

# REQUEST FOR COUNCIL ACTION



CITY COUNCIL MEETING DATE:

AUGUST 5, 2014

TITLE:

**RESOLUTION IDENTIFYING A LOCALLY PREFERRED ALTERNATIVE FOR THE SANTA ANA-GARDEN GROVE FIXED GUIDEWAY PROJECT**



CITY MANAGER

CLERK OF COUNCIL USE ONLY:

APPROVED

- As Recommended
- As Amended
- Ordinance on 1<sup>st</sup> Reading
- Ordinance on 2<sup>nd</sup> Reading
- Implementing Resolution
- Set Public Hearing For \_\_\_\_\_

CONTINUED TO \_\_\_\_\_

FILE NUMBER \_\_\_\_\_

## RECOMMENDED ACTION

Approve a resolution identifying Streetcar Alternative 1 as the Locally Preferred Alternative for the Santa Ana-Garden Grove Fixed Guideway Project.

## BACKGROUND

Since 2008, the Cities of Santa Ana and Garden Grove have worked collaboratively with the Orange County Transportation Authority (OCTA) on the Santa Ana-Garden Grove Fixed Guideway Project. Santa Ana and OCTA have entered into two cooperative agreements for development of the Santa Ana-Garden Grove Fixed Guideway Project to define the respective roles and responsibilities. The first cooperative agreement involves development of an environmental document, an Alternatives Analysis (AA), and the nomination of a Locally Preferred Alternative (LPA). An LPA Decision Report has been prepared and is enclosed herein. The second cooperative agreement includes additional analysis of the LPA to meet eligibility requirements for Federal Transit Administration (FTA) funding.

The AA has been prepared concurrently with the Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). The AA established three build alternatives to be analyzed in the EA/DEIR: Streetcar Alternative 1, Streetcar Alternative 2, and a Transportation System Modification (TSM) Alternative. Throughout the process, staff worked closely with OCTA and FTA to ensure that the EA/DEIR met all federal eligibility requirements for grant funding through the FTA New Starts/Small Starts Program. FTA certification of the EA/DEIR is anticipated by this fall.

## ENVIRONMENTAL REVIEW PROCESS

The EA/DEIR Notice of Availability was released on May 22, 2014, and the 45-day public comment period began May 23, 2014. Subsequently, staff implemented an extensive outreach campaign that exceeded statutory requirements:

- 3,796 postcards were prepared and sent to all properties within 500 feet of the area of potential effect (multi-residential and single-unit properties, including the owner and tenant of each property), as well as to key stakeholders who had previously participated in the environmental process. The postcards provided details of the three scheduled meetings in English, Spanish, and Vietnamese.
- A press release was sent out via Nixle and an announcement was made by the City Manager at a publicly televised City Council meeting at the start of the 45-day review period.
- Seven news outlets, including the OC Reporter and the Orange County Register, provided print and web coverage on the Santa Ana-Garden Grove Fixed Guideway Project and the scheduled public meetings.
- Information was placed prominently on the homepage of the City's website, eliciting 100,000 views in the first 30 days of the 45-day review period.
- To encourage attendance, staff contacted key stakeholders, groups, and neighborhood leaders (including those outside of the 500-foot envelope, such as the Logan and French Park neighborhoods), and sent out an e-news release to over 2,000 neighborhood leaders in advance of the meetings.
- A copy of the Santa Ana-Garden Grove Fixed Guideway Project AA/DEIR was placed at seven locations, including five in Santa Ana, one in the OCTA office in Orange, one location in Garden Grove, and a digital copy online, for public review.
- Three public meetings were held along the potential Santa Ana-Garden Grove Fixed Guideway Project route at various times to accommodate as many people as possible. Information, interpretation and translation services were provided in English, Spanish, and Vietnamese.
- Flyers in all three languages were placed at every community and senior center in the city, providing information on where to find the AA/DEIR, the website address, the 45-day review period, and how to submit comments.
- Notice of the public meetings and calls for public comment were also promoted on the City's social media channels several times throughout the 45-day review period.
- To encourage input, flyers on the 45-day review period and calls for comments were also distributed as handouts at neighborhood meetings throughout the 45-day review period.
- Information was provided to the Santa Ana Unified School District (SAUSD) Public Information Office and various SAUSD staff, to extend notification to those interested.

The public comment period ended on July 7, 2014. As of the close of public review, comments were received from the following agencies:

- Santa Ana Historical Preservation Society (letter and e-mail) – support for Streetcar Alternative 1.
- US General Services Agency (GSA) (e-mail) – support for Streetcar Alternative 1; opposition to Streetcar Alternative 2.
- California Native American Heritage Commission (letter) – reiterating measures needed to protect sensitive archaeological resources.
- Caltrans (letter) – no comment; will continue to follow project.

Public comments were also received from the following groups/residents:

- Downtown, Inc. (e-mail) – support for Streetcar Alternative 1
- Santa Ana Community & Business Alliance (letter):
  - Opposition to the “Preferred Option” signed by 85 residents and businesses
  - Opposition to the “Preferred Option” and request for equity analysis signed by 98 residents
- Santa Ana Chamber of Commerce (e-mail) support for Santa Ana-Garden Grove Fixed Guideway Project
- Santa Ana Restaurant Association (e-mail) support for Santa Ana-Garden Grove Fixed Guideway Project
- Santiago Lofts resident (e-mail) support for Santa Ana-Garden Grove Fixed Guideway Project

Public comment totals from the public meetings are as follows:

- 4 postcards from residents
- Public Meeting #1: Verbal comments from 6 individuals
- Public Meeting #2: Verbal comments from 4 individuals
- Public Meeting #3: Verbal comments from 24 individuals

Comments generally fell into the following categories:

- General community support for a streetcar system
- Concern about the duration and potential impacts of construction on Downtown businesses
- Concern about loss of on-street parking
- Opportunities to stimulate economic development along Fifth Street

- Fourth Street versus Fifth Street

### **LPA RECOMMENDATION**

Since the close of the public review period, the City's consultant team has prepared an LPA Decision Report (Exhibit 1). This report evaluates the AA and comments relevant to the LPA that were received during the release of the EA/DEIR and the public review. Based on the findings in the report, the recommended alternative is Streetcar Alternative 1 as referenced in the resolution (Exhibit 2). This recommendation is based on several factors:

- Strong community support for a streetcar system
- Highest ridership
- Serves greatest number of transit dependent households
- Least right-of-way acquisition compared to Streetcar Alternative 2
- Lower cost compared to Streetcar Alternative 2
- Most transit-supportive land uses
- Larger economic development potential
- Ease of constructability compared to Streetcar Alternative 2

Additionally, three options for parking along Fourth Street were considered: parking on both sides, parking along the north side only without south-side parking, and elimination of on-street parking. The LPA Decision Report recommends that parking remain along both sides on Fourth Street per parking Scenario A, which will require that the diagonal parking along the south side be changed to parallel parking.

The report also recommends selection of Site B for the operations and maintenance facility along Fifth Street west of Raitt Street. Staff concurs with the findings of the LPA Decision Report and recommends Streetcar Alternative 1 as the LPA with Site B selected as the operations and maintenance facility location.

### **CONSTRUCTABILITY**

Construction of streetcar systems differs significantly from that of light rail systems or other dedicated rail transportation systems. Construction of streetcar systems has minimal impact on vehicle and pedestrian access and requires fewer pavement cuts, allowing businesses to continue without major disruption. Downtown segments of two to three blocks can be completed in two to three months per segment and noncontiguous segments can be constructed at the same time. Construction will be completed in conjunction with Downtown stakeholders and the business community in order to minimize potential impacts from construction, such as coordinating work at night and on weekends.

## **STRATEGIC PLAN ALIGNMENT**

Approval of this item supports the City's efforts to meet Goal #6 Community Facilities & Infrastructure, Objective #1 (establish and maintain a Community Investment Plan for all City assets), Strategy G (develop and implement the City's Capital Improvement Program in coordination with the Community Investment and Deferred Maintenance Plans).

Approval of this item also supports Goal #3 Economic Development, Objective #2 (create new opportunities for business/job growth and encourage private development through new General Plan and Zoning Ordinance policies), Strategy C (support business development and job growth along transit corridors through the completion of critical transit plans/projects including: The Fixed Guideway Project, Santa Ana Regional Transportation Center Master Plan, Complete Streets and General Plan Circulation Element update).

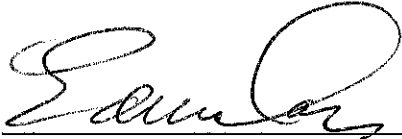
Approval of this item also supports Goal #3 Economic Development, Objective #4 (continue to pursue objectives that shape downtown Santa Ana into a thriving, culturally diverse, shopping, dining, and entertainment destination), Strategy B (create a comprehensive program to manage parking that includes innovative strategies to provide parking, create revenue and enhance accessibility in the downtown).

## **ENVIRONMENTAL IMPACT**

There is no environmental impact associated with this specific action. The nomination of the Locally Preferred Alternative (LPA) will support progress of the Santa Ana-Garden Grove Fixed Guideway project which is the subject of an Environmental Assessment/Draft Environmental Impact Report (EA/DEIR). Nomination of the LPA is not a project as such nomination will not result in a potentially significant physical impact to the environment and because such nomination has no potential for immediate direct physical impacts to the environment. Additionally, the nomination is statutorily exempt from CEQA under State CEQA Guidelines section 15262 because it qualifies as a decision for possible future actions that have not yet been approved and future final actions will not be taken without final approval and certification of all necessary state and federal environmental documents.

## **FISCAL IMPACT**

There is no fiscal impact associated with this specific action. Development on this project to date and future work is being funded by the 2006 Measure M-Local sales tax and will not require City funding. Design and construction funding for this project will be provided by OCTA and/or federal funds.

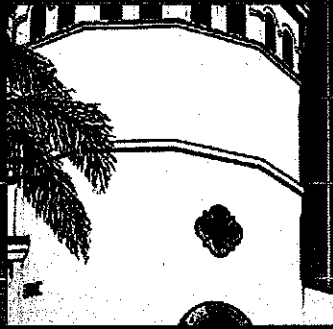


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Edwin "William" Galvez, P.E.  
Interim Executive Director  
Public Works Agency

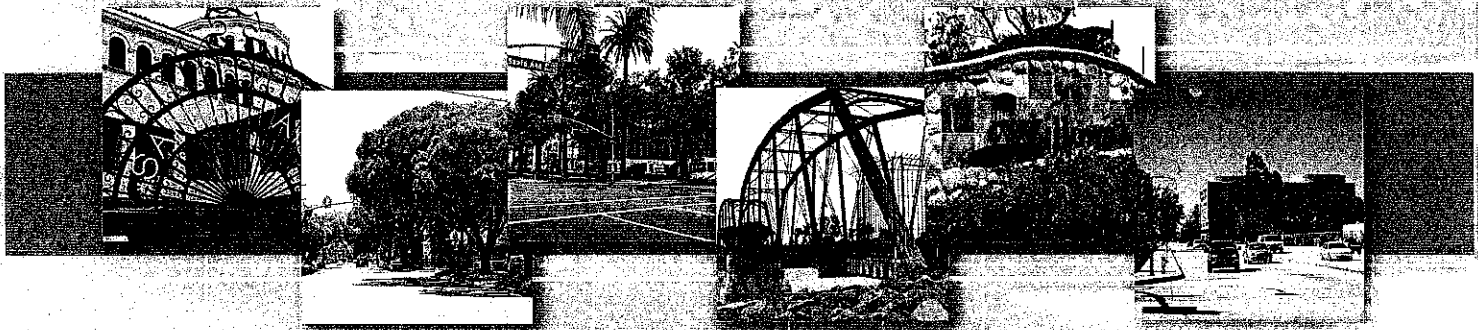
WG/JG

- Exhibits: 1. LPA Decision Report  
2. Resolution



## Santa Ana and Garden Grove Fixed Guideway Corridor

# LOCALLY PREFERRED ALTERNATIVE DECISION REPORT



JULY, 2014



CORDOBA CORPORATION



Exhibit 1  
55C-7





# Locally Preferred Alternative Decision Report

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in support of the  
**SANTA ANA AND GARDEN GROVE**  
**FIXED GUIDEWAY CORRIDOR STUDY**  
Santa Ana Regional Transportation Center (SARTC) to Harbor Boulevard

Prepared for  
City of Santa Ana  
in cooperation with  
City of Garden Grove  
Orange County Transportation Authority



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July 2014

# TABLE OF CONTENTS

<b>ACRONYMS</b> .....	<b>iv</b>
<b>EXECUTIVE SUMMARY</b> .....	<b>ES-1</b>
Background.....	ES-1
Summary of Alternatives Analysis .....	ES-1
Summary of Environmental Review .....	ES-2
Summary of Public Outreach .....	ES-2
Recommended Locally Preferred Alternative.....	ES-3
<b>1.0 INTRODUCTION</b> .....	<b>1-1</b>
1.1 Project Background and History .....	1-1
1.2 Purpose and Need for the Project.....	1-2
1.3 Purpose of the LPA Decision Report .....	1-4
1.4 Organization of the Report .....	1-5
<b>2.0 OVERVIEW OF ALTERNATIVES ANALYSIS</b> .....	<b>2-1</b>
2.1 Alternatives Development.....	2-1
2.2 Public Scoping .....	2-4
2.3 Initial Screening.....	2-5
2.4 Detailed Evaluation of a Reduced Set of Alternatives.....	2-8
<b>2.4.1 Operations and Maintenance Facility Site Options</b> .....	<b>2-11</b>
2.4.2 4 <sup>th</sup> Street Parking Scenarios.....	2-14
2.5 Detailed Evaluation of Alternatives' Screening Criteria .....	2-16
2.6 Detailed Evaluation of Alternatives' Results .....	2-17
2.7 Conclusions and Tradeoffs among Alternatives .....	2-18

<b>3.0</b>	<b>OVERVIEW OF ENVIRONMENTAL REVIEW</b>	<b>3-1</b>
3.1	Summary of Impacts	3-1
<b>4.0</b>	<b>OVERVIEW OF PUBLIC OUTREACH</b>	<b>4-1</b>
4.1	Summary of Outreach Efforts	4-1
4.1.1	Stakeholder Working Group	4-1
4.2	Pre-Scoping Activities	4-2
4.3	Public Scoping Period Activities	4-3
4.4	AA Public Outreach Activities	4-4
4.5	Public Review Period Activities	4-4
4.6	Public Review Meetings	4-5
4.7	Summary of Public Comments	4-7
4.8	Incorporation of Public Comments into the EA/Final EIR	4-12
<b>5.0</b>	<b>RECOMMENDED LOCALLY PREFERRED ALTERNATIVES (LPA)</b>	<b>5-1</b>
5.1	Results of Detailed Technical Evaluation	5-1
5.2	Results of Environmental Review	5-5
5.3	Results of Community Outreach	5-5
5.4	Summary of Findings and Conclusions	5-6
5.5	Locally Preferred Alternative	5-8
5.5.1	Technology (Mode)	5-8
5.5.2	Alignment (Route)	5-9
5.5.3	Operations and Maintenance Facility	5-10
5.5.4	Roadway Improvements/Modifications	5-10
5.5.5	Station Locations and Characteristics	5-10
5.5.6	Operating Characteristics of the Streetcar	5-11

## List of Tables

Table 2-1: Initial Screening Criteria and Measures of Effectiveness.....	2-6
Table 2-2: Detailed Evaluation Criteria and Measures of Effectiveness .....	2-16
Table 2-3: Ranking of Alternatives Based on Detailed Evaluation Results.....	2-17
Table 3-1: Summary of Effects, Mitigation Measures, and Effects after Mitigation.....	3-3
Table 5-1: Cost Comparison of Alternatives.....	5-2
Table 5-2: Final Alternatives Ranking.....	5-3

## List of Figures

Figure ES-1: Recommended Locally Preferred Alternative.....	1-1
Figure 1-1: Location Map.....	1-1
Figure 1-2: Study Area.....	1-3
Figure 2-1: Alternatives Development and Analysis Process .....	2-2
Figure 2-2: Study Goals and Objectives .....	2-3
Figure 2-3: Transportation Systems Management (TSM) Alternative (Select Elements) ..	2-9
Figure 2-4: Streetcar Alternative 1 .....	2-10
Figure 2-5: Streetcar Alternative 2 .....	2-12
Figure 2-6: Potential O&M Facility Site Locations .....	2-13
Figure 2-7: 4th Street Parking Scenarios .....	2-15
Figure 5-1: Siemens S70 Vehicle .....	5-8
Figure 5-2: Locally Preferred Alternative Route.....	5-9
Figure 5-3: Typical Station Shelter .....	5-11

## ACRONYMS

Acronyms	Definition
AA	Alternative Analysis
ATV	automated ticket vending
BRT	bus rapid transit
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CPUC	California Public Utilities Commission
DEIR	Draft Environmental Impact Report
DMU	light diesel multiple unit
EA	Environmental Assessment
EA/DEIR	Environmental Assessment/Draft Environmental Impact Report
EA/FEIR	Environmental Assessment/Final Environmental Impact Report
FONSI	Finding of No Significant Impact
FTA	Federal Transit Administration
GSA	General Services Administration
I-5	Interstate 5
IOSs	Initial Operable Segments
LOSSAN	Los Angeles-San Diego-San Luis Obispo
LPA	Locally Preferred Alternative
LRT	light rail transit
mph	miles per hour
MOEs	Measures of Effectiveness
NAHC	Native American Heritage Commission
NEPA	National Environmental Policy Act
NOA	Notice of Availability
NOP	Notice of Preparation
NRHP	National Register of Historic Places
OCTA	Orange County Transportation Authority
OCTAM	Orange County Transportation Analysis Model
PE	Pacific Electric
PE ROW	Pacific Electric Right-of-Way
PRT	personal rapid transit
ROW	right-of-way
SAC-BA	Santa Ana Community-Business Alliance
SAHPS	Santa Ana Historic Preservation Society
SA-GG	Santa Ana-Garden Grove
SARTC	Santa Ana Regional Transportation Center

<b>Acronyms</b>	<b>Definition</b>
SCH	State Clearinghouse
SWG	Stakeholder Working Group
TDM	Transportation Demand Management
TPSSs	traction power substations
TSM	Transportation System Management

# **EXECUTIVE SUMMARY**

## **Background**

In 2009 the cities of Santa Ana and Garden Grove initiated the Alternatives Analysis (AA) and Environmental Review (Go Local Program Step 2) for the Santa Ana-Garden Grove (SA-GG) Fixed Guideway Corridor. In the study process followed by the cities of Santa Ana and Garden Grove in completing the requirements of the Go Local Step 2 work program, the AA and the environmental review were conducted concurrently. The AA was performed in compliance with the requirements of the Federal Transit Administration and the environmental review process satisfied the requirements of both the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA).

