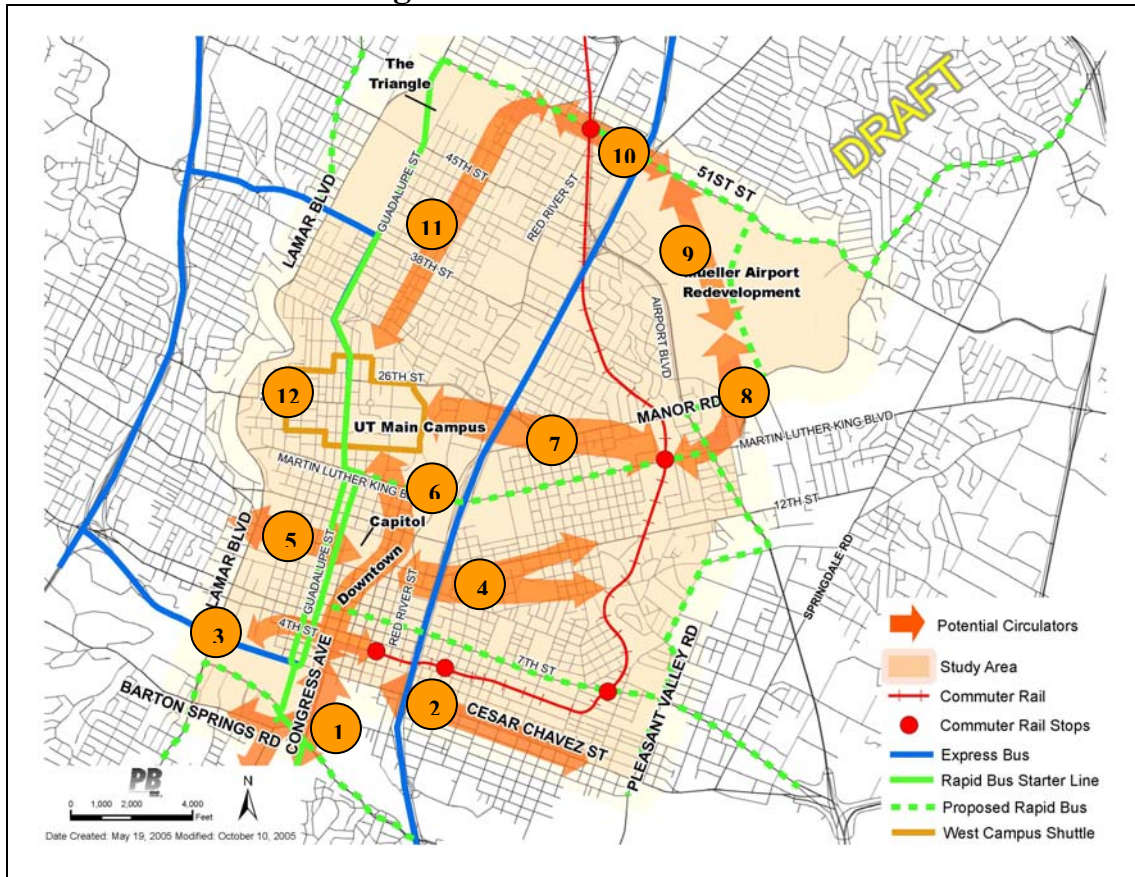
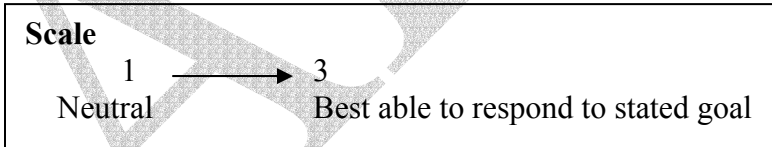


Figure 3 Priority Corridor Evaluation Matrix

Identified Need	Place Connectivity	Transit Connectivity	Circulation	Community Compatability	Environmental Benefits	Accessibility	Economic Benefits	TOTAL SCORE
1 River South to CBD	1	3	1	1	2	2	2	12
2 CBD to East Austin	1	2	1	1	2	2	2	11
3 Convention Center to Seaholm	2	3	3	3	3	2	3	19
4 Capitol to East Austin	1	1	1	1	2	2	2	10
5 Capitol to West Austin	1	1	1	1	2	2	2	10
6 CBD/Capitol to UT	3	3	3	3	3	3	3	21
7 UT to MLK Station	2	3	3	2	2	2	3	17
8 MLK to Mueller	2	3	2	3	2	2	3	17
9 Mueller Internal	1	1	3	3	3	3	3	17
10 Mueller to Airport Blvd Station	2	3	2	3	2	2	3	17
11 Hyde Park to UT	2	3	2	1	2	2	2	14
12 UT Loop	1	1	3	3	2	2	3	15



