

**GOLD LINE PHASE II EXTENSION  
PASADENA TO CLAREMONT  
ALTERNATIVES ANALYSIS**

**FINAL DRAFT REPORT**

May 22, 2002

Prepared For:

Metro Blue Line Construction Authority

Prepared By:

Parsons Brinckerhoff, Quade & Douglas, Inc.

In Association With:

Applied Earthworks  
Chambers Group, Inc.  
Economics Research Associates  
Harris Miller Miller & Hanson, Inc.  
Korve Engineering  
Leighton and Associates  
Manuel Padron & Associates, Inc.  
McCormick Rankin International  
Myra L. Frank & Associates, Inc.  
Wagner Engineering & Surveying, Inc.

**TABLE OF CONTENTS**

**EXECUTIVE SUMMARY .....i**

**Chapter 1: INTRODUCTION AND BACKGROUND.....1**

    1.1 Introduction .....1

    1.2 The Pasadena to Claremont Corridor.....1

    1.3 The Alternatives Analysis Study Process.....2

**Chapter 2: PURPOSE AND NEED .....4**

    2.1 Activity Centers .....4

    2.2 Study Area Characteristics .....8

    2.3 Existing Transportation Systems and Services .....10

    2.4 Current Transit Deficiencies .....14

    2.5 Forecasted Transportation Demand .....16

    2.6 Project Goals and Objectives .....17

**Chapter 3: THE STUDY ALTERNATIVES .....19**

    3.1 The Alternatives .....19

    3.2 Descriptions of the Alternatives .....22

    3.3 Maintenance and Operations Facility.....26

    3.4 Capital and Operations and Maintenance (O & M) Costs .....26

    3.5 Traffic and Grade Crossings.....27

    3.6 Stations and Transit Oriented Development .....29

**Chapter 4: FUNDING OPPORTUNITIES .....33**

    4.1 Key Issues.....33

    4.2 Preliminary Funding Scenarios.....34

    4.3 Potential Sources of Capital Funding.....34

    4.4 Allocating Responsibility for Capital Funding and Operating Costs.....35

**Chapter 5: PUBLIC AND AGENCY INVOLVEMENT .....37**

    5.1 Overview of the Plan and Program.....37

    5.2 Study Steering Committee.....38

    5.3 Project and Public Meetings .....38

**Chapter 6: EVALUATION OF THE ALTERNATIVES .....41**

    6.1 Comparison of Alternatives Against Project Goals and Objectives .....41

    6.2 Specific Criteria and Measurement.....42

    6.3 Discussion of Trade-offs.....49

**Chapter 7: NEXT STEPS .....54**

    7.1 Selecting a Locally Preferred Alternative .....54

    7.2 Next Steps.....54

    7.3 Areas of Concern to be Addressed in Subsequent Project Development Phases.....56

**REFERENCES .....57**

**GLOSSARY AND ACRONYMS .....59**

**LIST OF PREPARERS.....61**

**RESOLUTIONS AND LETTERS OF SUPPORT FROM CORRIDOR CITIES .....63**

## EXECUTIVE SUMMARY

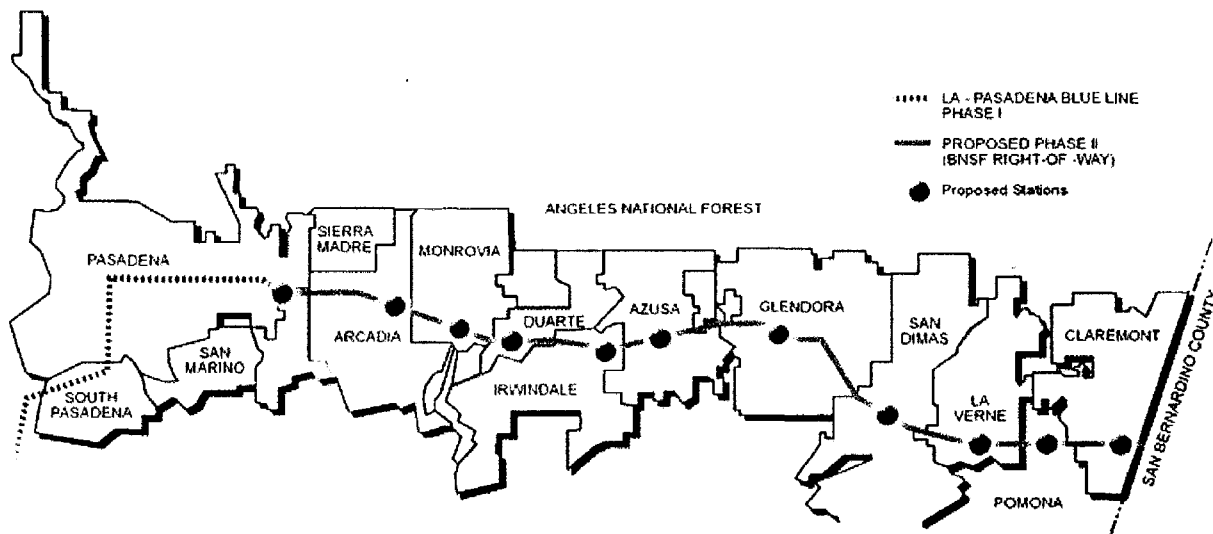
### ES.1 Introduction

The Metro Blue Line Construction Authority (Authority), in cooperation with the Federal Transit Administration (FTA), sponsored the Pasadena to Claremont Gold Line Phase II Alternatives Analysis (AA), initiated in the fall of 2001 and concluded in June 2002. The AA study was conducted and technical documents prepared to support a decision on a Locally Preferred Alternative (LPA). Although the AA report does not recommend an alternative, it does provide a focused analysis and evaluation of each alternative considered and how they address the mobility needs of the Corridor. The overall goal of the Gold Line AA is to develop an effective and efficient transportation strategy that improves access and mobility in the corridor, supports economic revitalization in each Corridor city, and contributes to the preservation and enhancement of the natural environment.

The objective of this report is to summarize the process, describe public and agency involvement, identify problems and needs of the Corridor, present the goals and objectives for the project, describe the alternatives and their ability to meet the Corridor needs and objectives, and identify funding opportunities. The report also explains how and when an LPA will be selected and identifies future steps to implement the project.

### ES.2 Corridor Description

The Pasadena to Claremont Gold Line Corridor is a 23-mile corridor located in the San Gabriel Valley of Southern California. It is made up of residential, commercial, institutional, industrial and railroad uses.



### ES.3 Purpose and Need

#### ES.3.1 Population and Employment Growth

In the ten years since 1990, the population of Los Angeles County has grown by 7.4 percent. Population growth in the study area has been similar. Nine of the twelve cities in the study corridor are expected to have a population growth that ranges from 13.6 percent to 29.7 percent through the year 2025. The 1990 Census showed that the population at that time was nine

percent low income, 31 percent of households owned only one vehicle, and six percent did not own any vehicle. These statistics show a potential for higher ridership.

More than half of the cities in the Corridor will experience employment growth above that of Los Angeles County as a whole, with the San Gabriel Valley showing the second highest job growth in the County. Since 1990, Valley job growth has represented two out of three new jobs in the County. This trend and strong forecast of employment reinforces the fact that the Gold Line is a regional employment corridor and reflects the presence of several very stable employment centers (especially the colleges and hospitals), that are closely spaced and within easy access to the transit corridor.

### **ES.3.2 Activity Centers**

The corridor includes recreation resources (Los Angeles County Arboretum, Santa Anita Park and Los Angeles County Fairplex, to name a few) that draw visitors from throughout the region. There are twelve hospitals, including the world-famous City of Hope, and eleven colleges located within one mile or less of a station. The colleges represent a current enrollment of approximately 54,000 students. These resources have the potential to provide higher ridership.

### **ES.3.3 Existing Transportation Services**

Freeways: The Corridor is served primarily by the Foothill Freeway (I-210). Approximately half of the railroad ROW that would be used for the Gold Line Phase II closely parallels I-210.

In addition to I-210, the San Bernardino Freeway (I-10) and the Pomona Freeway (SR-60) are major east/west freeways serving the San Gabriel and Pomona Valleys. The San Bernardino Freeway is approximately one-half to seven miles to the south of the project (depending on the route segment), while the Pomona Freeway is about five to nine miles to the south. The San Gabriel River Freeway (I-605) is a north/south freeway crossing the alignment and terminating at Huntington Drive in Duarte. The State Route 30 (SR 30) freeway connects I-210 to Foothill Boulevard in La Verne, and will ultimately be extended eastward to San Bernardino. These facilities currently carry 1.5 million commuters daily.

The San Gabriel Valley represents one of the region's most significantly congested areas due to the presence of heavy commute trips generated by area residents on the I-10, SR-60, and I-210. Congestion along the Foothill Freeway can be significant during the PM peak-hour periods, resulting in more than 50 percent of all freeway lanes west of Irwindale Avenue to be operating at a Level of Service (LOS) "F" or worse. Although the LOS scale ends at "F", congestion and delay can actually be much greater than the thresholds that define LOS F. East of Irwindale Avenue the percentage drops to 41 percent.

Under the No-Build Alternative, drivers of the region could experience an increase in congestion and delay by over 100 percent by 2025. The average speed on the freeway system could deteriorate to about 16 miles per hour.

Transit: Foothill Transit currently operates twelve bus lines that are contained either entirely or partially within the Corridor. Three of them run east-west and nine of them run north-south. Four of the north-south lines, that is, one-fourth of the available bus lines that serve the Corridor, provide the lengthy trip from downtown Los Angeles to the Corridor cities. Each of the lines serves at least five destinations, with one line serving as many as 15 destinations. This service is supplemented by city circulators that are provided by several of the cities in the

corridor. As a result of this limited bus service, residents of the Corridor have few mobility alternatives to the automobile. Current transit services generally meet two primary market functions: linking local business and activity centers along major arterials, or providing express services to downtown Los Angeles. Approximately two-thirds of the Corridor residents also work in the Corridor. Access between residential areas and employment locations provided by the bus systems are limited to those locations that are served by bus routes.

Bus utilization is also constrained by trip times, where buses are generally moving at the same speeds as other traffic. In many cases, bus travel times are slower than individual auto trips, since buses typically make frequent stops. These slow speeds do not provide an incentive for those with automobiles to use transit as an alternative mode for trip making.

Most employment and activity centers in the study area are currently *not* served by bus service or higher speed services. Today, the only activity centers served by rail (Metrolink Commuter Rail) are located at the east end of the Corridor (La County Fairplex, University of La Verne, Claremont Colleges and their adjoining residential areas), providing service to downtown Los Angeles. There is no Metrolink service in the Corridor between Pasadena and Pomona.

#### **ES.4 Alternatives**

This report presents both the list of alternatives and an evaluation of those selected. A single alignment forms the basis of the different alternatives. Each city along the Corridor has identified one station location, with the exception of Azusa, who desires two. Three types of technologies are utilized in these alternatives: bus rapid transit (BRT), light rail transit (LRT), and diesel multiple units (DMU). Light rail transit vehicles are powered by electricity via overhead lines while diesel multiple units are powered by diesel, similar to buses and Metrolink. A summary list of Alternatives is shown in Table ES.1.

#### **ES.5 Transit Oriented Development**

As part of the analysis of the Gold Line Phase II, a sketch level investigation of the potential for transit-oriented development (TOD) was completed in the ten communities located between Pasadena and Claremont. Sketch plans and recommendations for each community were documented in a report that provides the Gold Line communities with an orientation to some of the issues and considerations essential for undertaking a successful TOD program in the corridor (*Transit Oriented Development: Prospects and Opportunities for the Gold Line*, April 2002).

The centerpiece of the planning approach was a series of charrettes held in each community along the corridor. Participants were asked to express their vision for the area around their potential station site. Based on the direction suggested in the charrettes, TOD sketch plans were prepared illustrating how the Gold Line could be used to achieve the community's vision for how it wants to grow. The vision expressed for many of the cities included using the coming of the Gold Line as a tool to complement and reinforce the existing character of the community and expand the influence area of the transit station with strong pedestrian connections in all directions.

<b>Table ES.1 List of Alternatives</b>			
<i>Alternative</i>	<i>Technology</i>	<i>Description</i>	<i>Route / Eastern Terminus</i>
Alternative 1: No Build	No Build	Future No-Build bus network with Foothill Transit Express Bus on I-210	Corridor-wide
Alternative 2: BRT on Rail ROW	Bus Rapid Transit	BRT on Rail ROW (2 lanes) - bus on pavement - guided bus	Rail ROW from Sierra Madre Villa Ave / Claremont
Alternative 3: LRT no Freight	Light Rail Transit (LRT)	LRT double track a.) with no freight (buy remaining interests) b.) with freight (run freight operations off-peak) c.) test a first stage that extends LRT to, for example, Irwindale, with DMU to Claremont on double track - may include some sections of single track	Rail ROW from Sierra Madre Villa Ave / Claremont
Alternative 4: LRT on 2-Tracks + Freight	Light Rail Transit (LRT)	LRT double track and dedicated freight track a.) test a first stage that extends LRT to, for example, Irwindale, with DMU to Claremont on double track	Rail ROW from Sierra Madre Villa Ave / Claremont
Alternative 5: Non Compliant DMU Shared with Freight	Diesel Multiple Units (DMU)	FRA non-compliant double track a.) with no freight (buy remaining interests) b.) with freight (run freight operations off-peak)	Rail ROW from Sierra Madre Villa Ave / Claremont
Alternative 6: Non-compliant DMU + Separated Freight	Diesel Multiple Units (DMU)	FRA non-compliant vehicle, double tracked and dedicated freight track	Rail ROW from Sierra Madre Villa Ave / Claremont
Alternative 7: Compliant DMU + Single Track Sections	Diesel Multiple Units (DMU)	FRA-compliant vehicle, double tracked with occasional single track in narrow sections of ROW	Rail ROW from Sierra Madre Villa Ave / Claremont

### **ES.6 Funding**

Among the key issues considered in the development of funding strategies for the Gold Line Phase II were:

- Potential Revenue Sources
- Project Programming
- Federal Transit Administration (FTA) New Starts Funding
- Proposed Statewide Transportation Funding Measures
- Los Angeles County Metropolitan Transportation Authority (LACMTA)-Controlled Funding
- Local Funding

Two preliminary funding scenarios were considered.

- Case 1 assumes a 50 percent level of FTA New Starts financial participation. It further assumes that the \$62.00 million expended previously to purchase the Gold Line right-of-

way (ROW) is included in the cost of the project and used to leverage additional FTA New Starts funds.

- Case 2 assumes an 80 percent level of FTA New Starts financial participation. Like Case 1, it assumes that the \$62 million expended previously for Gold Line ROW is included in the cost of the project and used to leverage additional FTA New Starts funds.

An initial list of potential sources of capital funding for the Gold Line includes the following:

*Federal*

- FTA Section 5309 New Starts Funds
- FTA Section 5307 Urbanized Area Formula Grant

(Note: Other Federal Sources such as FHWA Congestion Mitigation and Air Quality funds are distributed through the MTA Call for Projects)

*State*

- Assembly Constitutional Amendment 4
- Traffic Congestion Relief Initiative Proposed for the November 2002 Ballot
- Governor's Traffic Congestion Relief Program

*Regional/LACMTA*

- Call for Projects Funding
- MTA Discretionary Funds (Prop A: 35 Percent; Prop C: 20 Percent)
- County Transportation Improvement Program (RTIP)

*Local*

- Station Area Right of Way (Contributed)
- Station Design and Construction (Contributed)
- Local Gas Tax Subventions
- Tax Increment Financing/Redevelopment

*Private*

- Joint Development
- Benefit Assessments
- Vendor Financing
- Other (Advertising and Auxiliary Sources)

The responsibility for funding the capital costs as well as the on-going operating costs of the Gold Line is likely to be shared among federal, state, regional/MTA, and local project participants. As the Draft Environmental Impact Statement (DEIS) and the Preliminary Engineering/Final Environmental Impact Statement (PE/FEIS) studies proceed, the list of potential funding participants and their respective funding contributions will be clarified and negotiated.

**ES.7 Public and Agency Involvement**

The focus of the public outreach effort along the Phase II Gold Line Corridor was to work with each of the cities to help them develop and implement a city specific work plan to reach the necessary city and community members. Each of the cities developed their strategy for garnering input for consideration into the Alternatives Analysis process. The purpose of the

outreach effort in each city was to exchange ideas and share project information. Issues that were brought forward by the public, city staff and elected officials were helpful in identifying sensitive problems for study consideration.

Some common elements in developing the individual city strategies included:

- Council Briefings
- Station Area Workshops
- Community Meetings/Open Houses
- Stakeholder Meetings
- Collateral Materials

Over 60 public meetings were held throughout the corridor. Concerns raised at these meetings focused on the potential for noise impacts, introduction of a new visual element with the light rail transit overhead wire, and traffic delays at grade crossings.

A Study Steering Committee was formed by the San Gabriel Valley Council of Governments and the Authority to oversee the planning and city participation in the Gold Line Phase II AA Study. Made up of a single delegate and alternate from each of the 11 corridor cities plus representatives from the Council of Governments and Authority, the committee met once a month to monitor the progress of the study, to review technical reports, and achieve consensus on the results of the AA.

The Steering Committee also provided a critical outreach function in carrying updated project information back to the individual city councils and constituents. This critical connection will allow for a smooth decision making process to occur in the final selection and adoption of a Locally Preferred Alternative (LPA).

### ***ES.8 Evaluation of Alternatives and Discussion of Trade-offs***

This section provides a discussion on how well each alternative achieved the Corridor goals and objectives as well as a discussion on trade-offs. Criteria were developed for each goal that measure the effectiveness of each alternative and that will lead to the selection of a Locally Preferred Alternative (LPA). Additionally, this section includes the Federal Transit Administration's New Starts requirements. The criteria and measures required for the FTA for New Starts evaluations fall under the following evaluation elements:

- Mobility Improvements;
- Environmental Benefits;
- Operating Efficiencies;
- Cost Effectiveness; and
- Existing land Use, Transit Supportive Land Use Policies, and Future Patterns.

The criteria that measure each of these elements are incorporated into the comparative summary shown in Table ES.2 and categorized under the goals developed for this study by the Study Steering Committee.

Numeric data are provided in the table where possible. Where the criteria could be quantified, the degree of impact is indicated by "low, medium, high." In determining whether or not the goal has been achieved, partially filled "moons" are used to indicate how well that goal is achieved by each alternative based on the results of the criteria for that goal. In Goal 5 and 9, no criteria were established because of the qualitative nature of the goals.



**Table ES.2  
Comparative Summary of Differentiating Evaluation Measures**

MEASURES	Alt. 1: NO BUILD	Alt. 2: BRT	Alt. 3: LRT, time separated	Alt. 4: LRT, time shared	Alt. 5: Non- compliant DMU, time separated	Alt. 6: Non- compliant DMU, time shared	Alt. 7: Compliant DMU, some single track
<b>GOAL 1: To reduce auto dependency</b>							
• Daily transit trips in Region	1,563,600	1,569,400	1,575,500	1,575,500	1,573,800	1,573,800	1,573,800
• Number of new riders	0	5,800	11,900	11,900	10,200	10,200	10,200
• Travel time between Claremont and Pasadena in 2025	AM peak: 90 min. PM peak: 102 min.	34.5 min.	32 min.	32 min.	33 min.	33 min.	33 min.
• Reduction in daily single occupant vehicle person trips	0	3700	8100	8100	7100	7100	7100
<b>GOAL 2: To develop a cost-effective transit system</b>	N/A						
• Capital costs (millions of 2002 \$)	5,500.0	554.7	896.6	936.5	735.5	802.2	410.9
• Annual operating & maintenance costs (millions of 2002 \$)	1,035.0	3.4 <sup>1</sup>	23.6	23.6	16.4	16.4	15.25
• Operating cost per passenger mile	\$0.33	\$0.33	\$0.34	\$0.34	\$0.33	\$0.33	\$0.33
• Cost per new rider	N/A	\$27.40	\$26.30	\$27.30	\$24.00	\$25.60	\$15.70
<b>GOAL 3: Improve air quality, preserve and protect the environment</b>							
• Potential acres of right-of-way to be acquired	N/A	15-20	15-20	15-20	15-20	15-20	15-20
• Change in vehicle miles traveled (diff. over Baseline)	N/A	-33,600	-164,000	-164,000	-153,200	-153,200	-153,200
• Potential for noise impacts	N/A	Low	Low-Medium	Low-Medium	Medium	Medium	Medium
• Potential impact to visual quality	N/A	Low	Low-Medium	Low-Medium	Low	Low	Low
• Potential impact to water quality	N/A	Medium	Low	Low	Low	Low	Low
Rating Scale:  Poor-----Good							

<sup>1</sup> Assumes 14 buses required to operate in the peak.

**Table ES.2 (continued)**  
**Comparative Summary of Differentiating Evaluation Measures**

MEASURES	Alt. 1: NO BUILD	Alt. 2: BRT	Alt. 3: LRT, time separated	Alt. 4: LRT, time shared	Alt. 5: Non- compliant DMU, time separated	Alt. 6: Non- compliant DMU, time shared	Alt. 7: Compliant DMU, some single track
<b>GOAL 4: Locate stations to facilitate cities' visions for landuse/development around stations</b>	N/A						
• Market support for TOD	N/A	Medium	Medium	Medium	Medium	Medium	Medium
• Supports community growth & redevelopment goals	N/A	Medium	High	High	High	High	High
• Development potential at stations	N/A	Medium	High	High	Medium-high	Medium-high	Medium-high
<b>GOAL 5: Create a system that adds identity and attractiveness to Corridor cities</b>							
<b>GOAL 6: To complement existing transit in the corridor, optimize previous investmts.</b>							
• Provides efficient intra-corridor service not currently met by other providers	Low	High	High	High	High	High	High
<b>GOAL 7: To improve mobility, connectivity to regional and local transit systems</b>							
• Provides a seamless connection to the Phase I LRT	N/A	Low	High	High	Low	Low	Low
<b>GOAL 8: To implement a project within a reasonable period of time</b>	N/A						
• New transit service in the corridor by 2008	N/A	High	Medium	Medium	Medium-high	Medium-high	Medium-high
<b>GOAL 9: Work collaboratively with cities throughout AA process</b>	N/A						
Rating Scale:  Poor-----Good							

### **ES.8.1 Discussion of Trade-Offs**

The trade-offs analysis is the actual application of the evaluation process in which key criteria are considered together, including both quantifiable and non-quantifiable considerations. The key criteria for the most part include only those measures where discernible and significant differences can be noted between alternatives. For example, the assessment of environmental impacts found that there would be no impacts to archaeological resources, endangered species, floodplains, parks or wetlands. Therefore, criteria for these areas of impact are not included in Table ES.2. While all of the information collected during the study was considered in the analysis of alternatives, some considerations do not distinguish between alternatives either because the impact is the same for all alternatives, or there is no impact. Therefore, only those considerations that were deemed decisive in differentiating between alternatives are presented in Table ES.2.

“Trade-offs” refers to the fact that any alternative may have both positive and negative aspects and that selecting a Locally Preferred Alternative requires balancing these “trade-offs”. This balancing includes assessing how well each alternative achieves the goals, which is based on how well the criteria rate under each goal. This is true for all but Goals 5 and 9, where no criteria were identified. In this case, the goal itself is assessed. Below is the discussion of the trade-offs by goal.

#### **GOAL 1: To reduce auto dependency.**

While all of the alternatives would reduce auto dependency to a certain extent, in comparison to each other, LRT is more successful in attracting more new riders and receives a higher ranking. This is in part a function of reduced travel time and no transfer required with the Gold Line Phase I LRT line.

#### **GOAL 2: To develop a cost-effective transit system.**

The single criterion that assesses the return on the investment is the cost per new rider. This number is based on how well the capital investment is rated when it takes into account the capital costs, the annual operating and maintenance costs and the number of new riders attracted by the alternatives. The cost per new rider for LRT Alternative 3 and DMU Alternatives 5 and 6 is in the mid \$20's range. BRT Alternative 2 and LRT Alternative 4 are both in the high \$20's range. The cost per new rider in these ranges is considered to be somewhat high based on FTA interpretation of cost ranges. The cost per new rider for the DMU Alternative 7, however, is around \$15, which is a considered a competitive number by FTA. Since this goal achievement analysis is based on how the alternatives compare to each other, DMU Alternative 7 is ranked high in achieving the goal of developing a cost-effective system, while the others rank lower.

#### **GOAL 3: Improve air quality and preserve and protect the environment**

All of the rail alternatives ranked the same on this goal since the total relative impacts of the alternatives on the environment are not significantly different.

Overall, they averaged about the same, but there are some differences for particular issues. For air quality, LRT and DMU provide more benefits since they attract more riders than BRT, representing more shifts from single-occupancy vehicles. Furthermore, LRT provides greater air quality benefits than DMU since LRT is electrically powered, while DMU is diesel powered.

LRT would include an overhead wiring system, introducing a new visual element, whereas BRT and DMU would not.

The electrically powered LRT would be quieter than the diesel-powered DMU. Noise impacts caused by the LRT vehicle would be easier to mitigate than for DMU because the primary sources of noise are at track level for LRT, rather than at stack level for DMU.

There would be a low potential for contaminating natural water sources in the corridor by the rail alternatives, with a somewhat higher potential impact caused by the BRT alternative because of water runoff associated with a larger impermeable surface created by the paved busway.