The purpose of the SA-GG Fixed Guideway Project is to:

- Improve Transit Connectivity within the Study Area;
- Relieve Congestion by Providing Alternative Mobility Options;
- Be Sensitive to the Character of the Community;
- Increase Transit Options;
- Improve Transit Accessibility to and within the Study Area; and
- Provide Benefits to the Environment through Improved Air Quality.

This LPA Decision Report provides a summary of the efforts undertaken as part of the planning process to define, screen and evaluate options and alternatives for the Santa Ana-Garden Grove Fixed Guideway Corridor, and documents the recommendation for a Locally Preferred Alternative.

## **Summary of Alternatives Analysis**

The alternatives analysis process consisted of four major steps: (1) Preliminary Definition of Alternatives, (2A) Initial Screening (Route Options), (2B) Initial Screening (Technology Options), and (3) Detailed Evaluation and Environmental Impact Analysis of the reduced set of alternatives and selection of the LPA.

A wide range of potentially suitable technology options for the SA-GG Fixed Guideway Corridor were investigated. A variety of alignment options were narrowed down to six that based on the need to establish an east-west transit corridor in the Study Area, and to improve the Study Area's regional transit connectivity by providing direct connections to existing and planned transit services (Metrolink and OCTA fixed route and BRT services) at SARTC and at the northeast corner of Harbor Boulevard and Westminster Avenue in the City of Garden Grove.

Initial screening was performed to identify which of the conceptual alternatives best satisfied the Purpose and Need and project goals and objectives and appeared to be most



feasible. The initial screening process consisted of two stages – an early qualitative analysis of the conceptual alternatives resulting in the screening of route options; and, a subsequent quantitative analysis of the conceptual alternatives resulting in the screening of technology options.

A detailed technical evaluation was performed on the reduced set of alternatives resulting from the initial screening. The reduced set of alternatives included:

- TSM Alternative
- Streetcar Alternative 1 – Santa Ana Boulevard/4<sup>th</sup> Street
- Streetcar Alternative 2 – Santa Ana Boulevard/Civic Center Drive/5<sup>th</sup> Street

Upon completion of the detailed technical evaluation Streetcar Alternative 1 was found to have the highest daily ridership and serve the greatest number of transit dependent household. Land uses along the alignment provided the densities and development patterns to support a high-capacity transit system, and the city's adopted land use plans reinforced these patterns and encouraged the types of development/redevelopment needed to support the system. Streetcar Alternative 1 also most effectively served key destinations within the study area.

The TSM Alternative ranked first among the alternatives in terms of Environmental Responsibility because it was not estimated to affect any conditions in the environment. The TSM Alternative also ranked first in terms of ease of constructability and lowest capital cost.

Overall, Streetcar Alternative 1 was ranked first among the alternatives.

## **Summary of Environmental Review**

The reduced set of alternatives was also subjected to an environmental evaluation. An Environmental Assessment/Draft Environmental Impact Report (EA/DEIR) was prepared to meet the requirements of the National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA), concurrent with the preparation of the AA.

Adverse effects associated with hazardous materials, operational noise (moderate), safety, and construction air quality were identified to occur with Streetcar Alternatives 1 and 2 prior to incorporation of mitigation measures (CEQA only). Mitigation measures would eliminate the adverse effects associated with hazardous materials and safety. Moderate effects associated with operational noise and identified in the EA/DEIR would remain after the implementation of mitigation, however these effects would not be considered adverse. In addition, significant construction air quality impacts under CEQA would remain after the implementation of mitigation; however, construction-related air quality impacts would be temporary and not adverse under NEPA after the implementation of mitigation. No adverse effects were identified for the TSM Alternative.

## Summary of Public Outreach

Meaningful public engagement is an important component of the Santa Ana-Garden Grove Fixed Guideway Project. From the outset of the project and throughout the process, the cities shared information with and sought input from the community, elected officials, and key stakeholders through meetings, dissemination of informational materials, a project website.

In support of the environment review process and the 45-day public review period for the EA/DEIR, the cities of Santa Ana and Garden Grove, in coordination with OCTA, conducted three Public Review Meetings for the Santa Ana-Garden Grove Fixed Guideway EA/DEIR in accordance with the requirements of CEQA.

The Public Review Meetings, held between June 14 and June 19, 2014, combined an open house with a formal presentation and comment period, and provided members of the community forums through which to comment on the EA/DEIR. Trilingual (English/Spanish/Vietnamese) materials, interpretations and transcriptionists were available at public meetings. Approximately 120 to 150 people attended the public meetings. The following summarizes the comments received during the Public Review Period, (oral and written) that are germane to the selection of the Locally Preferred Alternative.

- General community support for a streetcar system
- Concern about the duration and potential impacts of construction on local Downtown businesses
- Concern about loss of on-street parking
- Interest in economic development stimulus in conjunction with the streetcar, particularly on 5<sup>th</sup> Street
- Expressed preferences for either 4<sup>th</sup> Street or 5<sup>th</sup> Street.

## Recommended Locally Preferred Alternative (LPA)

Based on the results of the detailed technical evaluation of the alternatives, the findings of the environmental review, and the comments received during the public review period, the recommended Locally Preferred Alternative (LPA) is Streetcar Alternative 1. The following summarizes the key features of the LPA.

**Technology (Mode):** It is recommended that transit service be provided by modern streetcars operating within existing streets in mixed-flow traffic (the streetcar will share the travel lane with other vehicles), consistent with the Streetcar Alternatives analyzed in the EA/DEIR. For planning purposes, the Siemens S70 short vehicle was assumed since it is currently the only vehicle approved by the California Public Utilities Commission (CPUC) for streetcar operations in California.

Power would be supplied via an overhead electric line. Other emerging streetcar technologies, including “wireless” and other vehicle options that may be acceptable to the CPUC will also be considered as they become available during the project development process.

**Alignment (Route):** The recommended alignment (see Figure ES-1) is consistent with Streetcar Alternative 1, with the streetcar traveling westbound from eastern terminus station at SARTC in Santa Ana, along Santa Ana Boulevard, entering the Pacific Electric Right-of-way (PE ROW) west of Raitt Street and continuing to the western terminus station in the northwest quadrant of the intersection of Harbor Boulevard and Westminster Avenue in Garden Grove. Eastbound, the streetcar will travel along the PE ROW and Santa Ana Boulevard to approximately Parton Street, where the route will exit Santa Ana Boulevard and continue along a public easement on the south edge of Sasser Park. The streetcar will exit Sasser Park onto 4<sup>th</sup> Street and continue along 4<sup>th</sup> Street to Mortimer Street, where it will turn north and reconnect with Santa Ana Boulevard, continuing east to the eastern terminus station at SARTC. The route is approximately 4.1 miles in length. Six traction power substations have been identified along the route to distribute electrical power to the vehicles.

**Station Locations:** In addition to the two terminus stations at SARTC on the east and Harbor Boulevard/Westminster Avenue on the west, there will be station stops at 10 other locations/cross streets along the route:

1. Harbor Boulevard and Westminster Avenue
2. Willowick
3. Fairview Street and PE ROW
4. Raitt St. and Santa Ana Boulevard
5. Bristol St. and Santa Ana Boulevard
6. Flower St. and Santa Ana Boulevard

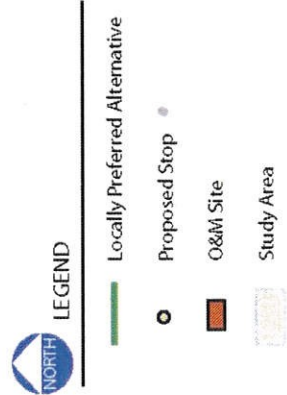
*Couplet Section (Eastbound)*

7. Sasser Park
8. Broadway and 4<sup>th</sup> Street
9. Main St. and 4<sup>th</sup> Street
10. French St. and 4<sup>th</sup> Street
11. Santa Ana Boulevard and Lacy Street
12. SARTC

*Couplet Section (Westbound)*

7. Ross Street and Santa Ana Boulevard
8. Broadway and Santa Ana Boulevard
9. Main Street and Santa Ana Boulevard
10. French Street and Santa Ana Boulevard

Figure ES-1: Recommended Locally Preferred Alternative



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**Operations & Maintenance (O&M) Facility Location:** The preferred location for the maintenance facility for the streetcar is between the PE ROW and 5<sup>th</sup> Street, west of Raitt Street (between Daisy Avenue and English Street. This is Site B as examined in the EA/DEIR.

**4<sup>th</sup> Street Parking:** Diagonal parking is currently provided along 4<sup>th</sup> Street between Ross Street and French Street. It is recommended that, with implementation of the streetcar, the diagonal parking along the south side of 4<sup>th</sup> Street be replaced by parallel parking (4<sup>th</sup> Street Parking Scenario A), resulting in the loss of approximately 26 to 30 parking spaces along the roadway segment. The sidewalks along the south side of 4<sup>th</sup> Street will be widened from 12 feet to 20 feet.

Section 5.5 provides a more detailed discussion of the physical and operating characteristics of the recommended LPA.

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# 1.0 INTRODUCTION

## 1.1 Project Background and History

In early 2006, the Orange County Transportation Authority (OCTA) initiated the Go Local program to encourage local agencies to consider transit system connection to Metrolink. In 2008, as part of the Go Local program, the cities of Santa Ana and Garden Grove completed a study that identified the benefits of developing a fixed guideway corridor to link key activity and employment centers in their communities to the Santa Ana Regional Transportation Center (SARTC). Their project was selected by OCTA for further study and in 2009, the cities initiated the Alternatives Analysis (AA) and Environmental Review (Go Local Program Step 2) for the Santa Ana-Garden Grove (SA-GG) Fixed Guideway Corridor in coordination with OCTA. As illustrated in Figure 1-1, the project location is in central Orange County, California and directly accesses both the Los Angeles-San Diego (LOSSAN) rail corridor and the old Pacific Electric Railway corridor.

Figure 1-1: Location Map

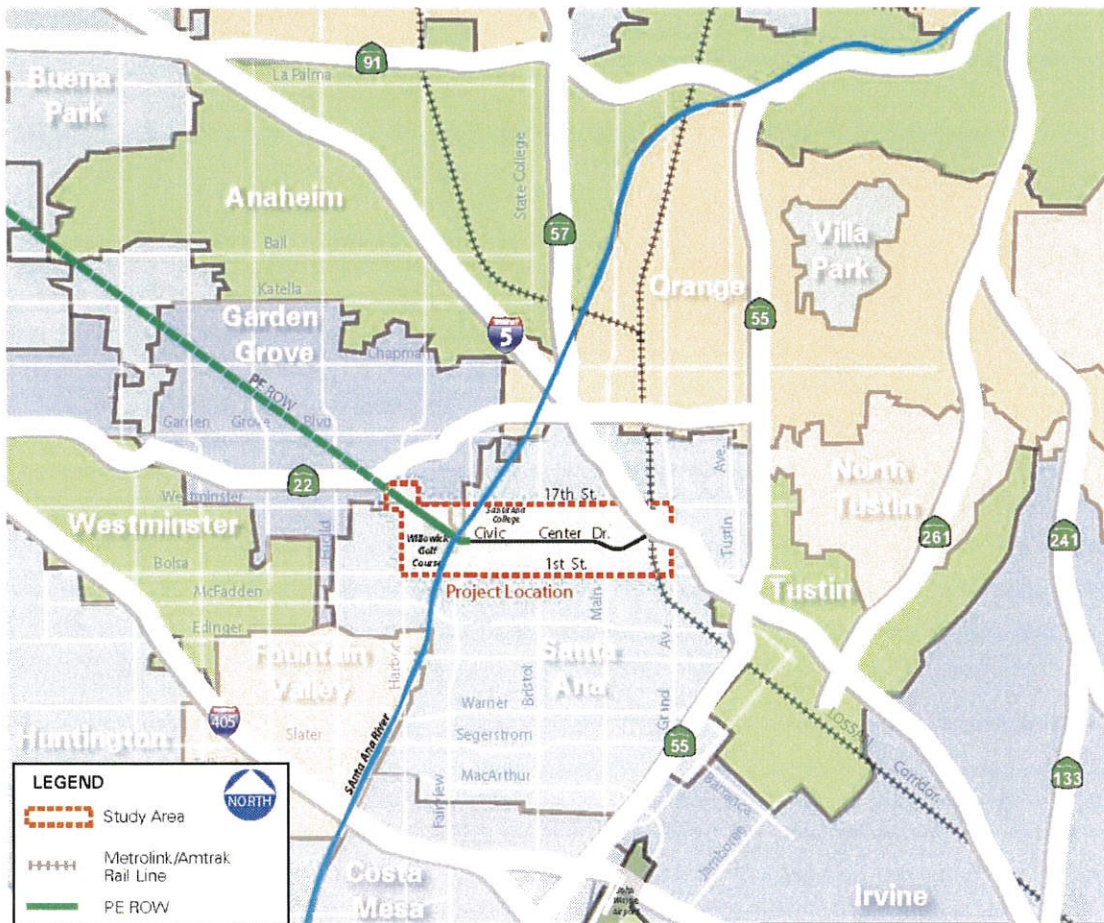




Figure 1-2 illustrates the Study Area for the Santa Ana-Garden Grove Fixed Guideway Project. The Study Area was defined to support the development and evaluation of a broad range of modal alternatives that satisfy the goals and objectives of the study. It encompasses SARTC and existing and planned development surrounding the rail station; employment, government, commercial and cultural activity centers in the Civic Center and downtown Santa Ana; and, existing neighborhoods, businesses, and activity centers in central Santa Ana and east Garden Grove. Planned development and areas that offer future development and redevelopment opportunities were also considered, as were planned regional transportation system improvements such as OCTA's Bus Rapid Transit (BRT) program, and Metrolink service expansions.

## **1.2 Purpose and Need for the Project**

Santa Ana and Garden Grove are mature, densely populated, and ethnically diverse cities located in the heart of Orange County, California. Transit service equity is an important issue for the Study Area, where the median household income is slightly above the U.S. Census Bureau poverty level threshold and approximately 17.8 percent of households are without an automobile and therefore must rely on ridesharing, public transportation or non-motorized transportation for all of their travel needs. Approximately 91 percent of the Study Area population is non-white; approximately 31.9 percent are under the age of 15 and therefore not eligible to drive an automobile.<sup>1</sup> More than half of Study Area residents use modes of transportation other than the single-occupant automobile for their travel to/from work including approximately 13.8 percent of Study Area residents who use public transportation.<sup>2</sup>

Santa Ana and Garden Grove's overall vision for the Study Area includes a transit system that integrates seamlessly with the community, provides connections to regional Metrolink and Amtrak commuter rail services at the SARTC, and is compatible with the established urban character.