CORRIDOR EVALUATION SCALE

- **Place Connectivity**
 - 3 = Connects primary destination to primary destination
 - 2 = Connects primary destination to Urban Commuter Rail station opportunity
 - 1 = Connects primary destination to close-in Central Austin neighborhood
- **Transit Connectivity**
 - 3 = Connects Urban Commuter Rail / Rapid Bus station or major transit center to primary destination or Urban Commuter Rail / Rapid Bus / major transit center to Regional Commuter Rail
 - 2 = Connects close-in neighborhood near a primary destination to Urban Commuter Rail / Rapid Bus station or major transit center
 - 1 = Provides internal circulation or connects close-in neighborhood to primary destination

- **Circulation Improvement**
 - **3 = Improves internal circulation within study area key destination(s)**
 - **2 = Improves circulation within surrounding neighborhood linked to a primary destination and Urban Commuter Rail station**
 - **1 = Improves circulation within close-in neighborhood linked to one primary destination, no direct connection to Urban Commuter Rail**
- **Community Compatibility**
 - **3 = Primary destination area: high-density employment/educational use or planned development**
 - **2 = Close-in neighborhood seeking transit investment**
 - **1 = Close-in neighborhood to benefit from, but not actively for or against transit investment**
- **Environmental Benefits**
 - **3 = Within high-density employment/educational land use or master planned area**
 - **2 = Within residential neighborhood with parallel major arterial roadway**
- **Accessibility**
 - **3 = Within areas where good or fair accessibility for disabled, pedestrians and bicyclists exists or is planned**
 - **2 = Within areas where improved access for disabled, pedestrians and bicyclists is still needed**
- **Economic Benefits**
 - **3 = Within high-density employment/educational areas or major redevelopment site**
 - **2 = Within traditional neighborhoods**

Selecting the Potential Corridor

As shown in Figure 3, connection need corridors 3, 6, 7, 8, 9, and 10 meet the goals better than the remaining corridors with total scores of “17” or higher. Furthermore, these connection needs, when linked together, define a potential single corridor for analysis (See Figure 4). The remaining connection needs fall into a secondary category for future analysis. These connections may be future extensions of the initial corridor, or they may be independent circulator systems. For example, the UT West Campus Loop may warrant a separate circulator wholly focused on the internal needs of the University/West Campus community.