**GOAL 4: Locate stations that facilitate cities' visions for land use and development around stations.**

Although all alternatives, except for the "No Build", would place their respective stations in the same location, thus taking full advantage of adjacent land and potential uses, developers and investors view more "permanent" installations, such as rail facilities, as more conducive to superior development. Furthermore, in this country light rail stations have experienced more transit oriented development than systems commuter rail; therefore, while all of the rail alternatives rate higher than the bus rapid transit alternative, LRT still is seen as more supportive of development around stations than is DMU. In assessing the existing real estate market, there is no difference between the alternatives since the market function is independent of whatever transit improvement is constructed.

**GOAL 5: Create a system that adds identity and attractiveness to Corridor cities.**  
For the same reasons cited in Goal 4, LRT ranks slightly higher than DMU.

**GOAL 6: To complement other existing transit in the corridor and optimize previous investments.**

All of the alternatives would optimize the previous investment by using the rail right-of-way that was purchased by MTA. They also complement other existing transit in some way, although LRT would more directly enhance the Phase I LRT line currently under construction, as it would become an extension of an existing system and no transfer would be required. This gives LRT some advantage over the other alternatives and a higher ranking.

**GOAL 7: To improve mobility and provide connectivity to regional and local transit systems.**

The single differentiator in achieving this goal is that LRT provides a "seamless" connection to the Phase I LRT, thus improving travel time and increasing ridership. Therefore, it ranks higher than the other alternatives.

**GOAL 8: To implement a project within a reasonable period of time**

The objective is to have a new transit system operational by 2008. While this can be accomplished with all of the alternatives, BRT could be constructed sooner, followed by the DMU (subject to availability of vehicles from the manufacturer). LRT would take the longest to construct since it requires an extensive electrical system to be installed, unlike the BRT or DMU alternatives. Therefore, BRT ranks highest.

**GOAL 9: Work collaboratively with cities throughout the AA process.**

This goal was equally achieved by all of the alternatives.

**ES.9 Next Steps**

The Project Steering Committee and San Gabriel Valley Council of Governments will recommend a locally preferred alternative for adoption by the Metro Blue Line Construction Authority. The Authority and COG will then request that the LPA be included in the financially-constrained component of the Regional Transportation Plan by the Southern California Association of Governments (SCAG).

Following the selection of a Locally Preferred Alternative, all concerns and issues raised by cities and the public will be addressed in environmental documents to be prepared following local, state and federal procedures. Issues not resolved in this AA study will be addressed during the preparation of the Draft Environmental Impact Statement and Report.

## Chapter 1: INTRODUCTION AND BACKGROUND

- The purpose of this Alternatives Analysis (AA) is to consider transportation strategies that will address the mobility needs of the Gold Line Phase II Corridor.
- The AA is part of a federal process developed to efficiently and methodically review a range of potential solutions by using comparative analyses tools to identify what type of transportation improvement(s) would best meet the 20-year mobility needs of a corridor.
- The Pasadena to Claremont Gold Line Phase II Corridor is a 23-mile corridor in the San Gabriel Valley made up of residential, commercial, institutional, industrial and railroad uses.

### **1.1 Introduction**

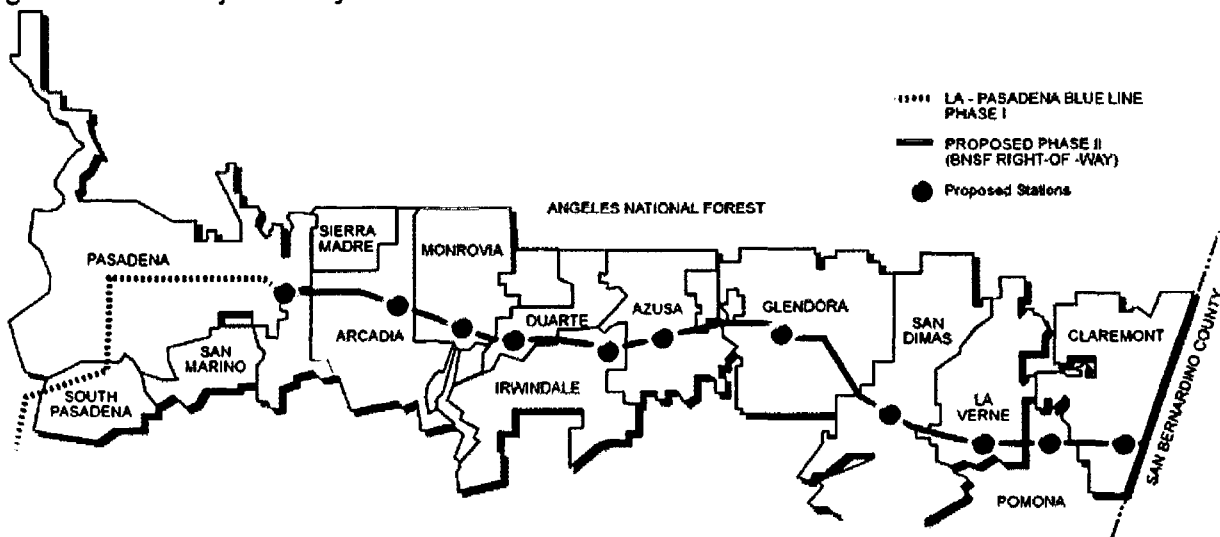
The Metro Blue Line Construction Authority (Authority) and the Federal Transit Administration (FTA) sponsored the Pasadena to Claremont Gold Line Phase II Alternatives Analysis (AA), initiated in the fall of 2001 and concluded in June 2002. The AA was conducted and technical documents prepared to support a decision on a Locally Preferred Alternative (LPA). Although the AA report does not recommend an alternative, it does provide a focused analysis and evaluation of each alternative considered and how they address the mobility needs of the Corridor. The overall goal of the Gold Line AA is to develop an effective and efficient transportation strategy that improves access and mobility in the corridor, supports economic revitalization in each Corridor city, and contributes to the preservation and enhancement of the natural environment.

The objective of this report is to summarize the process, describe public and agency involvement, identify problems and needs of the Corridor, present the goals and objectives for the project, describe the alternatives and their ability to meet the Corridor needs and objectives, and identify funding opportunities. The report also explains how and when an LPA will be selected and identifies future steps to implement the project.

### **1.2 The Pasadena to Claremont Corridor**

The Pasadena to Claremont Corridor, referred to as the Gold Line Corridor, is a 23-mile east-west corridor in the San Gabriel Valley of Southern California that generally follows the foothills of the San Gabriel Mountains from Pasadena east to the San Bernardino County line. The project area runs along the existing Burlington Northern Santa Fe (BNSF) railroad right-of-way (ROW), paralleling Interstate 210 (I-210) and Arrow Highway, and connects the historic downtowns of the cities of Arcadia, Monrovia, Duarte, Irwindale, Azusa, Glendora, San Dimas, La Verne, Pomona, and Claremont. Figure 1.1 shows the regional context.

Figure 1.1: Project Study Area



### 1.3 The Alternatives Analysis Study Process

The process used in the development of the Gold Line Corridor AA followed the Major Investment Study guidelines of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and the Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21), and the Southern California Association of Governments (SCAG) Procedures Manual for Regionally Significant Transportation Investment Studies (RSTIS). These guidelines are applicable to alternatives analyses and include the following elements:

- A cooperative and collaborative process to establish the range of alternatives to be studied and factors to be addressed;
- An evaluation of the effectiveness and cost-effectiveness of alternative investments or strategies in attaining local, state, and national goals and objectives;
- Consideration of the direct and indirect costs of alternatives, and factors such as mobility improvements; social, economic and environmental effects; safety; operating efficiencies; land use and economic development; financing; and energy consumption;
- A proactive public involvement process that provides opportunities for the public and various interests to participate; and
- Documentation of the consideration given to alternatives and their impacts.

The Gold Line AA report contains all of this required information. The following technical reports have been prepared as part of the AA:

- |   |                |
|---|----------------|
| • Public Involvement Plan <sup>2</sup>            | November, 2001 |
| • Conceptual Definition of Alternatives Report    | November, 2001 |
| • Mobility Problem and Purpose and Need Statement | April, 2002    |
| • Conceptual Alternatives Plan Set                | April, 2002    |
| • Environmental Impacts Report                    | May, 2002      |

<sup>2</sup> Prepared by Arellano and Associates

Pasadena to Claremont Gold Line Phase II  
Alternatives Analysis

- Operations Plan Report April, 2002
- Traffic Analysis Report April, 2002
- Ridership Results Report June, 2002
- Transit Oriented Development: Prospects and Opportunities for the Gold Line Corridor Report April, 2002
- Preliminary Strategies to Fund the Capital Costs of Phase II<sup>3</sup> October, 2001

These reports are available for review at the Authority office in South Pasadena and at city halls and public libraries located in the Corridor cities, including Arcadia, Monrovia, Duarte, Irwindale, Azusa, Glendora, San Dimas, La Verne, Pomona, and Claremont.

---

<sup>3</sup> Prepared by Sharon Greene and Associates



## Chapter 2: PURPOSE AND NEED

- The San Gabriel Valley represents one of the region’s most significantly congested areas. A number of transportation problems have been identified for the Corridor, including:
  - increasing congestion on Interstate 210;
  - limited transit lines serving only arterials;
  - planned projects (SCAG’s RTP) are not sufficient to address forecasted demand.
- A large number of closely-spaced activity centers provide an unusual opportunity to create a regional employment corridor linked by transit. Approximately two-thirds of the people living in the Corridor also work there.
- Significant growth in the Corridor will occur between 2000 and 2020 at rates higher than Los Angeles County.

### 2.1 Activity Centers

As shown in Figure 1.1, the proposed project would begin at the Sierra Madre Villa Station at the eastern end of the Pasadena Gold Line Phase I and continue to the City of Claremont. The project would connect the historic downtowns of all of the Corridor cities, as well as major activity areas such as Santa Anita Park, City of Hope, Azusa Pacific and Citrus Colleges, University of La Verne, the Pomona Fairplex and the Claremont Colleges. Table 2.1 lists the major activity centers that can be found within one mile of the alignment. One of the objectives of the Gold Line Phase II project would be to connect these activity centers.

<b>Table 2.1 Major Activity Centers</b>		
<i>City</i>	<i>Name</i>	<i>Type of Usage</i>
Pasadena	East Foothill Industrial Center	Manufacturing & Employment
	Hastings Village	Commercial and Employment
	Sierra Madre Villa Transit Station of the Pasadena Gold Line	Transportation
Arcadia	Los Angeles County and State Arboretum	Recreation and Special Events
	Santa Anita Race Track	Recreation and Employment
	Santa Anita Fashion Park	Commercial and Employment
	Arcadia Civic Center	Public Service & Employment
	Civic Center Athletic Field and Recreation Area	Recreation
	Huntington Shopping Center	Commercial and Employment

<b>Table 2.1 Major Activity Centers</b>		
<i>City</i>	<i>Name</i>	<i>Type of Usage</i>
	Huntington Drive Redevelopment Area	Commercial and Employment
	Methodist Hospital of Southern California	Public Service & Employment
Monrovia	Old Town Monrovia	Commercial and Employment
	Monrovia Center	Commercial and Employment
	Huntington Oaks Center	Commercial and Employment
	*Hi-Tech Corridor	Industrial and Employment
Duarte	City of Hope National Medical & Research Center	Public Service and Employment
	Duarte Performing Arts Center	Recreation and Employment
	Santa Teresita Hospital	Public Service & Employment
	Rancho Duarte Golf Course	Recreation
	Duarte Sports Park	Recreation
	Otis Gordon Sports Park	Recreation
Irwindale	Santa Fe Flood Control Basin	Public Service & Employment
	Santa Fe Dam Recreation Area	Recreation and Employment
	Miller Brewery	Employment
Azusa	Azusa Square	Commercial and Employment
	Azusa-Pacific University	Education and Employment
	Foothill Center	Commercial and Employment
	Costco	Commercial and Employment
	Rainbird	Manufacturing & Employment
	Wynn Oil Company	Manufacturing & Employment
	Morris International	Manufacturing & Employment
	Monrovia Nursery	Agriculture / Commercial and Employment
	Aerojet Gencorp.	Manufacturing & Employment
	TH Molding	Manufacturing & Employment
	Pierre Fabre	Manufacturing & Employment
	Best Quality Furniture	Manufacturing & Employment
	Tru Wood Products	Manufacturing & Employment
	Artisan Screen Process	Manufacturing & Employment
	California Amforge	Manufacturing & Employment
Hansen's Juices, Inc.	Manufacturing & Employment	
Glendora	Citrus College	Education and Employment
	Foothill Presbyterian Memorial Hospital	Public Service and Employment
	Glendora Community Hospital	Public Service & Employment
	Glendora Auto Centre	Commercial and Employment
	Mayflower Center	Commercial and Employment
	Lone Hill Center	Commercial and Employment
	Louis Pompei Sports Park	Recreation
	South Hills Park	Recreation

<b>Table 2.1 Major Activity Centers</b>		
<i>City</i>	<i>Name</i>	<i>Type of Usage</i>
	Glendora County Club	Recreation and Employment
	Huntington East Valley Hospital	Public Service and Employment
	Wal-mart	Commercial and Employment
	Glendora Market Place	Commercial and Employment
	Caltrol, Inc.	Manufacturing & Employment
	National Hotrod Association	Manufacturing & Employment
	CCC Information Services	Manufacturing & Employment
San Dimas	Target Shopping Center	Commercial and Employment
	Frank G. Bonelli Regional County Park	Recreation
	Frontier Village	Commercial and Employment
	Lowes/Levitz Center	Commercial and Employment
	ADP/Gilead Sciences	Manufacturing & Employment
	Bausch & Lomb	Manufacturing & Employment
	Overland Court Corporate Center	Manufacturing & Employment
	San Dimas Sheriff's Dept.	Public Service & Employment
	San Dimas Community Hospital	Public Service & Employment
	Life Bible College	Education and Employment
	Raging Waters	Recreation and Employment
La Verne	University of La Verne	Education and Employment
	Brackett Field	Airport and Employment
	Classic Canvas	Manufacturing & Employment
	San Polo Business Park	Manufacturing & Employment
	Old Town La Verne	Commercial & Employment
	Arrow Corridor Businesses	Manufacturing & Employment
	Hillcrest Homes	Public Service & Employment
	Metropolitan Water District, Weymouth Treatment Facility	Public Service & Employment
	Princeland Properties	Manufacturing & Employment
	Paper Pak Industries	Manufacturing & Employment
	La Verne Recreation Park	Recreation
	David and Margaret Home	Public Service & Employment
	Damien High School	Public Service & Employment
	1300 Palomares Industrial Park	Manufacturing & Employment
Pomona	Los Angeles County Fairplex	Recreation, Employment and Special Events
	Garey Center	Commercial and Employment
	The Valley Center	Commercial and Employment
	Martin-Lockheed Electro-Optical	Manufacturing & Employment
	Verizon Communications	Commercial and Employment

<b>Table 2.1 Major Activity Centers</b>		
<i>City</i>	<i>Name</i>	<i>Type of Usage</i>
	Pomona Paper Stock Company	Commercial and Employment
	Coast Foundry and Manufacturing	Manufacturing & Employment
Claremont	Claremont Village	Commercial and Employment
	Claremont Colleges	Education and Employment
	Claremont Auto Center	Commercial and Employment
	Visiting Nurses Association and Hospice	Public Service & Employment
	Hi-Rel Connectors, Inc.	Manufacturing & Employment
	**Claremont Manor	Public Service and Employment
	Pilgrim Place	Public Service and Employment
	Blaisdell Community Building	Recreation and Public Service
	Blaisdell Park	Recreation
	College Park	Recreation
* There are over 48 hi-tech businesses located in this corridor.		
** There are two Claremont Manors.		

This impressive number of activity centers along the study corridor is a reflection of the historic development pattern that occurred in the San Gabriel Valley. The individual towns, built along and linked by the railroad, originally created a series of individual residential and employment nodes. Over time, as these towns expanded, additional employment and activity centers developed along the rail line and the communities' arterial street network.

This series of closely-spaced activity centers provide an unusual opportunity to create a regional employment corridor linked by transit. Within this employment corridor, the institutional and recreation resources provide a set of particularly stable set of employment and activity generators.

The Corridor includes recreation resources (Los Angeles County Arboretum, Santa Anita Park and Los Angeles County Fairplex) that draw visitors from throughout the region. There are three hospitals, including the world-famous City of Hope, and four institute of higher learning (Azusa Pacific College, Citrus College, La Verne University, and the Claremont Colleges). This Corridor is also home to a number of biotech and technology firms, as shown in Figure 2.1.

These resources are likely to be very supportive of transit ridership. For instance, the recreational resources are on-going sources of high-volume visits and special events. The three hospitals have high employment levels per square foot, partly as a result of their 24-hour operations. The four largest colleges provide substantial employment opportunities, plus student populations that often make multiple trips per day (including the evening) to and from the campuses. Multiple smaller colleges are also located within the Corridor.

## 2.2 Study Area Characteristics

In the ten years since 1990, the population of Los Angeles County has grown by 7.4 percent. Population growth in the study area has been similar. Table 2.2 shows the cities that abut the Gold Line Corridor and their population growth between 1990 and 2000 and projected growth between 2000 and 2025. In addition to the 10 Corridor cities, the adjacent cities of Pasadena and Sierra Madre are technically in the Corridor and would benefit from and attract ridership to a transit improvement in the Gold Line Corridor; therefore, they have been included in the demographic assessment of the Corridor.

Five of the eleven cities have experienced a population growth of 7.9 percent or more in the ten years since 1990. This is a one-half percent growth rate above the County of Los Angeles in the same time frame. Two of those cities, Irwindale and Pomona, had more substantial population growth in that same ten-year time span (38 and 13.5 percent, respectively).

Nine of the eleven cities in the study Corridor are expected to have a population growth that ranges from 13.6 percent to 29.7 percent through the year 2025. The City of Irwindale, however, is expected to grow by 57.3 percent in the same time frame.

This population growth is accompanied by the forecasted growth in employment. Table 2.3 displays future employment growth for the cities located in the Gold Line Corridor. Two of the twelve communities in the study Corridor are expected to have a job growth of over 20 percent in the 20 years between 2005 and 2025. Five others are expected to have a job growth of between 10 percent and 20 percent in this time span. More than half of the cities in the Corridor will have an employment growth above that of Los Angeles County as a whole.

<i>City</i>	<i>1990 Population</i>	<i>2000 Population</i>	<i>Percentage Change 1990 to 2000</i>	<i>Forecasted Population 2025</i>	<i>Percent Change 2000 to 2025</i>
<b>Arcadia</b>	48,290	53,054	+9.6	54,712	+3.1
Azusa	41,333	44,712	+8.2	50,778	+3.7
Claremont	32,503	33,998	+4.6	38,609	+13.6
Duarte	20,688	21,486	+3.9	27,140	+26.3
Glendora	47,828	49,415	+3.3	56,909	+15.2
Irwindale	1,050	1,446	+37.7	2,275	+57.3
La Verne	30,897	31,638	+2.4	36,952	+16.8
Monrovia	35,761	36,929	+3.3	45,840	+24.1
Pasadena	131,591	133,936	+1.8	173,709	+29.7
Pomona	131,723	149,473	+13.5	189,297	+26.6
San Dimas	32,397	34,980	+8.0	39,996	+14.3
<b>LA County</b>	<b>8,863,164</b>	<b>9,519,338</b>	<b>+7.4</b>	<b>11,847,538</b>	<b>+24.5</b>

Sources: U.S. Bureau of the Census, 2000, 2001 SCAG RTP Update, Myra L. Frank and Associates, Inc.

Figure 2.1 Technology Companies

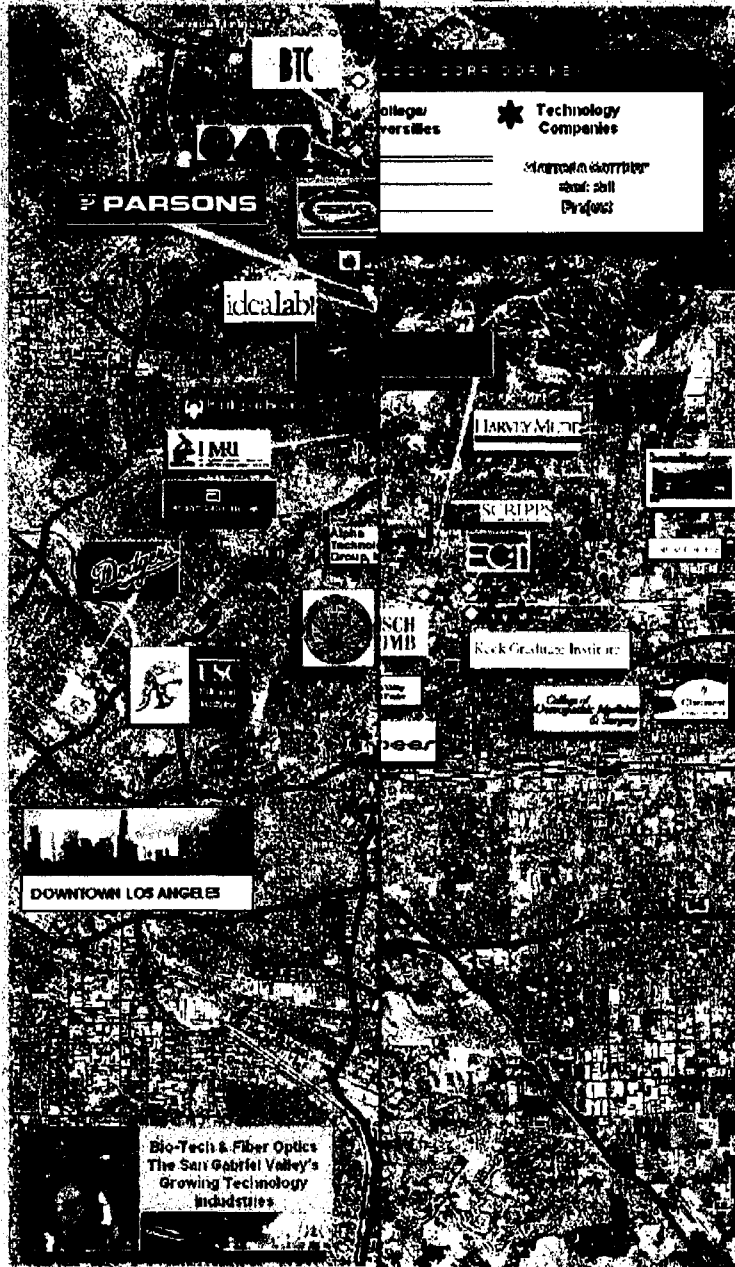


CUSHMAN & WAKEFIELD



TETRA TECH

THE GOLD LINE



★ San Gabriel Valley's Largest/Growing Technology Companies

- 1. Archer Products Co.
- 2. Avaya
- 3. Bausch & Lomb Surgical
- 4. Cyber Control Systems
- 5. Eagle Technology
- 6. ELM Systems, Inc.
- 7. ESL Computers, Inc.
- 8. Cal-Sys
- 9. Data Systems
- 10. City Search
- 11. Data Systems
- 12. Dynamic Sciences Inc.

- 13. E-Link
- 14. EMS Laboratories
- 15. Enrich Technology
- 16. Epsilon Technology
- 17. Genstar Technology
- 18. Genstar Technology
- 19. Genstar Technology
- 20. Genstar Technology
- 21. Genstar Technology
- 22. Genstar Technology
- 23. Genstar Technology
- 24. Genstar Technology

- 101. Genstar Technology
- 102. Genstar Technology
- 103. Genstar Technology
- 104. Genstar Technology
- 105. Genstar Technology
- 106. Genstar Technology
- 107. Genstar Technology
- 108. Genstar Technology
- 109. Genstar Technology
- 110. Genstar Technology
- 111. Genstar Technology
- 112. Genstar Technology
- 113. Genstar Technology
- 114. Genstar Technology
- 115. Genstar Technology
- 116. Genstar Technology
- 117. Genstar Technology
- 118. Genstar Technology
- 119. Genstar Technology
- 120. Genstar Technology

This strong forecast of employment reinforces the notion that the Gold Line is a regional employment corridor and reflects the presence of several very stable employment centers (especially the colleges and hospitals).

The City of Irwindale is expected to have the highest growth in employment, with a 31 percent increase by the year 2025. The second highest, the City of La Verne, is expected to have a growth of 12 percent by that same year. The County of Los Angeles' projection is close to that of the City of La Verne at 11 percent. The forecasted increases in population and employment in the Corridor will increase the demand on existing transportation systems and services, as discussed in the following section.

### 2.3 Existing Transportation Systems and Services

The Corridor is served primarily by the Foothill Freeway (I-210). Approximately half of the railroad ROW that would be used for the Gold Line Phase II closely parallels the Foothill Freeway.

