



## 1.0 INTRODUCTION

The Metropolitan Atlanta Rapid Transit Authority (MARTA) is undertaking the I-20 East Transit Initiative. This project seeks to identify transit investments that would increase east-west mobility and accessibility to jobs and housing, provide improved transit service, and support local land use and economic development goals within the corridor.

This report presents the findings of the Tier 1 and Tier 2 Screening of alternatives. Using a two-tier process, alternatives were evaluated based on the findings of technical analyses and stakeholder and public input. Alternatives that did not adequately address the identified transportation needs of the corridor were eliminated from further consideration. The result of the Tier 1 Screening was a set of feasible transit alignments that would connect activity centers along I-20 East Corridor with central Atlanta and the existing MARTA heavy rail system.

The Tier 2 Screening paired these alignments with compatible transit technologies, or modes, to identify the final Build Alternatives that would be subject to a more detailed evaluation. These Build Alternatives were also evaluated with the Baseline and No Build Alternatives. The result of the Tier 2 Screening was the Locally Preferred Alternative (LPA) recommendation. The LPA is the alternative that would most effectively address the stakeholder identified needs of the corridor and goals and objectives of the project.

### 1.1 Evaluation Methodology

The methodology used to identify and evaluate the proposed transit alternatives was a two-tiered process in which alternatives were evaluated using increasingly detailed data and evaluation criteria. The two tiers for the development and evaluation of alternatives for the I-20 East Transit Initiative were:

- **Tier 1 (Preliminary) Screening** – This phase began with development and evaluation of a broad range of transit alternatives for the I-20 East Corridor. The Tier 1 Screening utilized a limited number of MOEs to eliminate, or screen out, alternatives that did not meet the objectives of the proposed project.
- **Tier 2 (Detailed) Screening** - The results of the Tier 1 Screening was a smaller group of Tier 2 Alternatives that were subject to more detailed evaluation. This screening included a Baseline Alternative and a No Build Alternative. The Tier 2 Screening was both more in-depth and wider in scope than that performed in the Tier 1 Screening and incorporated a high degree of technical analysis with many different MOEs.

#### 1.1.1 Tier 1 Screening

The first step in the alternatives development and screening process was the identification of feasible alternatives. Using the final transit alternatives identified in the previous Alternatives Analysis (AA) (2004) as a starting point, the SAC was tasked with identification of transit alignments that would connect activity centers throughout the I-20 East Corridor with central Atlanta and the existing MARTA heavy rail system. The Tier 1 Alternatives were developed to identify all feasible transit alignments in the corridor and connections to central Atlanta. Transit technologies, or transit modes, were not selected with the identification of these Tier 1 Alternatives.

The Tier 1 Screening only considered a limited number of evaluation criteria and MOEs to determine the transit alignment alternatives that best met the goals and objectives of



the project. There was no set number for the alternatives to be advanced. The highest performing Tier 1 Alternatives were advanced to the Tier 2 Screening. The Tier 1 Alternatives were divided into the following three distinct groups.

- **Mainline Alignment Alternatives:** Identification of the best mainline, or corridor level, transit alignments.
- **Downtown Connectivity Alternatives:** Identification of the best connections into downtown Atlanta.
- **Panola Road Area Alternatives:** Identification of the best alignments in the Panola Road area.

For detailed information on how each of these alternatives was evaluated for advancement through the alternatives development process, please reference the *Evaluation Framework Report*.

### 1.1.2 Tier 2 Screening

The Tier 2 Alternatives represent the highest performing Tier 1 Alternatives. The purpose of the Tier 2 Screening was to identify the LPA utilizing a more robust list of evaluation criteria and MOEs. These MOEs represent quantitative analysis results and qualitative public input. The result of the Tier 1 Screening was a set of feasible transit alignments that would connect activity centers along the I-20 East Corridor with central Atlanta and the existing MARTA heavy rail system. The Tier 2 Screening paired these alignments with compatible transit technologies, or modes. Thus, if a given alignment was compatible with multiple transit technologies, it was analyzed with each technology. The transit technologies identified as suitable for this project include HRT, LRT, and BRT. Build Alternatives advanced from the Tier 1 to Tier 2 Screening were evaluated along with the No Build and Baseline Alternatives. Of the final alternatives considered, the LPA recommendation is the alternative that would most effectively address the stakeholder identified needs of the corridor and goals and objectives of the project.

### 1.1.3 Evaluation Criteria and Measures of Effectiveness

This section presents the evaluation criteria and MOEs that were utilized to evaluate and compare alternatives in the Tier 1 and Tier 2 Screenings. MOEs are the specific and detailed measures established for each evaluation criterion for the purpose of measuring the performance of the alternatives. The evaluation criteria and MOEs are presented in **Table 1-1**. As described previously, the project alternatives were evaluated using a two-tiered process in which alternatives were analyzed using increasingly detailed data and evaluation criteria. As shown in Table 1-1, the evaluation criteria and MOEs utilized in the Tier 1 Screening were a subset of those utilized for the detailed evaluation in the Tier 2 Screening. Since the Tier 2 Screening was a detailed evaluation of the final alternatives, significantly more evaluation criteria and MOEs were utilized to measure the effectiveness of the alternatives in addressing the identified project goals and objectives.