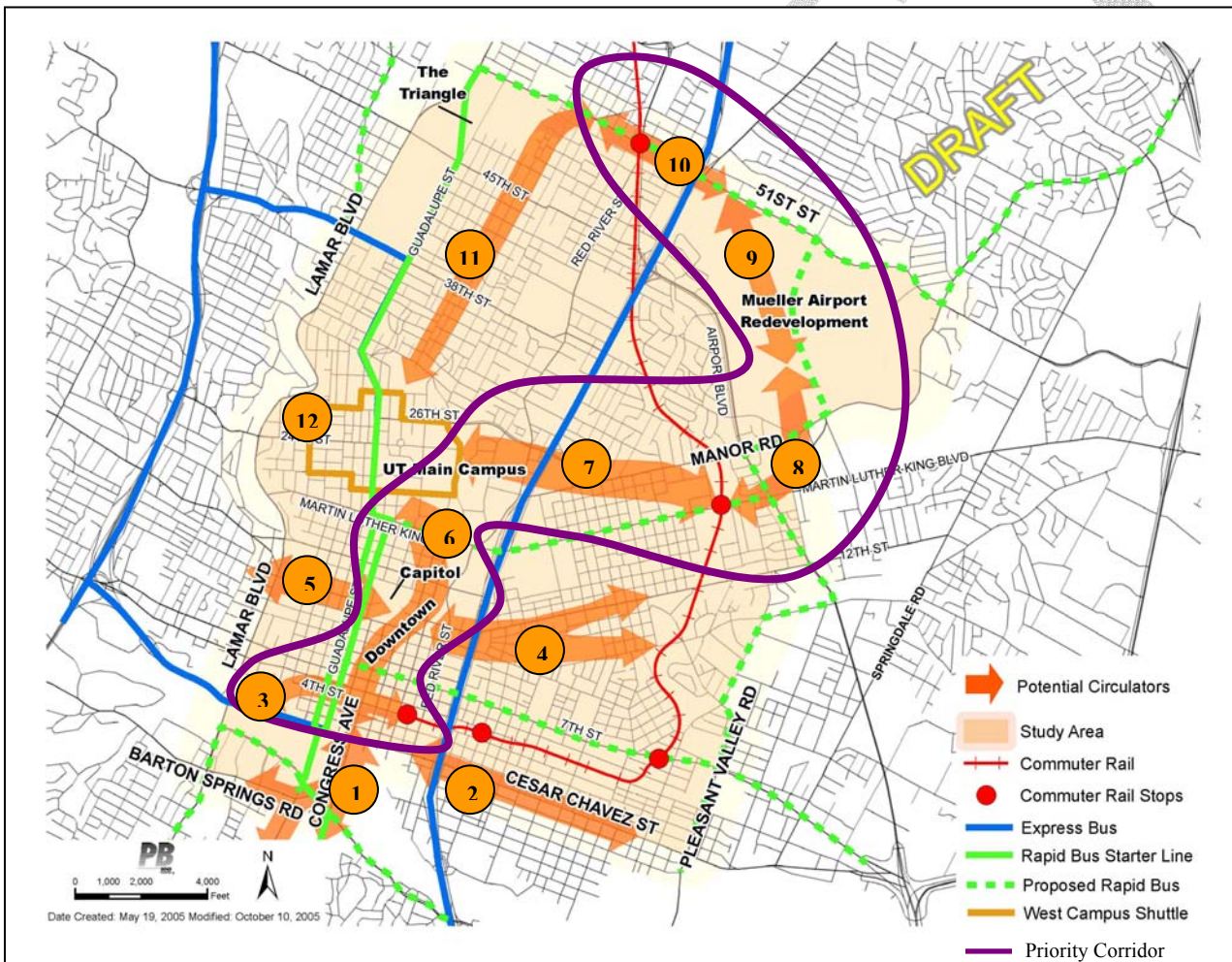
Summary

Based on the analysis of how well the identified connection needs meet the goals, a preliminary initial corridor has emerged, linking the existing Urban Commuter Rail station proposed in the vicinity of 4th and Trinity Streets west to the Seaholm district and north through the State Capitol Complex to the University of Texas, then eastward to the proposed MLK Urban Commuter Rail station, through the proposed Mueller Airport

Redevelopment Project and terminating in the vicinity of a proposed new Urban Commuter Rail station near Airport Road and 51st Street. This preliminary corridor is proposed for further, more detailed evaluation.

It is recommended that Capital Metro proceed with an Alternatives Analysis within the identified corridor, including the identification of specific technologies and alignments in accordance with the goals and objectives of the All Systems Go Future Connections Study. In addition, appropriate locations and features for a facility to provide bus-train and bus-bus transfers will be identified as specific alternative alignments are developed and evaluated.

Figure 4 Recommended Priority Corridor



Following this recommendation, the next steps in the study process will include:

- Completion of a technological feasibility study for potential alignments in the project study area;
- Development of specific technological and alignment alternatives and evaluation of alternatives in terms of meeting the project's goals and objectives and providing efficient and accessible transit circulation services;
- Continued public review at every step, including Community Advisory Group forums and public workshops; and
- Analysis of potential transfer facilities as part of overall circulation services.

After the evaluation of alternatives, it is expected that there will be a locally preferred alternative selected.

Appendix 1

Project Goals and Objectives

Goal 1 - Improve Place Connectivity: Improve the regional transportation system by connecting existing and emerging destinations within Central Austin.

Objectives:

- Provide direct transit service connections among downtown, the Capitol Complex, UT, and the Mueller redevelopment site.
- Link key destinations within Central Austin to the Urban Commuter Rail investment.
- Plan for system flexibility to accommodate special events and venues, such as UT sports events and civic events downtown.
- Provide connections to existing and future concentrations of student housing.
- Provide convenient and reliable service to key destinations.
- Serve existing residents and neighborhoods, as well as emerging centers.
- Provide connections among east and west portions of the study area.

Goal 2 - Improve Transit Connectivity: Improve the regional transportation system by providing connections among modes, including the Urban Commuter Rail, Regional Commuter Rail, and bus.