The purpose of the SA-GG Fixed Guideway Project is to:

- Improve Transit Connectivity within the Study Area;
- Relieve Congestion by Providing Alternative Mobility Options;
- Be Sensitive to the Character of the Community;
- Increase Transit Options;
- Improve Transit Accessibility to and within the Study Area; and
- Provide Benefits to the Environment through Improved Air Quality.

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<sup>1</sup> US Census 2000.

<sup>2</sup> Census: Journey to Work 2000.

Figure 1-2: Study Area



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The following summarizes the needs for the project:

- Missing Transit Links
- Congested Freeways and Arterials
- Limited Transportation Improvement Options
- Limited Travel Choices
- Significant Level of Transit Dependence
- Automobile Emissions Contribute to Unhealthy Air Quality

### **1.3 Purpose of the Locally Preferred Alternative (LPA) Decision Report**

The Santa Ana-Garden Grove Fixed Guideway Corridor project included preparation of an Alternatives Analysis (AA) which would satisfy the requirements of the Federal Transit Administration and an environmental review process that would satisfy the requirements of both the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA). In the study process followed by the cities of Santa Ana and Garden Grove in completing the requirements of the Go Local Step 2 work program, the AA and the environmental review were conducted concurrently. The Alternatives Analysis Report documented the process followed to define, screen and evaluate the technical merits of alternatives. Through the Santa Ana-Garden Grove Fixed Guideway Corridor AA:

- The purpose and need for the project were defined,
- A broad range of technology and route options were defined and screened based on the Purpose and Need and other identified criteria, with some concepts eliminated from further consideration,
- The remaining technology and route concepts were combined to form alternatives, and an additional screening was conducted in two stages; the first stage included the further analysis of route options while the second stage included the further analysis of technology options (with additional detail) to determine which options best meet the project's Purpose and Need and goals and objectives and which options should be eliminated from further consideration.
- The reduced set of alternatives underwent detailed evaluation using screening criteria that were tied to the Purpose and Need and goals and objectives, and
- The alternatives which performed best against the criteria and best addressed the Purpose and Need and goals and objectives for the project were identified for potential selection as the LPA.

The reduced set of alternatives was also subjected to environmental analyses compliant with NEPA and CEQA. Upon completion of the environmental analysis, an Environmental Assessment/Draft Environmental Impact Report (EA/DEIR) was prepared. The Federal Transit Administration (FTA) served as the lead agency for the preparation of the EA, and the city of Santa Ana was the lead agency for the DEIR. Following review and approval of

the EA/DEIR by the City of Santa Ana, OCTA and the FTA, the EA/DEIR was released for a 45-day public review period on

May 23, 2014. During the 45-day public review, public meetings were conducted to solicit comments from the community, interested agencies and key stakeholders. Following the close of the public review period on July 7, 2014, the results of the environmental analysis documented in the EA/DEIR, and the comments received during the public review period were considered in combination with the technical evaluation of the alternatives completed as part of the AA to formulate a Locally Preferred Alternative (LPA) recommendation for consideration and adoption by the cities of Santa Ana and Garden Grove. Included in the process of formulating an LPA recommendation, responses to the public comments were developed for use in finalizing the EA/EIR.

The purpose of this report is to review and summarize the analyses and evaluation results from the AA and the EA/DEIR, and the comments received during the public review period and recommend a LPA for adoption by the cities of Santa Ana and Garden Grove.

## **1.4 Organization of the Report**

This LPA Decision Report provides a summary of the efforts undertaken as part of the planning process to define, screen and evaluate options and alternatives for the Santa Ana-Garden Grove Fixed Guideway Corridor, and documents the recommendation for a Locally Preferred Alternative. The following summarizes the content and organization of this report:

1. Chapter 1 introduces the project and the purpose and need for it.
2. Chapter 2 provides an overview of the AA process from the preliminary definition of a wide range of potential alternatives through the detailed evaluation of the reduced set of alternatives. A comparison is provided of the results of the detailed analysis and a ranking of the alternatives based on analysis results.
3. Chapter 3 summarizes the results of the environmental review of the reduced set of alternatives as documented in the EA/DEIS (May 2014).
4. Chapter 4 describes the public outreach and interagency coordination efforts undertaken in support of the study process, including the public review of the environmental document and the comments received.
5. Chapter 5 presents the recommended Locally Preferred Alternative.

## 2.0 OVERVIEW OF THE ALTERNATIVES ANALYSIS

In 2009, the cities initiated the Alternatives Analysis and Environmental Review for the SA-GG Fixed Guideway System in coordination with OCTA. The alternatives analysis process, is described in detail in the SA-GG Fixed Guideway Preliminary Definition of Alternatives Report (June 12, 2011), Initial Alternatives Screening Report (August 5, 2011), and Alternatives Analysis Report (April 2014). The following provides an overview of the Alternatives Analysis process, and a brief summary of the findings and results.

### 2.1 Alternatives Development

The alternatives analysis process consisted of four major steps: (1) Preliminary Definition of Alternatives, (2A) Initial Screening (Route Options), (2B) Initial Screening (Technology Options), and (3) Detailed Evaluation and Environmental Impact Analysis of the reduced set of alternatives and selection of the LPA. **Figure 2-1** illustrates the alternatives development and evaluation process undertaken for the SA-GG Fixed Guideway Project.

The alternatives development process began with a survey of potential technology and alignment options, the definition of the project's goals and objectives, development of initial screening criteria based on the Purpose and Need Statement, and engagement with the community through public listening sessions and public scoping.

**Potential Technology Options.** A wide range of potentially suitable technology options for the SA-GG Fixed Guideway Corridor were investigated, including:

- Bus Transit
- Bus Rapid Transit
- Streetcar
- Light Rail Transit
- Commuter Rail
- Light Diesel Multiple Unit
- Monorail
- Low Speed Maglev
- Personal Rapid Transit

**Potential Alignment Options.** The initial alignment options were based on the need to establish an east-west transit corridor in the Study Area, and to improve the Study Area's regional transit connectivity by providing direct connections to existing and planned transit services (Metrolink and OCTA fixed route and BRT services) at SARTC and at the northeast corner of Harbor Boulevard and Westminster Avenue in the City of Garden Grove. Six alignment options were initially investigated.

**Goals and Objectives.** The project's goals and objectives (see **Figure 2-2**) were derived from the purpose and need for transportation improvements in the corridor study area. Along with Purpose and Need, they shaped the development of transportation alternatives as well as establishing an evaluative framework for how alternatives should be assessed and compared in subsequent study phases.



Figure 2-1: Alternatives Development and Analysis Process

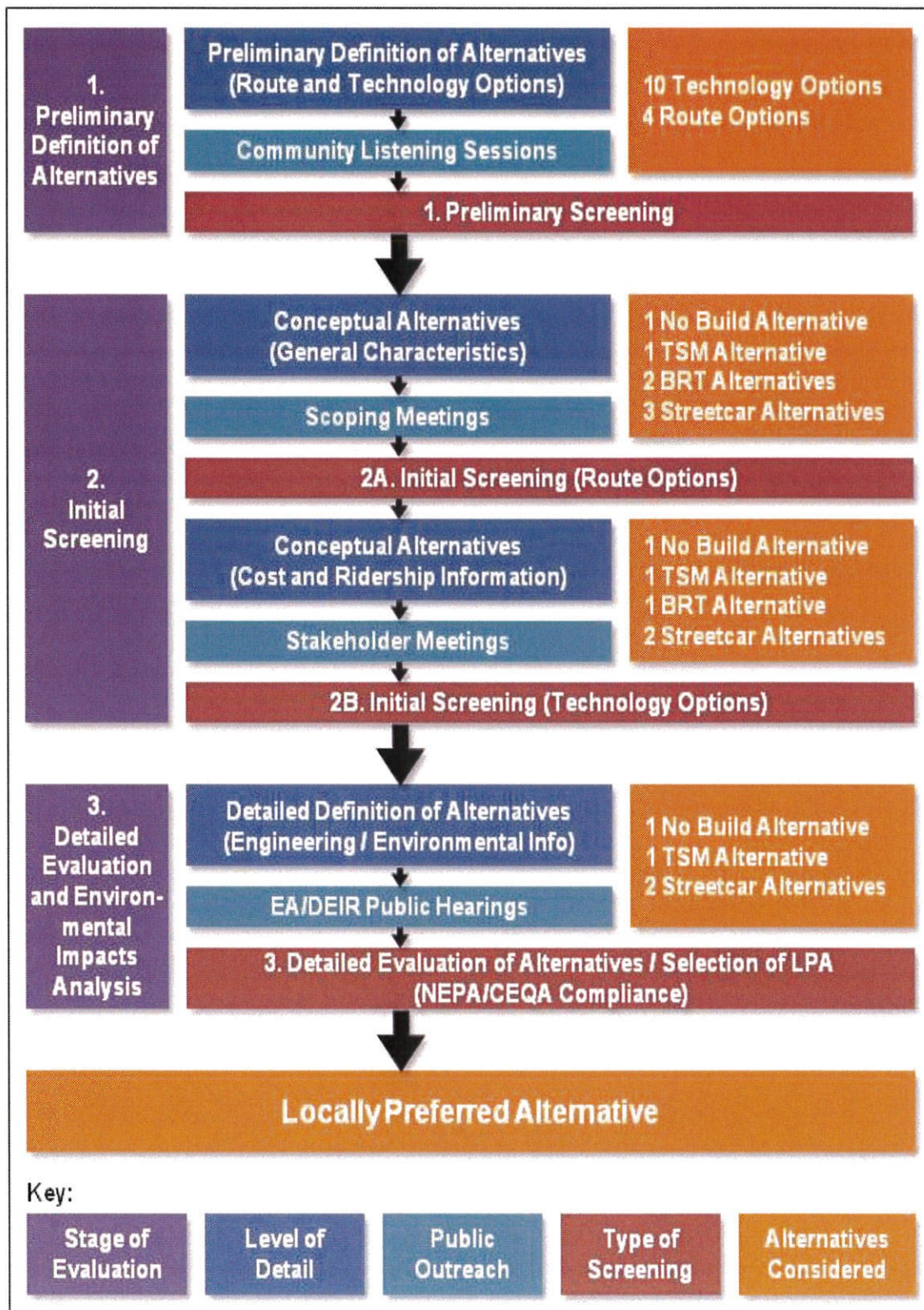


Figure 2-2: Study Goals and Objectives

***Goal 1: Increase accessibility and livability in the heart of Orange County through transit options that enhance the quality of life within the community.***

- Support planned growth in regional rail and bus service
- Enhance connections to regional, interstate, and international bus, rail and air service
- Provide convenient, efficient regional access between SARTC, and employment and activity centers, and residential neighborhoods in central Santa Ana and Garden Grove
- Enhance connectivity between neighborhoods, businesses, and activity centers in central Santa Ana
- Provide employees with improved access to job sites
- Provide additional travel options for students and transit-dependent individuals

***Goal 2: Actively foster economic development opportunities, transit supportive land uses, and community goals.***

- Stimulate land development opportunities in undeveloped and underdeveloped areas along the corridor
- Provide a transportation system that supports pedestrian activity, and serves higher density development
- Integrate well with surrounding neighborhoods by providing frequent stops with shorter travel distances between stops
- Reinforce transit-oriented development near SARTC and in appropriate locations along the corridor

***Goal 3: Promote sustainable and environmentally responsible transportation investments that respond to the needs of the people who live and work within the community.***

- Reduce automobile trips by providing high quality transit access and promoting walkability
- Improve air quality; reduce energy consumption, carbon footprint, and greenhouse gas emissions
- Support reduced parking requirements along the corridor where appropriate
- Limit environmental impacts by implementing a system that operates primarily

***Goal 4: Deliver travel benefits, reliability, and choice to transportation system users.***

- Provide transit service that is user-friendly
- Attract new transit riders
- Provide service that is travel time competitive with personal automobiles
- Use a service-proven technology
- Provide for the safety of the system users and individuals who live in the corridor
- Provide for a reasonable, integrated fare structure

***Goal 5: Make cost-effective and financially feasible transportation choices***

- Attract long-term, sustainable public and private investment
- Explore opportunities to reduce or minimize capital costs
- Provide for efficient and cost-effective system operations and maintenance
- Maximize overall system cost-effectiveness
- Maximize ridership
- Minimize cost per rider for long term operations



## 2.2 Public Scoping

In January 2010, the cities engaged the community and resource agencies in Public Listening Sessions to receive input on Purpose and Need the project development process, project goals, and potential technology and alignment options. Four different alignment alternatives were presented, all of which spanned the full breadth of the four-mile corridor between SARTC and Harbor Boulevard. Through this process, three technologies were identified as the technologies best suited for meeting the Purpose and Need because they were viewed as reliable, affordable, least likely to result in adverse community/environmental impacts, and capable of supporting local economic development goals:

1. Bus (or Trolley Bus)
2. BRT
3. Streetcar

In addition, general requirements for the Santa Ana-Garden Grove Fixed Guideway System were defined to guide the preliminary screening process:

- System must be surface-running
- System must be capable of operating in mixed flow traffic within existing lane widths
- Vehicles compatible with short downtown block face lengths
- System must be compatible with pedestrian activity and pedestrian scale street frontage
- Operating cost per potential passenger must be reasonable
- System must be proven to be reliable in revenue service in the U.S.
- System should operate in the curb lane (except in the PE ROW where it would operate in a dedicated alignment down the center of the available ROW)

In June 2010, the cities conducted formal public scoping through which seven conceptual project alternatives were presented:

- **No Build** – The No Build Alternative includes existing conditions as well as conditions that would be reasonably expected to occur in the foreseeable future without implementation of the proposed project. Conditions in the foreseeable future (through planning horizon year 2035) include other projects that (1) have environmental analysis approved by an implementing agency and (2) have a funding source identified for implementation. The No Build Alternative provides the basis for comparing future conditions resulting from other alternatives proposed.
- **TSM** – The TSM Alternative consists of a number of bus improvements and represents the most that can be done for mobility without construction of major new transportation facilities or physical capacity improvements in the context of the existing transportation infrastructure. As such, the TSM Alternative provides the baseline against which the Build Alternatives (*i.e.*, those that would entail a major investment)

are compared. The TSM Alternative emphasizes low cost (*i.e.*, small physical) improvements and operational efficiencies such as focused traffic engineering actions, expanded bus service, and improved access to transit services. Included within the TSM Alternative are modifications and enhancements to selected bus routes in the Study Area; intersection/signal improvements, and bus stop amenity upgrades. While the Build Alternatives utilize the PE ROW the TSM improvements do not since the PE ROW is unpaved and would require construction of a roadway to accommodate bus service.

- **BRT 1 (Civic Center Drive)** – BRT transit line between SARTC and Harbor Boulevard traversing Civic Center Drive and the PE ROW with buses would operating in mixed flow traffic lanes on existing city streets and in new lanes dedicated exclusively to bus use in the PE ROW.
- **BRT 2 (Santa Ana Boulevard/5th Street)** - BRT transit line between SARTC and Harbor Boulevard traversing Santa Ana Boulevard and the PE ROW with a Santa Ana Boulevard and 5th Street couplet through the Downtown area. Buses would operate within mixed flow traffic lanes on existing city streets and in new lanes dedicated exclusively to bus use in the PE ROW.
- **Streetcar A (Santa Ana Boulevard/5th Street)** - Modern streetcar line between SARTC and Harbor Boulevard traversing Brown Street/Santa Ana Boulevard and the PE ROW with a Santa Ana Boulevard and 5th Street couplet through the downtown area. Streetcars would operate in mixed flow traffic on tracks embedded within existing city
- **Streetcar B (Santa Ana Boulevard/4th Street)** - Modern streetcar line between SARTC and Harbor Boulevard traversing Santa Ana Boulevard and the PE ROW with a Santa Ana Boulevard and 4th Street couplet through the downtown area. Streetcars would operate in mixed flow traffic on tracks embedded within existing city streets and on tracks dedicated exclusively for streetcar use within the PE ROW.

**Streetcar C (4th Street/3rd Street)** - Modern streetcar line between SARTC and Harbor Boulevard traversing Fourth Street/Santa Ana Boulevard and the PE ROW with a 4th Street and 3rd Street couplet through the downtown area. Streetcars would operate in mixed flow traffic on tracks embedded within existing city streets and on tracks dedicated exclusively for streetcar use within the PE ROW.

## **2.3 Initial Screening**

Initial screening was performed to identify which of the conceptual alternatives best satisfied the Purpose and Need and project goals and objectives and appeared to be most feasible.