<i>City</i>	2005	2010	2015	2020	2025	<i>% Change 2005-2020</i>
Arcadia	24,274	24,822	25,149	25,444	25,758	6.1
Azusa	15,051	15,609	15,941	16,242	16,564	10.1
Claremont	12,253	12,552	12,731	12,894	13,065	6.6
Duarte	10,824	11,764	12,322	12,829	13,371	23.5
Glendora	18,628	19,170	19,489	19,780	20,090	7.9
Irwindale	37,886	43,404	46,667	49,648	52,818	39.4
La Verne	9,506	10,034	10,348	10,633	10,934	15.0
Monrovia	23,046	24,044	24,633	5,174	25,748	11.7
Pasadena	96,502	99,824	101,791	103,584	105,494	9.3
Pomona	52,726	54,912	56,202	57,386	58,640	11.2
San Dimas	16,550	17,713	18,403	19,031	19,699	19.0
<i>LA County</i>	<i>4,671,281</i>	<i>4,899,580</i>	<i>5,037,778</i>	<i>5,165,438</i>	<i>5,122,395</i>	<i>9.7</i>

Source: 2001 SCAG RTP Update, Myra L. Frank and Associates, Inc.

In addition to the Foothill Freeway, the San Bernardino Freeway (I-10) and the Pomona Freeway (SR-60) are major east/west freeways serving the San Gabriel and Pomona Valleys. The San Bernardino Freeway is located approximately one-half to seven miles to the south of the project depending on the route segment, while the Pomona Freeway is about five to nine miles to the south. The San Gabriel River Freeway (I-605) is a north/south freeway crossing the alignment and terminating at Huntington Drive in Duarte. State Route 30 freeway connects I-210 to Foothill Boulevard in La Verne and will ultimately be extended east to San Bernardino.

The San Gabriel Valley represents one of the region's most significantly congested areas due to the presence of heavy commute trips generated by area residents on the San Bernardino (I-10), Pomona (SR-60), and Foothill Freeway (I-210). As part of the project's initial analysis, efforts were made to determine the existing congestion levels within the Corridor. A congested freeway, for the purposes of examination, is defined as a segment with traffic flow at 35 miles per hour or less for three or more hours per day. This analysis revealed that congestion along

the Foothill Freeway can be significant during the PM peak-hour periods, resulting in more than 50 percent of all freeway lanes west of Irwindale Avenue to be operating at a Level of Service (LOS) "F" or worse. Although the LOS scale ends at "F", congestion and delay can actually be much greater than the thresholds that define LOS F. East of Irwindale Avenue the percentage drops to 41 percent.

Table 2.4, organized by study area, shows the existing major arterials located in the study Corridor. The study areas follow the study Corridor from west to east. Study area 1 is bordered on the west by the Sierra Madre Villa Station and the I- 605 on the east. Study area 2 begins with I- 605 on the west and North Lone Hill Avenue on the east. Lastly, Study area 3 is bordered by North Lone Hill Avenue on the west, and the Claremont Transfer Station on the east.

### Public Transportation

Public transportation needs in the Corridor are fulfilled by a combination of traditional transit service (fixed-route bus service with scheduled stops), non-traditional transit service (special shuttle systems and demand-responsive services), and rail service (commuter and inter-city rail). Generally, the cities in the Corridor contract with Foothill Transit to fulfill the sub-regional transportation needs of their citizens. Additionally, while they do not directly contract with Amtrak or Metrolink to provide regional transportation to their citizens, they do support the service that they provide.

For the needs of the elderly and disabled, the Corridor cities provide a combination of their own localized transit operators, and contracted services with Access Services or Pomona Valley Transportation Authority to fulfill the gap between the regional transportation operators and the specialized needs of the disabled and elderly.

<i>Name of Arterial</i>	<i>Direction of Travel</i>	<i>Location within Study Corridor</i>
Rosemead Blvd (State Route 19)	North/South	Study Area 1
E. Colorado Blvd. (Historic Route 66)	East/West	Study Area 1
Santa Anita Ave	North/South	Study Area 1
Myrtle Ave	North/South	Study Area 1
Baldwin Ave	North/South	Study Area 1
E. Huntington Dr. (Historic Route 66)	East/West	Study Area 1 and 2
Azusa Ave (State Route 39)	North/South	Study Area 2
Citrus Ave	North/South	Study Area 2
Irwindale Ave	North/South	Study Area 2
S. Grand Ave	North/South	Study Area 2
S. Glendora Ave	North/South	Study Area 2
Arrow Highway	East/West	Study Area 2 and 3
W. Alosta Ave (Historic Route 66)	East/West	Study Area 2 and 3
N. Lone Hill Ave	North/South	Study Area 2 and 3 (Border)
W. Foothill Blvd (State Route 66)	East/West	Study Area 2 and 3



<i>Name of Arterial</i>	<i>Direction of Travel</i>	<i>Location within Study Corridor</i>
Bonita Ave	East/West	Study Area 3
S. San Dimas Ave	North/South	Study Area 3
N. White Ave	North/South	Study Area 3
N. Garey Ave	North/South	Study Area 3
N. Towne Ave	North/South	Study Area 3
S. Indian Hill Ave	North/South	Study Area 3
S. Mills Ave	North/South	Study Area 3

Some cities even provide localized transportation service geared towards serving their activity centers, or the needs of the elderly and disabled. These services are listed below in Table 2.5.

	<i>Service Objective</i>	<i>Operation</i>	<i>Service Area</i>
<b>Regional</b>			
Amtrak	Commuter and Travel Rail	Fixed Route	National and Intercity
Access Services	Specialized for the Disabled Citizens	As Reserved	Los Angeles County, Los Angeles County Metropolitan Transportation Authority, Foothill Transit and Member Cities
Los Angeles County Metropolitan Transportation Authority	Public Mass Transportation (Operator and Transportation Planning Organization)	Fixed Route	Los Angeles County
	Rail	Fixed Route	No service in the Corridor
	Bus	Fixed Route	In the City of Duarte Only
Metrolink	Commuter Rail	Fixed Route	Regional
Foothill Transit	Public Bus Transit (Operator Only)	Fixed Route	Regional
<b>Local</b>			
Arcadia Transit	Public Shuttle	As Reserved	Arcadia
Azusa Transit	Public Bus System	Fixed Route	Azusa
Dial-A-Ride	Senior Citizens Shuttle	As Reserved	Azusa
Claremont Dial-A-Ride	Public Shuttle	As Reserved	Claremont
Get About	Senior and Disabled Citizens Shuttle	As Reserved	Claremont
Duarte Transit	Public Bus System	Fixed Route	Duarte
MTA	Public Mass Transit	Fixed Routes	Duarte
Glendora Mini-Bus	Senior and Disabled	Per Reservation	Glendora

<b>Table 2.5 Transit Operators in the Corridor</b>			
	<i>Service Objective</i>	<i>Operation</i>	<i>Service Area</i>
	Citizens Shuttle		
	Senior Citizens Shuttle	Per Reservation	Irwindale
Get About	Senior and Disabled Citizens Shuttle	Per Reservation	La Verne
	Senior Citizens Shuttle	Per Reservation	For Brethren Hillcrest Homes to locations within La Verne
University of La Verne Shuttle	Public Shuttle	Fixed Route	University of La Verne and a Childcare Center at the Fairplex in Pomona
Monrovia Transit	Public Shuttle	As Reserved	Monrovia
Pasadena Area Rapid Transit System	Public Shuttle	Fixed Route	Pasadena
Dial-A-Ride	Shuttle for Senior Citizens and Disabled	As Reserved	Pasadena
Get About	Shuttle for Senior Citizens and Disabled	As Reserved	Pomona
Dial-A-Ride	Shuttle for Senior Citizens and Disabled	As Reserved	Pomona
Foothill Transit	Subsidizes Service for Senior Citizens	Fixed Schedules	San Dimas
Get About	Senior & Disabled Citizens Shuttle	As Reserved	San Dimas
Dial-a-Cab	Public Transportation	As Reserved	San Dimas
Round About	Public Transportation	Fixed Routes	Sierra Madre
Dial-A-Ride	Senior and Disabled	As Reserved	Sierra Madre

Current regional transit operators outlined in Table 2.5 are briefly described in the following section.

**Amtrak**

The National Railroad Passenger Corporation, operating under the Amtrak name, provides travel and commuter services across the United States. They also provide contract-commuter service through the Southern California Regional Rail Authority (SCRRA). Amtrak utilizes some of the existing right-of-way that will be used by the Corridor.

**Metrolink**

The Southern California Regional Rail Authority (SCRRA) plans, designs, constructs and administers the operation of commuter rail lines under the name Metrolink for the Southern California Region. The San Bernardino Line and the Riverside Line traverse the northern and mid-section of the San Gabriel Valley. The San Bernardino Line will use some of the same ROW that would be used for the Gold Line between Pomona and Claremont.

### ***Foothill Transit***

Foothill Transit currently operates twelve bus lines that are contained either entirely or partially within the Corridor. Three of them run east/west and nine of them run north/south. Four of the north-south lines, that is, one-fourth of the available bus lines that serve the Corridor, provide the lengthy trip from downtown Los Angeles to the Corridor cities. Each of the lines serves at least five destinations, with one line serving as many as 15 destinations.

There are seven Foothill Transit Lines that are not in the corridor, but may provide service to the corridor. Three of them run east/west, and four of them run north/south. Two of the north-south lines run service to downtown Los Angeles serving at least four to seven destinations.

Foothill Transit's service includes nine routes that run along arterial streets providing traditional bus services. In addition, there are seven express routes linking the corridor to downtown Los Angeles. Figure 2.2 illustrates the Foothill Transit routes in the study area.

### ***Access Services***

Access Services is a state-mandated local governmental agency created by Los Angeles County's public transit agencies to administer and manage the delivery of regional American with Disabilities Act (ADA) paratransit service. Access Services' primary mission is to provide ADA-mandated paratransit services for people with disabilities who are unable to use public fixed-route transportation systems, and to coordinate various paratransit operators within the Los Angeles County to provide efficient and cost-effective paratransit services.

Access Services currently fills the gap between existing fixed-route public transportation options and the client's transportation needs. This is implemented by providing a ride from the client's home to the nearest fixed transportation stop, and providing rides to and from locations not currently serviced by fixed transportation routes.

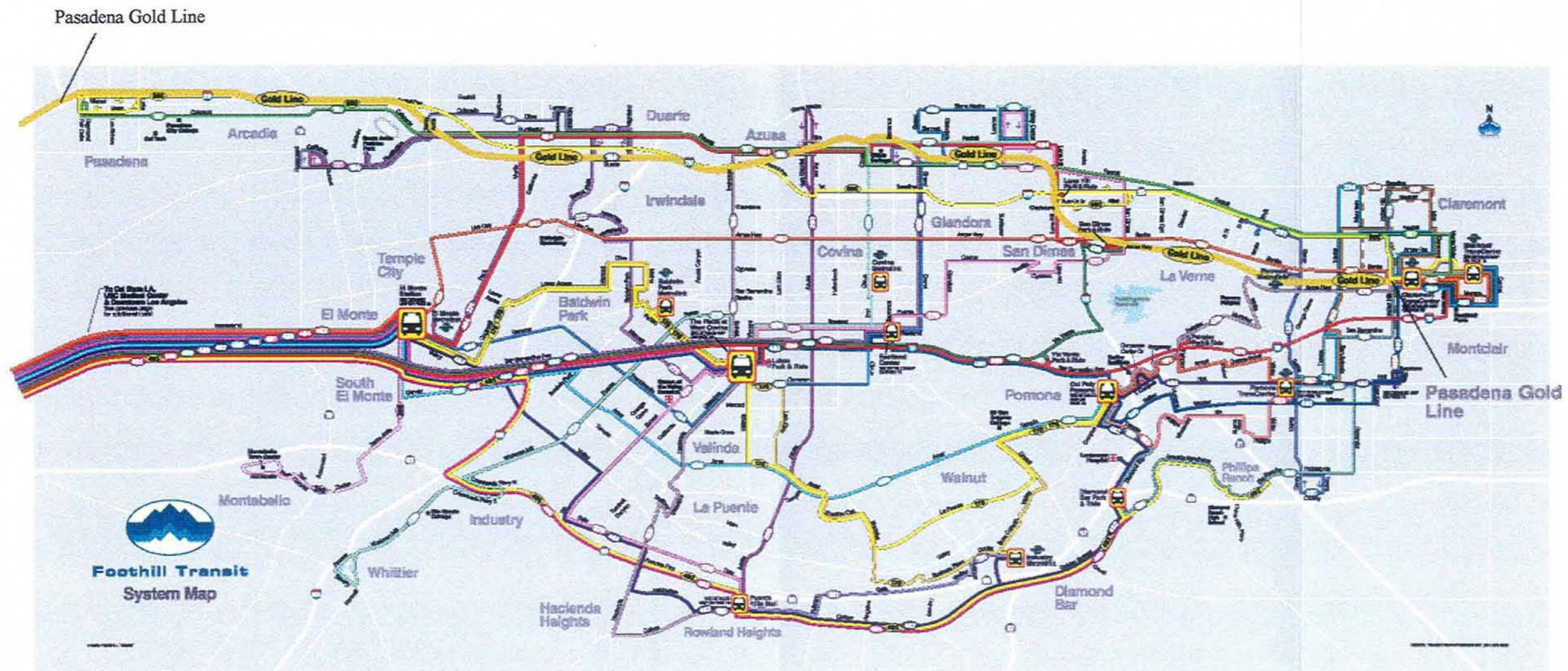
The County of Los Angeles, Los Angeles County Metropolitan Transportation Authority, Foothill Transit, Azusa Transit, the City of Sierra Madre and the City of Pasadena are members of Access Services.

### ***Pomona Valley Transportation Authority***

Pomona Valley Transportation Authority currently contracts with the cities of Claremont, La Verne, Pomona, and San Dimas. They provide the demand-services of Get-About (for seniors and disabled), and they subsidize the Claremont Dial-A-Ride Service and San Dimas Dial-A-Cab for seniors.

## **2.4 Current Transit Deficiencies**

Current transit services generally meet two primary market functions: linking local business and activity centers along major arterials, or providing express services to downtown Los Angeles. Access between residential areas and employment locations provided by the bus systems are constrained to those locations that are served by bus routes. Service is provided only along the following major east-west and north-west arterials: Foothill Boulevard, Huntington Boulevard, Arrow Highway, Bonita Avenue, Myrtle Avenue, Azusa Boulevard, Grand Avenue, Towne Boulevard, and Indian Hill Boulevard.



Sources: Foothill Transit, 2002; Myra L. Frank & Associates, Inc., 2002.

Figure 2.2 Foothill Transit Route Map

Access for persons coming from or going to locations beyond a reasonable walking distance from these routes tends to be limited. Similarly, only those employment, shopping, and institutional destinations that are along or very close to the arterial routes are likely to have a transit-user connection.

Bus utilization is also constrained by trip times, where buses are generally moving at the same speeds as other traffic. In many cases, bus travel times are slower than individual auto trips, since buses typically make very frequent stops. These slow speeds do not provide an incentive for those with automobiles to use transit as an alternative mode for trip making.

The higher speed services provided by express bus or Metrolink are available only between select locations and generally during peak hours. Many employment and activity centers in the Corridor are not now served by bus service or higher speed services, or are served on a limited basis. Currently, the only activity centers with transit service are located at the east end of the Corridor (La County Fairplex, University of La Verne, Claremont Colleges and their adjoining residential areas), and are served by Metrolink service. There is no Metrolink service between Pasadena and Pomona. In addition, Foothill Transit only has one express bus route that serves but one of the activity centers located in the entire Gold Line Phase II Study Corridor, which is the Pomona Fairplex (the route travels from downtown Los Angeles and ends at the Pomona Fairplex).

The two Foothill Transit bus routes that most closely resemble the Pasadena Gold Line Phase II Study Corridor are traditional bus Line 187 from Pasadena to Montclair, and weekday express bus Line 690 from Pasadena to Montclair. Both of these bus lines serve only a portion of the study corridor, thus linking only some of the activity centers, and also leaving some sections of the study corridor unlinked by public transportation.

Travel time from Colorado Boulevard and Sierra Madre Boulevard to the Claremont TransCenter is approximately one and one-half hours during the weekday, and just over one hour on the weekend on Line 187. Travel time from Lake Avenue and Interstate 210 (I-210) to the Montclair TransCenter is approximately one and one-quarter hour on weekdays on Line 690 (Line 690 does not operate on the weekend).

## **2.5 Forecasted Transportation Demand**

According to the Southern California Association of Government's (SCAG) 2001 Regional Transportation Plan (RTP), if only the Baseline or No-Build Alternative projects committed through the year 2025 are constructed, the freeway network mixed-flow capacity would increase by less than ten percent and the arterial system would increase by about seven percent. (Baseline Projects are all committed projects in the 2001 RTP, Governor's Traffic Congestion Relief program, and the TEA-21 priority projects for capital improvement as identified by county commissions, from 1997 to 2025).

Under the Baseline or No-Build Alternative, drivers of the region could experience an increase in congestion and delay by over 100 percent by 2025. The average speed on the freeway system could deteriorate to about 16 miles per hour. As noted earlier, several lanes of the Foothill freeway, which is the primary highway for the Gold Line Phase II Corridor, already operate at LOS F during peak hours. With the forecasted increases in congestion and delay, it can be expected that all lanes will be at LOS F and that the hours per day in which major congestion would occur will increase. Also as noted earlier, congestion and delay can actually exceed the

thresholds that define LOS F. It should be noted that an average speed of 16 miles per hour means that peak hour speeds are likely to be in the 5 to 10 mph range. Under these conditions, a trip along a 20-mile portion of the freeway could require 2 to 4 hours.

The aggregated daily vehicle hours spent in the region could increase by over 50 percent and the hours of delay could increase over 100 percent. Also, 26 percent of the total freeway system will be extremely congested and the average driver will spend 25 percent of their time in traffic.

Conditions similar to these forecasted regional conditions can be expected to occur in the study Corridor.

**2.6 Project Goals and Objectives**

The proposed goals and objectives for the Gold Line Corridor were developed in cooperation with the Project Steering Committee; they are consistent with the other transit improvements being planned for Los Angeles County. These goals and objectives, listed in Table 2.6, were adopted by the Project Steering Committee, and recognize the existing and forecasted transportation conditions described above.

<b>Table 2.6 Goals and Objectives</b>		
<i>Category</i>	<i>Goal</i>	<i>Objective</i>
Land Use & City Vision	To locate stations that facilitate cities' visions for land use and development around transit stations and adjoining activity centers	Cities and transit providers to jointly select station locations that maximize transit use and further cities' plans for transit oriented development (infrastructure, parking, development, redevelopment, etc.)
		To provide highly visible stations that represent the cities' senses of place
	To create a system that creates/adds identity and attractiveness to San Gabriel Valley cities	To respect community architectural and urban design standards
		To provide safe access for pedestrians, and bicycles
		To enhances community identity
To take advantage of the high visibility of the Corridor to promote transit use	To provide efficient intra-corridor service not currently met by Metrolink, Foothill Transit or the Pasadena Gold Line Phase I	
	To make good use of the right-of-way already purchased	
Transit Usefulness	To complement other existing transit in the corridor and optimize previous investments	

**Table 2.6  
 Goals and Objectives**

<i>Category</i>	<i>Goal</i>	<i>Objective</i>
	To reduce auto dependency	To create a system with the capability to carry at least 25 percent as many people as are carried in all I-210 travel during the day, and to offer a level-of-service capable of attracting this percent of travel.
	To improve mobility and provide connectivity to regional and local transit systems	To provide good connections to Metrolink, Foothill Transit, and the Pasadena Gold Line Phase I at Sierra Madre Villa Avenue
	To implement a project within a reasonable period of time	To implement new transit service in the corridor by 2008.
Cost Effectiveness	To develop a cost-effective transit system	To incur capital costs of less than the cost of increasing the capacity of I-210 by 25%.
		To be capable of being operated and maintained at or better than the average cost of other rapid transit systems in Los Angeles County
Environmental	To improve air quality and preserve and protect the natural and man-made environment	To avoid potential impacts by utilizing existing disturbed right-of-way
		To avoid property acquisitions to the extent possible
		To work jointly with the cities to identify potential impacts and feasible mitigation measures in order to minimize impacts
		To reduce, not add to, tailpipe emissions
Study Process	To work collaboratively with local cities throughout the Alternatives Analysis process	To ensure that the desires, policies, and concerns of corridor cities and citizens are considered in the LPA process
		To develop a public participation program in collaboration with corridor cities
		To listen to the community and explain how we have responded to comments as the study progressed

### Chapter 3: THE STUDY ALTERNATIVES

- Seven alternatives were studied, including light rail transit, bus rapid transit, and commuter rail.
- All of the alternatives follow the Burlington Northern/Santa Fe railroad right-of-way, currently owned by the Metropolitan Transportation Authority (MTA).
- Transit oriented development (TOD) strategies were developed for each transit stop location through a series of workshops with Corridor cities.

#### 3.1 The Alternatives

A single alignment formed the basis of the different alternatives. Three types of technologies are utilized in these alternatives: bus rapid transit (BRT), light rail transit (LRT), and diesel multiple units (DMU). Table 3.1 outlines the alternatives.

<i>Alternative</i>	<i>Technology</i>	<i>Description</i>	<i>Route / Eastern Terminus</i>
Alternative 1: No Build	No Build	Future No-Build bus network with Foothill Transit Express Bus on I-210	Corridor-wide
Alternative 2: BRT on Rail ROW	BRT	BRT on Rail right-of-way (ROW) (2 lanes) - bus on pavement - guided bus	Rail ROW from Sierra Madre Villa Ave / Claremont
Alternative 3: LRT no Freight	LRT	LRT double track a.) with no freight (buy remaining interests) b.) with freight (run freight operations off-peak) c.) test a first stage that extends LRT to, for example, Irwindale, with DMU to Claremont on double track - may include some sections of single track	Rail ROW from Sierra Madre Villa Ave / Claremont
Alternative 4: LRT on 2-Tracks + Freight	LRT	LRT double track and dedicated freight track a.) test a first stage that extends LRT to, for example, Irwindale, with DMU to Claremont on double track	Rail ROW from Sierra Madre Villa Ave / Claremont
Alternative 5: Non Compliant DMU Shared with Freight	DMU	Federal Railroad Administration (FRA) non-compliant double track a.) with no freight (buy remaining interests) b.) with freight (run freight operations off-peak)	Rail ROW from Sierra Madre Villa Ave / Claremont
Alternative 6: Non-compliant DMU + Separated Freight	DMU	FRA non-compliant vehicle, double tracked and dedicated freight track	Rail ROW from Sierra Madre Villa Ave / Claremont
Alternative 7: Compliant DMU + Single Track Sections	DMU	FRA-compliant vehicle, double tracked with occasional single track in narrow sections of ROW	Rail ROW from Sierra Madre Villa Ave / Claremont



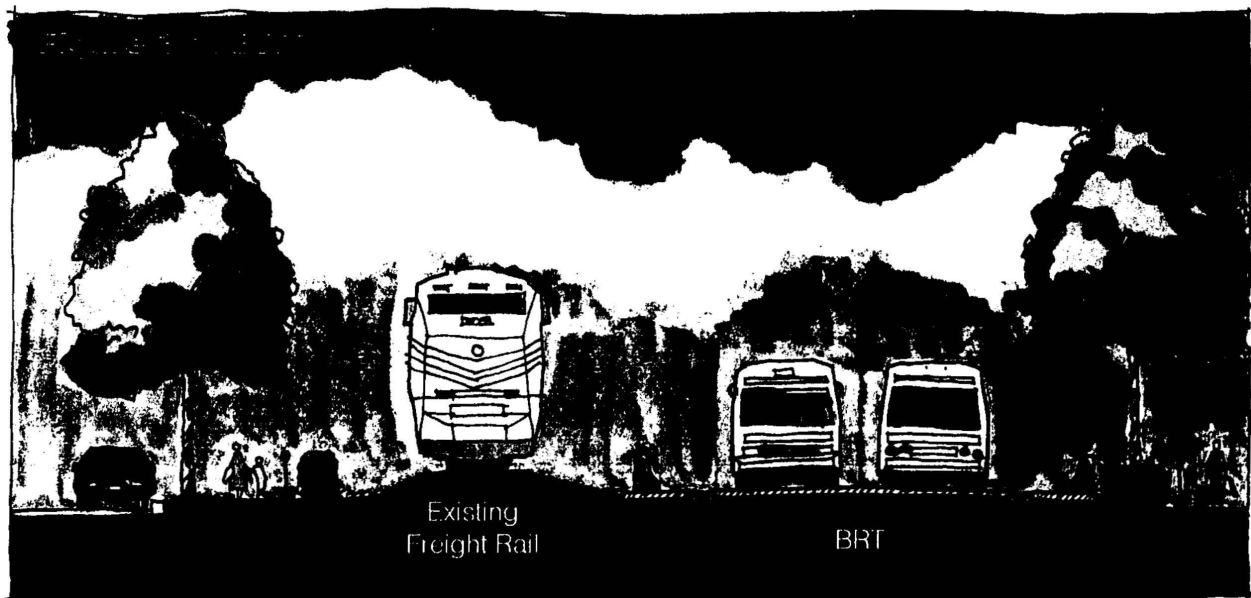
### 3.1.1 Technologies

The three technologies evaluated in the Alternatives Analysis (AA) report are defined below:

#### Bus Rapid Transit (BRT)

Bus rapid transit utilizes buses to provide high-quality, rapid transportation, in a defined corridor and primarily on dedicated bus lanes. As the Federal Transit Administration (FTA) describes it, BRT "combines the quality of rail transit and the flexibility of buses" (FTA, BRT Reference Guide, [www.fta.dot.gov/brt](http://www.fta.dot.gov/brt)). BRT takes advantage of such innovations as intelligent transportation systems (ITS) technologies, priority for transit, convenient fare collection systems, and integration with local land use policies, all with the goal of reducing travel time. BRT often, but not necessarily, includes exclusive lanes for buses only or separate rights-of-way.