Objectives:

- Provide a downtown bus-train and bus-bus transfer location.
- Provide a location/facility that encourages efficient and easy transfers among transit options.
- Provide a transit facility that is well connected to the major transit destinations within the region (i.e., the University of Texas, Capital Complex, and Downtown).
- Reduce number of buses in downtown Austin and minimize number of corner transfer points.
- Minimize number of transfers.
- Provide amenities for bikes to encourage ridership.
- Develop options that provide for future flexibility, extensions, and expandability.
- Consider non-transit modes in developing transit alternatives (such as bicycles, walking, car sharing, taxis, rickshaws, etc.).
- Assure access to transit via walking and biking.
- Coordinate transit system investments with other public infrastructure projects, such as the proposed Lance Armstrong Bikeway, Austin to San Antonio Rail Corridor, and other roadway and traffic projects.
- Maximize service efficiency.
- Use transit technology that can be expanded to additional locations in the future.

Goal 3 - Improve Circulation within Central Austin: Provide internal transit circulation within Central Austin and among key districts within the core to encourage transit ridership and improve overall mobility.

Objectives:

- Provide connection and distribution opportunities to Seaholm and the proposed Austin-San Antonio Regional Commuter Rail service (should that service be initiated).
- Provide fast and convenient service between and within lower downtown, the Capitol Complex, UT, and the Mueller redevelopment site.
- Provide multiple connections between the Urban Commuter Rail line and the circulation network, allowing multiple opportunities to transfer between the two systems so as to promote a variety of access options for users.
- Plan layover locations to minimize traffic congestion.
- Provide circulator service to meet arriving and departing trains on initial Urban Commuter Rail operations.
- Decrease dependency on cars/single-occupancy vehicles by increasing use of multi-occupancy methods of transportation.
- Increase market share of transit.
- Maximize the predictability and reliability of transit service.
- Minimize traffic congestion on affected streets.

Goal 4 - Maximize Community Benefits: Develop transit services that enhance and reinforce the characteristics of the existing and planned land uses and community environment.

Objectives:

- Reinforce land use strategies that encourage development density in existing and planned developments.
- Provide access to a variety of existing and future housing opportunities, facilitating access to residential land uses of various economic levels.
- Reinforce the existing historic and urban character of Central Austin by selecting service attributes, modes, corridors and alignments that reflect existing and planned land use patterns and development styles.
- Maximize community benefits when identifying opportunities and when developing concepts to serve identified transit demands within the study area.
- Develop systems that are coordinated with and support the neighborhood planning process/neighborhood plans.
- Maximize potential for transit-oriented development (TOD).
- Use circulators to build community: reflect community and neighborhood character through high quality urban design.
- Coordinate with existing and future retail corridors.
- Consider effect of transit modes in shaping land use decisions.
- Coordinate transit stops with future and existing development.

Goal 5 - Maximize Accessibility: Maximize the accessibility of existing and proposed transit services by selecting cost effective and appropriate transit modes, routes, and alignments that provide frequent, accessible passenger boarding opportunities.

Objectives:

- Proposed transit services should meet the requirements of the Americans with Disabilities Act.
- Provide frequent transit service and boarding opportunities for transit users accessing or using transit within Central Austin.
- Incorporate universal design concepts that make the system accessible to people with disabilities, bicyclists, strollers, etc.
- Design platforms to be flexible for future options.
- Design streetscape/sidewalk improvements to assure access and provide connectivity through collaboration with city, county, and state government entities.

Goal 6 - Maximize Environmental Benefits: Develop transit services that maximize the positive benefits to the natural environment.

Objectives:

- Respect the importance of parks, green spaces, and water resources in choosing transit options.
- Maximize air quality benefits anticipated from the resulting circulation transit modes by encouraging walk-to-transit and bike-to-transit access opportunities.
- Respect the integrity of existing neighborhoods and reinforce neighborhood identity, characteristics and cohesiveness where possible.
- Look to efficient and clean renewable energy sources where possible.
- Minimize noise pollution.
- Minimize visual pollution.

Goal 7 - Maximize Economic Benefits for the Community: Develop transit services that help increase economic opportunities and build wealth for local communities, while minimizing demands for increased local expenditures.