**Initial Screening Criteria.** Five screening criteria that relate directly to the Purpose and Need and the study goals and objectives were identified for use in stage 2A of the initial screening process:

1. **Accessibility and livability**
2. **Economic development, transit supportive land uses and community goals**
3. **Environmental responsibility and sustainability**
4. **Travel benefits, choice and reliability**
5. **Cost effectiveness and financial feasibility**

Measures of effectiveness were developed for each of the screening criteria to differentiate among alternatives (see Table 2-1) and to measure and compare their performance. The performance measures also include evaluation criteria adopted by the OCTA Board of Directors for the Go Local program and criteria from FTA's New Starts/Small Starts program.

**Table 2-1: Initial Screening Criteria and Measures of Effectiveness**

SCREENING CRITERIA	MEASURES OF EFFECTIVENESS
1. Accessibility/Livability	Number of direct connections to (within one block of) designated transfer points/transit nodes
	Number of new transit connections /a/
	Number of residents within 1/2 mile walking distance of proposed alignment
	Number of employees within 1/2 mile walking distance of proposed alignment
	Percentage of designated activity centers or medium-to-high density residential areas within 3 blocks of proposed station
	Degree to which alternative promotes the U.S. Livable Communities Committee's Principals of Livability
2. Economic Development, Transit Supportive Land Use and Community Goals	Number of "high opportunity areas" for development/redevelopment within 1/2 mile of alignment
	Qualitative assessment of the transit supportiveness of land uses served by the proposed project /a/
	Potential impacts to physical character of community including physical scale, visual fit
3. Environmental Responsibility and Sustainability	Number of environmental issue areas with potentially significant impacts
	Amount of additional ROW required
4. Travel Benefits, Choice and Reliability	Service-proven technology /a/
	Station/stop spacing
	Transit vehicle capacity
	Qualitative assessment of ease of use and "understandability"

5. Cost Effectiveness and Financial Feasibility	Will be perceived by potential investors/developers as significant long-term public investment
	Capital cost estimate
	Capital cost estimate per mile

/a/ Measure included in the OCTA Board-approved Go Local Program Evaluation Criteria & FTA's New Starts/Small Starts program.

The initial screening process consisted of two stages – an early qualitative analysis of the conceptual alternatives resulting in the screening of route options; and, a subsequent quantitative analysis of the conceptual alternatives resulting in the screening of technology options.

**Stage 2A Initial Screening Results.** The streetcar alternatives along Santa Ana Boulevard/4th Street and Brown Street/Santa Ana Boulevard/5th Street performed best overall due in large part to how well they addressed accessibility and livability and supported economic development, transit supportive land use and community goals. Of the BRT options, the alternative along Santa Ana Boulevard/5th Street also performed well in terms of accessibility and livability and economic development, transit supportive land use and community goals.

After careful review and consideration of the stage 2A initial screening results, it was determined that the following alternatives would be carried forward for further study:

- Streetcar Alternative – Santa Ana Boulevard/4<sup>th</sup> Street;
- Streetcar Alternative – Brown Street/Santa Ana Boulevard/Civic Center Drive/5<sup>th</sup> Street; and
- BRT Alternative – Santa Ana Boulevard/5<sup>th</sup> Street.

**Stage 2B Initial Screening Results.** The stage 2B initial screening used the five original project goals and objectives to directly compare the remaining three conceptual alternatives. Community supportiveness was also considered. Valuable quantitative data that was not available at the time of the stage 2A initial screening was incorporated into the analysis and used to screen technology options.

The streetcar alternatives along Santa Ana Boulevard/4<sup>th</sup> Street and Brown Street/Santa Ana Boulevard/Civic Center/5<sup>th</sup> Street performed best overall because they satisfied all five project goals used as criteria to compare alternatives. Alternatively, the BRT alternative along Santa Ana Boulevard/5<sup>th</sup> Street only met four of five project goals and objectives. In addition, project stakeholders and the general public were not as supportive of the BRT mode as they were of the modern streetcar.

After careful review and consideration of the Stage 2B initial screening results, it was determined that the BRT Alternative would be eliminated from further consideration because it was projected to carry significantly fewer riders than the streetcar alternatives, which coupled with a substantial capital and annual O&M costs, would make the alternative less cost effective in terms of both capital and O&M costs per rider.

Therefore, the remaining conceptual alternatives included:

- Streetcar Alternative Brown Street/Santa Ana Boulevard/Civic Center/5<sup>th</sup> Street; and
- Streetcar Alternative Santa Ana Boulevard/4<sup>th</sup> Street.

## **2.4 Detailed Evaluation of a Reduced Set of Alternatives**

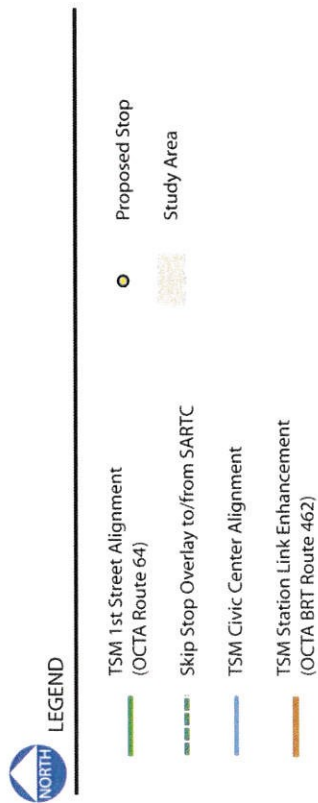
A detailed technical evaluation was performed on the reduced set of alternatives resulting from the initial screening. The reduced set of alternatives included the following:

**TSM Alternative.** Consistent with FTA guidelines, the TSM Alternative enhances the mobility of existing transportation facilities and the transit network without construction of major new transportation facilities or significant, costly physical capacity improvements. It, therefore, emphasizes low cost (i.e., small physical) improvements and operational efficiencies such as focused traffic engineering actions, expanded bus service, and improved access to transit services. **Figure 2-3** is a map of the proposed routes for the TSM bus network enhancements. Included within the TSM Alternative are modifications and enhancements to selected bus routes in the Study Area; intersection/signal improvements; and bus stop amenity upgrades. The TSM Alternative would provide increased transit operations and service levels along roadways within the Study Area which currently support fixed route bus transit.

**Streetcar Alternative 1.** To connect the City of Garden Grove with SARTC in Santa Ana, Streetcar Alternative 1 would utilize the PE ROW, an abandoned and vacant rail right-of-way owned by OCTA, through the western half of its alignment and generally operate along Santa Ana Boulevard, and 4<sup>th</sup> Street on the way to SARTC. The 4.2-mile alignment for Streetcar Alternative 1 would include 12 stations. **Figure 2-4** shows the alignment and the station locations for Streetcar Alternative 1. It is anticipated that the streetcar system would operate seven days a week with 10-minute headways during peak periods and 15-minute headways during off-peak periods. The streetcars would be electrically powered using an overhead contact system and a series of Traction Power Substations (TPSSs) located intermittently along the alignment.

In Streetcar Alternative 1, the Downtown segment features couplet operations with the westbound streetcar alignment on Santa Ana Boulevard, and the eastbound streetcar alignment on 4<sup>th</sup> Street. For the eastbound transition from Santa Ana Boulevard to 4<sup>th</sup> Street, a direct route would be provided from Santa Ana Boulevard along a public easement on the southern edge of Sasser Park to 4<sup>th</sup> Street.

Figure 2-3: Transportation Systems Management (TSM) Alternative (Select Elements)







**Streetcar Alternative 2.** Streetcar Alternative 2 would also utilize the PE ROW through the western half of its alignment and substantially operate along Santa Ana Boulevard, Civic Center Drive, and 5<sup>th</sup> Street along the eastern half of the alignment to SARTC. The operational characteristic of this alternative are identical to Streetcar Alternative 1. The differences between the two streetcar alternatives are the alignment and the fact that Streetcar Alternative 2 would have one additional station for a total of 13. **Figure 2-5** shows the alignment and the station locations for Streetcar Alternative 2.

The Streetcar Alternative 2 alignment travels westbound through the Civic Center along Civic Center Drive between Spurgeon and Flower Streets. As part of the City of Santa Ana's Complete Streets Program, bicycle lanes are proposed for Civic Center Drive. Streetcar Alternative 2 would acquire additional right-of-way to accommodate the bicycle lane.

These three alternatives were also subjected to a full environmental benefits and impacts analysis which is documented in the EA/DEIR. An overview of the environmental process and a summary of the findings will be presented in the next section; additional detail is available in the EA/DEIR document.

Each of the Streetcar Alternatives had Design Options to address specific features of their specific routes. An initial screening identified clear advantages or disadvantages for some of the options under consideration, resulting in a recommendation of the options to be carried forward for further study. Two of the elements for which design options were identified are sufficiently complex that, while the technical analysis and evaluation of these options provided useful information in considering the advantages and disadvantages of each, the analysis conducted as part of the environmental review process and the accompanying public comment is needed to support the selection of the preferred option. The two elements requiring additional analysis of their design options are the Operations and Maintenance Facility Site options and the scenarios to address the diagonal on-street parking along 4<sup>th</sup> Street.

#### **2.4.1 Operations and Maintenance Facility Site Options**

Two sites have been proposed as possible candidate locations for the streetcar operations and maintenance facility (see **Figure 2-6**). Site A is located south of SARTC at the corner of Santiago Street and 6<sup>th</sup> Street. The 2.2 acre site is currently being used as a material recovery/disposal transfer station. Site B is located between 5<sup>th</sup> Street and the PE ROW, west of Raitt Street. This 2.4-acre rectangular site is comprised of three parcels. A materials reclamation/recycling facility is on the two eastern parcels. The western-most parcel has several residences. All three parcels are zoned "Industrial".



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Figure 2-5: Streetcar Alternative 2



- Streetcar 2
- Proposed Stop
- Study Area

Figure 2-6: Potential O&M Facility Site Locations





Both sites were evaluated based on Community Support for their conversion to use as an O&M Facility, Right-of-Way Required, Environmental Tradeoffs, Noise and Vibration, Ease of Transit Operations and Capital Cost.

Site A is slightly smaller than Site B and irregularly shaped, making the ease of operations somewhat less than with Site B. Site A is also more expensive than Site B. Site A offers some advantages in terms of environmental tradeoffs. It would not result in the displacement of any residents. It also would not create additional noise compared to existing conditions and may in fact reduce noise somewhat. It was anticipated that the environmental review process and accompanying public comment would further discern the relative advantages and disadvantages of each of these options and support the selection of the preferred option. Through this process, Site B was identified as offering better options for future system expansion into Garden Grove because of its location in the western portion of the alignment and its size compared to Site A.

#### **2.4.2 4<sup>th</sup> Street Parking Scenarios**

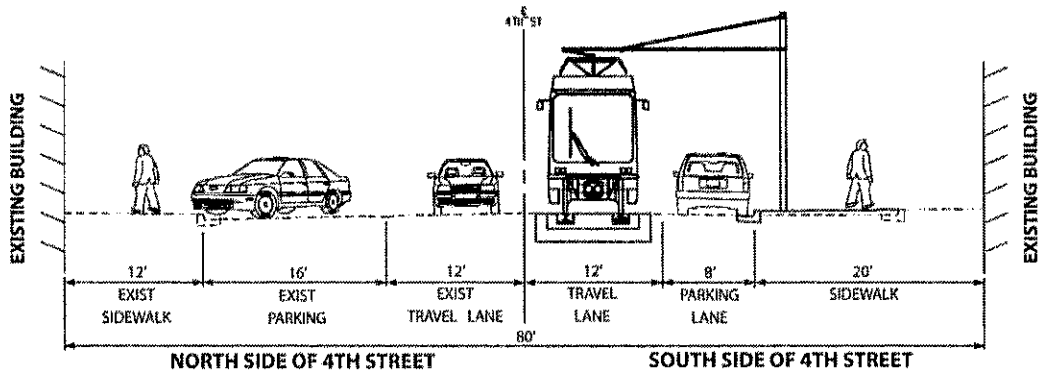
The Streetcar 1 alignment would utilize 4<sup>th</sup> Street between Ross Street and Mortimer Street in the westbound direction. From east of Ross Street to French Street, 4<sup>th</sup> Street has one travel lane in each direction with head-in diagonal parking along each side of the roadway. The diagonal parking, with vehicles exiting parking spaces by backing into the travel lane, is incompatible with reliable streetcar operations. Three design options were identified to address the diagonal parking on 4<sup>th</sup> Street, shown previously on **Figure 2-7** and described below:

- Scenario A: Convert the diagonal parking along the south side of 4<sup>th</sup> Street to parallel parking and widen the sidewalk along the south side from 12 feet to 20 feet.
- Scenario B: Remove the diagonal parking along the south side of 4<sup>th</sup> Street and widen the sidewalk along the south side from 12 feet to 28 feet.
- Scenario C: Remove the diagonal parking along both sides of 4<sup>th</sup> Street and widen the sidewalks along both sides from 12 feet to 28 feet. In this option, only the parking removal and sidewalk widening along the south side would be included in the cost of the project since the streetcar will only operate on the south side (eastbound direction) of the street. The City of Santa Ana would pursue alternative funding to construct the improvements to the north side.

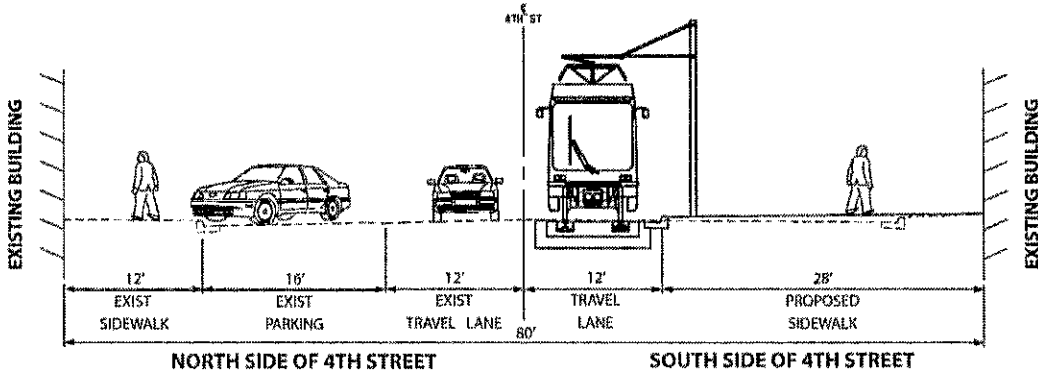
The three scenarios to address the diagonal parking along 4<sup>th</sup> Street were evaluated based on Community Support for the scenario, Environmental Tradeoffs, impacts to Traffic/Circulation, Parking, and Bicycle/Pedestrian Facilities, Construction Impacts (temporary), Ease of Transit Operations and Capital Cost.

The Detailed Evaluation of Alternatives found that, overall, the technical and operational benefits of removing all of the on-street parking along 4<sup>th</sup> Street between Ross Street and French Street and widening the sidewalks (Scenario C) are greater than under the two

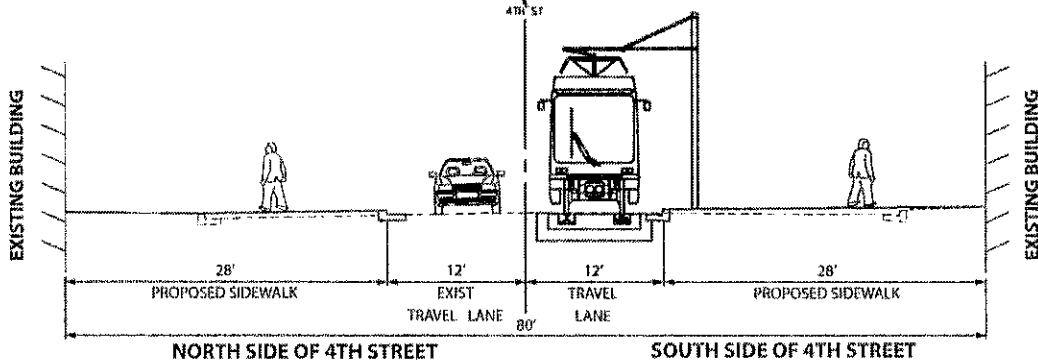
Figure 2-7: 4th Street Parking Scenarios



**4th Street Parking Scenario A: Convert Parking along South Side to Parallel and Widen Southern Sidewalk to 20 Feet**



**4th Street Parking Scenario B: Remove Parking along South Side and Widen Southern Sidewalk to 28 Feet**



**4th Street Parking Scenario C: Remove Parking along South Side and North Side and Widen Sidewalks to 28 Feet**

scenarios that only reduce or remove some of the parking. Scenario C would enhance the pedestrian character of 4<sup>th</sup> Street to the benefit of restaurants, cafes, shops and other adjacent businesses. Traffic flow along 4<sup>th</sup> Street would be improved, allowing for more reliable streetcar operations and reduced potential for conflicts between automobiles and streetcars. Although approximately 132 on-street parking spaces would be eliminated under Scenario C, there is adequate parking available in nearby parking structures located just off and accessible from 4<sup>th</sup> Street. However, during environmental review process and accompanying public comment there was opposition expressed by adjacent businesses to the removal of parking along 4<sup>th</sup> Street and the potential impact to their businesses.