The identification of useful evaluation criteria requires that the purpose and need are well defined and the goals and objectives of the project are clearly outlined. Evaluation criteria were selected to measure how well the alternatives addressed the identified project goals and objectives.



**Table 1-1: Evaluation Criteria and Measures of Effectiveness**

<b>Goal 1: Increase Mobility and Accessibility</b>				
<b>Objective</b>	<b>Evaluation Criteria</b>	<b>Measure of Effectiveness</b>	<b>Tier 1 Screening</b>	<b>Tier 2 Screening</b>
Improve East-West Travel Times	Travel Times	Transit Travel Times from Stonecrest to Five Points Station	X	X
		Transit Travel Times from Stonecrest to Arts Center Station		X
		Reduction in VHT		X
		Number of transfers per linked trip		X
Improve Transit Accessibility within the Corridor	Proximity of transit to corridor residents, employment, and special destinations.	Households with new access to transit*		X
		Employment within ½ mile of new stations that is not within ½ mile of existing MARTA rail stations		X
		Special destinations (major retail, entertainment, & university) within ½ mile of stations		X
Improve Connectivity with Existing and Planned Transit Investments	Connections to Existing and Planned Transit	Connection to Concept 3 Rapid Transit Service		X
Improve Travel Options within the Corridor	Additional Travel Options	New Travel Mode/Facility		X
<b>Goal 2: Provide Improved Transit Service within the Corridor</b>				
<b>Objective</b>	<b>Evaluation Criteria</b>	<b>Measure of Effectiveness</b>	<b>Tier 1 Screening</b>	<b>Tier 2 Screening</b>
Provide Transit Service with Sufficient Capacity to Accommodate Growing Demand	Transit System Ridership	Total Transit Boardings	X	X
		Transit Mode Share		X
		New Transit Riders	X	X
Provide Travel Time Competitive Transit Service in the Corridor	Transit Travel Times	Difference between transit travel times and auto travel times between the Mall at Stonecrest and Five Points		X
Provide Transit Service for Traditionally Underserved Populations	Proximity to Underserved Populations	Zero car households with new access to transit*		X
		ADA population with new access to transit*		X
		Minority population with new access to transit*		X
		Number of low income households with new access to transit*		X
		Elderly population with new access to transit*		X



<b>Goal 3: Support Land Use and Development Goals</b>				
<b>Objective</b>	<b>Evaluation Criteria</b>	<b>Measure of Effectiveness</b>	<b>Tier 1 Screening</b>	<b>Tier 2 Screening</b>
Promote Economic Development and Revitalization	Proximity of Underutilized Land	Acres of vacant or underutilized land within ½-mile of transit stations/stops	X	X
Support Adopted Local Land Use Plans	Land Use Plans	Consistency with adopted local and regional plans		X
Encourage Transit Supportive Land Use and Development Patterns	Potential for TOD	Acres of transit-supportive future land uses within one-half mile of new stations/stops		X
		Acres of transit-supportive existing land uses within one-half mile of new stations/stops		X
<b>Goal 4: Promote Cost Effective Transit Investments</b>				
<b>Objective</b>	<b>Evaluation Criteria</b>	<b>Measure of Effectiveness</b>	<b>Tier 1 Screening</b>	<b>Tier 2 Screening</b>
Provide Transit Service that Can be Implemented, Operated, and Maintained with Available Resources	Cost and Cost Effectiveness	Capital costs (Stations, transitways, tracks, vehicles, and maintenance facilities) and right-of-way costs in \$millions	X	X
		Operating and maintenance (O&M) costs in \$millions		X
		Deliverability Risk		X
		Transit System User Benefits (TSUB)		X
		Incremental cost per new rider		X
<b>Goal 5: Preserve Natural and Built Environment</b>				
<b>Objective</b>	<b>Evaluation Criteria</b>	<b>Measure of Effectiveness</b>	<b>Tier 1 Screening</b>	<b>Tier 2 Screening</b>
Minimize Impacts to Environmental Resources	Impact to community, cultural, and natural resources	Community Impacts (neighborhoods, churches, schools, community centers, etc.)		X
		Natural environmental impacts (streams, wetlands, T&E species, etc.)		X
		Cultural impacts (historic and archaeological resources)		X
		Total residential and commercial displacements	X	X
<b>Goal 6: Achieve a High Level of Community Support</b>				
<b>Objective</b>	<b>Evaluation Criteria</b>	<b>Measure of Effectiveness</b>	<b>Tier 1 Screening</b>	<b>Tier 2 Screening</b>
Provide Transit Investments that are Supported by Local Stakeholders and the General Public	Maintain compliance with stakeholder guidance	Compliance with SAC Guiding Principles	X	X
		Achieve a high level of public support		
	Achieve a high level of public support	Degree of Public Support (% of votes for Mainline, Downtown Connectivity, and Panola Road Alternatives)	X	
		Average Survey Score (rating of each Tier 2 Alternative on a scale of 1-5) for respondents living east of I-285		X
Achieve a high level of public support	Average Survey Score (rating of each Tier 2 Alternative on a scale of 1-5) of respondents living west of I-285		X	

\*within two miles of Collector or Commuter Town Center Stations or within one-half mile of Town Center and Special Regional Destination Stations and not within ½ mile of existing Urban Core, Neighborhood, or Town Center Stations nor within two miles of existing Commuter Town Center or Collector stations.