BRT provides fast, longer distance trips as well as collection and distribution functions. Buses can pick up and distribute passengers, get on the busway, and proceed to other destinations before exiting again. Therefore, the BRT alignment can be used by local bus routes as well as longer commute-type routes. At grade crossings, the busway alternative would include gates as an added safety measure. Figure 3-1 shows an enhanced typical cross-section for BRT adjacent to a freight line.



#### Light Rail Transit (LRT)

Light rail transit or LRT uses lightweight passenger rail cars operating on tracks. In the Gold Line alternatives, the right-of-way would be separated from other traffic since the only alignment considered is the BNSF right-of-way. LRT is an electrically-powered system, obtaining its power using an overhead wire. In Los Angeles County, the Metro Blue Line and Green Line, completed in the last decade, and the Metro Gold Line, currently under construction, are LRT systems.

LRT vehicles can accelerate and decelerate quickly and, therefore, can efficiently serve closely spaced stations. Because of its lighter weight LRT can often be accommodated on bridges designed for automobile traffic. Both figures 3-2 and 3-3 show an enhanced typical cross-section for LRT, with a station included in Figure 3-3.



**Diesel Multiple Units (DMU)**

Diesel multiple units (DMUs) are diesel-powered, self-propelled passenger cars operating on tracks. Since a power unit is located in the undercarriage of each passenger car, a locomotive is not needed. A DMU looks much like a rail passenger car, but without a locomotive to pull it.

DMU systems accelerate and decelerate much like LRT systems. Cars can be coupled together or run individually, depending upon demand. They tend to be more efficient than conventional commuter rail alternatives for smaller passenger loads because they do not

require a locomotive to pull only one or two cars. DMUs are fuel efficient; however, they require slightly more fuel than comparably sized LRT vehicles.

DMUs are classified into two categories in this analysis: Federal Railroad Administration- (FRA) compliant or FRA non-compliant. The operation of DMUs in the same time schedule and on the same tracks as freight operations requires that the DMU be FRA-compliant, meaning that the DMUs meet the FRA standards for crashworthiness. There are currently no FRA-compliant vehicles in operation in this country. However, an FRA-compliant DMU has been recently introduced, with promises to be available in late 2002. Figure 3-4 shows an enhanced typical cross-section for DMU.



### 3.2 Descriptions of the Alternatives

#### Alternative 1 – No Build

The No-Build alternative for the Gold Line Phase II Corridor is identified in the Los Angeles County Metropolitan Transportation Authority (LACMTA) Long Range Transportation Plan 2025 as the Constrained Alternative, or Package G. This alternative proposes a balance of vehicle and transit improvements including an expanded bus network. Projects within this plan that are relevant to the Gold Line Corridor include:

Freeway & HOV Widening Projects funded by FY99-05 RTIP:

- Route 210 from Foothill Boulevard to the San Bernardino County Line

Arterial Widening Projects funded by FY99-05 RTIP:

- San Dimas Avenue: Via Vaquero to Bonita Avenue (widen from 2 to 4 lanes)

Urban & Commuter Rail Projects funded by FY99-05 RTIP:

- Construction of the Pasadena Gold Line Phase 1: Union Station to Sierra Madre Villa
- Run time improvements on San Bernardino & Riverside-Fullerton-LA Metrolink service lines

Bus System Improvements:

- Countywide Bus Service Improvements

There are other programs and projects outlined in the 2025 Constrained Alternative, but they are outside our study area and are not listed here. These can be found in Appendix A of the Long Range Transportation Plan, published in August 2001. Existing transit service would remain under this alternative, including the express buses currently running on I-10 and I-210.

### ***Build Alternatives***

The following alternatives would all use the Burlington Northern Santa Fe (BNSF) railroad right-of-way from Irwindale to Claremont. Between Irwindale and the Sierra Madre Villa Station of the Gold Line Phase I, a separate alignment would be constructed. The alternatives would all require limited land acquisition because they would utilize the rail right-of-way for most of their length. Additional land would only be needed for station and parking facilities. All of the alternatives would benefit from fact that the BNSF right-of-way was previously purchased by the Metropolitan Transportation Authority (MTA).

### **Alternative 2 – BRT on Rail ROW**

This alternative includes two exclusive BRT lanes from the Gold Line Phase I Sierra Madre Villa LRT station to Claremont on the BNSF right-of-way. It would include stations in the median of the freeway from the western end at Sierra Madre Villa Avenue to near Santa Anita Avenue in Arcadia. At this point, the BRT route would continue eastward in the railroad right-of-way. Stations would be located in each Corridor city.

This alternative would be consistent with the study goal to locate stations that facilitate Corridor cities' vision for land use and development around transit stations and adjoining activity centers. Station locations for BRT would be the same as for the LRT and DMU alternatives and, in some cases, provide opportunities for re-use of historic railroad stations.

### **Alternative 3 – LRT with no Freight**

This alternative would use the existing railroad track and construct one additional track in the railroad right-of-way for LRT service. Some sections of single track would be utilized, such as on bridges. Conflicts with freight service would be eliminated by either buying out the freight interests completely, or by allowing freight service to operate only in the late night and early morning hours when LRT is not operating. A variation on this alternative would include testing a first stage implementation segment that would extend the LRT from Sierra Madre Villa to Irwindale and DMU from Irwindale to Claremont on double track. Stations would be placed at appropriate locations in each city along the LRT route.

Additional land would be needed for station and parking facilities. Construction costs would include stations and parking and a new set of tracks within the railroad right-of-way. The time required for this construction would be relatively short, because much of the construction would be in a little-used corridor with few conflicts with adjacent land uses and traffic. Thus, this alternative could be implemented relatively quickly.

As with all alternatives, this alternative would maximize previous investments by utilizing the previously purchased railroad right-of-way and historic stations. Bi-directional service could be operated on a frequent service schedule with multiple car trains.

A first phase implementation option would be to construct the LRT using only a single track with passing tracks at key locations. This would reduce the capital cost of constructing the line in its entirety until funds become available.

Alternative 3 would be consistent with the San Gabriel Valley Corridor goal to locate stations that facilitate corridor cities' vision for land use and development around transit stations and adjoining activity centers. It would also provide a faster ride since a transfer to the Gold Line Phase I would not be necessary. Station locations for LRT would provide opportunities for re-use of historic railroad stations.

#### **Alternative 4 – LRT on Two Tracks plus Freight**

This alternative would lay two new tracks in the railroad right-of-way for LRT service and retain freight service on a third track. Because the existing freight track is currently located in the middle of the right-of-way, it would be necessary to relocate the freight track so that the two new LRT tracks would fit with the existing right-of-way and retain the required clearances from the freight track. When completed, conflicts with freight service would be avoided by operating on completely separated tracks.

A variation on this alternative would include testing a Phase 1 implementation strategy that would extend the LRT to Irwindale, with DMU to Claremont on double track. Stations would be placed at appropriate locations in each city along the LRT route.

This alternative would require limited land acquisition because it would utilize rail right-of-way for the entire length. Land would only be needed for station and parking facilities. Construction costs would include the stations and new sets of tracks within the railroad right-of-way, along with relocating the freight track. Costs for this alternative would be greater than those for Alternative 3 because of the need to relocate the existing freight tracks. The time required for this construction would be slightly longer than with Alternative 3 because of the time needed to relocate the freight track. However, it could be constructed within the 2008 time frame.

Alternative 4 would maximize previous investments by utilizing the previously purchased railroad right-of-way and historic rail stations. As with Alternative 3, although the exclusive use of two tracks would allow full bi-directional service throughout the day and allow for future increases in service; however, unlike Alternative 3, freight service could operate at any hour of the day since it would have exclusive tracks.

This alternative would be consistent with the Corridor study goal to facilitate corridor cities' vision for land use and development around transit stations and adjoining activity centers. It would also provide a faster ride since a transfer to the Gold Line Phase I would not be necessary. Station locations for this alternative would provide opportunities for re-use of historic railroad stations.

#### **Alternative 5 – Non-compliant DMU Shared with Freight**

This alternative would use the existing railroad track as well as one new track in the railroad right-of-way for DMU service. Conflicts with freight service would be eliminated by either buying out the freight interests completely, or by moving the freight service to after-hours-only. Because the DMU operations and the freight operations would be at least time separated, the DMUs would not need to be Federal Railroad Administration (FRA)-compliant. Stations would be located in each city along the route.

Alternative 5 would require limited land acquisition because it would utilize existing rail right-of-way for the entire length. Land would be needed for station and parking facilities. Construction costs would include the stations and a new set of tracks within the railroad right-of-way. The

time required for this construction would be relatively short, because much of the construction would be in a little-used corridor with few conflicts with adjacent land uses and traffic. Thus, this alternative could be implemented relatively quickly.

This alternative would maximize previous investments by utilizing the previously purchased railroad right-of-way. The full use of both tracks, at least during the DMU service hours, would not limit the number of trains that could operate. Bi-directional service could be operated on a heavy schedule with multiple car trains if desired, only limited by station platform length and consideration of at-grade crossings. Existing DMU technology would be used.

#### **Alternative 6 – Non-compliant DMU Plus Separated Freight**

This alternative would use two new tracks in the railroad right-of-way for DMU service and retain a third track for freight. Because of the location of the existing freight track in the middle of the right-of-way, it would be necessary to relocate the freight track so that the two new DMU tracks would also fit with the right-of-way and maintain the required minimum clearances between DMU and freight. When completed, conflicts with freight service would be avoided by operating on completely separated tracks. Because the DMU operations would be physically separated from the freight operations, the DMUs would not need to be FRA-compliant. Stations would be located in each city along the route.

Alternative 6 would require limited land acquisition because it would utilize the existing rail right-of-way for the entire length. Land would only be needed for station facilities. Construction costs would include the stations, related facilities and new sets of tracks within the railroad right-of-way, along with rebuilding the freight track where necessary. The time required for this construction would be slightly longer than with the previous DMU alternatives, but not unreasonable because much of the construction would be in a little-used corridor with few conflicts with adjacent land uses and traffic.

This alternative would maximize previous investments by utilizing the previously purchased railroad right-of-way. The full use of two tracks would allow full bi-directional services up to 24 hours a day, only limited by station platform length and consideration of at-grade crossings.

#### **Alternative 7 – Compliant DMU Plus Single Track Sections**

Similar to Alternative 5, this alternative would use the existing railroad track as well as one additional track in the railroad right-of-way in most locations for DMU service. However, in some locations where the right-of-way is narrow or to avoid building a new bridge, only the existing single track would be used. Because the DMU operations would share the tracks with freight operations on these single-track sections, the DMUs would need to be FRA-compliant. Stations would be located in each city along the route.

Alternative 7 would require limited land acquisition because it would utilize rail right-of-way for the entire length. Land would only be needed for station facilities. Construction costs would include the stations and a new set of tracks within the railroad right-of-way. The time required for this construction would be relatively short, because much of the construction would be in a little-used corridor with few conflicts with adjacent land uses and traffic. Thus, this alternative could be implemented relatively quickly.

This alternative would take advantage of previous investments by utilizing the previously purchased railroad right-of-way. However, because the freight would still use one of the tracks,

operation of the DMUs would be slightly limited. Bi-directional service could be operated on a coordinated schedule with multiple car trains.

### 3.3 Maintenance and Operations Facility

As part of this study, maintenance facility sites only for the LRT and commuter rail alternatives were identified based on the assumption that buses could be maintained at one or more existing MTA facility. The selection of sites analyzed was based on the following criteria:

1. The Eastside and Gold Line Phase I LRT vehicles would be maintained in temporary facilities (Red Line and Midway yards). If one of the LRT alternatives is selected as the preferred alternative, then a new permanent maintenance facility would be located along the BNSF corridor and the Phase I, Phase II and Eastside vehicles would use this facility.
2. The new maintenance facility must be able to accommodate 86 LRT vehicles (36, 24, and 26 for Phase I, Phase II, and Eastside, respectively) plus spares. This would require at least 20 acres of land.
3. The site must have good access from the main line.
4. The site should ideally be located somewhere mid corridor to minimize long deadheading.
5. The site must be compatible with adjoining land uses.
6. If localized impacts are produced, they must be able to be mitigated effectively.

The facility would include vehicle storage, an operations center, maintenance building, wheel truing machine, paint preparation and paint shop, car wash, inspection tracks, interior cleaning platform, maintenance of way building, and a traction power sub-station.

### 3.4 Capital and Operations and Maintenance (O & M) Costs

The capital and operating and maintenance costs of the alternatives shown in Table 3.2 are provided in year 2002 dollars. Therefore, inflation rates are not included. The capital costs include all capital components of each alternative (i.e. guideway/busway, roadway work, stations, communications, signals, maintenance facility, utilities, vehicles, right-of-way, etc.), including contingency factors for unknowns and add-on allowances for preparing the environmental documents, additional engineering, design, construction management and agency costs. The operating and maintenance costs are based on operating parameters for the year 2025 that come from the operating plan developed for this study and the ridership forecasts. A detailed discussion of both can be found in the technical reports prepared for this study and identified in Chapter 1.

MEASURES	No Build/Baseline	BRT	LRT, time separated	LRT, time shared	Non- compliant DMU, time separated	Non- compliant DMU, time shared	Compliant DMU
Capital costs	5,500.0	554.7	896.6	936.5	735.5	802.2	410.9

<b>MEASURES</b>	<b>No Build/Baseline</b>	<b>BRT</b>	<b>LRT, time separated</b>	<b>LRT, time shared</b>	<b>Non-compliant DMU, time separated</b>	<b>Non-compliant DMU, time shared</b>	<b>Compliant DMU</b>
Operating and maintenance costs	1,035.0	3.4 <sup>4</sup>	23.6	23.6	16.4	16.4	15.25

### 3.5 Traffic and Grade Crossings

An initial grade crossing analysis was conducted for seven typical crossings selected from the Gold Line Phase II Corridor. These crossings are representative of the other grade crossings along the alignment and experience the highest traffic volumes in their typical category. As such, this analysis looked at the worst-case conditions of each type of crossing to determine if a grade separation would be required. The alignment crosses a total of 45 streets at-grade and the seven typical crossings analyzed are described in Table 3.3.

The “type of crossing” is based on the geometry of the crossing and the proximity of the crossing to adjacent signals. The crossing types are defined as follows:

- Intersection Adjacent: LRT crossing within 85’ of a signalized intersection.
- Near Intersection: LRT crossing between 86’-200’ of a signalized intersection.
- Mid-block: LRT crossing greater than 200’ of an intersection.
- Diagonal: LRT crossing within an intersection, bisecting the roadway intersection diagonally.

<i>Crossing Location</i>	<i>City</i>	<i>Type of Crossing</i>	<i>Number of Lanes</i>
Santa Anita Avenue	Arcadia	Mid-Block	4
Mayflower Avenue	Monrovia	Mid-block	4
Azusa Avenue, Route 39	Azusa	Mid-block (one way)	2
Grand Ave./Foothill Blvd.	Glendora	Diagonal	4/4
Wheeler Avenue	La Verne	Intersection Adjacent	4
Garey Avenue	Pomona	Mid-block	4
Indian Hill Boulevard	Claremont	Near Intersection	4

The grade separation analysis compared the forecasted 2025 traffic volumes at the grade crossings, with the forecasted LRT frequencies and followed the Institute of Transportation Engineers (ITE) guidelines for determining when to grade separate an LRT grade crossing. Since the technologies evaluated in this report are using the same operating headway assumptions, and travel times for each alternative are relatively similar, it is assumed that the results of the analysis would be applicable to all of the alternatives. The underlying concept of

<sup>4</sup> Assumes 14 buses required to operate in the peak.



the guidelines is that the delay to motorists will determine the need to grade separate. The threshold lines represent level of service (LOS) E volumes, assuming that LOS E or worse would be unacceptable to most traffic jurisdictions.

The traffic projections at each typical crossing are presented in Table 3.4. This table presents the forecasted 2025 average daily traffic (ADT) for each direction (northbound/southbound) at the grade crossing, and the corresponding 2025 peak hour volume per lane at the crossing. The peak hour volume per lane was calculated by taking the higher of the northbound or southbound daily traffic volume and assuming that the PM peak hour carries 10 percent of the ADT. The resulting PM peak hour volume was divided by the number of lanes in one direction of traffic.

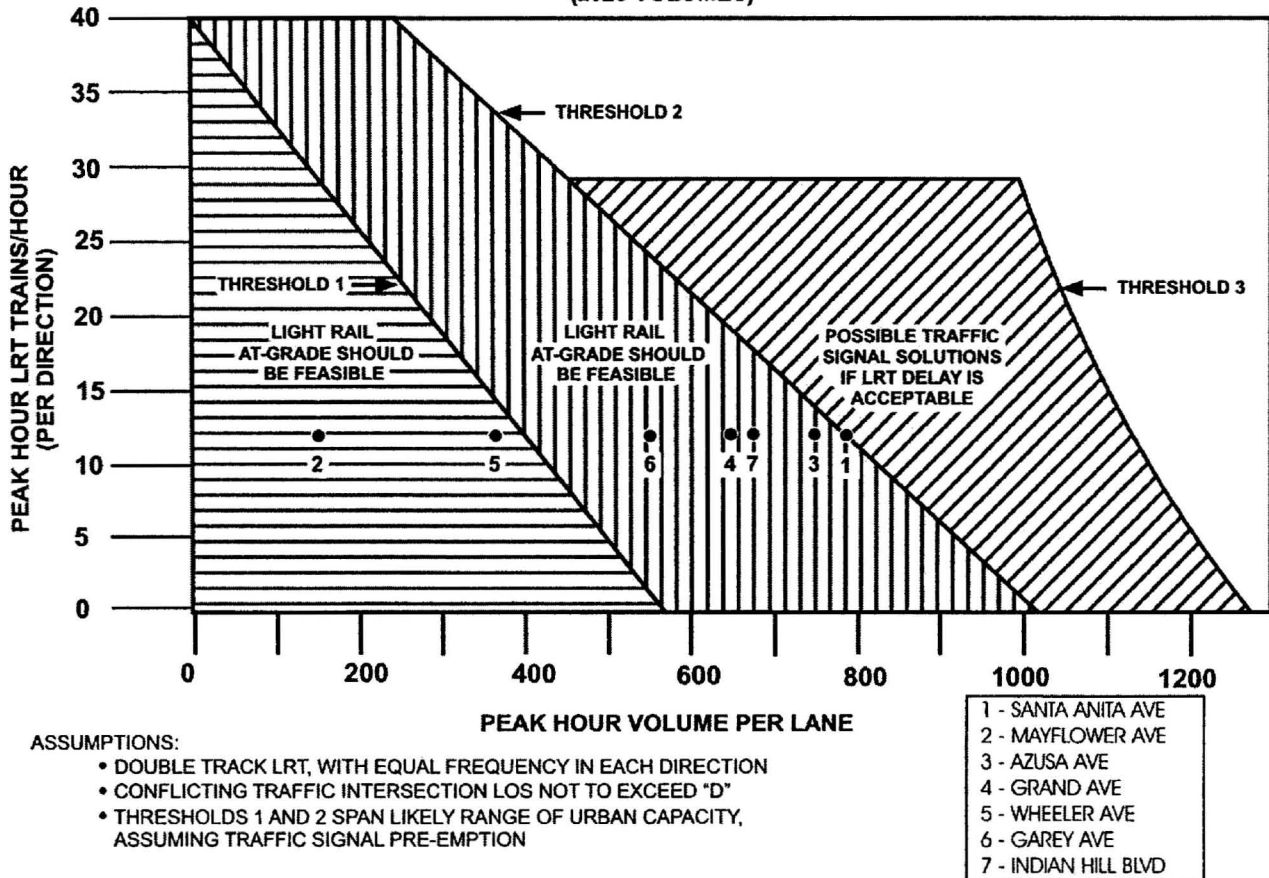
<b>Table 3.4</b>			
<b>Forecasted 2025 Grade Crossings Traffic Volumes</b>			
<i>Crossing</i>	<i>2025 ADT Northbound</i>	<i>2025 ADT Southbound</i>	<i>PM Peak Hour Volume per lane</i>
Santa Anita Avenue	14,600	15,800	800
Mayflower Avenue	4,100	3,000	200
Azusa Avenue, Route 39	15,100	---	750
Grand Ave./Foothill Blvd	13,000	8,750	650
Wheeler Avenue	7,200	6,400	360
Garey Avenue	15,000	16,350	550
Indian Hill Boulevard	13,500	12,000	675

For the case of the diagonal grade crossing at Grand Avenue and Foothill Boulevard, the traffic volumes represent Grand Avenue, which has the highest traffic volumes. At the Garey Avenue crossing, the number of lanes was increased from the existing 2-lanes per direction, to 3-lanes per direction, to accommodate the increased traffic volume. The increase in lanes can be accommodated within the existing right-of-way, through re-striping and the removal of on-street parking, without the need to widen the roadway.

As seen in Figure 3.5, the seven typical crossings were plotted on the ITE diagram based on peak hour volumes per lane. The conclusion of this analysis is that grade separations are not required at any of these crossings, although it may be desirable to grade separate Santa Anita Avenue to avoid delays to the transit alternative. In the 1993 Environmental Impact Statement it was recommended that the crossing of Santa Anita Avenue be grade separated. Even though this analysis indicates that it may be possible to cross Santa Anita at grade, this should be further evaluated to determine if an at-grade crossing is desirable and corresponding delays are acceptable.

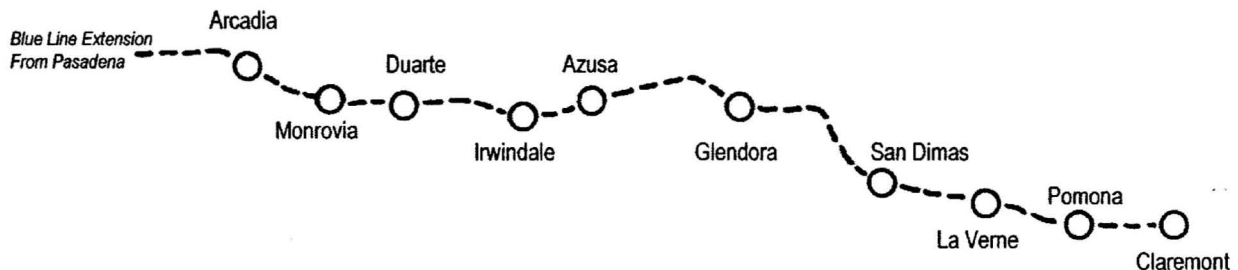
Each of the technologies considered in the Corridor, BRT, LRT and DMU, presents a different set of safety issues at grade crossings, coupled with issues associated with combining freight movement with transit movement along the same corridor. To better assess the issue of safety and determine if any safety improvements are required, a detailed delay and accident analysis will be conducted in subsequent phases of the project to identify and evaluate the type of improvements required in the Gold Line Phase II Corridor.

**Figure 3.5**  
**EVALUATION OF SELECTED PGL CLAREMONT EXTENSION**  
**CROSSINGS ON AT-GRADE OPERATION THRESHOLDS**  
**(2025 VOLUMES)**



### 3.6 Stations and Transit Oriented Development

In the 1993 Environmental Impact Statement prepared for the Gold Line Phase II Corridor, each of the participating Corridor cities identified the location of their historic downtown railroad station as the preferred site for their city station. During the Phase II Alternatives Analysis, this was reconfirmed with city staff and eleven stations were identified. In the City of San Dimas, seven sites were identified by the City and an analysis was conducted resulting in the selection of two for the station and related parking at the site of their historic rail station. In Azusa, the City decided that they would need two stations; the site of their historic rail station in the historic downtown, and at Citrus College where transit oriented development is currently being planned by the City for the Monrovia Nursery site. Therefore, eleven stations have been assumed for this study.



As part of the analysis of the Gold Line, a sketch level investigation of the potential for transit-oriented development (TOD) around stations was completed in the ten communities at their preferred station sites. Sketch plans and recommendations for each community were documented in a report that provides the Gold Line communities with an orientation to some of the issues and considerations essential for undertaking a successful TOD program in the corridor (*Transit Oriented Development: Prospects and Opportunities for the Gold Line, April 2002*).

**Tremendous Potential**

The Gold Line has tremendous potential for transit-oriented development. The corridor is characterized by a series of intact, compact walkable downtowns that grew-up around the historic rail line. Gold Line stations will serve as a new front door to a majority of the downtowns in the Corridor. This pattern of development sets the Gold Line apart from most other potential transit “new starts” in the United States.