## 2.5 Detailed Evaluation of Alternatives' Screening Criteria

The screening criteria used to evaluate the Project Alternatives relate directly to the Purpose and Need and the goals and objectives for the Project, and they are similar with those used in the first stage of the initial screening. The measures of effectiveness identified for each criterion, presented in Table 2-2, were refined for the Detailed Evaluation to better highlight the distinguishing characteristics of each of the Project Alternatives.

Table 2-2: Detailed Evaluation Criteria and Measures of Effectiveness

SCREENING CRITERIA	MEASURES OF EFFECTIVENESS
Accessibility/Livability	Number of transit-dependent households within ¼ mile of the alignment
	Ridership
Economic Development, Transit Supportive Land Use and Community Goals	Assessment of the transit supportiveness of land uses served by the project
	Assessment of economic development opportunities of parcels served by the project
	Community Support
Environmental Responsibility and Sustainability	Amount of right-of-way required
	Environmental tradeoffs
Travel Benefits, Choice and Reliability	Customer service (route travel times between O-D pairs)
Cost and Financial Feasibility	Capital cost estimate
	Capital cost per route mile
	Estimated annualized operating cost
	Estimated operating cost per hour

## 2.6 Detailed Evaluation of Alternatives' Results

The following summarizes the results of applying the criteria and measures of effectiveness to the reduced set of alternatives for the Santa Ana-Garden Grove Fixed Guideway Corridor. A more detailed description of the detailed evaluation is provided in the *Alternatives Analysis Report* (April 2014). Table 2-3 summarizes the results of the results of comparing each of the alternatives to the technical criteria and then ranking the alternatives based on the results of the comparison.

Table 2-3: Ranking of Alternatives Based on Detailed Evaluation Results

	CRITERIA / MEASURE OF EFFECTIVENESS	TSM	STREETCAR ALTERNATIVE 1	STREETCAR ALTERNATIVE 2
<b>1.</b>	<b>ACCESSIBILITY AND LIVABILITY</b>			
1A	No. of transit-dependent households within 1/4 mile walking distance of proposed alignment	3	1	2
1B	No. of daily riders (average weekday boardings)	2	1	3
<b>2.</b>	<b>ECONOMIC DEVELOPMENT, TRANSIT SUPPORTIVE LAND USE AND COMMUNITY GOALS</b>			
2A	Assessment of the transit supportiveness of land uses served by the proposed alignment	2	1	3
2B	Assessment of the economic development potential of land uses served by the proposed alignment	3	1	2
2C	Community support	TBD		
<b>3.</b>	<b>ENVIRONMENTAL RESPONSIBILITY</b>			
3A	Amount of additional right-of-way required	1	2	3
3B	Environmental Tradeoffs	1	2	3
<b>4.</b>	<b>TRAVEL BENEFITS, CHOICE AND RELIABILITY</b>			
4A	Customer service (travel times between O-D pairs)	2	1	3
4B	Number of daily riders (average weekday boardings)	2	1	3
<b>5.</b>	<b>COST EFFECTIVENESS AND FINANCIAL FEASIBILITY</b>			
5A	Constructability/ease of construction	1	2	3
5B	Capital cost	1	2	3
5C	Capital cost per route mile	1	2	3
5D	Annualized operating cost*	1	2	3
5E	Operating cost per hour	1	2	2
	<b>OVERALL RANKING</b>	<b>2</b>	<b>1</b>	<b>3</b>

\*For purposes of comparison to the Streetcar Alternatives, the Annualized Operating Cost for TSM includes only the SARTC-to-Harbor route.

## **2.7 Conclusions and Tradeoffs among Alternatives**

Streetcar Alternative 1 was ranked first in all MOEs included in Accessibility and Livability because it served the greatest number of transit dependent households and was estimated to have the highest daily ridership of the three alternatives. It ranked the highest among the alternatives on Economic Development, Transit Supportive Land Use and Community Goals. The existing land uses along the eastern portion of the Streetcar Alternative 1 alignment provide the densities and development patterns to support a high capacity transit system. Adopted land use plans that cover the Streetcar Alternative 1 alignment support and encourage the types of development/redevelopment likely to occur in conjunction with high capacity and transit, and existing development patterns provide opportunity for such development/redevelopment to occur. Streetcar Alternative 1 effectively serves key destinations within the corridor area, ranking it first in Travel Benefit, Choice and Reliability.

The TSM alternative ranked first among the alternatives in Environmental Responsibility. Because it does not include substantial new construction, it does not require acquisition of right-of-way, nor does it adversely affect any conditions in the environment compared to the No Build Alternative.

In terms of Cost Effectiveness and Financial Feasibility, the TSM Alternative ranked first for constructability/ease of construction because of the very limited amount of construction likely to occur under this alternative. It has the lowest capital cost of the alternatives, and therefore the lowest cost per route mile.

Streetcar Alternative 1 ranked second in terms of constructability/ease of construction, and capital cost. It was estimated to be less expensive than Streetcar Alternative 2 primarily because of its shorter route length. Streetcar Alternative 1 ranked first in terms of annual operating cost and second on operating costs per hour. The TSM Alternative includes considerably greater number of revenue hours than Streetcar Alternative 1 or 2, although the cost per revenue hour for the TSM Alternative was less than for the Streetcar Alternatives.

Overall, Streetcar Alternative 1 ranked first among the alternatives based on the technical evaluation.



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### **3.0 OVERVIEW OF THE ENVIRONMENTAL REVIEW**

This EA/DEIR was prepared to meet the requirements of NEPA and CEQA. As required by these laws, the environmental review process must be completed before the proposed project can be approved by the City of Santa Ana (acting as the lead agency for Santa Ana and Garden Grove) and the FTA. Meaningful public engagement was an important component of the SA-GG Fixed Guideway Project from the start. Well before any key decisions were made, the City of Santa Ana initiated a public scoping process to help define the appropriate range of issues to be addressed in the EA/DEIR. Four scoping meetings were conducted for the general public between June 8 and June 12, 2010. Two of these meetings were scheduled in the evening, one meeting was scheduled in the morning and one meeting was scheduled on a Saturday afternoon, providing those community members who could not attend any of the weekday evening meetings with an opportunity to participate. Public comment opportunities were made available at each meeting. It should also be noted that articles and advertisements were published in a number of local newspapers, including several non-English publications. All information materials were presented in English as well as Spanish.

The alternatives identified for evaluation in this EA/DEIR were based on public comments as well as technical analyses, as detailed in the AA Report (under separate cover and available by request or on the City's website at <http://www.ci.santa-ana.ca.us/transitvision>). Following receipt of public comments on the EA/DEIR, the Santa Ana and Garden Grove City Councils will select an LPA for the Fixed Guideway Project. Their decision will be based on a combination of environmental impacts, community input, cost, ridership and economic development considerations brought to light through the EA/DEIR, AA, and public review process. Subsequent to the City actions, the LPA will be presented to the OCTA Board of Directors. If necessary to address comments received during the environmental public review, additional engineering may be performed to refine the conceptual design of the LPA prior to presentation to the City Councils. If a hybrid alternative which results in changes outside the envelope of environmental effect is selected, then an environmental re-evaluation may be needed.

#### **3.1 Summary of Impacts**

Table 3-1 summarizes the potential adverse effects associated with the implementation of Streetcar Alternatives 1 and 2. No impacts would occur from the implementation of the TSM Alternative. The information presented in Table 4-1 is a summary of the analysis contained in the EA/DEIR.

Adverse effects associated with hazardous materials, operational noise (moderate), safety, and construction air quality are anticipated to occur prior to incorporation of mitigation measures (CEQA only). Each of these adverse effects would result from implementation of Streetcar Alternatives 1 and 2. Mitigation measures would eliminate the adverse effects associated with hazardous materials and safety. Moderate effects associated with

operational noise and identified in the EA/DEIR would remain after the implementation of mitigation, however these effects would not be considered adverse. In addition, significant construction air quality impacts under CEQA would remain after the implementation of mitigation; however, it should be noted that construction-related air quality impacts would be temporary and not adverse under NEPA after the implementation of mitigation. No adverse effects were identified for the TSM Alternative.

In addition to mitigation measures, design features and best management practices have been incorporated into the proposed project. These include a Traffic Management Plan, a Noise and Vibration Control Plan, and a number of features to manage water quality. Refer to Chapter 3.0 of the EA/DEIR for detailed discussions of these features and best management practices.

Table 3-1: Summary of Effects, Mitigation Measures, and Effects after Mitigation

Environmental Resource/Effect	Impact Before Mitigation?	Mitigation Measures	Impact After Mitigation?	
			NEPA	CEQA
Coastal Zones	No	None Required	No	No
Wetlands and Navigable Waterways	No	None Required	No	No
Ecologically Sensitive Areas	No	None Required	No	No
Endangered and/or Threatened Plant and Animal Species	No	None Required	No	No
Land Use and Zoning	No	None Required	No	No
Land Acquisition and Displacements	No	None Required	No	No
Section 4(f) Resources	No	None Required	No	No
Community Effects and Environmental Justice	No	None Required	No	No
Visual Quality	No	None Required	No	No
Cultural Resources	No	<p><b>CR1</b> A qualified principal investigator who meets the Secretary of the Interior's professional qualification standards for an archeologist shall be responsible for managing Native American archaeological resources and human remains. The qualified principal investigator shall appoint an archaeological monitor to be present for ground-disturbing activities that could encounter undisturbed soils. If the qualified principal investigator determines that Native American archaeological resources and human remains are likely present, then both an archeological monitor and a Native American monitor identified by the principal investigator shall be present. The Native American monitor shall be a Native American identified by the applicable tribe and/or the Native American Heritage Commission. The timing and duration of the monitoring shall be determined by the principal investigator based on the sensitivity of exposed sediments.</p> <p>Prior to initiation of earth-disturbing activities that could encounter undisturbed soils; the archaeological monitor shall conduct a brief awareness training session for all construction workers and supervisory personnel. The training shall explain the importance of and legal basis for the protection of significant archaeological resources. Each worker</p>	No	No

Environmental Resource/Effect	Impact Before Mitigation?	Mitigation Measures	Impact After Mitigation?	
			NEPA	CEQA
		<p>shall learn the proper procedures to follow in the event that cultural resources or human remains/burials are uncovered. These procedures include work curtailment or redirection and the immediate contact of the site supervisor and the archaeological monitor. It is recommended that this worker education session include visual images of artifacts that might be found in the project vicinity, and that the session take place on-site immediately prior to the start of ground-disturbing activities.</p> <p>If archaeological resources or human remains are encountered during construction, all work shall cease in the area of potential affect until the find can be addressed. The Orange County Coroner's Office shall be contacted pursuant to procedures set forth in Public Resources Code Section 5097 et seq. and Health and Safety Code in Sections 7050.5, 7051, and 7054 with respect to treatment and removal, Native American involvement, burial treatment, and re-burial, if necessary. A fifty-foot buffer, or more if deemed appropriate by the principal investigator, shall be established and work outside the buffer may resume.</p> <p>Areas that would not encounter undisturbed soils and would therefore not be required to retain an archaeologist shall demonstrate non-disturbance to the City of Santa Ana through the appropriate construction plans, as-built drawings, or geotechnical studies prior to any earth-disturbing activities. Impacts to any significant resources shall be mitigated to a less-than-significant level through data recovery or other methods determined adequate by the archaeologist and that are consistent with the Secretary of the Interior's Standards for Archaeological Documentation. Any identified cultural resources shall be recorded on the appropriate DPR 523 form and filed with the SCCIC.</p>	No	No
Geology, Soils, and Seismicity	No	None Required	No	No

Environmental Resource/Effect	Impact Before Mitigation?	Mitigation Measures	Impact After Mitigation?	
			NEPA	CEDA
Hazardous Materials	Yes	<p><b>HAZ1</b> If Operations &amp; Maintenance (O &amp; M) Facility Site A is chosen to service transit vehicles, the City of Santa Ana shall require a Phase I Environmental Site Assessment to be prepared for the following site:</p> <ul style="list-style-type: none"> <li>• Madison Materials located at 1035 East 4<sup>th</sup> Street</li> </ul> <p>If O &amp; M Facility Site B is chosen to service transit vehicles, a Phase I Environmental Site Assessment shall be prepared for the following sites:</p> <ul style="list-style-type: none"> <li>• All Car Auto Parts located at 2002 West 5<sup>th</sup> Street</li> <li>• SA Recycling located at 2006 West 5<sup>th</sup> Street</li> <li>• American Auto Wrecking located at 1908 West 5<sup>th</sup> Street</li> </ul> <p>The assessment shall be prepared by a Registered Environmental Assessor. The assessment shall be prepared in accordance with State standards/guidelines to evaluate whether the site or the surrounding area is contaminated with hazardous substances from the potential past and current uses including storage, transport, generation, and disposal of toxic and hazardous waste or materials. If hazardous materials are identified in the Phase I Environmental Site Assessment, a Phase II Environmental Site Assessment would be completed to identify the extent of contamination and the procedures for remediation. The Phase II Environmental Site Assessment shall be approved by the California Department of Toxic Substances Control.</p>	No	No
Traffic and Parking	No	None Required	No	No
Noise and Vibration	Yes	<p><b>N1</b> The City of Santa Ana shall request a horn-sounding exemption from the California Public Utilities Commission for the crossing at 5<sup>th</sup> and Fairview Streets. The exemption shall provide justification and demonstrate that safety would not be compromised. In lieu of the warning horn, supplemental safety measures (e.g., four-quadrant gates, roadway median barriers on grade crossing approaches, and pedestrian gates) would be implemented. If a horn sounding exemption is</p>	No	No

Environmental Resource/Effect	Impact Before Mitigation?	Mitigation Measures	Impact After Mitigation?	
			NEPA	CEQA
		<p>approved and established, warning horns would not be sounded except under an emergency situation.</p> <p><b>N2</b> When practical, the contractor shall design special trackwork elements, such as turn-outs, switches, and cross-over to be located at least 600 feet away from sensitive receptors. If this cannot be achieved, then special switch devices, such as spring frogs or movable point frogs shall be utilized. A frog device is used where two rails cross. The frog is designed to ensure the wheel crosses the gap in the rail without "dropping" into the gap.</p> <p><b>N3</b> If O &amp; M Facility Site B is selected by the City of Santa Ana, the contractor shall construct a noise barrier at the land uses identified as Noise Sensitive Areas 9 and 10. For receptors in Noise Sensitive Area 9, the noise barrier shall be at least 10 feet high and extend for 400 feet along the northern property edge of the proposed operations and maintenance facility. For receptors in Noise Sensitive Area 10, the noise barrier shall be at least 8 feet high and extend for 225 feet along the southern boundary of the PE ROW adjacent to 4<sup>th</sup> Street. The design of the noise barriers shall be identified on project plans prior to issuance of building permits.</p>		
Air Quality	No	None Required	No	No
Energy Resources	No	None Required	No	No
Water Quality, Hydrology, and Floodplains	No	The City of Santa Ana is required by federal law to obtain necessary permits from the Regional Water Quality Control Board (Section 401 permit) and US Army Corps of Engineers (Section 404 permit) for operational activities affecting waters of the US.	No	No
Safety and Security	Yes	<b>SAF1</b> Under Streetcar Alternatives 1 and 2 and the IOS Alternatives, the City of Santa Ana shall coordinate with the Santa Ana Unified School District and Santa Ana Police Department regarding safety at schools adjacent to the alignment. The collaborative effort between the City and interested parties shall develop and teach rail safety measures to students and parents. Other precautionary	No	No

Environmental Resource/Effect	Impact Before Mitigation?	Mitigation Measures	Impact After Mitigation?	
			NEPA	CEQA
		<p>safety features shall include signs, gated crossing, and crossing and traffic signals to create a safe environment for parents and students during pick-up/drop-off times.</p> <p><b>SAF2</b> The contractor shall install surveillance cameras along the pedestrian walking paths within the PE ROW and at pedestrian gates to adjacent neighborhoods. Police security personnel shall be responsible for surveillance camera monitoring.</p> <p><b>SAF3</b> The contractor shall install emergency call boxes along the pedestrian walking paths within the PE ROW.</p> <p><b>SAF4</b> The contractor shall design the lighting plan for the pedestrian walking paths within the PE ROW to eliminate shadows or dimly lit areas to the greatest extent feasible.</p> <p><b>SAF5</b> Within the PE ROW, the contractor shall fence the track area, and appropriate signage and audible and visual warning devices shall be installed at gate openings.</p> <p><b>SAF6</b> If Mitigation Measures <b>SAF2</b> through <b>SAF4</b> are considered infeasible, then the Willowick Station shall not be made operational by the contractor until an appropriate public access point from the PE ROW is created as part of the Willowick Golf Course redevelopment.</p>		
Construction	Yes	<p><b>AQ1</b> During the construction phase, the contractor shall use Tier 4 or higher off-road construction equipment with higher air pollutant emissions standards.</p> <p>Refer to Water Quality, Hydrology, and Floodplains above for information related to water resources permits.</p>	No	Yes
Secondary and Cumulative	Yes (Air Quality)	None Required	No	No

Source: Terry A. Hayes Associates Inc., 2012.