Objectives:

- Reinforce land use strategies that encourage development density in existing and planned developments.
- Solicit information and suggestions from major central business district employers to maximize ridership and community acceptance.
- Determine whether there may be reverse commute demand for Urban Commuter Rail by riders who may commute out of the central business district.
- Utilize cost-effective systems for added transit services.

- Determine whether it is feasible to use interim transit systems for Urban Commuter Rail connectivity until a more permanent system is in place; consider a phased approach to providing connectivity.
- Reinforce existing and proposed community plans by focusing service on existing and planned future dense residential land uses and major employment/educational facilities.
- Maximize ridership and provide affordable transit options.
- Minimize negative construction impacts.
- Provide connections for housing and jobs of all income levels.
- Support economic benefits for impacted communities, including lower income areas.

Appendix 2

Evaluating Connection Needs Using the Project Goals

Goal 1: Improve Place Connectivity

Each of the connection needs was evaluated against the first primary goal of the All Systems Go Future Connections Study—the need to connect major destination locations within Central Austin. Each of the twelve connection needs was evaluated as follows: if the identified need connected a primary destination to another primary destination it was given a score of “3”; if the identified need connected a primary destination to an Urban Commuter Rail station opportunity and thus to the region as a whole, it was given a score of “2”; if the identified need connected a primary destination to a close-in neighborhood within Central Austin, it was given a score of “1”. This scoring approach reflects the identified purpose of the Future Connections Study to provide interconnectivity between the primary employment and residential destinations within Central Austin and the Urban Commuter Rail system. Although all of the needs were identified based on this stated purpose and need, it is clear that connection need 6, if addressed, would clearly meet the stated goal of improving place connectivity more readily than would the others.

Goal 2 - Improve Transit Connectivity

As with Place Connectivity, each of the twelve transit connection needs was evaluated against the stated goal of the study to provide transit connectivity. Each of the connection needs was rated with a “3” if the connection need represented a tie between an Urban Commuter Rail station, Rapid Bus stop, or major transfer center and a primary destination – expanding the reach of the planned Urban Commuter Rail and Rapid Bus investments, or if it tied two major transit investments together (for example, the Urban Commuter Rail system to the proposed Austin-San Antonio Regional Commuter Rail Corridor). The connection need was rated a “2” if a potential solution to the connection need would provide a link between a close-in neighborhood on the fringe of a primary destination and the Urban Commuter Rail or Rapid Bus investment. The connection need was rated a “1” if a solution to the identified connection need would primarily provide internal circulation or primarily connect a close-in neighborhood to a major destination (absent a link to the Urban Commuter Rail or Rapid Bus investment). As can be seen in Figure 3, connection need corridors 1, 3, 6, 7, 8, 10, and 11 have a high potential for meeting the stated purpose of the Future Connections Study if addressed. These need corridors all rated a score of “3” as reflected by the desire to improve transit connectivity and from this perspective would be the priority needs to be addressed.

Goal 3 - Improve Circulation within Central Austin

Following the analysis of both Place and Transit Connectivity needs, the need for circulation improvement was weighed against each of the identified connection needs. Connection needs were rated a “3” if a solution responding to the identified connection need would improve internal circulation within one or more of the identified key destinations within the study area. The connection need was rated a “2” if the primary circulation improvement occurred within a surrounding neighborhood linked to one primary destination and a proposed Urban Commuter Rail station. The connection need was rated a “1” if the primary circulation improvement was

within a close-in neighborhood connecting with only one major destination, with no direct connection to an Urban Commuter Rail station. In this analysis, linking of needs was considered if that linking expanded the circulation characteristics of the identified needs. For example, linking identified circulation needs 7, 8, and 10 creates a network of needs that provides internal circulation and also connects the needs of multiple major destinations. This observation elevated these three identified need corridors to a slightly higher ranking than, for example, circulation need number 1, which if addressed would serve only one primary destination and respond to circulation needs within only one close-in neighborhood. As will be seen from Figure 3, circulation need corridors 3, 6, 7, 9 and 12 each meet the criteria for high priority because of the internal circulatory nature they represent within downtown Austin (east-west orientation), downtown Austin (south-north orientation), the Mueller Airport Redevelopment site, and within and around UT.