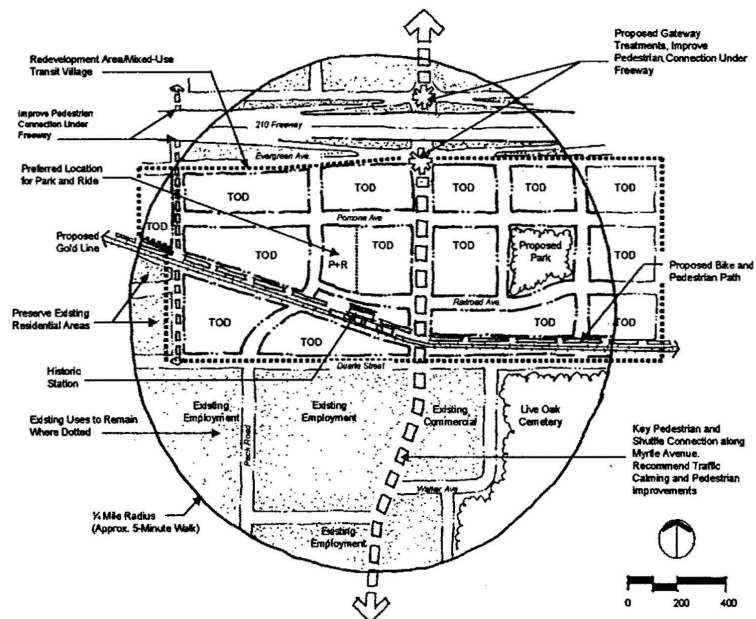
**Driven by Community Vision**

The centerpiece of the planning approach was a series of charrettes held in each community along the Corridor. Participants were asked to express their vision for the area around their potential station site. Based on the direction suggested in the charrettes TOD sketch plans were prepared illustrating how the Gold Line could be used to achieve the community’s vision for how it wants to grow. The Monrovia sketch plan is shown in Figure 3.6 to illustrate this.

**A Range of Opportunities**

The sketch plans address a range of conditions and opportunities in the corridor. At each of the Gold Line stations there are opportunities to accommodate new transit-friendly development. However, a central theme in each community was the need to respect and reinforce the single-family fabric of the neighborhoods surrounding the potential stations.

The opportunities for TOD range from modest infill, as in the case in Arcadia, to new development in Monrovia, where the vision is to use the Gold Line as a tool to help redevelop and transform over 50 acres



**Figure 3.6**  
**Monrovia Illustrative TOD Sketch Plan**

around their historic stations into mixed-use transit villages with higher density residential, public spaces, high technology employment, retail and a new gateway to the city.

**Tools for TOD**

TOD will be a pioneering strategy for much of the Corridor. To help make the transition a reality, the work conducted provides:

- A framework to better understand TOD
- A definition of and a review of the rationale for TOD
- A checklist for evaluating TOD opportunities
- An overview of the benefits of TOD
- A discussion of the market for TOD
- A summary of the status of TOD in California
- A review of the barriers to implementing TOD

TOD will be an important consideration in securing federal funding for the Gold Line. The report reviews how the federal government will consider current and future land use for the Gold Line in making a recommendation on the merits of federal funding for the project.

**Summary of Recommendations**

The introduction of a major transit investment into the corridor will not guarantee the transformation of the station areas into the “transit villages” envisioned in this study. Detailed planning and public sector leadership will be required to help ensure that the communities along the Gold Line Phase II Corridor can capitalize on the investment in transit and realize their vision for how they want to grow.

Recommendations for the Gold Line Corridor include the concepts and strategies that are summarized in Table 3.5.

<b>Table 3.5 Ten Steps to TOD on the Gold Line</b>	
<b>1. Transit Villages</b>	Proceed with planning and implementation of compact, mixed-use “transit villages.”
<b>2. Station Area Planning</b>	As part of the next phase of the Gold Line project undertake planning transit villages.
<b>3. Revise Development Codes</b>	Development codes in the Corridor will need to be revised to allow TOD as a clearly permitted use.
<b>4. Development Ready Transit</b>	Plan and design the Gold Line to welcome and encourage TOD.
<b>5. Preserve &amp; Enhance Neighborhoods</b>	A successful TOD strategy for the Corridor needs to respect and preserve the integrity of existing single-family neighborhoods.
<b>6. Start with Strengths</b>	For most Gold Line communities a successful TOD strategy and a successful downtown strategy are one and the same.
<b>7. Pedestrian-Friendly Projects</b>	Focus on pedestrian-friendly projects to avoid the complication of sequencing development with the Gold Line.

<b>Table 3.5</b> <b>Ten Steps to TOD on the Gold Line</b>	
<b>8. Develop Strategically</b>	Understand and plan for the synergistic relationship of uses between stations along the Gold Line Phase II Corridor.
<b>9. Facilitate Good Development / Discourage Bad Development</b>	Give closer attention to pedestrian-oriented design for all development in the station areas.
<b>10. Places to Come Back To</b>	When done best, transit investments can be a powerful tool to help create places to come back to, not simply to leave from.

## Chapter 4: FUNDING OPPORTUNITIES

- A number of potential capital and operations and maintenance funding sources have been identified at the local, state and federal levels, including traditional sources and non-traditional sources.
- Two conceptual funding scenarios were developed.

An analysis was conducted to identify funding strategies for the Gold Line project.<sup>5</sup> This analysis included identifying key issues to be considered in developing funding strategies, developing two conceptual funding scenarios, and identifying the next steps in the development of a funding and financing strategy.

### 4.1 Key Issues

Among the key issues considered in the development of funding strategies for the Gold Line were:

- Potential Revenue Sources: At the present time, there are no federal, state, or regional funds, and very limited local funds for the Gold Line project beyond those funds previously expended for acquisition of the right of way within the Phase II Corridor.
- Project Programming: The Pasadena to Claremont Gold Line project is not currently programmed within the two key financially constrained programming documents used as the blueprints for transportation project implementation within the Los Angeles metropolitan area. These documents are the Los Angeles County Metropolitan Transportation Authority (LACMTA) *2001 Long Range Plan for Los Angeles County* and the Southern California Association of Governments' (SCAG) *2001 Long Range Transportation Plan*.
- Federal Transit Administration (FTA) New Starts Funding: A key funding source that will likely be considered for the Gold Line is the FTA Section 5309 New Starts program. This program provides discretionary capital grants for fixed transit guideway new starts and extensions.
- Proposed Statewide Transportation Funding Measures: There are at least three key transportation measures, existing or proposed, that would provide either guaranteed funding for transportation on an annual basis and/or earmark funds for particular transportation projects. Among these are the Governor's Traffic Congestion Relief Program (TCRP), the Planning and Conservation League's (PCL) statewide voter initiative entitled the Congestion Relief Initiative, proposed for the November 2002 ballot; and the recently passed Assembly Constitutional Amendment (ACA) 4, which called for voter approval on the March 2002 ballot of a measure to permanently dedicate sales tax revenues to transportation. The voters approved this proposition, and the Gold Line is eligible to compete for funding under this measure.

---

<sup>5</sup> Report prepared by Sharon Greene and Associates

- **LACMTA-Controlled Funding:** Funds programmed at the discretion of LACMTA include 75 - 80 percent of LA County's Proposition A and C half-cent sales tax funds (other than the Local Return components of these measures), as well as LA County's share of the 75 percent of the federal and state funds comprising the State Highway Account that get programmed in the Regional Transportation Improvement Program (RTIP) component of the State Transportation Improvement Program (STIP).
- **Local Funding:** The local jurisdictions along the Gold Line Corridor have indicated their commitment to assist in funding the capital cost of the project. This assistance would be in the form of local acquisition and development of right of way for future stations. Local jurisdictions could potentially use a variety of funding sources for their local station projects including Proposition A 25 Percent Local Return, Proposition C 20 Percent Local Return, local gas tax subventions, tax increment financing revenues from redevelopment, and joint development.

#### 4.2 Preliminary Funding Scenarios

Two preliminary funding scenarios were considered:

- **Case 1:** Case 1 assumes a 50 percent level of FTA New Starts financial participation. It further assumes that the \$62.00 million expended previously for the Gold Line right-of-way (ROW) is included in the cost of the project and used to leverage additional FTA New Starts funds.
- **Case 2:** This case assumes an 80 percent level of FTA New Starts financial participation. Like Case 1, it assumes that the \$62 million expended previously for Gold Line ROW is included in the cost of the project and used to leverage additional FTA New Starts funds.

The components of the two cases are summarized below in Table 4.1:

<i>Scenario</i>	<i>Level of FTA New Starts Funding Assumed</i>	<i>With/Without Leverage from Prior Expenditure for ROW</i>
Case 1	50%	With
Case 2	80%	With

#### 4.3 Potential Sources of Capital Funding

An initial list of potential sources of capital funding for the Gold Line includes the following:

*Federal*

- FTA Section 5309 New Starts Funds
- FTA Section 5307 Urbanized Area Formula Grant  
 (Note: Other Federal Sources such as FHWA Congestion Mitigation and Air Quality funds are distributed through the MTA Call for Projects)

*State*

- Assembly Constitutional Amendment 4
- Traffic Congestion Relief Initiative Proposed for the November 2002 Ballot
- Governor's Traffic Congestion Relief Program  
 (Note: RTIP Funds programmed by MTA are shown below)

*Regional/LACMTA*

- Call for Projects Funding
- MTA Discretionary Funds (Prop A 35 Percent; Prop C 20 Percent)
- County Transportation Improvement Program (RTIP)

*Local*

- Station Area Right of Way (contributed by cities in Corridor)
- Station Design and Construction (contributed by cities in Corridor)
- Local Gas Tax Subventions
- Tax Increment Financing/Redevelopment

*Private*

- Joint Development
- Benefit Assessments
- Vendor Financing
- Other (Advertising and Auxiliary Sources)

Among the key issues are the high levels of competition for each of these sources at the federal, state, regional, and local levels. This is further complicated by the fact that the Gold Line project is not presently part of the financially constrained long-range transportation plans proposed by LACMTA and SCAG. This is of particular significance, in that inclusion in the financially constrained metropolitan transportation plan is a pre-requisite to securing FTA approval to advance the Phase II project into preliminary engineering, as well as to final design and construction.

**4.4 Allocating Responsibility for Capital Funding and Operating Costs**

The responsibility for funding the capital costs, as well as the on-going operating costs, of the Gold Line is likely to be shared among federal, state, regional/MTA, and local project participants. As the Draft Environmental Impact Statement (DEIS) and the Preliminary Engineering/Final Environmental Impact Statement (PE/FEIS) studies proceed, the list of potential funding participants and their respective funding obligations will be clarified and negotiated.

Table 4.2 illustrates the allocation of responsibility that has been assumed in the funding scenarios considered to date.

<b>Table 4.2</b>				
<b>Allocation of Responsibility</b>				
<i>Case</i>	<i>Federal %</i>	<i>State %</i>	<i>Regional %</i>	<i>Local %</i>
Case 1	50	23	24	3
Case 2	80	8	9	3



The general principles guiding these allocations of responsibility are:

- Federal share of project capital costs was pre-defined to be either 50 percent or 80 percent;
- Local (city) share of project capital costs was pre-defined to provide 80 percent of the cost of station right of way and construction. The remaining 20 percent of the station costs were assumed to be provided to cities through the MTA Call for Projects.
- The remaining responsibility for capital funding was assumed to be split roughly equally between newly proposed State programs and LACMTA.

## Chapter 5: PUBLIC AND AGENCY INVOLVEMENT

- Public Outreach was coordinated across the 11 corridor cities including: Pasadena, Arcadia, Monrovia, Duarte, Irwindale, Azusa, Glendora, San Dimas, La Verne, Pomona and Claremont
- Station area workshops were held at nine of the 11 corridor cities to discuss transit oriented development around the proposed stations and provide examples that may be considered for future planning purposes.
- Comments from the public were solicited through individual city outreach activities, through general plan amendment reviews, through open-house meetings, and through the Study Steering Committee.
- Monthly meetings of the Study Steering Committee were held to solicit input from the 11 cities located in the Corridor.
- Resolutions or letters of support were received from 10 of the corridor cities supporting a transit improvement in the Corridor. Copies can be found in the Appendix.

### 5.1 Overview of the Plan and Program<sup>6</sup>

The focus of the public outreach effort along the Gold Line Phase II Corridor was to work with each of the cities to develop a city specific work plan to reach the necessary city and community members. Each of the cities developed their strategy for garnering input for consideration into the Alternatives Analysis process.

The purpose of the outreach effort in each city was to exchange ideas and share project information. Issues that were brought forward by the public, city staff and elected officials were helpful in identifying sensitive problems for study consideration.

In developing the individual city strategies, there were some common elements, including:

- *Council Briefings:* A key component in developing an outreach strategy for each city was to brief the councils on the status of the Gold Line Alternatives Analysis (AA) study. This allowed a free flowing discussion with the Metro Blue Line Construction Authority (Authority) project manager and specific study- and city-related questions were answered giving the councils a comfort level required for approval of the outreach effort needed in their respective city.
- *Station Area Workshops:* Workshops were held with nine of the eleven corridor cities with the exception of Azusa, which was in the process of updating their General Plan and had already developed specific TOD concepts surrounding their proposed stations, and Pasadena, where a station is already part of Phase I and under construction. In general, the purpose of the workshops was to listen to the cities' ideas and desires for future development in the vicinity of the proposed stations. The result of the workshops

---

<sup>6</sup> Prepared by Arellano and Associates.

was station concepts developed with the strong understanding of city specific traffic and development potential in mind.

- *Community Meetings:* Some of the cities held community meetings to present the preliminary findings of the AA. This allowed residents and key stakeholders to communicate which of the alternatives would most benefit their community prior to the selection of a Locally Preferred Alternative (LPA) by the San Gabriel Valley Council of Governments (COG) and Authority boards. Members of the community that were invited to attend included: elected officials, community groups, businesses associations, public agencies, schools of all levels, and professional and civic associations.
- *Stakeholder Meetings:* Meetings were held with interested civic groups to update their membership on the status of the project and ongoing efforts in the community.
- *Collateral Materials:* Individual city fact sheets were developed to assist city staff with updating the council members. Power Point presentations were used extensively at the council briefings and workshops as well as community meetings. A schedule of activities diagram was developed to assist communities with understanding the extensive process and key milestones needed to construct the project. A “frequently asked questions” memorandum was developed to answer specific technology questions. Flyers and press releases were developed in support of the community meetings.

## 5.2 Study Steering Committee

The Gold Line Phase II Study Steering Committee was formed by the COG and Authority to oversee the planning and city participation in the Gold Line AA study. Made up of a single delegate and alternate from each of the 11 corridor cities plus representatives from the COG and Authority, the committee met once a month to monitor the progress of the study, to review technical reports, public outreach and achieve consensus on the results of the AA.

The Steering Committee also provided a critical outreach function in carrying updated project information back to the individual city councils and constituents. This critical connection will allow for a smooth decision making process to occur in the final selection and adoption of a Locally Preferred Alternative (LPA).

## 5.3 Project and Public Meetings

Outreach efforts for the Phase II Gold Line included a progression of information flowing from the City Councils to the city staff and the general public. Most councils were briefed on the project to provide a comfort level necessary to move forward into the community with the project findings. In addition, station area workshops were held with each city to encapsulate the cities vision for the proposed station area into the conceptual planning of the stations. Finally, communities were given the opportunity to review the findings of the AA and propose recommendations for selection of an LPA.

Table 5.1 is a summary of the meetings held in 10 of the 11 corridor cities.

<b>Table 5.1</b>	
<b>Project and Public Meetings</b>	
<i>City</i>	<i>Meeting Description</i>
Arcadia	Tuesday, October 16, 2001 Council Briefing
	Tuesday, January 29, 2002 Station Area Workshop

<b>Table 5.1 Project and Public Meetings</b>	
<i>City</i>	<i>Meeting Description</i>
	Monday, May 13, 2002 Community Meeting
	Tuesday, May 21, 2002 Council Adoption of Resolution
Monrovia	Monday, October 15, 2001 Public Meeting with Planning Commission and City Council
	Thursday, October 18, 2001 Kiwanis Club Presentation
	Tuesday, January 22, 2002 Station Area Workshop
	Tuesday, May 14, 2002 Council Adoption of Resolution
Duarte	Wednesday, January 30, 2002 Station Area Workshop
	Wednesday, March 6, 2002 Community Meeting
	Wednesday, March 20, 2002 Community Meeting
	Friday, April 5, 2002 Community Meeting
	Friday, April 19, 2002 Community Meeting
	Tuesday, May 14, 2002 Council Briefing and Adoption of Resolution
	Thursday, August 23, 2001 City Council Briefing
Irwindale	Monday, March 18, 2002 Station Area Workshop
	Monday, April 15, 2002 Community Meeting
	Thursday, April 25, 2002 Community Briefing
	Thursday, May 23, 2002 Council Adoption of Resolution
	Monday, October 15, 2001 City Council Briefing
Azusa	Thursday, April 18, 2002 Community Meeting
	Monday, May 6, 2002 Council Adoption of Resolution
	Tuesday, January 8, 2002 One-on-One Briefing with Council Representatives
Glendora	Tuesday, January 22, 2002 City Council Briefing
	Tuesday, January 29, 2002 Station Area Workshop

<b>Table 5.1 Project and Public Meetings</b>	
<i>City</i>	<i>Meeting Description</i>
	Saturday, April 27, 2002 Community Meeting
	Tuesday, May 14, 2002 Council Adoption of Resolution
	Tuesday, May 28, 2002 Council Briefing
San Dimas	Tuesday, August 14, 2001 City Council Briefing
	Tuesday, October 16, 2001 City Gold Line Ad-Hoc Committee Briefing
	December 10, 2001 Station Area Workshop
	Tuesday, February 19, 2002 Station Area Meeting
	Tuesday, April 2, 2002 Community Meeting
	Tuesday, April 23, 2002 City Council Briefing
	Tuesday, May 14, 2002 City Council Adoption of Resolution and Town Hall Public Meeting
La Verne	Monday, October 15, 2001 City Council Briefing
	Wednesday, January 30, 2002 Station Area Workshop
	Wednesday, April 24, 2002 Community Meeting and Planning Commission
	Monday, May 6, 2002 Council Adoption of Resolution
Pomona	Wednesday, November 28, 2001 One-on-One Briefing with Council Representatives
	Monday, December 3, 2001 City Council Briefing
	Thursday, February 21, 2002 Station Area Workshop
	Monday, May 20, 2002 Council Adoption of Resolution
Claremont	Tuesday, January 22, 2002 Station Area Workshop
	Thursday, March 14, 2002 Community Meeting
	Monday, April 8, 2002 Community Meeting and Traffic and Transportation Commission
	Tuesday, April 23, 2002 Council Adoption of Locally Preferred Alternative

## Chapter 6: EVALUATION OF THE ALTERNATIVES

- Although all of the “build” alternatives attain the goals established for the study, the LRT alternatives rank the highest.
- The LRT alternatives attract the highest number of riders.
- The BRT alternatives have lower capital costs.
- Overall, the alternatives do not cause significant impacts on the natural or manmade environment.

In Chapter 6 the impacts of each of the alternatives are compared to one another and to a Future Baseline or “No-Build” Alternative that does not entail a major new start capital investment. All of the technical data and screening criteria are considered in this evaluation.

Section 6.1 begins with a discussion of the application of the Gold Line Corridor goals and objectives, and the evaluation criteria to the AA that will lead to the selection of a Locally Preferred Alternative (LPA). It also briefly reviews how the AA criteria address the Federal Transit Administration’s (FTA’s) New Starts requirements. This is followed in Section 6.2 with a description of the specific criteria and measures used to evaluate the alternatives. Section 6.3 discusses the cost-effectiveness of the alternatives.

In a discussion of the “trade-offs” between the alternatives, Section 6.4 summarizes those measures that differ substantially between the alternatives evaluated. This segues into Chapter 7, which outlines the next steps required to develop the implementation plan for improving transit in the study Corridor.

### **6.1 Comparison of Alternatives Against Project Goals and Objectives**

The purpose of the AA is to determine the need for and the nature of transit service improvements in the Corridor. The various corridor goals and objectives were outlined in Chapter 2, Table 2.6.

A standard set of evaluation criteria were developed to provide a comparable level and set of criteria for use as the basis for system development and to provide those data required for FTA New Starts funding evaluation. Subsequent use of these data and the next steps in the project development plan are described in greater detail in Chapter 7.

#### **6.1.1 FTA New Starts Criteria**

Criteria required by FTA for New Starts evaluation, while reflecting some of the same criteria and measures as the corridor measures, are fewer in number. They are:

- Mobility Improvements;
- Environmental Benefits;
- Operating Efficiencies;
- Cost Effectiveness; and
- Existing Land Use, Transit Supportive Land Use Policies, and Future Patterns.

In addition, FTA considers “Other Factors” which are:

- Degree of Local Financial Commitment;
- The degree that institutions (local transportation initiatives, parking policies, etc.) are in place and are assumed in the forecasts;
- Multi-modal emphasis of the locally preferred investment strategy, including the Section 5309 New Starts project as one element;
- Environmental justice considerations and equity issues;
- Opportunities for increased access to employment for low income persons, and welfare to work initiatives;
- Outstanding or unique public involvement program activities, including private sector and institutional involvement;
- Livable communities initiatives and local economic development initiatives;
- Consideration of alternative land use development scenarios in local evaluation and decision making for the locally preferred transit investment decision; and
- Consideration of innovative financing, procurement, and construction techniques, including design-build turnkey applications.

To provide a visual representation that allows for easier differentiation among the alternatives under consideration, many of these quantitative measures have been reduced to qualitative measures. A circle system ranging from “Poor” to “Good” has been utilized.

## **6.2 Specific Criteria and Measurement**

### **6.2.1 Mobility Improvements**

The category of Mobility Improvements includes mobility and access; two terms that describe the quality of transportation services. Mobility refers to the choices that are available to make trips and access refers to the ability to get to destinations of choice. Each of these terms indicates a different component of the ability of a wide range of persons to get from where they are to where they want to be, when they want to be there. Some persons have little choice in how this takes place and others have a number of choices. Both categories of potential transit system customers are important to the ultimate viability and success of a transit system in fulfilling its mission in a cost effective manner. The mobility measures are found under Goals 4 and 5 in Table 6.3.

### **6.2.2 Environmental Measures**

This section summarizes the apparent environmental issues and differences that occur between the various alternatives. It looks at the positive and/or negative environmental impacts of each alternative on the natural and manmade environment. It should be noted that for AA purposes the review of the environmental and community effects of the alternatives is only an initial assessment of fatal flaws. A Draft Environmental Impact Statement (DEIS) would come later in the process. Table 6.1 summarizes all of the environmental measures, although only key measures are included under Goal 8 in Table 6.3.

### **6.2.3 Operating Efficiencies**

The Operations category addresses the way in which a proposed improvement contributes to or detracts from the operating efficiency of the transit system, in terms of vehicle and staff utilization, which also impacts cost effectiveness. This is the “supply side” of the evaluation.