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- A Transportation Management Plan.
- Best management practices to ensure safety and security, access for emergency vehicles, reduce surface runoff and water pollution, noise, erosion, and minimize construction effects.

Stakeholder, agency, and community coordination will be required during advanced design, including but not limited to the following:

- Coordination with the United States Army Corps of Engineers, Santa Ana Regional Water Quality Control Board, Orange County Department of Public Works, and Orange County Parks to minimize impacts at the Santa Ana River crossing.
- Coordination with the Santa Ana Unified School District and Santa Ana Police Department regarding safety at schools adjacent to the alignment.
- Coordination with security personnel at the Ronald Reagan Federal Building and United States Courthouse.

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## **4.0 PUBLIC OUTREACH AND AGENCY COORDINATION**

### **4.1 Summary of Outreach Efforts**

Meaningful public engagement was an important component of the Santa Ana-Garden Grove Fixed Guideway Project from the start. Well before any key decisions were made, the cities initiated a dialogue with the community (residents, businesses and interested public agencies), and a public scoping process to help define the appropriate range of issues to be addressed in the Alternatives Analysis (AA), Draft Environment Impact Report (DEIR) and Environmental Assessment (EA).

Although not required by state or federal regulations, the cities have continued to share information with and seek input from the community, elected officials, and key stakeholders throughout the study process through meetings, dissemination of informational materials, a project website, and a project information line in support of the following public outreach goals:

- Use an inclusive outreach strategy that maximizes input from a broad range of project stakeholders;
- Provide forums for meaningful participation; and
- Create multiple opportunities for generation of ideas and comments.

In addition to the cities of Santa Ana and Garden Grove, the FTA and OCTA have participated in the Project.

#### **4.1.1 Stakeholder Working Group**

As part of the public outreach strategy, a Stakeholders Working Group (SWG) was created at the outset of the project to provide an opportunity for dialogue between the project team and individual stakeholders that represent key constituencies and/or organizations throughout the Study Area, including: local, County, State, and federal elected and appointed officials; public agencies/officials; neighborhood councils, homeowners associations, and community councils; business and labor associations and groups; representatives of retail and employment centers; representatives of educational, cultural, religious, and health care institutions; transit advocacy and environmental groups; and individuals who live, work, and travel in the Study Area.

SWG members were charged with taking information back to their organizations, collecting feedback, and working with other members of the SWG in the spirit of cooperation to build consensus. As a sign of their strong interest in the Project, SWG members agreed to remain involved for the duration of the environmental phase of the Project.

Five Stakeholder Working Group Meetings were held at key decision points in the planning process from project kick-off through the identification of the reduced set of alternatives and the initiation of the preparation of the EA/DEIR.

## **4.2 Pre-Scoping Activities**

Between August 2009 and June 2010, the cities of Santa Ana and Garden Grove, in cooperation with OCTA, conducted three pre-scoping meetings for the Santa Ana-Garden Grove Fixed Guideway Project in support of the Alternatives Analysis and in preparation for the public scoping process. The public meetings included a City Council Workshop, and two Community Listening Sessions. The meeting locations were selected based on geographic location and recommendations from the Stakeholders Working Group. To facilitate community participation, meetings were scheduled at different times throughout the day.

The first Stakeholder Working Group meeting was held on January 26, 2010. Members were provided an introduction to the project and the environmental process. In addition, the proposed format and content for the Community Listening Sessions were discussed and members were asked to help publicize the Community Listening Sessions and to encourage attendance at them.

The two Community Listening Sessions were conducted several months in advance of formal public scoping to gain community input on the project purpose and need, alternatives, and evaluation criteria, to introduce the environmental review process, and to identify special environmental/community concerns that may need to be addressed as part of the alternative analysis process. They were conducted utilizing an open house format that allowed participants to drop by at their convenience. Project team members were on hand to walk attendees through a series of information boards, answer questions, and receive feedback. Information was provided in English and Spanish. Comment sheets were also available for attendees to complete or mail back.

The following provides a brief summary of the comments received during the community listening sessions:

### General Comments

- Excitement towards a new transit system being developed
- Concern related to neighborhood impacts in residential areas and near schools
- Support for an environmentally friendly and safe system

### Comments Regarding Technology Options

- Lack of interest in traditional bus or trolleybus service
- One comment in support of Bus Rapid Transit
- One comment in support of Personal Rapid Transit (PRT)
- Strong support for a streetcar or light rail system

- No support for monorail, low speed mag-lev, commuter rail or subway

#### Comments Regarding Alignment Options

- No comments received

Along with Purpose and Need, the public comments received during the Pre-Scoping period helped to guide the preliminary definition of alternatives and preliminary screening process.

### **4.3 Public Scoping Period Activities**

The Public Scoping Period for the Santa Ana-Garden Grove Fixed Guideway Project began on May 24, 2010 with publication of the Notice of Preparation by the State Clearinghouse, as noted below, and concluded on June 21, 2010.

On June 3, 2010, the Stakeholders Working Group reconvened. The project team previewed and accepted comments on the information that had been prepared for the public scoping meetings, announced the public scoping meeting dates, times and locations, and encouraged member assistance in sharing scoping meeting information with community members.

Four Public Scoping Meetings were held between June 8 and June 14, 2010 in accordance with the requirements of CEQA. Several methods were used to notify the public about the scoping meetings. The scoping meetings were publicized via publication of the NOP by the State Clearinghouse, mailings, door-to-door business walks, meeting notices posted and handed out at SARTC, electronic notices to the SWG and Com-Link, project factsheets, a press release, the project website, and display advertisements in local English and Spanish language newspapers.

The Public Scoping Meetings enabled stakeholders and the general public to officially comment on the scope of the environmental documents, potential environmental impacts and issues that should be evaluated in the Draft Environmental Impact Report (EIR), and to provide feedback on the technology and alignment alternatives being proposed for the Fixed Guideway Project.

The cities of Santa Ana and Garden Grove accepted written and oral comments throughout the scoping period, from May 24, 2010 until June 21, 2010. All comments were recorded and kept on file at the City of Santa Ana Public Works Department and are included in the *Santa Ana and Garden Grove Fixed Guideway Draft Environmental Impact Report*.

Although community participation in the Public Scoping Meetings was fairly low, the comments received generally indicated support for the proposed Project. Residents who participated had questions about how the proposed Project would impact their immediate neighborhoods. Likewise, business owners along the proposed alignments expressed concern about how their businesses would be impacted, especially during the construction phase.

In addition to the public scoping meetings, an interagency scoping meeting was held on June 9, 2010 with representatives from participating agencies, coordinating agencies, and interested agencies. Seven agencies attended the Interagency Scoping Meeting on June 9, 2010. The comments received that day were:

- Consider using First Street for the east-west transit alignment in lieu of 4<sup>th</sup> Street
- Address bicycle and pedestrian issues in the vicinity of the Pacific Electric Santa Ana River Bridge
- Follow the guidelines that need to be considered when siting new transportation infrastructure in close proximity to major federal buildings located within the Civic Center complex

Six agencies submitted comment letters during the public scoping period including County of Orange public Works, County of Orange Sheriff-Coroner, Caltrans District 12, Department of Toxic Substances Control, California Energy Commission, and the California public Utilities Commission.

#### **4.4 AA Public Outreach Activities**

During the preparation of the Alternatives Analysis and in support of the selection of an LPA, the City of Santa Ana conducted a door-to-door survey of approximately 234 businesses in the Downtown area. They spoke to available representatives to gauge awareness of the project and to solicit input. Approximately 50 businesses expressed an opinion about the project. Sixty-two percent (62%) said they support the project, twenty-eight percent (28%) said they were neutral, and ten percent (10%) said they opposed the project. Many of the 4<sup>th</sup> Street business owners, while acknowledging support for the project, expressed concern about potential impacts of construction and parking removal on their businesses, with some expressing opposition to the 4<sup>th</sup> Street alignment.

The survey concluded that despite the concerns raised, businesses in Downtown see the potential the project holds for the downtown and hope that it brings back customers and improves mobility.

#### **4.5 Public Review Period Activities**

The Public Review Period for the Santa Ana-Garden Grove Fixed Guideway EA/DEIR began on May 23, 2014 with filing of the Notice of Availability with the State Clearinghouse, and the Orange County Clerk's Office, and concluded on July 7, 2104. Activities during this period included:

- Update of the City of Santa Ana website to incorporate the most current information regarding the project.

- Posting copies of the environmental documents at locations throughout the study area and on the City's website,
- Notifying residents, property owners and businesses within 500 feet of the project alignments of the availability of the environmental document, the scheduled public reviews meetings and ways to submit comment. Notifications were provided in English, Spanish and Vietnamese.
- Notifying the broader community through flyers at key activity centers (in English, Spanish and Vietnamese) and press releases in community newspapers about the availability of the document, the meetings and methods for submitting comments,
- Advising the city councils of Garden Grove and Santa Ana, and the OCTA Board of the environmental document release and planned public meetings
- Hosting three public meetings that provided information about the project, and opportunities for attendees to have their comments recorded by court reporters or accepted in writing.

#### **4.5.1 Public Review Meeting Notification**

Several methods were used to notify the public about the availability of the EA/DEIR and the scheduled Public Review Meetings.

##### Notification Database

A database of approximately 3,800 resident and business addresses near the proposed Project corridor was assembled by the cities of Santa Ana and Garden Grove; it encompassed all properties within a 500-foot radius of the proposed corridor.

##### Noticing

The NOA for the Santa Ana-Garden Grove Fixed Guideway Project was published by the State Clearinghouse on May 23, 2014 (SCH # 2010051060). In addition, copies of the meeting notice were posted at the Santa Ana and Garden Grove City Hall information desks and Public Works Department information counters, and at other gathering places throughout the corridor.

##### Mailings

To notify the public of the availability of the EA/DEIR, where a copy might be viewed and that three Public Review Meetings had been scheduled, notices were mailed to every address in the notification database. The mailings were in English, Spanish and Vietnamese.

##### Interagency Notification



In addition to the Notice of Availability published by the State Clearinghouse, emails were sent to known contacts of agencies with a potential interest in the project or with resources in the project Study Area, notifying them of the availability of the environment document, inviting them to attend the public review meetings, and to submit any comments they may have on the document. The following agencies were contacted directly via e-mail:

- U.S. Fish and Wildlife Service, Carlsbad Office
- U.S. Army Corps of Engineers, Los Angeles District
- U.S. Environmental Protection Agency, Southern California Field Office, Region IX
- Caltrans, District 12
- California Department of Fish and Game, Region 5
- California Regional Water Quality Control Board, Region 8
- California Public Utilities Commission, Los Angeles Office
- Southern California Regional Rail Authority
- Southern California Association of Governments
- South Coast Air Quality Management District
- Office of Historic Preservation/California Department of Parks, Sacramento
- Orange County Transportation Authority
- County of Orange
- City of Santa Ana
- City of Garden Grove
- City of Costa Mesa
- City of Fountain Valley
- City of Orange
- City of Irvine
- City of Tustin
- City of Westminster
- Amtrak, Oakland Office
- Pacific Bell
- Southern California Edison, Santa Ana Office
- Southern California Gas Company, Orange County Division

#### Electronic Notices

Electronic notices were sent to all members of the Stakeholders Working Group as well as the City of Santa Ana's Com-Link database, which includes more than 60 Santa Ana neighborhood associations. Electronic notices were also sent to public agencies with an interest in the project, notifying them of the availability of the EA/DEIR for review, and the scheduled meetings.

### Press Release

A press releases for the public review meetings was distributed to The Orange County Register reporters Alejandra Molina and Theresa Cisneros, and Unidos (Spanish language weekly of the Orange County Register) report Laura Bucio. The press release was also provided to Sandra Cervantes of Miniondas.

### Project Website

The project website, [www.santaanatransitvision.com](http://www.santaanatransitvision.com) , which had been established at the outset of the project, was updated to include the most recent information regarding the Project. The EA/DEIR and the Alternatives Analysis Report were posted to the website in addition to the various physical locations throughout the Study Area. In addition, the City of Garden Grove, and OCTA posted information about the proposed Project and the public review meetings on their websites.

### Newspaper Legal Notices

A legal notice was published in the OC Reporter on Friday, May 23, 2014. At least two weeks prior to the first meeting date, meeting notices were also placed in the City Halls of both Santa Ana and Garden Grove, on the cities' websites, [www.santa-ana.org](http://www.santa-ana.org) and [www.ci.garden-grove.ca.us](http://www.ci.garden-grove.ca.us), in all of the City of Santa Ana community centers, and in the public libraries.

### EA/DEIR Document Posting

The copies of the EA/DEIR were available at the following locations:

- Santa Ana City Hall City Clerk's Office
- Santa Ana City Hall Public Works Counter
- Santa Ana Public Library
- Salgado Center, Rosita Park
- Santa Ana Regional Transportation Center (SARTC)
- Orange County Transportation Authority (OCTA)
- Garden Grove City Hall Engineering Counter.

## **4.6 Public Review Meetings**

Between June 14 and June 19, 2014, the cities of Santa Ana and Garden Grove, in coordination with OCTA, conducted three Public Review Meetings for the Santa Ana-Garden Grove Fixed Guideway EA/DEIR in accordance with the requirements of CEQA. Per CEQA guidelines, public notice was provided to the community about the release of the EA/DEIR for public review and comment via issuance of a Notice of Availability (NOA) on May 23, 2014, initiating the 45-day Public Review Period.

The Public Review Meetings were conducted at different times of the day to accommodate the busy schedules of the area residents and to provide different times and opportunities for them to attend (including a weekend meeting). The dates and locations of the meetings are listed below:

- Saturday, June 14, 2014, 9:00 a.m. – 12:00 p.m. – Garfield Community Center, 501 N. Lacy
- Tuesday, June 17, 2014, 9:00 a.m. – 12:00 p.m. – Santa Ana Police Department Community Room, 60 Civic Center Plaza
- Thursday, June 19, 2014, 6:00 p.m. – 9:00 p.m. – Goodwill Industries, 412 N. Fairview Street.

#### **4.6.1 Public review Meeting Format**

The Public Review Meetings provided members of the community forums through which to comment on the EA/DEIR. The Public Review Meetings combined an open house with a formal presentation and comment period. Upon arrival of meeting attendees, project team members were on hand to walk attendees through a series of information boards and answer questions. Approximately 30 minutes into the meeting schedule, there was a brief presentation about the project and the planning, environmental review and implementation processes. Following the presentation, attendees were invited to provide oral comments, which were recorded by court reporters. Attendees were also advised of additional opportunities to submit their comments in writing (by mail, fax, or email) and postcards were provided to them for that purpose.

##### Display Boards

A total of 10 display boards were used to provide information to the public. Boards illustrating the various alternatives being considered were placed around the room providing comprehensive project information. They were divided among five information stations:

- Meeting Purpose/Agenda
- Locations to Review the EA/DEIR
- Project Alternatives (3 alternatives on separate boards)
- Characteristics of the Streetcar System
- Stations & Vehicles
- Study Process
- Environmental Process
- How to Submit Comments

The display boards were printed in English, with Spanish Vietnamese translations provided for each board. Native speakers of each language were on hand to answer questions and translate comments. Following the Public Review Meetings, electronic copies of the boards were posted on the City of Santa Ana website.

##### Power Point Presentation

The PowerPoint presentation included 23 slides. Some of the slides included the same information as provided on the boards, with the speaker providing additional, more detailed information. Information on Project Background, the OCTA Go Local Program of which the

project is a part, and OCTA's vision was provided. Slides also address the alternatives that had been considered, why streetcar was being studied, how much the project was estimated to cost and how it might be funded. Slides also described the environmental review requirements, how the locally preferred alternative would be selected, and what the next steps and future actions on the project would be. Final slides invited comments and identified the varied of ways comments could be submitted, and thanked participants for their interest. The slide presentation was provided simultaneously (three projectors, three screens) in English, Spanish and Vietnamese. Following the Public Review Meetings, the PowerPoint presentation was posted on the City of Santa Ana website.