Goal 4 - Maximize Community Benefits

Each of the identified connection need corridors was evaluated as to the surrounding community and the ability of a potential solution within the corridor to be compatible with the surrounding community. Connection need corridors were rated a “3” if the corridor was within a primary destination area represented by high-density employment or educational land use or if it was part of a planned development (i.e., the Mueller Airport Redevelopment Site). The connection need corridor was rated a “2” if the corridor was within a close-in residential neighborhood that is actively seeking circulator transit investments. The connection need corridor was rated a “1” if it was within a close-in residential neighborhood that may benefit from improved circulator investments, but that does not have neighborhood groups actively seeking circulator transit investments. Connection need corridors 3, 6, 8, 9, 10, and 12 all scored a rating of “3” as indicated in Figure 3. Connection need corridor number 12, the UT Loop, is a currently operating transit circulator relying on bus technology. Connection need corridor number 7 (UT to MLK Station) rated a 2 as this neighborhood has included in their neighborhood plan the concept of an improved transit corridor along MLK and/or Manor Road. The remaining neighborhood connection needs are historical connection needs where the concept of a circulation technology investment has not fully been contemplated. Given the observed land uses in these connection need corridors, however, there is a high likelihood that some sort of transit circulation solution could be viable, but the applicability is unknown as of yet and hence their rating of “1.”

Goal 5 - Maximize Accessibility

Regardless of the solution that might be considered to address the identified connection needs, the solution will be constructed to meet the standards set forth in the Americans with Disabilities Act. For the purposes of setting priorities in terms of evaluating accessibility, each connection need corridor was evaluated on its ability to provide service that is reasonably accessible to people with disabilities, pedestrians, and bicyclists. By improving services in areas with existing or planned facilities and infrastructure that facilitate access (sidewalks, ramps, bike lanes, etc.), accessibility can be improved for disabled travelers, pedestrians and bicyclists seeking to use the regional transit network, thus expanding the accessibility of the overall system.

Each of the connection need corridors was evaluated and given a “3” if it would provide service to areas where good or fair accessibility for people with disabilities, pedestrians and bicyclists exists or is planned within Central Austin. If, on the other hand, the connection need provides service within areas where improved access for the disabled, pedestrians and bicyclists is still needed, the connection need corridor was rated a “2”.

Because any solution implemented within one of the identified connection need corridors would be expected to provide some level of improved accessibility, none of the connection need corridors was rated a “1” under this goal.

Goal 6 - Maximize Environmental Benefits

Each of the connection needs corridors was evaluated on the likelihood that a solution could be applied that would provide environmental benefits. The connection needs were evaluated solely on the likely ability to avoid environmental impacts with the application of an appropriate, albeit undefined response solution. In evaluating the connection need corridors against this goal, it was recognized that depending upon the technology or solution chosen, that it is likely that potential impacts could be avoided in each of the need corridors. That said and with the interest in establishing priority need corridors to be addressed further, each connection need corridor was ranked according to the type of observed land use through which the connection need passes. If the connection need fell entirely within one of the primary destination areas consisting of high density employment or educational land uses or if it fell largely within an area for which a master development concept is being pursued (i.e., the Mueller Airport Redevelopment Site), then it received a rating of “3”. If the connection need fell within a residential neighborhood and a major arterial was available that paralleled the connection need and thus could be considered for use in a potential solution, then it was rated a “2” or B. A “B” rating implies that it is likely that an environmentally beneficial solution to the connection need can be found. Each connection need was rated either a “3” or a “2” and there were no “1” ratings for this criterion.

Goal 7 - Maximize Economic Benefits for the Community

As with Accessibility, a solution in any of the connection need corridors, regardless of the technology that might be chosen, would be expected to have positive economic benefits overall. Benefits that would be most quickly realized would likely fall in those areas characterized presently with high density employment or educational land uses or in areas where a planned development concept is dependent on transit access (i.e., the Mueller Airport Redevelopment Site). Benefits to areas primarily characterized by low-density commercial and less dense urban residential would most certainly see economic benefits as well; however, these areas would be more affected by the nature and character of the solution applied. For these reasons, connection need corridors falling within high-density employment or educational areas, high-potential development corridors, or within the Mueller Airport site were rated with a “3” for the likelihood of resulting in economic benefits if addressed. Likewise, corridor needs falling in traditional neighborhoods were rated with a “2” because the economic benefits that might be expected would take somewhat longer to develop and would be much more dependent on the solutions chosen. Following this reasoning, connection need corridors 3, 6, 7, 8, 9, 10 and 12 each scored a “3” and the remaining connection need corridors each scored a “2”. No connection need corridors were identified as “1” for this goal.