**Table 6.1  
 Environmental Measures**

<b>MEASURES</b>	<b>NO BUILD</b>	<b>BRT</b>	<b>LRT, time separated</b>	<b>LRT, time shared</b>	<b>Non-compliant DMU, time separated</b>	<b>Non-compliant DMU, time shared</b>	<b>Compliant DMU, some single track</b>
Number of Acres to be <b>Acquired</b> as New Right-of-Way (1)	Already acquired for Route 30 project	Sizes of parking areas at individual stations have not yet defined	15 to 20 acres for maintenance facility. Sizes of parking areas at individual stations not yet defined	15 to 20 acres for maintenance facility. Sizes of parking areas at individual stations not yet defined	15 to 20 acres for maintenance facility. Sizes of parking areas at individual stations not yet defined	15 to 20 acres for maintenance facility. Sizes of parking areas at individual stations not yet defined	15 to 20 acres for maintenance facility. Sizes of parking areas at individual stations not yet defined
Potential for Negative Impacts on <b>Communities</b> (2)	Minimal beyond those already addressed in Route 30 project	Typical impacts: noise, traffic, visual, potential land use changes. Magnitude of changes probably less than for LRT or DMU	Typical impacts: noise, traffic, visual, potential land use changes. Magnitude of changes probably greater than BRT, but similar to DMU.	Typical impacts: noise, traffic, visual, potential land use changes. Magnitude of changes probably greater than BRT, but similar to DMU.	Typical impacts: noise, traffic, visual, potential land use changes. Magnitude of changes probably greater than BRT, but similar to LRT.	Typical impacts: noise, traffic, visual, potential land use changes. Magnitude of changes probably greater than BRT, but similar to LRT.	Typical impacts: noise, traffic, visual, potential land use changes. Magnitude of changes probably greater than BRT, but similar to LRT.
Potential Impact to <b>Cultural Resources</b> (3)	No additional beyond those already addressed in Route 30 project	Low potential for impacts to historic properties in Corridor	Low potential for impacts to historic properties in Corridor	Low potential for impacts to historic properties in Corridor	Low potential for impacts to historic properties in Corridor	Low potential for impacts to historic properties in Corridor	Low potential for impacts to historic properties in Corridor
Potential Impact to <b>Ecologically-Sensitive Areas</b> (4)	No additional beyond those already addressed in Route 30 project	Minimal potential to affect area adjoining rail ROW at Santa Fe Dam	Minimal potential to affect area adjoining rail ROW at Santa Fe Dam	Minimal potential to affect area adjoining rail ROW at Santa Fe Dam	Minimal potential to affect area adjoining rail ROW at Santa Fe Dam	Minimal potential to affect area adjoining rail ROW at Santa Fe Dam	Minimal potential to affect area adjoining rail ROW at Santa Fe Dam
Potential Impact to Flood Level or <b>Floodplain</b> (5)	No additional beyond those already addressed in Route 30 project	Minimal impact to floodplain from additional paving of rail ROW for BRT lanes	Potential for impact to floodplain if Irwindale site chosen for maintenance facility	Potential for impact to floodplain if Irwindale site chosen for maintenance facility	Potential for impact to floodplain if Irwindale site chosen for maintenance facility	Potential for impact to floodplain if Irwindale site chosen for maintenance facility	Potential for impact to floodplain if Irwindale site chosen for maintenance facility



**Table 6.1  
 Environmental Measures**

<b>MEASURES</b>	<b>NO BUILD</b>	<b>BRT</b>	<b>LRT, time separated</b>	<b>LRT, time shared</b>	<b>Non-compliant DMU, time separated</b>	<b>Non-compliant DMU, time shared</b>	<b>Compliant DMU, some single track</b>
Potential for Impact to <b>Hazardous Materials Sites (6)</b>	No additional beyond those already addressed in Route 30 project	Low to moderate potential to encounter	Low to moderate potential to encounter	Low to moderate potential to encounter	Low to moderate potential to encounter	Low to moderate potential to encounter	Low to moderate potential to encounter
Potential for <b>Noise Impacts (7)</b>	Low potential beyond those already addressed in Route 30 project	Low potential for noise impacts from buses on rail ROW	Low to moderate potential for noise impacts from electrically powered LRT vehicles on rail ROW. Mitigation usually focuses on blocking noise from wheel/rail interface.	Low to moderate potential for noise impacts from electrically powered LRT vehicles on rail ROW. Mitigation usually focuses on blocking noise from wheel/rail interface	Moderate potential for noise impacts from diesel powered vehicles on ROW. Mitigation must focus on blocking noise from high-level exhaust.	Moderate potential for noise impacts from diesel powered vehicles on ROW. Mitigation must focus on blocking noise from high-level exhaust	Moderate potential for noise impacts from DMU vehicles on ROW, since freight trains already affect ambient noise
Potential Impacts to <b>Parklands (8)</b>	No additional beyond those already addressed in Route 30 project	No Direct Impacts Potential noise & visual impacts at 9 parks	No Direct Impacts Potential noise & visual impacts at 9 parks	No Direct Impacts Potential noise & visual impacts at 9 parks	No Direct Impacts Potential noise & visual impacts at 9 parks	No Direct Impacts Potential noise & visual impacts at 9 parks	No Direct Impacts Potential noise & visual impacts at 9 parks
Potential <b>Section 4(f) Issues (9)</b>	No additional beyond those already addressed in Route 30 project	None anticipated for parks	None anticipated for parks	None anticipated for parks	None anticipated for parks	None anticipated for parks	None anticipated for parks
Potential Impact to <b>Threatened and Endangered Species (10)</b>	No additional beyond those already addressed in Route 30 project	No suitable habitats for T& E species identified in field review	No suitable habitats for T& E species identified in field review	No suitable habitats for T& E species identified in field review	No suitable habitats for T& E species identified in field review	No suitable habitats for T& E species identified in field review	No suitable habitats for T& E species identified in field review

**Table 6.1  
 Environmental Measures**

<b>MEASURES</b>	<b>NO BUILD</b>	<b>BRT</b>	<b>LRT, time separated</b>	<b>LRT, time shared</b>	<b>Non-compliant DMU, time separated</b>	<b>Non-compliant DMU, time shared</b>	<b>Compliant DMU, some single track</b>
Potential for Local <b>Traffic</b> effects (11)	Low potential for additional impacts beyond those already addressed in Route 30 project	Low to moderate potential for impacts near stations and at grade crossings.	Low to moderate potential for impacts near stations and at grade crossings	Low to moderate potential for impacts near stations and at grade crossings	Low to moderate potential for impacts near stations and at grade crossings	Low to moderate potential for impacts near stations and at grade crossings	Low to moderate potential for impacts near stations and at grade crossings
Potential Impact to <b>Visual Quality</b> (12)	No additional beyond those already addressed in Route 30 project	Change most likely in vicinity of stations. For line segments, a new type of vehicle passing by	Change most likely in vicinity of stations. For line segments, overhead wiring and a new type of vehicle passing by	Change most likely in vicinity of stations. For line segments, overhead wiring and a new type of vehicle passing by	Change most likely in vicinity of stations. For line segments, a new type of vehicle passing by (no overhead wiring)	Change most likely in vicinity of stations. For line segments, a new type of vehicle passing by (no overhead wiring)	Change most likely in vicinity of stations. For line segments, a new type of vehicle passing by (no overhead wiring)
Potential Impact to <b>Water Quality</b> (13)	No additional beyond those already addressed in Route 30 project	Moderate potential for impacts, arising from additional paving of rail ROW for bus lane. Impacts for station parking the same for all build alternatives.	Low potential for impact, little change in runoff from rail ROW when LRT added. Impacts for station parking the same for all build alternatives.	Low potential for impact, little change in runoff from rail ROW when LRT added. Impacts for station parking the same for all build alternatives.	Low potential for impact, little change in runoff from rail ROW when DMU added. Impacts for station parking the same for all build alternatives.	Low potential for impact, little change in runoff from rail ROW when DMU added. Impacts for station parking the same for all build alternatives.	Low potential for impact, little change in runoff from rail ROW when DMU added. Impacts for station parking the same for all build alternatives
Potential Impact to Jurisdictional <b>Wetlands</b> (14)	No additional beyond those already addressed in Route 30 project	Low potential for impact at wetlands along San Gabriel River	Low potential for impact at wetlands along San Gabriel River	Low potential for impact at wetlands along San Gabriel River	Low potential for impact at wetlands along San Gabriel River	Low potential for impact at wetlands along San Gabriel River	Low potential for impact at wetlands along San Gabriel River

**Table 6.1  
 Environmental Measures**

MEASURES	NO BUILD	BRT	LRT, time separated	LRT, time shared	Non-compliant DMU, time separated	Non-compliant DMU, time shared	Compliant DMU, some single track
----------	----------	-----	---------------------	------------------	-----------------------------------	--------------------------------	----------------------------------

Notes:

The No-Build Alternative is defined as the future bus network, including Foothill Transit Express Bus on I-210/SR30. This table considers only the impacts of those future bus operations, not impacts associated with building the State Route 30 extension. Those construction impacts were addressed and mitigated in an EIR/EIS and are considered here as if the project were already completed.

1. The sizes of parking lots that would be necessary or desirable at each BRT/LRT/DMU station have not yet been determined. For the LRT and DMU alternatives, it is assumed that a maintenance facility in the corridor is required; for the BRT alternative, it is assumed that buses will be maintained at facilities outside of the study corridor.
2. For the No Build alternative, construction impacts would occur from building SR 30 (the I-210 extension). The location of these impacts is well removed from the Phase II study Corridor. The No Build alternative also includes widening of San Dimas Avenue; those impacts would be near the Corridor. Impacts for the LRT and DMU alternatives would be very similar in type, location and magnitude- noise, traffic, visual, and potential land use changes.
3. A full identification of cultural resources has not been completed. Areas with known or likely historic resources along the Corridor ROW should not be negatively affected by the "build" alternatives.
4. The only ecologically sensitive area identified from database searches and field review is at the Santa Fe dam, where sensitive habitat adjoins the rail ROW. Sensitive plants also occur on the rail ROW, but can probably be avoided.

**Table 6.1  
 Environmental Measures**

MEASURES	NO BUILD	BRT	LRT, time separated	LRT, time shared	Non-compliant DMU, time separated	Non-compliant DMU, time shared	Compliant DMU, some single track
<p>5. The BRT alternative would have minimal impact on the floodplain of the San Gabriel River from paving part of the rail ROW for bus lanes. The LRT and DMU alternatives would have virtually no impact.</p> <p>6. Full investigation has not been completed. Rail corridors typically have had some hazardous material incidents over time.</p> <p>7. The BRT alternative would include noise generated by buses, which are typically not significant. The LRT and DMU alternatives have the potential for noise impacts, which are most likely to occur at intersections when warning gate bells and train horns are used. LRT vehicles are electrically powered and are substantially quieter than diesel-powered DMUs. For the purposes of forecasting noise impacts, the occasional noise generated in the corridor now by freight movements does not create a “noisy” ambient condition, so the amount of noise that can be generated before reaching a significance threshold would be low.</p> <p>8. No acquisition of park land is anticipated. The BRT, LRT and DMU alternatives all have the potential for noise and visual impacts for the nine parks along the rail corridor.</p> <p>9. No direct impacts to park resources are anticipated.</p> <p>10. No evidence of threatened or endangered species or habitats was found from database searches and field review. As discussed in item 4, an ecologically sensitive area exists in the Santa De Dam area.</p> <p>11. Local traffic impacts could occur in the vicinity of new stations, and potentially at grade crossings.</p> <p>12. Changes in the visual environment would be most likely to occur in station areas, depending on where and how station facilities and parking are created in each community. Along the line segments, the LRT alternative would require building an overhead wiring network for power. The BRT and DMU alternatives do not require overhead wiring.</p> <p>13. The BRT alternative has some potential for water quality impacts due to run-off from its paved lanes. The LRT and DMU alternatives would involve only minimal changes to existing drainage patterns. Parking for the BRT, LRT and DMU alternatives could generate additional runoff, depending on where local parking is created, but is assumed to be discharged to existing sewerage systems.</p> <p>14. The only wetland are identified in the rail corridor is along the San Gabriel River, which is already crossed by an existing bridge.</p>							

To better measure and compare mobility, access and operations among alternatives and to provide data necessary to select a LPA, a number of specific items were selected from those generated by the Travel Demand Model. These are found under Goal 4 in Table 6.3.

#### 6.2.4 Financial Measures

Costs will clearly play a significant deciding role in the evaluation and choice of a preferred alternative for the Gold Line Corridor. These costs are used to estimate the cost-effectiveness of the individual build alternatives. Table 6.2 shows various financial criteria or measures that will assist with the comparison of the various alternatives. It contains a summary of the initial capital and annual operating and maintenance costs for the various corridor alternatives. All costs are in 2002 dollars. The capital costs include all engineering, design, construction, facilities, rolling stock and contingency costs required to implement the alternative.

Also shown in the table below is the measure of cost-effectiveness. It is a measure that provides a means of comparing the benefits of the alternatives being considered relative to their costs. This measure, expressed in 2002 dollar values, is based on the cost per new rider following the methodology prescribed by FTA. It offers an indication of the return of investment in terms of new transit trips being made as a result of the transportation improvement.

Once the LPA has been built, it will require additional funding to operate and maintain the system. The annual operating and maintenance (O&M) costs summarized in the table include all the costs related to the fixed guideway component and the support bus service component of each alternative. The annual O&M costs are those over and above the cost to operate and maintain the future No-Build Alternative.

<b>MEASURES</b>	<b>No Build</b>	<b>BRT</b>	<b>LRT, time separated</b>	<b>LRT, time shared</b>	<b>Non-compliant DMU, time separated</b>	<b>Non-compliant DMU, time shared</b>	<b>Compliant DMU</b>
Capital costs	5,500.0	554.7	896.6	936.5	735.5	802.2	410.9
Operating and maintenance costs	1,035.0	3.4 <sup>7</sup>	23.6	23.6	16.4	16.4	15.25
Cost per new rider	N/A	\$27.40	\$26.30	\$27.30	\$24.00	\$25.60	\$15.70

#### 6.2.6 Community Involvement Response

The people who live and work in the study Corridor are the ones most familiar with the Corridor's transportation problems, and best able to evaluate ideas for improvements. Public involvement has been an essential element to the project and various methods have been employed to involve the local community and other stakeholders in the broader AA process. The public involvement plan was used to define key issues and concerns that exist with regard to transit and land use in the corridor. The participation process was also designed to inform the public of the project and therefore incorporated various information-sharing mediums to increase public awareness and knowledge of the study. It also served as an important means

<sup>7</sup> Assumes 14 buses required to operate in the peak.

of obtaining valuable local input to proactively seek the participation and views of the broader public and allowed a channel for citizen feedback to be incorporated into the project's decision-making process.

Numerous outreach efforts and techniques were used as part of the public participation process, some of which included, public meetings, presentations to city councils, presentations to the study's Steering Committee, and various other participation techniques were also used to distribute key information regarding the project. More details can be found in Chapter 5.

A number of issues and concerns were raised as a result of the public participation process. The most common concerns included traffic impacts, noise impacts, safety impacts and visual impacts.

### **6.3 Discussion of Trade-offs**

The trade-offs analysis is the actual application of the evaluation process in which all relevant criteria are considered together, including both quantifiable and non-quantifiable considerations. The relevant criteria include only those measures where discernible and significant differences can be noted between alternatives. While all of the information collected during the study and presented previously was considered in the evaluation of alternatives, some considerations do not distinguish between alternatives. Therefore, only those considerations that were deemed decisive in differentiating alternatives are presented here. Trade-offs refers to the fact that any alternative may have both positive and negative aspects and that selecting a Locally Preferred Alternative requires balancing these "trade-offs". Within a corridor, a number of types of trade-offs may exist. Examples of the types of trade-offs are:

*Between alignments:* one alignment may serve a greater concentration of existing population, for example, while another could stimulate new development and thus a larger future population. In the case of the Gold Line Corridor, one alignment was selected early on as the preferred alignment to test the technology alternatives since the Burlington Northern Santa Fe (BNSF) right-of-way has already been purchased by the Metropolitan Transportation Authority (MTA) and it penetrates the downtowns of all of the cities in the Corridor.

*Between modes:* a mode that typically has more stations enables a greater percent of riders to access the service by walking. However, the more stops the more diffuse and challenging the opportunities for transit-oriented development (TOD), and the higher the travel time.

Which alternative is the best choice for the Corridor? All of the transit alternatives examined in the AA are feasible, but they each are associated with varying costs and benefits. To determine how well the Corridor alternatives meet the project goals and objectives, an evaluation matrix format was used to summarize key distinguishing data (see Table 6.4). This format will allow decision makers to differentiate between the alternatives and determine how well each meets the project goals.

As previously indicated, data that does not show differences between the alternatives has not been included. For example, none of the alternatives negatively impacts wetlands. Therefore, that information is not useful in differentiating between the alternatives and is not included in the summary evaluation table. This evaluation provides a relative comparison among the alternatives, giving the Corridor cities, the San Gabriel Valley Council of Governments (COG) and Metro Blue Line Construction Authority (Authority) Board of Directors the information needed to compare the level of transportation impacts across all of the alternatives.

**Table 6.4**  
**Comparative Summary of Differentiating Evaluation Measures**

MEASURES	Alt. 1: NO BUILD	Alt. 2: BRT	Alt. 3: LRT, time separated	Alt. 4: LRT, time shared	Alt. 5: Non- compliant DMU, time separated	Alt. 6: Non- compliant DMU, time shared	Alt. 7: Compliant DMU, some single track
<b>GOAL 1: To reduce auto dependency</b>							
• Daily transit trips in Region	1,563,600	1,569,400	1,575,500	1,575,500	1,573,800	1,573,800	1,573,800
• Number of new riders	0	5,800	11,900	11,900	10,200	10,200	10,200
• Travel time between Claremont and Pasadena in 2025	AM peak: 90 min. PM peak: 102 min.	34.5 min.	32 min.	32 min.	33 min.	33 min.	33 min.
• Reduction in daily single occupant vehicle person trips	0	3700	8100	8100	7100	7100	7100
<b>GOAL 2: To develop a cost-effective transit system</b>	N/A						
• Capital costs (millions of 2002 \$)	5,500.0	554.7	896.6	936.5	735.5	802.2	410.9
• Annual operating & maintenance costs (millions of 2002 \$)	1,035.0	3.4 <sup>8</sup>	23.6	23.6	16.4	16.4	15.25
• Operating cost per passenger mile	\$0.33	\$0.33	\$0.34	\$0.34	\$0.33	\$0.33	\$0.33
• Cost per new rider	N/A	\$27.40	\$26.30	\$27.30	\$24.00	\$25.60	\$15.70
<b>GOAL 3: Improve air quality, preserve and protect the environment</b>							
• Potential acres of right-of-way to be acquired	N/A	15-20	15-20	15-20	15-20	15-20	15-20
• Change in vehicle miles traveled (diff. over Baseline)	N/A	-33,600	-164,000	-164,000	-153,200	-153,200	-153,200
• Potential for noise impacts	N/A	Low	Low-Medium	Low-Medium	Medium	Medium	Medium
• Potential impact to visual quality	N/A	Low	Low-Medium	Low-Medium	Low	Low	Low
• Potential impact to water quality	N/A	Medium	Low	Low	Low	Low	Low
Rating Scale:							

<sup>8</sup> Assumes 14 buses required to operate in the peak.

**Table 6.4 (continued)**  
**Comparative Summary of Differentiating Evaluation Measures**

MEASURES	Alt. 1: NO BUILD	Alt. 2: BRT	Alt. 3: LRT, time separated	Alt. 4: LRT, time shared	Alt. 5: Non- compliant DMU, time separated	Alt. 6: Non- compliant DMU, time shared	Alt. 7: Compliant DMU, some single track
<b>GOAL 4: Locate stations to facilitate cities' visions for landuse/development around stations</b>	N/A						
• Market support for TOD	N/A	Medium	Medium	Medium	Medium	Medium	Medium
• Supports community growth & redevelopment goals	N/A	Medium	High	High	High	High	High
• Development potential at stations	N/A	Medium	High	High	Medium-high	Medium-high	Medium-high
<b>GOAL 5: Create a system that adds identity and attractiveness to Corridor cities</b>							
<b>GOAL 6: To complement existing transit in the corridor, optimize previous investmtns.</b>							
• Provides efficient intra-corridor service not currently met by other providers	Low	High	High	High	High	High	High
<b>GOAL 7: To improve mobility, connectivity to regional and local transit systems</b>							
• Provides a seamless connection to the Phase I LRT	N/A	Low	High	High	Low	Low	Low
<b>GOAL 8: To implement a project within a reasonable period of time</b>	N/A						
• New transit service in the corridor by 2008	N/A	High	Medium	Medium	Medium-high	Medium-high	Medium-high
<b>GOAL 9: Work collaboratively with cities throughout AA process</b>	N/A						
Rating Scale: Poor <span style="margin-left: 150px;"></span> Good							



Below is the discussion of the trade-offs by goal.

**GOAL 1: To reduce auto dependency.**

While all of the alternatives would reduce auto dependency to a certain extent, in comparison to each other, LRT is more successful in attracting more new riders and, therefore, Alternatives 3 and 4 received a higher ranking. This is in part a function of reduced travel time and no transfer required with the Phase I LRT line.

**GOAL 2: To develop a cost-effective transit system.**

The single criterion that assesses the return on the investment is the cost per new rider. This is number is based on how well the capital investment is rated when it takes into account the capital costs, the annual operating and maintenance costs and the number of new riders attracted by the alternatives. The cost per new rider for LRT Alternative 3 and DMU Alternatives 5 and 6 is in the mid \$20's range. BRT Alternative 2 and LRT Alternative 4 are both in the high \$20's range. The cost per new rider in these ranges is considered to be somewhat high based on FTA interpretation of cost ranges. The cost per new rider for the DMU Alternative 7, however, is around \$15, which is a considered a competitive number by FTA. Since this goal achievement analysis is based on how the alternatives compare to each other, DMU Alternative 7 is ranked high in achieving the goal of developing a cost-effective system, while the others rank lower.

**GOAL 3: Improve air quality and preserve and protect the environment**

All of the rail alternatives ranked the similarly on this goal since the total relative impacts of the technologies on the environment are not significantly different. However, there are some differences for particular environmental issues.

Air Quality: For air quality, LRT and DMU provide more benefits since they attract more riders than BRT, representing more shifts from single-occupancy vehicles and, therefore, lower vehicle miles traveled, fewer emissions and less energy consumed. However, LRT provides greater air quality benefits than DMU since LRT is electrically powered and emits no pollutants, while DMU is diesel powered and emits more pollutants than LRT. Air quality is of particular concern in this Corridor since the San Gabriel Valley has the second worst air pollution in the Los Angeles air basin.

Noise: The electrically powered LRT would be quieter than the diesel-powered DMU. Noise impacts caused by the LRT vehicle would be easier to mitigate than for DMU because the primary sources of noise are at track level for LRT, rather than at stack level for DMU. Also, the type of horn used by LRT vehicles allows the noise levels to be reduced.

Visual: LRT would require an overhead wiring system, introducing a new visual element, whereas BRT and DMU would not.

Water Quality: There would be a low potential for contaminating natural water sources in the corridor by the rail alternatives, with a somewhat higher potential impact caused by the BRT alternative because of water runoff associated with a larger impermeable surface created by the paved busway.

**GOAL 4: Locate stations that facilitate cities' visions for land use and development around stations.**

Although all alternatives would place their respective stations in the same location, thus taking full advantage of adjacent land and potential uses, developers and investors view more "permanent" installations, such as rail facilities, as more conducive to superior development. Furthermore, in this country light rail stations have experienced more transit oriented development than commuter rail, which may be a function of number of operating systems; therefore, while all of the rail alternatives rate higher than the bus rapid transit alternative, LRT still is seen as more supportive of development around stations than is DMU. In assessing the existing real estate market, there is no difference between the alternatives since the market function is independent of whatever transit improvement is constructed.

**GOAL 5: Create a system that adds identity and attractiveness to Corridor cities.**  
For the same reasons cited in Goal 4, LRT ranks slightly higher than DMU.

**GOAL 6: To complement other existing transit in the corridor and optimize previous investments.**

All of the alternatives would optimize the previous investment by using the rail right-of-way that was purchased by MTA. They also complement other existing transit in some way, although LRT would more directly enhance the Phase I LRT line currently under construction, as it would become an extension of an existing system and no transfer would be required. This gives LRT some advantage over the other alternatives and a higher ranking.

**GOAL 7: To improve mobility and provide connectivity to regional and local transit systems.**

The single differentiator in achieving this goal is that LRT provides a "seamless" connection to the Phase I LRT by not requiring a transfer, thus improving travel time and increasing ridership. Therefore, it ranks higher than the other alternatives.

**GOAL 8: To implement a project within a reasonable period of time**

The objective is to have a new transit system operational by 2008. While this can be accomplished with all of the alternatives, BRT could be constructed sooner, followed by the DMU (subject to availability of vehicles from the manufacturer). LRT would take the longest to construct since it requires an extensive electrical system to be installed, unlike the BRT or DMU alternatives. Therefore, BRT ranks highest.

**GOAL 9: Work collaboratively with cities throughout the AA process.**

This goal was equally achieved by all of the alternatives.

## Chapter 7: NEXT STEPS

- The Study Steering Committee and San Gabriel Valley Council of Governments will recommend a preferred alternative for adoption by the Metro Blue Line Construction Authority and inclusion in the Transportation Plan by the Southern California Association of Governments.
- Following the selection of a Locally Preferred Alternative, environmental documents will be prepared following local, state and federal procedures.
- Issues not resolved in this study will be addressed in subsequent project development phases.

### 7.1 *Selecting a Locally Preferred Alternative*

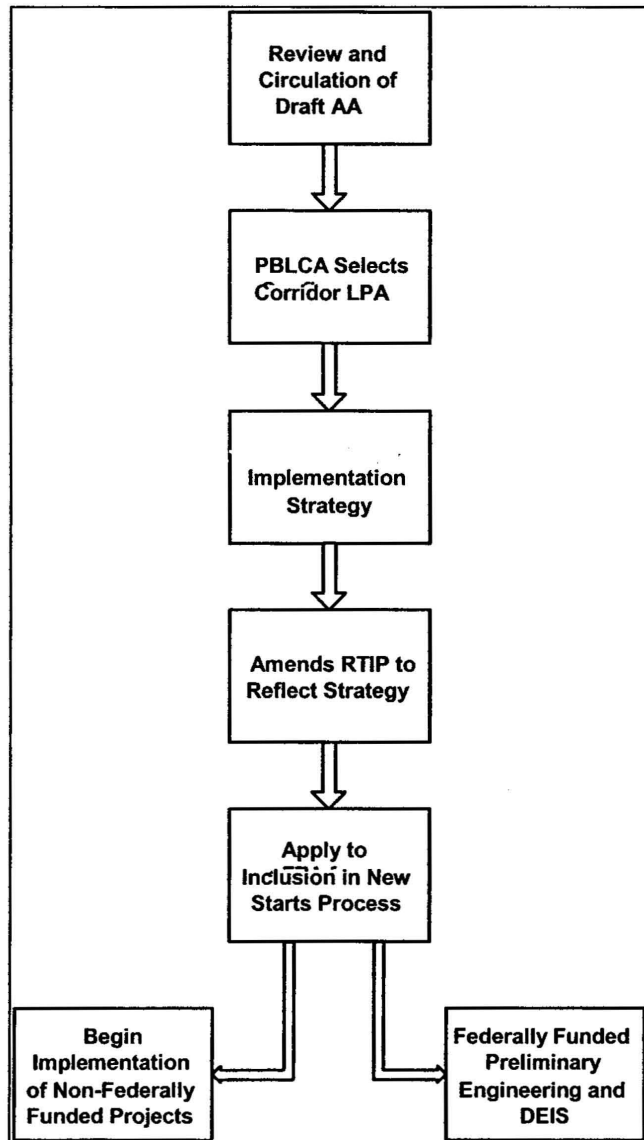
A Locally Preferred Alternative (LPA) is the design concept and scope for a corridor or sub area major investment. Design concept and scope refers to the general location of the facility. The analysis conducted for the Gold Line Phase II Corridor provided a systematic comparison of seven conceptual alternatives. It was structured around criteria and measures designed to reflect goals and objectives defined in Chapter 2. The results of the alternatives evaluation were presented to the eleven Corridor cities and their constituents and to the Project Steering Committee. This committee will recommend a preferred investment strategy to the San Gabriel Valley Council of Governments (COG) and the Metro Blue Line Construction Authority (Authority) for ratification.