#### Comment Cards

Comment cards were available at each meeting for attendees who wished to provide written comments.

#### Meeting Interpretation/Transcription

Trilingual (English/Spanish/Vietnamese) interpretation services were available at each public meeting for attendees who preferred to provide oral comments. Transcriptionists were also at meeting to record the oral comments.

### **4.7 Summary of Public Comments**

The cities of Santa Ana and Garden Grove accepted written and oral comments throughout the 45-day Public Review Period, from May 23, 2014 until July 7, 2014. All comments were recorded and kept on file at the City of Santa Ana Public Works Department and will be included in the *Santa Ana - Garden Grove Fixed Guideway Environmental Assessment/Final Environmental Impact Report*.

#### **4.7.1 Summary of Public Comments Provided at Public Review Meetings**

Approximately 120 to 150 people attended the three Public Review Meetings. Some of those who attended expressed general support for the project, while others expressed a preference for a particular alternative. Many participants, particularly the business owners along 4<sup>th</sup> Street in Santa Ana, expressed concern about impacts to their business during construction.

Following is a summary of comments provided at each of the Public Review Meetings:

##### Public Review Meeting #1 at Garfield Community Center

Approximately 30 to 40 people attended the Public Review Meeting at Garfield Community Center. Approximately 6 people provided verbal comments for the record. The comments generally related to:

- General statements of support for the project
- How community noticing was accomplished
- Whether an Equity Analysis had been performed for the project

- Concern about potential construction impacts to 4<sup>th</sup> Street businesses
- Support for Streetcar Alternative 2
- The physical appearance/attractiveness of the streetcar vehicles
- Safety particularly in proximity to schools along the streetcar route

#### Public Review Meeting #2 at Santa Ana Police Department Community Room

Public Review Meeting #2 was held on Tuesday, July 17, 2014 from 9:00 a.m. to 12:00 p.m. at the Santa Ana Police Department Community Room. Approximately 40 to 50 people were in attendance. Three people offered public comment for the record at this meeting. The comments were all in support of the project for various reasons including:

- Potential economic development and jobs that would result
- Landscaping and station area improvements improving overall street attractiveness

#### Public Review Meeting #3 at Goodwill Industries

The final public meeting was held on Thursday, July 19, 2014 from 6:00 p.m. to 9:00 p.m. at Goodwill Industries at the western end of the study area. There were approximately 50 to 60 people in attendance at this meeting. Approximately 24 people asked questions or provided comments that were recorded by the court reporter. The comments generally consisted of the following:

- Whether an equity analysis had been performed as part of the environmental review process to address issues of environmental justice.
- Concern about construction impacts and impacts to the historic buildings on 4<sup>th</sup> Street.
- How the streetcar would alter the street for bicyclists
- Concerns about impacts to on-street parking in the area
- Who would use the transit system, whether it was local residents or more regionally oriented
- What measures would be taken to provide for community safety
- How the project would be funded, and
- How many residents would be displaced.

#### **4.7.2 Summary of Public Comments Received Outside of the Public Review Meetings**

A Board Member of Downtown, Inc., representing Downtown and Artists Village merchants and property owners submitted comments on behalf of their membership. Downtown, Inc. expressed their strong support for the project and indicated a preference for Streetcar Alternative 1 so that the route would more closely serve the Downtown and Artist Village business district.

The Santa Ana Community & Business Coalition (SAC-BA) submitted a letter stating their opposition the streetcar project on the basis that construction along 4<sup>th</sup> Street will severely

impact 4<sup>th</sup> Street businesses, and cause residential displacement in the Santa Anita Neighborhood of Santa Ana. In addition, they indicate opposition to the project for the following reasons: Lack of inclusion in the planning process; 2. Questionable objectives for the specified project; 3. Project costs; 4. Disruptive construction, vacant properties, displacement; and 5. Public safety issues. They further requested that an equity analysis (which is provided in Section 3.5 of the EA/DEIR) be performed. Along with their letter, the SAC-BA also included over 180 form letters of opposition, most signed by residents and representatives of business within the study area, some signed by individuals outside the study area.

#### **4.7.3 Summary of Public Agency Comments**

Three agencies submitted comment letters during the public review period. A brief summary of each is provided below:

##### California Department of Transportation (Caltrans)

Caltrans, as a commenting agency on the project, had no comments at this time. However, in the event of any activity in the Department's right-of-way, they noted that an encroachment permit would be necessary. They asked to be kept informed of the project and any future development that might impact State transportation facilities.

##### California Native American Heritage Commission

The Native American Heritage Commission (NAHC) conveyed their concern for CEQA compliance with regard to areas of identified archaeological sensitivity, and suggested that archaeological activity be coordinated with the NAHC and that the final report including mitigation measures be provided to the NAHC planning department.

##### United States General Services Administration

The United States General Services Administration (GSA) provided comments on behalf of the GSA and their Tenant Agencies in the Ronald Reagan Federal Building and Courthouse, located between 4<sup>th</sup> and 5<sup>th</sup> Streets, west of Ross Street. The GSA expressed a preference for Streetcar Alternative 1 and strong objections to Streetcar Alternative 2. Their objections to Streetcar Alternative 2 were based on security and operational concerns with the 5<sup>th</sup> Street alignment.

##### Santa Ana Historical Preservation Society

The Santa Ana Historical Preservation Society (SAHPS) provided their comments on the EA/DEIR in a letter dated July 7, 2014. Their primary concern was about potential right-of-way acquisitions along Civic Center Drive to accommodate the streetcar in Streetcar Alternative 2 and the planned bike lanes. They also expressed their support for Streetcar Alternative 1 because they believe it will promote more visitors to Downtown Santa Ana and reduce current vehicle and parking demands on the existing street system.

#### **4.8 Incorporation of Public Comments into EA/Final EIR**

The comments have been considered in recommending the Locally Preferred Alternative (LPA) for the project, and have been incorporated into the definition of the LPA's physical and operating characteristics, where appropriate.

Responses will be prepared to all of the comments received through the Court Reporters at the Public Review Meetings, or in writing (through mail, fax, email or personal delivery) during the Public Review Period, and incorporated into the Environmental Assessment/Final Environmental Impact Report (EA/FEIR).

## **5.0 RECOMMENDATION FOR LOCALLY PREFERRED ALTERNATIVE**

The following describes the criteria, factors and considerations that contributed to the recommendation of the LPA.

### **5.1 Results of Detailed Technical Evaluation**

As presented in Sections 3.6 and 3.7, the Detailed Evaluation of the Reduced Set of Alternatives considered how each alternative compared against the criteria and measures of effectiveness (MOEs) presented previously in Table 3-2. The criteria included:

- Accessibility and Livability
- Economic Development, Transit Supportive Land Use and Community Goals
- Environmental responsibility
- Travel Benefits, Choice and Reliability, and
- Cost Effectiveness and Financial Feasibility.

Streetcar Alternative 1 ranked number 1 overall in the Detailed Evaluation of Alternatives. It was ranked first in Accessibility and Livability because it served the greatest number of transit dependent households and was estimated to have the highest daily ridership of the three alternatives.

Streetcar Alternative 1 also ranked the highest among the alternatives on Economic Development, Transit Supportive Land Use and Community Goals. The existing land uses along the eastern portion of the Streetcar Alternative 1 alignment provide the densities and development patterns to support a high capacity transit system. Much of the land use along the eastern portion of the Streetcar Alternative 2 alignment is governmental /institutional uses and public parking structures, which are unlikely to redevelop in the near term. Adopted land use plans that cover the streetcar alignment areas support and encourage the types of development/redevelopment likely to occur in conjunction with high capacity and transit, and existing development patterns provide opportunity for such development/ redevelopment to occur. Because of the nature of the types of land uses along the Streetcar Alternative 2 route, particularly the government offices and courthouses along the central portion through the Downtown and Civic Center, land use plans do not anticipate similar levels and types of development/redevelopment along its alignment.

Streetcar Alternative 1 effectively serves key destinations within the corridor area, ranking it first in Travel Benefit, Choice and Reliability.

Streetcar Alternative 1 ranked second among the alternatives in Environmental Responsibility, while TSM ranked first. Because the TSM Alternative does not include



substantial new construction, it does not require acquisition of right-of-way, nor does it adversely affect any conditions in the environment compared to the No Build Alternative. Both Streetcar Alternatives require acquisition of right-of-way (with Streetcar Alternative 2 requiring somewhat more than Streetcar Alternative 1). Because both Streetcar Alternatives involve new construction, both alternatives will alter conditions in the environment compared to the No Build Alternative.

The MOEs for Cost Effectiveness and Financial Feasibility in the Alternatives Analysis included Constructability/Ease of Construction, Capital Cost, Capital Cost per Route Mile, Annualized Operating Cost, and Operating Cost per Hour. During the environmental review process, and as part of the public outreach efforts that were undertaken in support of the environmental review, capital and operating costs for the alternatives were reviewed as were the Cost Effectiveness MOEs.

The TSM Alternative ranked first for Constructability/Ease of Construction because of the very limited amount of construction likely to occur under this alternative.

TSM Alternative ranked first in capital cost and capital cost per route mile. However, although the TSM Alternative is initially less expensive to implement, the busses used in the TSM Alternative only have a 12-year life cycle, compared to a 25 to 30 year life cycle for streetcar vehicles. Also, Streetcar 1 has the lowest annual operating cost. So while Streetcar Alternative 1 costs considerably more than the TSM Alternative to initially implement, after 25 years it has cost less than TSM or Streetcar 2 to construct, operate and maintain. Over a 25 year period, the cost per passenger to construct, maintain and operate Streetcar Alternative 1 is approximately half that of the TSM alternative.

Table 5-1 provides a summary of estimated capital and operating costs for each of the alternatives.

**Table 5-1: Cost Comparison of Alternatives**

	TSM	STREETCAR ALTERNATIVE 1	STREETCAR ALTERNATIVE 2
Capital Cost	\$14.5 million	\$197.4 million - \$209.7 million	\$217.0 million - \$228.1 million
Daily Ridership	3,982	6,090	4,752
Operating Cost (Annual)*	\$13.3 million	\$4.9 million	\$6.1 million
Cost/Passenger	\$10.20	\$6.59	\$9.59
Cost/Revenue Mile	\$13.23	\$14.86	\$16.81
Cost/Revenue Hour	\$125.70	\$187.12	\$187.12

\* Operating Cost of TSM SARTC-to-Harbor route only is \$5.1million; daily ridership is 3,085.

Table 5-2 shows the results of the detailed evaluation of alternatives. Again, Streetcar Alternative 1 is ranked first overall with the TSM Alternative ranking second.

Table 5-2: Final Alternatives Ranking

CRITERIA / MEASURE OF EFFECTIVENESS		TSM	STREETCAR ALTERNATIVE 1	STREETCAR ALTERNATIVE 2
<b>1.</b>	<b>ACCESSIBILITY AND LIVABILITY</b>			
1A	No. of transit-dependent households within 1/4 mile walking distance of proposed alignment	3	1	2
1B	No. of daily riders (average weekday boardings)	3	1	2
<b>2.</b>	<b>ECONOMIC DEVELOPMENT, TRANSIT SUPPORTIVE LAND USE AND COMMUNITY GOALS</b>			
2A	Assessment of the transit supportiveness of land uses served by the proposed alignment	3	1	2
2B	Assessment of the economic development potential of land uses served by the proposed alignment	3	1	2
2C	Community Support	2	1	1
<b>3.</b>	<b>ENVIRONMENTAL RESPONSIBILITY</b>			
3A	Amount of additional right-of-way required	1	2	3
3B	Environmental Tradeoffs	1	2	3
<b>4.</b>	<b>TRAVEL BENEFITS, CHOICE AND RELIABILITY</b>			
4A	Customer service (travel times between O-D pairs)	2	1	3
4B	Number of daily riders (average weekday boardings)	3	1	2
<b>5.</b>	<b>COST EFFECTIVENESS AND FINANCIAL FEASIBILITY</b>			
5A	Constructability/ease of construction	1	2	3
5B	Capital cost	1	2	3
5C	Capital cost per route mile	1	2	3
5D	Annualized operating cost	3	1	2
5E	Operating cost per passenger	3	1	2
		30	19	33
	<b>OVERALL RANKING</b>	<b>2</b>	<b>1</b>	<b>3</b>

\*For purposes of comparison to the Streetcar Alternatives, the Annualized Operating Cost for TSM includes only the SARTC-to-Harbor route.

### 5.1.1 Design Options Evaluation Results

O&M Facility Site: As described in Section 2.4.1, two sites were considered for the O&M facility. Based on the results of the detailed evaluation of the two sites it was concluded that Site A was slightly smaller than Site B and irregularly shaped, making the ease of operations somewhat less than with Site B. Site A was also more expensive than Site B. However it offered advantages in terms of environmental tradeoffs. It would not result in the displacement of any residents. Neither site were estimated to create additional noise

compared to existing conditions and may in fact reduce noise somewhat, and both sites were consistent with adopted land use plans and policies of the City of Santa Ana. It was anticipated that the environmental review process and accompanying public comment would further discern the relative advantages and disadvantages of each of these options and support the selection of the preferred option.

There was little public comment or discussion about the O&M facility sites during public review of the EA/DEIR. However, size, location and opportunities for future system expansion and connectivity were considerations in the limited discussion of the two sites.

Based on the evaluation results and public and agency comment, Site B is identified as the preferred site for the O&M Facility. It is slightly larger and more regularly shaped than Site A, providing operational benefits, the ability to house the full range of O&M maintenance functions, and greater opportunity to accommodate system expansion into Garden Grove or Anaheim in the future. It is estimated to be less expensive than Site A, and the use of the site as an O&M facility would be consistent with its industrial zoning designation and compatible with adjacent and surrounding land uses.

4<sup>th</sup> Street Parking Scenario: With implementation of the streetcar on 4<sup>th</sup> Street, it is necessary to eliminate the diagonal parking along the south side of 4<sup>th</sup> Street because automobiles backing out of parking spaces would conflict with streetcar operations. As described in Section 2.4.2, three Design Options were considered to eliminate the diagonal parking: a) Replace the diagonal parking along the south side of 4<sup>th</sup> Street between Ross and French Streets with parallel parking; widen the sidewalk along the south side from 12 feet to 20 feet; b) Eliminate the parking along the south side of 4<sup>th</sup> Street between Ross and French Streets and widen the sidewalks from 12 feet to 28 feet; and c) Eliminate the parking along both sides of 4<sup>th</sup> Street between Ross and French Streets and widen the sidewalks on both sides of the street from 12 feet to 28 feet.

During the public review period for the EA/DEIR, there was considerable comment and concern expressed about the impact of the fixed guideway on on-street parking. In particular, business owners along 4<sup>th</sup> Street were concerned about the impact to their businesses if adjacent on-street parking was eliminated.

4<sup>th</sup> Street Parking Scenario A is the preferred option to address the diagonal parking along 4<sup>th</sup> Street. In Option A, the parking along the south side of 4<sup>th</sup> Street would be reconfigured to parallel parking spaces along the south side of 4<sup>th</sup> Street between Ross and French Street. Option A results in the least loss of on-street parking, with a loss of between 26 and 30 spaces. It provides some traffic operational improvement compared to the diagonal parking, although less than parking removal. It is less expensive than either Option B or Option C

The sidewalks along the south side of the street will be widened from their existing 12-foot width to approximately 20 feet wide. This will enhance the pedestrian experience and provide greater flexibility for event-related activities and Downtown businesses to utilize this space.

## **5.2 Results of Environmental Review**

An EA/DEIR was prepared for the project to meet the requirements of NEPA and CEQA. The alternatives identified for evaluation in the EA/DEIR were based on public comments as well as technical analyses, as detailed in the AA Report.

Table 3-1, presented previously, summarizes the potential adverse effects associated with the implementation of Streetcar Alternatives 1 and 2. No impacts would occur from the implementation of the TSM Alternative.

The EA/DEIR identified that Streetcar Alternatives 1 and 2 would result in adverse effects associated with hazardous materials, operational noise (moderate), safety, and construction air quality are anticipated to occur prior to incorporation of mitigation measures (CEQA only). Mitigation measures would eliminate the adverse effects associated with hazardous materials and safety. Moderate effects associated with operational noise would remain after the implementation of mitigation, however these effects would not be considered adverse. In addition, the EA/DEIR identified that significant construction air quality impacts under CEQA would remain after the implementation of mitigation; however, it construction-related air quality impacts would be temporary and not adverse under NEPA after the implementation of mitigation.

No adverse effects were identified for the TSM Alternative.