### 7.2 *Next Steps*

The evaluation of alternatives presented in Chapter 4 provides decision-makers with a sound foundation of planning and technical information for the Gold Line Corridor.

**Review and Circulate the Draft AA:** The next steps in the implementation process are shown in Figure 7.1. The results of the technical analysis and evaluation as presented in this document will be

Figure 7.1: Next Steps



submitted to the communities and local leaders for consideration and comment.

**Select LPA:** The expected outcome of the AA will be the selection of an LPA by the COG and the Authority, to be included by the Metropolitan Transportation Authority (MTA) and Southern California Association of Governments (SCAG) in the Long Range Transportation Plan (LRTP) for the Los Angeles Metropolitan Area.

**RSTIS Letters:** The SCAG “Regionally Significant Transportation Investment Study” (RSTIS) Peer Review Group has been continually updated on the process, progress, issues, and resolutions of the Gold Line Corridor AA. The Peer Review Group will issue a letter of completion after the group reviews the draft AA report.

**Amend RTIP:** The LPA then must be added to the Regional Transportation Improvement Plan (RTIP) that indicates its priority in the region as part of the overall strategy for mobility and air quality improvements. The action by SCAG is a major milestone in the FTA process for project funding.

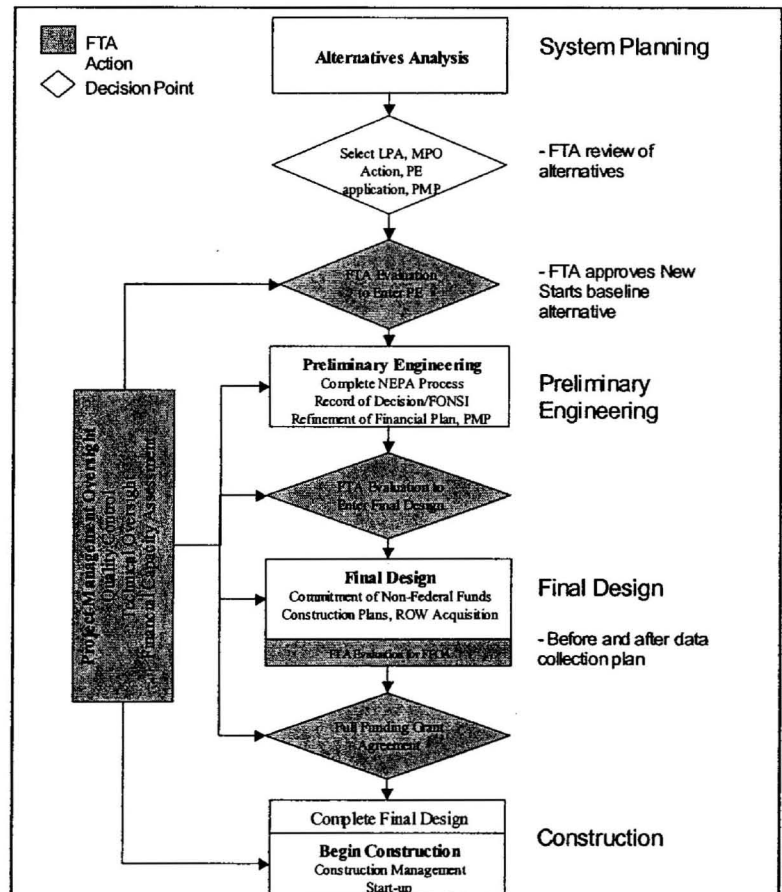
**Apply to FTA for New Starts:** Only after the RTIP is amended and the Locally Preferred Alternative is programmed will the FTA consider including the project in the New Starts process and authorize the lead agency to prepare a Draft and Final Environmental Impact Statement (DEIS), and enter into Preliminary Engineering.

**PE/D/FEIS/R Stage:** In the PE/DEIS stage of the process, precise route alignments are confirmed, detailed cost estimates are made, financial plans are approved, and environmental impact documents are prepared. Throughout the PE/DEIS stage there is continued dialogue with residents and businesses in the corridor, and with elected officials.

**Final Design:** FTA will authorize final design and construction, the last two stages in the project development process, only when the results of the PE/DEIS work shows the project is cost effective and environmentally sound.

Figure 7.2 describes the chronology and steps in project implementation for an FTA funded project and shows where PBLCA will be at the conclusion of the AA stage.

Figure 7.2: FTA Process



Source: FTA, July 2001

### **7.3 Areas of Concern to be Addressed in Subsequent Project Development Phases**

Several areas of concern have been identified that will be address during the DEIS phase of project development. They are described below:

#### **Grade Separation Thresholds**

The cities in the Corridor have identified traffic impacts at grade crossings to be an area of concern and have expressed a desire for more detailed analysis to occur than was conducted during the assessment of “grade separation threshold” in the AA study. The Institute of Transportation Engineering Guidelines report identifies that the use of thresholds alone cannot be the only factor used to determine if a grade separation is warranted. Other factors such as a crossing Level of Service (LOS) analysis and/or a queuing analysis should be conducted. These additional analyses will be conducted in the next phase of this project. In addition, crossings that were not chosen for this preliminary analysis due to lack of verifiable traffic volume data will be analyzed in the next phase of this project.

#### **Delay and Accident Analysis**

To better assess the issue of safety at grade crossings and determine what if any safety improvements or upgrades are warranted, a detailed delay and accident analysis will be conducted in subsequent phases to determine what improvements would be required in the Gold Line Phase II Corridor. This will include identifying the geometry of grade crossings and site specific conditions, traffic and/or transit delay, preparing an accident analysis, and examining low and high cost safety improvements/upgrades, including raised medians and/or four-quadrant gates should be examined in the next phase to discourage motorists from driving around the lowered gate.

#### **Noise**

The noise impacts to adjoining properties located next to the rail right-of-way was raised by city staffs and by the general public. The concern was noise generated from the transit vehicles, frequency of passing trains, and the use of horns by rail vehicles at grade crossings. This concern was consistently raised during public meetings held along the Corridor. These potential impacts and mitigation measures will be assessed in more detail as part of the environmental impact analysis to be conducted in the next phase of project development.

#### **Impacts of Adjacent Transit on Property Values**

The public asked questions on how a transit improvement will affect the value of adjacent properties. In the next project phase research will be conducted based on existing property value assessments in North America to adequately respond to this question.

#### **Visual**

City staff and the general public raised concerns about the visual impacts of a new transit improvement in the Corridor. This concern will be assessed in detail during the Draft Environmental Impact phase of the study. The results of the assessment will be closely coordinated with the cities in the Corridor and the public. This assessment will include developing mitigation plans for addressing any unacceptable impacts.

## REFERENCES

- Arcadia, City of. General Plan. Arcadia: privately published, September 1996.
- Azusa, City of. General Plan. Azusa: privately published, April 1983.
- Claremont, City of. General Plan. Claremont: privately published, October 1981.
- Claremont, City of. Zoning Maps. Claremont: privately published, date unknown.
- Claremont, City of. Specific Plan: Claremont Village Expansion Area. Claremont: privately published, January 2001.
- Claremont, City of. Design Plan: Claremont Village. Claremont: privately published, May 1987.
- Duarte, City of. General Plan. Duarte: privately published, June 1989.
- Foothill Transit. Foothill Transit Bus Book: Schedules and Timetables. Los Angeles: privately published, 2001.
- Glendora, City of. Downtown Village Bus Stop Plaza Project Description. Glendora: privately published, date unknown.
- Glendora, City of. General Plan. Glendora: privately published, 1991.
- Glendora, City of. Municipal Code. Glendora: privately published, date unknown.
- Glendora, City of. Voter Information Pamphlets – Measure D, Glendora Marketplace Project Zone Changes. Glendora: privately published, March 2000.
- Glendora, City of. Zoning Code and Map. Glendora: privately published, March 1996.
- Irwindale, City of. Ordinance 492 relative to modifications of Redevelopment Plans. Irwindale: privately published, December 1994.
- Irwindale, City of. Zoning Code, Chapter 17. Irwindale: privately published, date unknown.
- La Verne, City of. Arrow Corridor/Industrial Specific Plan Staff Report. June 2001.
- La Verne, City of. General Plan. La Verne: privately published, December 1998.
- La Verne, City of. Lordsburg Specific Plan. La Verne: privately published, September 1992.
- La Verne, City of. Zoning Code and Map. La Verne: privately published, September 1992.
- La Verne Redevelopment Agency. Central City Redevelopment Plan. La Verne: privately published, July 1994.
- La Verne, University of. Master Plan. La Verne: ULVP, March 1997.

La Verne, University of. Master Plan Addendum. La Verne: ULVP, March 2000.

Los Angeles County Metropolitan Transit Agency. Draft EIR: Northern San Gabriel – San Bernardino Valley Rail Transit Corridor. Los Angeles: privately published, September 1993.

Monrovia, City of. General Plan. Monrovia: privately published, July 1993.

Pasadena, City of. General Plan. Pasadena: privately published, May 1994.

Pomona, City of. General Plan. Pomona: privately published, March 1976.

San Dimas, City of. General Plan. San Dimas: privately published, date unknown.

San Dimas, City of. Zoning Code. San Dimas: privately published, date unknown.

San Dimas, City of. Specific Plans: Numbers 23 and 24. San Dimas: privately published, date unknown.

San Gabriel Valley Council of Governments. San Dimas-Claremont Rail Trail Draft Summary Report. Pasadena: privately published, October 1999.

San Gabriel Valley Council of Governments. Livable Communities Program Project Description. Pasadena: privately published. Date unknown.

## GLOSSARY AND ACRONYMS

**AA** – Alternatives Analysis

**Alignment** – the route that an improvement, such as a bus or light rail line, could take through a corridor

**Alternative** – a feasible transportation improvement that is under consideration

**At-grade** – running on street level

**BRT** – bus rapid transit

**Bus Rapid Transit** – a bus system operating on an exclusive bus-only lane

**Capital costs** – the expense of designing and constructing a new project

**Corridor** – a narrow band of land, usually surrounding a roadway or linking communities

**EIR** – Environmental Impact Report, a State of California-required report to be developed in conjunction with the EIS

**EIS** – Environmental Impact Statement, a federally-required detailed report to be developed once the locally preferred alternative is selected

**Impact** – an effect that a transportation improvement could have on the natural or manmade environment

**Level of Service** – a qualitative measurement of the operations conditions within a traffic system and how these conditions are perceived by drivers and passengers. LOS A is free-flow, while LOS F is the worst condition.

**Light Rail Transit** – an electric urban railway system that can operate in street with traffic or on its own right-of-way, powered by an overhead wire or catenary

**Locally Preferred Alternative** – the transportation improvement selected by decision-makers as the solution to the transportation needs and problems in a corridor

**LOS** – Level of Service

**LPA** – Locally Preferred Alternative

**LRT** – light rail transit

**Mixed-traffic** – automobiles and transit vehicles sharing the same roadway

**Mixed-use** – a type of development where residences and businesses are located in the same area

**O & M costs** – operations and maintenance costs, or the expense of keeping a project running once it is built



**TOD** – Transit Oriented Development

**Transit Oriented Development** – (TOD) Mixed used, higher density development located within ½ mile of a transit station

**Transit** – public transportation such as buses or trains

## LIST OF PREPARERS

### ***San Gabriel Valley Council of Governments – Steering Committee***

Nick Conway	Chief Executive Officer
Mickey Segal	City of Arcadia Delegate
Cristina Madrid	City of Azusa Delegate
Algird Leiga	City of Claremont Delegate
John Fasana	City of Duarte Delegate
Richard Jacobs	City of Glendora Delegate
Rosemary Ramirez	City of Irwindale Delegate
Jon Blickenstaff	City of La Verne Delegate
Lara Blakely	City of Monrovia Delegate
Sid Tyler	City of Pasadena Delegate
Eddie Cortez	City of Pomona Delegate
Denis Bertone	City of San Dimas Delegate
Harry Baldwin	City of San Gabriel Delegate

### ***Metro Blue Line Construction Authority***

Richard D. Thorpe	Chief Executive Officer
Paul Taylor	Project Manager

### ***Parsons Brinckerhoff Quade & Douglas, Inc.***

Tom Jenkins	Project Director
Myrna Valdez	Project Manager
John Dyer	Principal-in-Charge
Amanda Elioff, P.E.	QA/QC
Simon Zweighaft, P.E.	Technical Review Advisor
GB Arrington	Station Area Planning
Doris Chan	Planning
Greg Chew	Station Area Planning
Diana Gonzalez	GIS Mapping
James Hencke	Station Area Planning
Donna McCormick	Deputy Project Manager, Community Impacts
Dawn McKinstry	Travel Demand Forecasting
Farid Naguib, T.E.	Traffic Planning and Analysis
Phil O'Brian	Digital Imaging
Stephanie Roberts	Deputy Project Manager, Traffic Planning and Analysis
Ken Seaverns	Digital Imaging
Patrick Sweeney	Station Area Planning
George Vail	GIS Mapping
Kimberly Yu	Planning

### ***Applied Earthworks***

Melinda Horne	Cultural Resources
---------------	--------------------

### ***Arrellano and Associates***

Chester Britt	Public Involvement
---------------	--------------------

### ***Chambers Group, Inc.***

	Biological Services
--	---------------------

***Economics Research Associates***

Sujata Srivastava Real Estate/Market Analysis

***Harris Miller Miller & Hanson, Inc.*** Noise and Vibration

***Korve Engineering***

John Stutsman, P.E. Technical Review Advisor  
Pete Zimmerman Engineering Task Manager  
Vikki Li Civil Design  
Jack Rich Freight Railroad Operations  
Joaquin Siques Safety and Security

***Leighton and Associates***

Ross Khiabani Geotechnical

***Manuel Padron & Associates, Inc.***

Manuel Padron Technical Review Advisor  
Richard Stanger Operations Planning

***McCormick Rankin International***

John Bonsall BRT Conceptual Engineering  
Neil Ahmed Civil Design

***Myra L. Frank & Associates, Inc.***

Myra Frank Technical Review Advisor  
Steve Brooks Environmental Task Manager  
Gwynneth Doyle Planning  
Tracey Dudman GIS  
Krista Kline Planning  
Alfred LaFave Acquisitions and Displacements  
Jack Ottaway Economic/Real Estate Analysis, Demographics  
Richard Starzak Cultural Resources

***Sharon Greene and Associates***

Sharon Greene Funding Analysis

***Wagner Engineering & Surveying, Inc.*** Surveying and Aerial Photography

**RESOLUTIONS OF SUPPORT FOR LOCALLY-PREFERRED ALTERNATIVE**

San Gabriel Valley Council of Governments  
Metro Blue Line Construction Authority  
City of Pasadena  
City of Arcadia  
City of Monrovia  
City of Duarte  
City of Irwindale  
City of Azusa  
City of Glendora  
City of San Dimas  
City of LaVerne  
City of Pomona  
City of Claremont

## RESOLUTION NO 02-06

**A RESOLUTION OF THE GOVERNING BOARD OF THE SAN GABRIEL VALLEY COUNCIL OF GOVERNMENTS ADOPTING THE LOCALLY PREFERRED ALTERNATIVE CONSISTING OF: AN EXTENSION OF THE METRO GOLD LINE LIGHT RAIL TRANSIT FROM ITS PRESENT TERMINUS IN EASTERN PASADENA TO THE CITY OF CLAREMONT; PREPARING AN EIR/S AND CONDUCTING PE ON THE LOCALLY PREFERRED ALTERNATIVE; ADDRESSING OF ALL ISSUES AND CONCERNS RAISED THROUGH PUBLIC PARTICIPATION IN THE EIR/S AND PE; DEVELOPING AN INTERMODAL STATION IN EACH OF THE ADDITIONAL TEN CITIES ALONG THE EXTENSION TO BE SERVED BY THE METRO GOLD LINE; AND EXPANDING BUS SERVICES AND BICYCLE, PEDESTRIAN AND AUTO ACCESS FACILITIES AT EACH OF THE INTERMODAL STATIONS.**

WHEREAS the San Gabriel Valley Council of Governments (COG) and the Metro Blue Line Construction Authority (Authority) have conducted an Alternatives Analysis for extension of the Metro Gold Line from Pasadena to Claremont; and

WHEREAS said Alternatives Analysis evaluates a “no-project” alternative as well as bus rapid transit (BRT), light rail transit (LRT) and diesel multiple unit (DMU) trains serving the corridor from Pasadena to Claremont; and

WHEREAS the eleven cities in the corridor have formed a Phase II Project Steering Committee comprised of an elected representative and a staff project manager from each city; and

WHEREAS the Phase II Project Steering Committee has reached consensus on goals, objectives, and measures of effectiveness concerning mobility, environmental, and costs and finance; has participated regularly in the evaluation of alternatives and has reached consensus on screening of alternatives; and

WHEREAS each of the eleven cities is defining a strategy for using the Metro Gold Line as a tool to shape future transit-oriented development along the corridor which, for many of the cities is contiguous to historic central business districts; and

WHEREAS over two dozen public meetings have been held and more are planned to discuss project alternatives and their role in each city’s future; and

WHEREAS public participation has demonstrated a preference for LRT over BRT or DMU as being more consistent with goals and objectives of the communities in the corridor, a finding supported by the Alternatives Analysis evaluation; and

WHEREAS issues and concerns have been raised in the public participation process, the most common of which relate to noise and traffic impacts;

WHEREAS the Authority is joining with COG to gain approval of federal matching funds to conduct preliminary engineering (PE) of the Metro Gold Line extension and address project impacts through environmental impact report and statement (EIR/S); and

**NOW, THEREFORE,** be it resolved by the Governing Board of the San Gabriel Valley Council of Governments adopts the Locally Preferred Alternative consisting of:

- an extension of the Metro Gold Line (due to open in 2003) light rail transit from its present terminus in eastern Pasadena to the City of Claremont;
- preparing an EIR/S and conducting PE on the Locally Preferred Alternative;
- addressing of all issues and concerns raised through public participation in the EIR/S and PE;
- developing an intermodal station in each of the additional ten cities along the extension to be served by the Metro Gold Line; and
- expanding bus services and bicycle, pedestrian and auto access facilities at each of the intermodal stations.

PASSED, APPROVED, AND ADOPTED this 18<sup>th</sup> day of April, 2002.

SAN GABRIEL VALLEY COUNCIL OF GOVERNMENTS

By Lara L. Blakely  
Lara L. Blakely, President

Attest:

Nicholas Conway  
Nicholas Conway, Secretary

RESOLUTION NO. 2002-R-04

RESOLUTION IN SUPPORT OF THE  
LOCALLY PREFERRED ALTERNATIVE FOR PHASE II

**WHEREAS** the San Gabriel Valley Council of Governments (COG) and the Metro Blue Line Construction Authority (Authority) have conducted an Alternatives Analysis for extension of the Metro Gold Line from Pasadena to Claremont; and

**WHEREAS** said Alternatives Analysis evaluates a "no-project" alternative as well as bus rapid transit (BRT), light rail transit (LRT) and diesel multiple unit (DMU) trains serving the corridor from Pasadena to Claremont; and

**WHEREAS** the eleven cities in the corridor have formed a Project Steering Committee comprised of an elected representative and a staff project manager from each city; and

**WHEREAS** the Project Steering Committee has reached consensus on goals, objectives, and measures of effectiveness concerning mobility, environmental, and costs and finance; has participated regularly in the evaluation of alternatives and has reached consensus on screening of alternatives; and

**WHEREAS** each of the eleven cities is defining a strategy for using the Metro Gold Line as a tool to shape future transit-oriented development along the corridor which, for many of the cities is contiguous to historic central business districts; and

**WHEREAS** over two dozen public meetings have been held and many more are planned to discuss project alternatives and their role in each city's future; and

**WHEREAS** public participation has demonstrated a preference for LRT over BRT or DMU as being more consistent with goals and objectives of the communities in the corridor, a finding supported by the Alternatives Analysis evaluation; and

**WHEREAS** issues and concerns have been raised in the public participation process, the most common of which relate to noise and traffic impacts;

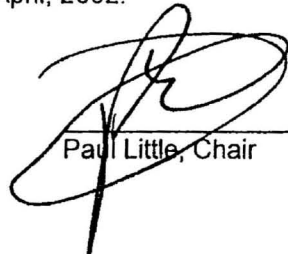
**WHEREAS** the Authority is joining with COG to gain approval of federal matching funds to conduct preliminary engineering (PE) of the Metro Gold Line extension and address project impacts through environmental impact report and statement (EIR/S); and

**WHEREAS** before granting funds for further work the Federal Transit Administration requires adoption of a Locally Preferred Alternative;

**NOW, THEREFORE, BE IT RESOLVED** that Board of Directors of the Los Angeles to Pasadena Metro Blue Line Construction Authority adopts the Locally Preferred Alternative consisting of:

- o an extension of the Metro Gold Line (due to open in 2003) light rail transit from its present terminus in eastern Pasadena to the City of Claremont;
- o preparing an EIR/S and conducting PE on the Locally Preferred Alternative;
- o addressing of all issues and concerns raised through public participation in the EIR/S and PE;
- o developing an intermodal station in each of the ten cities along the extension to be served by the Metro Gold Line; and
- o expanding bus services and bicycle, pedestrian and auto access facilities at each of the intermodal stations.

Passes, approved and adopted this 24<sup>th</sup> day of April, 2002.

  
\_\_\_\_\_  
Paul Little, Chair

ATTEST:

I, Jane Barnes, Clerk of the Board of the Los Angeles to Pasadena Metro Blue Line Construction Authority, do hereby certify that the foregoing Resolution was duly and regularly adopted by the Los Angeles to Pasadena Metro Blue Line Construction Authority at a regular meeting held on the 24<sup>th</sup> day of April 2002, by the following vote:

Ayes: Acosta/Deigun/Reyes/Chavez/Little

Nays: 0

Absent: Bonzo

Abstain: 0

  
\_\_\_\_\_  
Clerk of the Board  
Los Angeles to Pasadena Metro Blue Line Construction Authority



RESOLUTION NO.

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF PASADENA TO SUPPORT THE PHASE II EXTENSION OF THE METRO GOLD LINE FROM PASADENA TO CLAREMONT AND RECOMMEND LIGHT RAIL TRANSIT AS THE PREFERRED MODE OF TRANSPORTATION ALONG THE I-210 CORRIDOR

WHEREAS the San Gabriel Valley Council of Governments (COG) and the Metro Blue Line Construction Authority (Authority) have conducted an Alternatives Analysis for extension of the Metro Gold Line from Pasadena to Claremont; and

WHEREAS said Alternatives Analysis evaluates a "no-project" alternative as well as bus rapid transit (BRT), light rail transit (LRT) and diesel multiple unit (DMU) trains serving the corridor from Pasadena to Claremont; and

WHEREAS the eleven cities in the corridor have formed a Project Steering Committee comprised of an elected representative and a staff project manager from each city; and

WHEREAS the Project Steering Committee has reached consensus on goals, objectives, and measures of effectiveness concerning mobility, environmental, and costs and finance; has participated regularly in the evaluation of alternatives and has reached consensus on screening of alternatives; and

WHEREAS each of the eleven cities is defining a strategy for using the Metro Gold Line as a tool to shape future transit-oriented development along the corridor which, for many of the cities is contiguous to historic central business districts; and

WHEREAS over two dozen public meetings have been held and many more are planned to discuss project alternatives and their role in each city's future; and

WHEREAS public participation has demonstrated a preference for LRT over BRT or DMU as being more consistent with goals and objectives of the communities in the corridor, a finding supported by the Alternatives Analysis evaluation; and

WHEREAS issues and concerns have been raised in the public participation process, the most common of which relate to noise and traffic impacts;

WHEREAS the Authority is joining with COG to gain approval of federal matching funds to conduct preliminary engineering (PE) of the Metro Gold Line extension and address project impacts through environmental impact report and statement (EIR/S); and

WHEREAS before granting funds for further work the Federal Transit Administration requires adoption of a Locally Preferred Alternative;

NOW, THEREFORE, BE IT RESOLVED that the City of Pasadena supports the Locally Preferred Alternative consisting of:

1. An extension of the Metro Gold Line (due to open in 2003) light rail transit from its present terminus in eastern Pasadena to the City of Claremont;
2. Preparing an EIR/S and conducting PE on the Locally Preferred Alternative;
3. Addressing of all issues and concerns raised through public participation in the EIR/S and PE;

4. Developing an intermodal station in each of the ten cities along the extension to be served by the Metro Gold Line; and
5. Expanding bus services and bicycle, pedestrian and auto access facilities at each of the intermodal stations.

Adopted at the \_\_\_\_\_ meeting of the City Council on the \_\_\_\_\_ day of \_\_\_\_\_ 2002, by the following vote:

AYES: .

NOES:

ABSENT:

ABSTAIN:

\_\_\_\_\_  
JANE L. RODRIGUEZ, City Clerk

Approved as to form:

\_\_\_\_\_  
Nicholas G. Rodriguez  
Assistant City Attorney

10213172  
CA154  
SGV

RESOLUTION NO. 6302

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ARCADIA, CALIFORNIA, SUPPORTING THE ADOPTION OF THE METRO GOLD LINE PHASE II LOCALLY PREFERRED ALTERNATIVE ANALYSIS DRAFT REPORT SPECIFIC TO THE EXTENSION OF THE METRO GOLD LINE LIGHT RAIL ROUTE FROM PASADENA TO CLAREMONT, CALIFORNIA, AS SUBMITTED BY THE SAN GABRIEL VALLEY COUNCIL OF GOVERNMENTS, THE METRO BLUE LINE CONSTRUCTION AUTHORITY, AND THE GOLD LINE PHASE II PROJECT STEERING COMMITTEE; AND FURTHER RECOMMENDING THAT GRADE SEPARATIONS BE PART OF THE FINAL PROJECT AT STREET CROSSINGS IN THE CITY OF ARCADIA.