## **5.3 Results of Community Outreach**

Following the completion of the AA and EA/DEIR, there was a 45-day public review period for the EA/DEIR conducted between May 23, 2014 and July 7, 2014. During this time, the public was notified and encouraged to review and provide comments on the EA/DEIR in compliance with NEPA and CEQA requirements; the AA was also made available. The following summarizes the comments received during the Public Review Period that are germane to the selection of the Locally Preferred Alternative.

General community support for a streetcar system: While there were differences of opinion regarding the route, there was general support for the concept of a streetcar system connecting SARTC with the City of Garden Grove, through the Downtown and Civic Center area.

Concern about the duration and potential impacts of construction on local Downtown businesses: There were several comments from local business owners inquiring about the

methods and duration of construction and the potential disruption to businesses, particularly along 4<sup>th</sup> Street in Santa Ana.

Concern about loss of on-street parking: Although the streetcar alignments do not generally require the removal of on-street parking, there are a few locations where some on-street parking will be removed or reconfigured, most notably along the south side of Santa Ana Boulevard between Raitt Street and Bristol Street, and along 4<sup>th</sup> Street between Ross Street and French Street. The EA/DEIR noted that, particularly along 4<sup>th</sup> Street, alternative parking options are provided by parking structures accessible from 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> Street. However, residents and business owners accustomed to on-street parking expressed concerns about the impact of its removal.

Opportunities to stimulate economic development along 5<sup>th</sup> Street in conjunction with the streetcar: Some residents and business owners felt that 4<sup>th</sup> Street was currently an active commercial corridor and that 5<sup>th</sup> Street might better benefit from the potential economic development opportunities created by a streetcar system.

4<sup>th</sup> Street versus 5<sup>th</sup> Street: Considerable and varied input was provided regarding the preferred location for the streetcar. A group of approximately 180 residents and 4<sup>th</sup> Street business owners in coordination with the Santa Ana Community & Business Alliance expressed their opposition to the 4<sup>th</sup> Street alignment. Downtown, Inc. also representing businesses and merchants along 4<sup>th</sup> Street and in the Downtown and Artist Village area expressed strong support for the 4<sup>th</sup> Street alignment and expressed concerns that Streetcar Alternative 2 (along Santa Ana Boulevard, Civic Center Drive and 5<sup>th</sup> Street) took the streetcar too far north of key commercial opportunities in Downtown. The U.S. General Services Administration strongly opposed the 5<sup>th</sup> Street alignment because of its proximity to the Ronald Reagan Federal Build & Courthouse and the main entrance to that building's parking garage. The Santa Ana Historic Preservation Society expressed its preference for the 4<sup>th</sup> Street alignment.

## **5.4 Summary of Findings and Conclusions**

There is strong support from the community for a streetcar system connecting SARTC with the Downtown and Civic Center areas, continuing west to Garden Grove.

Streetcar Alternative 1 was ranked first in the technical evaluation of the alternatives.

Streetcar Alternative 1 and Streetcar Alternative 2 would have only one significant environmental impact, a temporary air quality impact during construction.

Streetcar Alternative 2 requires slightly more right-of-way than Streetcar Alternative 1 and impacts one additional business (Downtown Burger King).

Streetcar Alternative 1 is estimated to have the highest ridership and serve the greatest number of transit depended households.

Streetcar Alternative 1 costs less than Streetcar Alternative 2 to construct and operate.

The Streetcar Alternative 1 alignment has the most transit supportive existing land use and development patterns to support a high capacity transit system.

With the provisions of the Transit Zoning Code considerable additional development opportunity and potential exists along the Streetcar 1 alignment compared to Streetcar Alternative 2 which has heavily institutional/government uses and parking structures along its Downtown/Civic Center alignment.

Streetcar Alternative 1 ranked second in Constructability/Ease of Construction. This is due in part to improvements already completed by the City of Santa Ana along Santa Ana Boulevard and 4<sup>th</sup> Street that have addressed some of the potential utility relocation challenges that exist along 5<sup>th</sup> Street.

4<sup>th</sup> Street Parking Scenario A: Replace Parking along South Side with Parallel Parking and Widen Southern Sidewalk to 20 Feet is recommended.

- Eliminates the fewest on-street parking spaces along 4<sup>th</sup> Street
- Adequate replacement parking is available at nearby parking structures on 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> Street.
- Replacing the diagonal parking with parallel parking provides traffic operations and safety benefits to the streetcar and automobiles traveling eastbound on 4<sup>th</sup> Street by eliminating vehicles backing into the traffic stream.
- Parallel parking allows for widening of the southern sidewalks by 8 feet which will enhance the pedestrian experience and provide for pedestrian-oriented uses and activities along the south side of 4<sup>th</sup> Street.

Coordination and communication between the cities of Santa Ana and Garden Grove, OCTA and affected business and property owners will need to be ongoing as the project progresses through design, construction and operations.

Of the two operations and maintenance facility sites, Site B located along 5<sup>th</sup> Street west of Raitt Street is the Preferred Site for the following reasons:

- Its size, rectangular shape and proximity to the PE ROW make it more efficient for both development and operations.
- It is estimated to be less expensive than Site A (near SARTC).
- Its location in the western half of the corridor provides greater flexibility to serve future extensions or connections through Garden Grove to Anaheim.

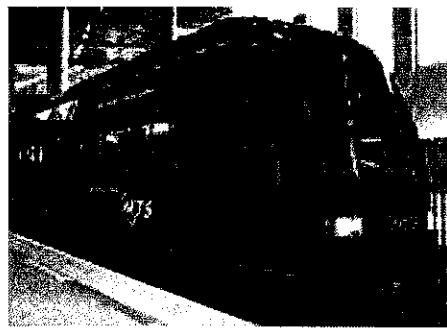
- The size of Site B provides advantages in locating a greater range of O&M functions on the site which provides the opportunity to minimize duplication of functions as the system expands and/or connects with other streetcar systems in the future.

## 5.5 Locally Preferred Alternative

The following describes the physical and operating characteristics of the recommended LPA, Streetcar Alternative 1.

### 5.5.1 Technology (Mode)

It is recommended that transit service be provided by modern streetcars operating within existing streets in mixed-flow traffic (the streetcar will share the travel lane with other vehicles), consistent with the Streetcar Alternatives analyzed in the EA/DEIR. For planning purposes, the Siemens S70 short vehicle (see Figure 5-1) was assumed since it is currently the only vehicle approved by the California Public Utilities Commission



(CPUC) for streetcar operations in California. The vehicle is approximately 80 feet long and 8.7 feet wide. It provides seating for 60 passengers and can accommodate a total of 150 passengers seated and standing. For quick and convenient boarding, the vehicle is approximately 68 percent low-floor with a low-floor height of 14 inches. Power would be supplied via an overhead electric line. Other emerging streetcar technologies, including “wireless” and other vehicle options that may be acceptable to the CPUC will also be considered as they become available during the project development process.

### 5.5.2 Alignment (Route)

The recommended alignment (shown in Figure 5-2) is consistent with Streetcar Alternative 1, with the streetcar traveling westbound from eastern terminus station at SARTC in Santa Ana, along Santa Ana Boulevard, entering the Pacific Electric Right-of-way (PE ROW) west of Raitt Street and continuing to the western terminus station in the northwest quadrant of the intersection of Harbor Boulevard and Westminster Avenue in Garden Grove. Eastbound, the streetcar will travel along the PE ROW and Santa Ana Boulevard to approximately Parton Street, where the route will exit Santa Ana Boulevard and continue along a public easement on the south edge of Sasscer Park. The streetcar will exit Sasscer Park onto 4<sup>th</sup> Street and continue along 4<sup>th</sup> Street to Mortimer Street, where it will turn north and reconnect with Santa Ana Boulevard, continuing east to the eastern terminus station at SARTC. The route is approximately 4.1 miles in length. Six traction power substations have been identified along the route to distribute electrical power to the vehicles.

Figure 5-2: Locally Preferred Alternative Route





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### **5.5.3 Operations and Maintenance Facility**

The preferred location for the maintenance facility for the streetcar is between the PE ROW and 5<sup>th</sup> Street, west of Raitt Street (between Daisy Avenue and English Street)(See Figure 5-2). This is Site B as examined in the EA/DEIR. The site is rectangular, comprised of three parcels and slightly larger than 2.4 acres. It is located in an area of industrial and commercial uses. Vehicular access to the site would be from 5<sup>th</sup> Street, with the possibility of future access via roadway improvements within the PE ROW. The site provides adequate space to accommodate all the needed administrative, and operations and maintenance functions, with practical car storage space for a fleet of approximately 14 vehicles, allowing for future expansion. There are existing industrial and residential uses currently on the site.

### **5.5.4 Roadway Improvements/Modifications**

New traffic signals will be installed at two locations along the streetcar route: the intersection of Santa Ana Boulevard and Lacy Street, and the intersection of 4<sup>th</sup> Street at Mortimer Street.

Improvements will be made along Fairview Street between 5<sup>th</sup> Street and Civic Center Drive to accommodate the streetcar crossing at Fairview Street. These improvements include: reconfiguring the northbound left turn lane into the Santa Ana Unified School District facility, addition of gates at the PE ROW (traffic and pedestrian) and the addition of a second southbound left turn lane on Fairview Street at Civic Center Drive.

Between SARTC and Raitt Street, the streetcar will operate in the curbside travel lane with mixed-flow traffic. In most locations where on-street parking is currently provided along a roadway included in the streetcar route, the parking will remain with implementation of the streetcar. Exceptions include some intermediate station locations, and along the south side of Santa Ana Boulevard between Raitt Street and Shelton Street.

Diagonal parking is currently provided along 4<sup>th</sup> Street between Ross Street and French Street. It is recommended that, with implementation of the streetcar, the diagonal parking along the south side of 4<sup>th</sup> Street be replaced by parallel parking (4<sup>th</sup> Street Parking Scenario A), resulting in the loss of approximately 26 to 30 parking spaces along the roadway segment. The sidewalks along the south side of 4<sup>th</sup> Street will be widened from 12 feet to 20 feet.

### **5.5.5 Station Locations and Characteristics**

In addition to the two terminus stations at SARTC on the east and Harbor Boulevard/Westminster Avenue on the west, there will be station stops at 10 other locations/cross streets along the route:

1. Harbor Boulevard and Westminster Avenue
2. Willowick
3. Fairview Street and PE ROW
4. Raitt St. and Santa Ana Boulevard
5. Bristol St. and Santa Ana Boulevard
6. Flower St. and Santa Ana Boulevard

*Couplet Section (Eastbound)*

7. Sasser Park
8. Broadway and 4<sup>th</sup> Street
9. Main St. and 4<sup>th</sup> Street
10. French St. and 4<sup>th</sup> Street
11. Santa Ana Boulevard and Lacy Street
12. SARTC

*Couplet Section (Westbound)*

7. Ross Street and Santa Ana Boulevard
8. Broadway and Santa Ana Boulevard
9. Main Street and Santa Ana Boulevard
10. French Street and Santa Ana Boulevard

Each station would include amenities such as shelters, lighting, trash receptacles, and real-time next train arrival information. Parking will not be provided at the intermediate stations, however, parking is available for the eastern terminus station at SARTC, and some limited parking (approximately 50 spaces) will be provided within the station area at the western terminus station. Figure 5-3 shows what a typical side-platform station shelter might look like. The platforms would be constructed to be 14 inches about the street surface to allow for nearly-level boarding. Automated ticket vending (ATV) machines will be provided only at three stations along the route: the western terminus, the eastern terminus and one Downtown Santa Ana location. ATV will be provided on all streetcar vehicles.

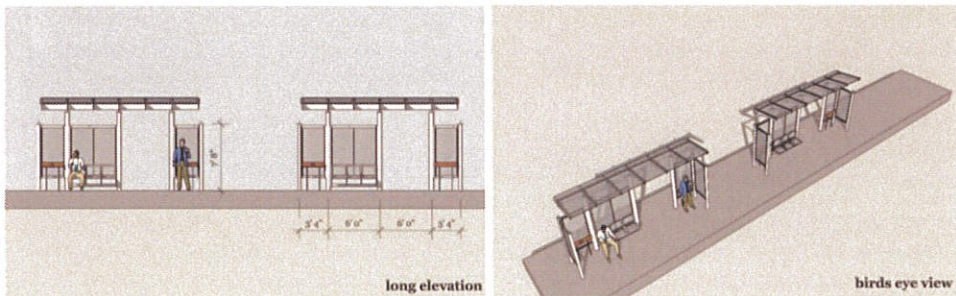


Figure 5-3: Typical Station Shelter

### 5.5.6 Operating Characteristics of the Streetcar

The Santa Ana-Garden Grove Fixed Guideway is proposed to operate seven days a week. Based on initial operating concepts, the streetcar's hours of operations will be:

- Monday through Thursday – 6:00 a.m. to 11:00 p.m. (17 hours)
- Friday and Saturday – 6:00 a.m. to 1:00 a.m. (19 hours)
- Sundays/Holidays – 7:00 a.m. to 10:00 p.m. (15 hours).

The streetcar will operate every 10 minutes during peak hours (6:00 a.m. to 6:00 p.m.) and every 15 minutes during off-peak hours (after 6:00 p.m.).

Travel speed of the streetcar will vary along the alignment. Within the PE ROW between station stops, and along the west end of Santa Ana Boulevard travel speeds will approach 35 miles per hour (mph). Through the Civic center and Downtown areas, streetcar travel speeds will be approximately 20 mph. However, when speed reductions for school zones, entering and exiting station areas and complying with traffic control are taken into account, the average speed of the streetcar along the entire length of the alignment will be approximately 17 mph.

RESOLUTION NO.2014-xxx

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF  
SANTA ANA SELECTING A LOCALLY PREFERRED  
ALTERNATIVE FOR THE SANTA ANA - GARDEN GROVE  
FIXED GUIDEWAY PROJECT

WHEREAS, since 2008, the Cities of Santa Ana and Garden Grove have worked collaboratively with the Orange County Transportation Authority (OCTA) on the Santa Ana-Garden Grove Fixed Guideway Project; and

WHEREAS, Santa Ana and OCTA have entered into cooperative agreements for development of the Fixed Guideway Project; and

WHEREAS, the City's consultant team completed an LPA Decision Report; and

WHEREAS, the staff desires that the identified alternative in the LPA Decision Report be approved by the City Council as the Locally Preferred Alternative (LPA); and

WHEREAS, the LPA identified is the proposed project to be evaluated in a Final Environmental Assessment (EA)/Environmental Impact Report (EIR) subject to the requirements of the National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA); and

WHEREAS, the proposed project as defined by the LPA cannot be advanced prior to the certification of the joint NEPA/CEQA document.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SANTA ANA AS FOLLOWS:

SECTION 1. The City Council of the City of Santa Ana hereby finds, determines and declares as follows:

- A. The LPA Decision Report has been prepared and is enclosed herein.
- B. The City Council supports the LPA Decision Report findings in recommending Streetcar Alternative 1 based on the following factors:
  - o Strong Community Support for a Streetcar System
  - o Highest Ridership
  - o Serves Greatest Number of Transit Dependent Households
  - o Least Right-of-Way Acquisition
  - o Lower Cost
  - o Most Transit Supportive Land Uses

- Larger Economic Development Potential
  - Ease of Constructability
- C. The City Council supports the LPA Decision Report recommendation of Parking Scenario "A" where on-street parking remains on Fourth Street along both sides, with diagonal parking along the south side becoming parallel parking.
- D. The City Council supports the LPA Decision Report recommendation to select Site B for the operations and maintenance facility along Fifth Street west of Raitt Street.
- E. The City of Santa Ana desires that Streetcar Alternative 1, the Locally Preferred Alternative, be identified so that the Fixed Guideway Project may be designed, developed, constructed, delivered, and operated by OCTA.

SECTION 2. The City Council authorizes the City Manager or his designee to submit all project related documents to OCTA.

ADOPTED this \_\_\_\_ day of \_\_\_\_\_, 2014.

\_\_\_\_\_  
 Miguel A. Pulido  
 Mayor

APPROVED AS TO FORM:

By: \_\_\_\_\_  
 Sonia R. Carvalho,  
 City Attorney

AYES:	Councilmembers:	_____
NOES:	Councilmembers:	_____
ABSTAIN:	Councilmembers:	_____
NOT PRESENT:	Councilmembers:	_____

CERTIFICATION OF ATTESTATION AND ORIGINALITY

I, MARIA D. HUIZAR, Clerk of Council, do hereby attest to and certify the attached Resolution No. 2014 - \_\_\_\_ to be the original resolution adopted by the City Council of the City of Santa Ana on \_\_\_\_\_.

Date: \_\_\_\_\_

\_\_\_\_\_  
Clerk of Council  
City of Santa Ana

**55C-88**