RECEIVED

JUN 03 2002

PBL

CONST. AUTHORITY

WHEREAS, the San Gabriel Valley Council of Governments ("COG") and the Metro Blue Line Construction Authority ("Authority") have conducted a Locally Preferred Alternative Analysis ("Analysis") for the extension of the Metro Gold Line from Pasadena to Claremont, California; and

WHEREAS, said Analysis evaluates a "no-project" alternative as well as Bus Rapid Transit ("BRT"), Light Rail Transit ("LRT"), and Diesel Multiple Unit ("DMU") trains serving the corridor from Pasadena to Claremont, California; and

WHEREAS, the eleven cities in the corridor have formed a Gold Line Phase II Project Steering Committee ("Committee") comprised of an elected representative and a staff project manager from each city; and

WHEREAS, the Committee has reached consensus on goals, objectives and measures of effectiveness concerning mobility, environmental, and costs and finance; has participated regularly in the evaluation of alternatives; and has reached consensus on screening of alternatives; and

WHEREAS, each of the eleven cities is defining a strategy for using the Metro Gold Line as a tool to shape future transit-oriented development along the corridor which, for many of the cities, is contiguous to historic central business districts; and

WHEREAS, public meetings have been held to discuss project alternatives and their role in each city's future; and

WHEREAS, LRT is preferred over BRT or DMU as being more consistent with goals and objectives of the communities in the corridor, a finding supported by the Alternatives Analysis evaluation; and

WHEREAS, issues and concerns have been raised in the public participation process, the most common of which relate to noise and traffic impacts; and

WHEREAS, the Authority is joining with the COG to gain approval of federal matching funds to conduct Preliminary Engineering of the Metro Gold Line extension and address project impacts through Environmental Impact Report and Statement ("EIR/S"); and

WHEREAS, before granting funds for further work, the Federal Transit Administration requires adoption of a Locally Preferred Alternative.

NOW THEREFORE, THE CITY COUNCIL OF THE CITY OF ARCADIA, CALIFORNIA, DOES HEREBY FIND, DETERMINE AND RESOLVE AS FOLLOWS:

SECTION 1. The City Council supports the Locally Preferred Alternative consisting of:

1. Extend the Metro Gold Line light rail transit (due to open in July 2003) from its present terminus in eastern Pasadena through the City of Arcadia, continuing to the City of Claremont, California;

2. Prepare an EIR/S and conduct the Preliminary Engineering on the Locally Preferred Alternative;
3. Address all issues and concerns raised through public participation in the EIR/S and Preliminary Engineering;
4. Develop an intermodal station in each of the ten cities along the extension to be served by the Metro Gold Line; and
5. Expand demand response and fixed-route bus services, along with bicycle, pedestrian and auto access facilities at each of the intermodal stations.

SECTION 2. The City of Arcadia strongly recommends that the final project include new grade separations at Santa Anita Avenue and First Avenue in the City of Arcadia, and that the final project preserve existing grade crossings at Colorado Boulevard and Second Avenue.

SECTION 3. The City Clerk shall certify to the adoption of this Resolution.

Passed, approved and adopted this 21st day of May 2002.

**/S/ GAIL A. MARSHALL**

Mayor of the City of Arcadia

ATTEST:

**/S/ JUNE D. ALFORD**

City Clerk of the City of Arcadia

APPROVED AS TO FORM:



City Attorney of the City of Arcadia

STATE OF CALIFORNIA        )  
COUNTY OF LOS ANGELES ) SS:  
CITY OF ARCADIA            )

I, JUNE D. ALFORD, City Clerk of the City of Arcadia, hereby certifies that the foregoing Resolution No. 6302 was passed and adopted by the City Council of the City of Arcadia, signed by the Mayor and attested to by the City Clerk at a regular meeting of said Council held on the 21st day of May, 2002 and that said Resolution was adopted by the following vote, to wit:

AYES:     Councilmember Chang, Kovacic, Segal, Wuo and Marshall

NOES:     None

ABSENT:   None

**/s/ JUNE D. ALFORD**

City Clerk of the City of Arcadia

## **RESOLUTION NO. 2002-33**

### **A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MONROVIA SUPPORTING THE SELECTION OF A LOCALLY PREFERRED ALTERNATIVE FOR EXTENSION OF THE METRO GOLD LINE FROM PASADENA TO CLAREMONT**

**WHEREAS**, the San Gabriel Valley Council of Governments (COG) and the Metro Blue Line Construction Authority ("Authority") have conducted an Alternatives Analysis for extension of the Metro Gold Line from Pasadena to Claremont; and

**WHEREAS**, said Alternatives Analysis evaluates a "no-project" alternative as well as bus rapid transit (BRT), light rail transit (LRT) and diesel multiple unit (DMU) trains serving the corridor from Pasadena to Claremont; and

**WHEREAS**, the eleven cities in the corridor have formed a Project Steering Committee comprised of an elected representative and a staff project manager from each city; and

**WHEREAS**, the Project Steering Committee has reached consensus on goals, objectives, and measures of effectiveness concerning mobility, environmental, and costs and finance; has participated regularly in the evaluation of alternatives and has reached consensus on screening of alternatives; and

**WHEREAS**, each of the eleven cities is defining a strategy for using the Metro Gold Line as a tool to shape future transit-oriented development along the corridor which, for many of the cities is contiguous to historic central business districts; and

**WHEREAS**, over two dozen public meetings have been held and many more planned to discuss project alternatives and their role in each city's future; and

**WHEREAS**, public participation has demonstrated a preference for LRT over BRT or DMU as being more consistent with goals and objectives of the communities in the corridor, a finding supported by the Alternatives Analysis evaluation; and

**WHEREAS**, issues and concerns have been raised in the public participation process, the most common of which relate to noise and traffic impacts;

**WHEREAS**, the Authority is joining with COG to gain approval of federal matching funds to conduct preliminary engineering (PE) of the Metro Gold Line extension and address project impacts through environmental impact report and statement (EIR/S); and

**WHEREAS**, before granting funds for further work the Federal Transit Administration requires adoption of a Locally Preferred Alternative;



**NOW, THEREFORE, BE IT RESOLVED** that the City of Monrovia supports the Locally Preferred Alternative consisting of:

**Section 1.** An extension of the Metro Gold Line (due to open in 2003) light rail transit from its present terminus in Eastern Pasadena to the City of Claremont;

**Section 2:** preparing an EIR/S and conducting PE on the Locally Preferred Alternative;

**Section 3:** addressing of all issues and concerns raised through public participation in the EIR/S and PE:

**Section 4:** developing an intermodal station in each of the ten cities along the extension to be served by the Metro Gold Line; and

**Section 5:** expanding bus services and bicycle, pedestrian and auto access facilities at each of the intermodal stations.

**PASSED, APPROVED and ADOPTED** this 14<sup>th</sup> day of May, 2002 by the following vote:

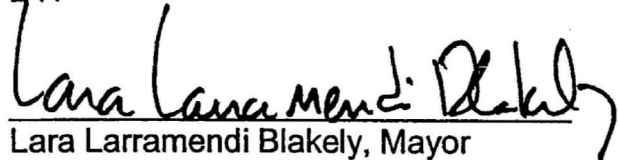
**AYES:** COUNCILMEMBERS ADAMS, FRANCO, GARCIA; MAYOR PRO TEM HAMMOND, MAYOR BLAKELY

**NOES:**

**ABSTAIN:**

**EXCUSED:**

BY:



Lara Larramendi Blakely, Mayor  
City of Monrovia, California

ATTEST



Linda B. Proctor, CMC, City Clerk  
City of Monrovia, California

APPROVED AS TO FORM:

---

Craig A. Steele  
City Attorney

STATE OF CALIFORNIA )  
COUNTY OF LOS ANGELES ) §  
CITY OF MONROVIA )

I, LINDA B. PROCTOR, CMC, City Clerk of the City of Monrovia, California, do hereby certify that the foregoing Resolution No. 2002-33 supporting the selection of a locally preferred alternative for extension of the Metro Gold Line from Pasadena to Claremont was duly adopted and passed at a regular meeting of the City Council on the 14<sup>th</sup> day of May 2002 by the following vote:

**AYES:** COUNCILMEMBERS ADAMS, FRANCO, GARCIA, MAYOR PRO TEM HAMMOND, MAYOR BLAKELY

**NOES:**

**ABSTAIN:**

**EXCUSED:**

ATTEST:



Linda B. Proctor, CMC, City Clerk  
City of Monrovia, California

**RESOLUTION NO. 02-14****A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF DUARTE  
ADOPTING THE LOCALLY PREFERRED ALTERNATIVE  
PERTAINING TO THE METRO GOLD LINE**

**WHEREAS**, the San Gabriel Valley Council of Governments (COG) and the Metro Blue Line Construction Authority (Authority) have conducted an Alternatives Analysis for extension of the Metro Gold Line from Pasadena to Claremont; and

**WHEREAS**, said Alternatives Analysis evaluates a "no-project" alternative as well as bus rapid transit (BRT), light rail transit (LRT), and diesel multiple unit (DMU) trains serving the corridor from Pasadena to Claremont; and

**WHEREAS**, the eleven cities in the corridor have formed a Phase II Project Steering Committee comprised of an elected representative and a staff project manager from each city; and

**WHEREAS**, the Phase II Project Steering Committee has reached consensus on goals, objectives, and measures of effectiveness concerning mobility, environmental, and costs and finance, and has participated regularly in the evaluation of alternatives, and has reached consensus on screening of alternatives; and

**WHEREAS**, each of the eleven cities is defining a strategy for using the Metro Gold Line as a tool to shape future transit-oriented development along the corridor which, for many of the cities, is contiguous to historic central business districts; and

**WHEREAS**, over two dozen public meetings have been held and more are planned to discuss project alternatives and their role in each city's future; and

**WHEREAS**, public participation has demonstrated a preference for LRT over BRT or DMU as being more consistent with goals and objectives of the communities in the corridor, a finding supported by the Alternatives Analysis evaluation; and

**WHEREAS**, issues and concerns have been raised in the public participation process, the most common of which relate to noise and traffic impacts; and

**WHEREAS**, the Authority is joining with COG to gain approval of federal matching funds to conduct preliminary engineering (PE) of the Metro Gold Line extension and address project impacts through environmental impact report and statement (EIR/S);

**NOW, THEREFORE**, the City Council of the City of Duarte, California, does hereby resolve to adopt the Locally Preferred Alternative consisting of:

1. An extension of the Metro Gold Line (due to open in 2003) light rail transit from its present terminus in eastern Pasadena to the City of Claremont;
2. Preparing an environmental impact report and statement on the Locally Preferred Alternative;
3. Addressing all issues and concerns raised through public participation in the environmental impact report and statement and the preliminary engineering, including the following community concerns: noise, traffic impacts at railroad crossings, decline in property values, grade separation issues, use and design of soundwalls, noise easements, frequency and duration of train whistles, aesthetic issues and station location;
4. Developing an intermodal station in each of the additional ten cities along the extension to be served by the Metro Gold Line; and
5. Expanding bus services and bicycle, pedestrian, and auto access facilities at each of the intermodal stations.

PASSED, APPROVED, and ADOPTED this 14th day of May, 2002.

/s/ Phillip R. Reyes  
Mayor Phillip R. Reyes

STATE OF CALIFORNIA            )  
COUNTY OF LOS ANGELES    ) ss.  
CITY OF DUARTE                )

I, Marla Akana, City Clerk of the City of Duarte, County of Los Angeles, State of California, hereby attest to the above signature and certify that Resolution No. 02-14 was adopted by the City Council of said City of Duarte at a regular meeting of said Council held on the 14th day of May, 2002, by the following vote:

AYES:       Councilmembers:   Chapjian, Fasana, Finlay, Paras, Reyes

NOES:       Councilmembers:   None

ABSENT:     Councilmembers:   None

/s/ Marla Akana  
City Clerk Marla Akana  
City of Duarte, California

**RESOLUTION NO. 2002-27-1818****A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF IRWINDALE  
ADOPTING THE LOCALLY PREFERRED  
ALTERNATIVE OF LIGHT RAIL TRANSIT FOR THE  
PASADENA GOLD LINE PHASE II EXTENSION TO CLAREMONT**

**WHEREAS**, the San Gabriel Valley Council of Government (COG) and the Metro Blue Line Construction Authority (Authority) have conducted an Alternatives Analysis for extension of the Metro Gold Line from Pasadena to Claremont; and

**WHEREAS**, said Alternatives Analysis evaluates a "no-project" alternative as well as bus rapid transit (BRT), light rail transit (LRT), and diesel multiple unit (DMU) trains serving the corridor from Pasadena to Claremont; and

**WHEREAS**, the eleven cities in the corridor have formed a Project Steering Committee comprised of an elected representative and a staff project manager from each city; and

**WHEREAS**, the Project Steering Committee has reached consensus on goals, objectives, and measures of effectiveness concerning mobility, environmental, and costs and finance; has participated regularly in the evaluation of alternatives and has reached consensus on screening of alternatives; and

**WHEREAS**, each of the eleven cities is defining a strategy for using the Metro Gold Line as a tool to shape future transit-oriented development along the corridor which, for many of the cities is contiguous to historic central business districts; and

**WHEREAS**, over two dozen public meetings have been held and many more are planned to discuss project alternatives and their role in each city's future; and

**WHEREAS**, public participation has demonstrated a preference for LRT over BRT or DMU as being more consistent with goals and objectives of the communities in the corridor, a finding supported by the Alternatives Analysis evaluation; and

**WHEREAS**, issues and concerns have been raised in the public participation process, the most common of which relate to noise and traffic impacts; and

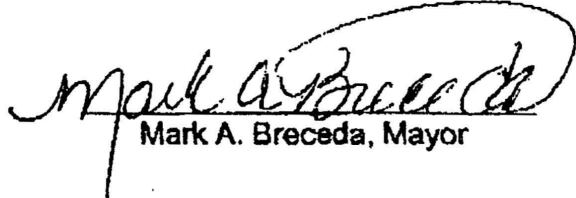
**WHEREAS**, the Authority is joining with COG to gain approval of federal matching funds to conduct preliminary engineering (PE) of the Metro Gold Line extension and address project impacts through environmental impact report and statement (EIR/S); and

**WHEREAS**, before granting funds for further work the Federal Transit Administration requires adoption of a Locally Preferred Alternative.

**NOW, THEREFORE, BE IT RESOLVED** that the City Council of the City of Irwindale adopts the Locally Preferred Alternative consisting of:

1. An extension of the Metro Gold Line (due to open in 2003) light rail transit from its present terminus in eastern Pasadena to the City of Claremont;
2. Preparing an EIR/S and conducting PE on the Locally Preferred Alternative;
3. Addressing of all issues and concerns raised through public participation in the EIR/S and PE, including:
  - A. Completion of a transit-oriented specific area plan for the area, and financial participation from the Gold Line project.
  - B. Implementation of a traffic study for the area. Consideration of traffic calming devices, a station area gateway and a pedestrian and bicycle-friendly environment around the station area and along West Optical Drive and North Irwindale Avenue.
  - C. Beginning of negotiations with Miller Brewing Company about the fields adjacent to the potential station location. Seeking partial funding for the planning from the Gold Line.
4. Developing an intermodal station in each of the ten cities along the extension to be served by the Metro Gold Line; and
5. Expanding bus services and bicycle, pedestrian and auto access facilities at each of the intermodal stations.

PASSED, APPROVED, AND ADOPTED this 23<sup>rd</sup> day of May 2002.

  
Mark A. Breceda, Mayor

ATTEST:

  
Linda J. Kimbro, CMC  
Deputy City Clerk

STATE OF CALIFORNIA }  
COUNTY OF LOS ANGELES } ss.  
CITY OF IRWINDALE }


I, Linda J. Kimbro, Deputy City Clerk of the City of Irwindale, do hereby certify that the foregoing Resolution No. 2002-27-1818 was adopted at a regular meeting of the Irwindale City Council held on May 23, 2002, by the following vote:

AYES: Councilmembers: Tapia, Garcia, Ramirez, Mayor Breceda

NOES: Councilmembers: None

ABSENT: Councilmembers: Miranda

ABSTAIN: Councilmembers: None

  
\_\_\_\_\_  
Linda J. Kimbro, CMC  
Deputy City Clerk

State of California  
County of Los Angeles  
City of Irwindale

I, Linda J. Kimbro, Deputy City Clerk, do hereby certify that the attached is a full, true and correct copy of the original.

*Resolution No. 2002-27-1818*

and on file in the City files of the City of Irwindale, and that I have carefully compared the same with the original.

  
\_\_\_\_\_  
Deputy City Clerk

RESOLUTION NO. 02-C48

A RESOLUTION OF THE CITY COUNCIL  
OF THE CITY OF AZUSA SUPPORTING THE EXTENSION  
OF THE METRO GOLD LINE FROM PASADENA TO CLAREMONT,  
AND APPROVING THE LOCALLY PREFERRED  
TRANSPORTATION ALTERNATIVE OF LIGHT RAIL TRANSIT

WHEREAS, the San Gabriel Valley Council of Governments (COG) and the Metro Blue Line Construction Authority (Authority) have conducted an Alternatives Analysis for extension of the Metro Gold Line from Pasadena to Claremont; and

WHEREAS, the eleven cities along the San Gabriel Valley rail corridor have formed a Project Steering Committee, comprised of an elected representative and a staff project manager from each city, and

WHEREAS, the Project Steering Committee has reached consensus on goals, objectives, and measures of effectiveness, and has participated regularly in the evaluation of alternatives and has reached consensus on screening of alternatives, and

WHEREAS, the City Council of the City of Azusa has evaluated the alternative modes of transportation, including bus rapid transit (BRT), light rail transit (LRT) and diesel multiple unit (DMU) trains serving the corridor from Pasadena to Claremont, including their advantages and disadvantages,

WHEREAS, the Authority is joining with COG to gain approval of federal matching funds to conduct preliminary engineering of the Metro Gold Line extension and address project impacts through environmental impact report and statement (EIR/S); and

WHEREAS, before granting funds for further work the Federal Transit Administration requires adoption of a Locally Preferred Alternative,

NOW, therefore, the City Council of the City of Azusa does hereby resolve as follows:

SECTION 1: The City Council supports the Light Rail Transit option as the Locally Preferred Alternative mode of transportation.

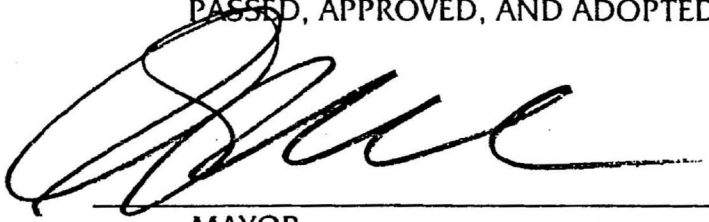
SECTION 2: In support of this Preferred Alternative, the City Council also supports the following:

1. The extension of the Metro Gold Line light rail transit from its present terminus in eastern Pasadena to the City of Claremont;



2. Preparation of an EIR/S and conducting preliminary engineering on the Locally Preferred Alternative;
3. Addressing all issues and concerns raised through public participation in the EIR/S and preliminary engineering studies;
4. Developing intermodal stations in each of the ten cities along the extension to be served by the Metro Gold Line; and
5. Expanding bus services and bicycle, pedestrian and auto access facilities at each of the intermodal stations.

PASSED, APPROVED, AND ADOPTED this 6th day of May, 2002.



MAYOR

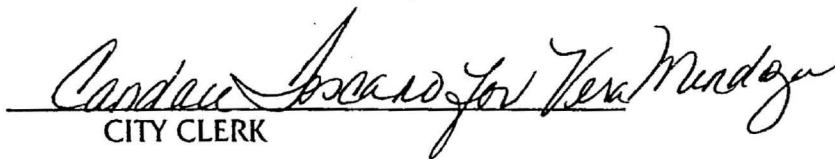
I HEREBY CERTIFY that the foregoing resolution was duly adopted by the City Council of the City of Azusa, at a regular meeting thereof, held on the 6th day of May, 2002, by the following vote of the Council:

AYES: COUNCIL MEMBERS: HARDISON, STANFORD, ROCHA, CHAGNON, MADRID

NOES: COUNCIL MEMBERS: NONE

ABSENT: COUNCIL MEMBERS: NONE

ABSTAIN: COUNCIL MEMBERS: NONE



CITY CLERK

APPROVED AS TO FORM:



CITY ATTORNEY

A RESOLUTION APPROVING AND SUPPORTING THE PREFERRED ALTERNATIVE CONSISTING OF EXTENDING THE METRO GOLD LINE LIGHT RAIL TRANSIT FROM ITS PRESENT TERMINUS IN EASTERN PASADENA TO THE CITY OF CLAREMONT

CITY COUNCIL  
CITY OF GLENDORA

WHEREAS the City of Glendora and the Metro Blue construction Authority (Authority) have conducted an Alternative Analysis for the extension of the Metro Gold Line from Pasadena to Claremont; and

WHEREAS said Alternative Analysis evaluates a "no-project" alternative as well as the bus rapid transit (BRT), light rail transit (LRT) and diesel multiple unit (DMU) trains serving the corridor from Pasadena to Claremont; and

WHEREAS the eleven cities in the corridor have formed a Project Steering Committee comprised of the elected representatives and a staff project manager from each city; and

WHEREAS the Project Steering Committee has reached consensus in goals, objectives, and measures of the effectiveness concerning mobility, environmental, and costs and finance; has participated regularly in the evaluation of alternatives and has reached consensus on screening of alternatives; and

WHEREAS each of the eleven cities is defining a strategy for using the Metro Gold Line as a tool to shape future transit-oriented development along the corridor which, for many of the cities is contiguous to historic central business districts; and

WHEREAS over two dozen public meetings have been held and many more are planned to discuss projects alternatives and their role in each city's future; and

WHEREAS public participation has demonstrated a preference for LRT over BRT or DMU as being more consistent with the goals and objectives of the communities in the corridor, a finding supported by the Alternative Analysis evaluation; and

WHEREAS issues and concerns have been raised in the public participation process, the most common of which relates to noise and traffic impacts;

WHEREAS the Authority is joining with COG to gain approval of federal matching funds to conduct preliminary engineering (PE) of the Metro Gold Line extension and address project impacts through environmental impact report and statement (EIR/S); and

WHEREAS before granting funds for future work the Federal Transit Administration requires adoption of a Locally Preferred Alternative;

NOW THEREFORE, BE IT RESOLVED that the City of Glendora supports the Locally Preferred Alternative;

1. An extension of the Metro Gold Line (due to opening 2003) light rail transit from its present terminus in eastern Pasadena to the City of Claremont;
2. preparing an EIR/S and conducting PE on the Locally Preferred Alternative;
3. addressing of all issues and concerns raised through public participation in the EIR/S and PE;
4. develop at least one intermodal station in each of the ten cities along the extension to be served by the Metro Gold Line; and
5. expanding bus service and bicycle, pedestrian and auto access facilities at each of the intermodal stations.

APPROVED AND ADOPTED this 14<sup>th</sup> day of May, 2002.

CITY OF GLENDORA

/s/ MARSHALL MOUW

By: \_\_\_\_\_  
Marshall Mouw, Mayor

ATTEST:

/S/ JO ANN SHARP

City Clerk

APPROVED AS TO FORM:

/S/ D. WAYNE LEECH

City Attorney

State of California )  
County of Los Angeles ) ss.  
City of Glendora )

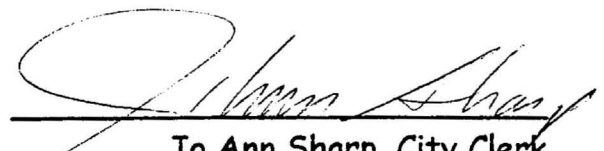
I, Jo Ann Sharp, City Clerk of the City of Glendora, California, do hereby certify that the foregoing resolution, being Resolution No. 02-48, was duly passed, approved and adopted by the City Council of the City of Glendora, approved and signed by the Mayor, and attested by the City Clerk, all at a Regular Meeting of said City Council held on the 14<sup>th</sup> day of May 2002, and that the same was passed and adopted by the following vote, to wit:

AYES: Mouw, Conway, Clifford, Hamlow, Herman

NOES: None

ABSENT: None

DATE: 5-20-02

  
Jo Ann Sharp, City Clerk  
City of Glendora

## RESOLUTION NO. 02-29

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SAN DIMAS APPROVING THE LOCALLY PREFERRED ALTERNATIVE CONSISTING OF AN EXTENSION OF THE METRO GOLD LINE LIGHT RAIL TRANSIT FROM ITS PRESENT TERMINUS IN EASTERN PASADENA TO THE CITY OF CLAREMONT AND REQUESTING PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT AND STATEMENT AND PRELIMINARY ENGINEERING TO STUDY ALL ISSUES INVOLVED WITH SAID EXTENSION

WHEREAS, the San Gabriel Valley Council of Governments (COG) and the Metro Blue Line Construction Authority ("Authority") have conducted an Alternative Analysis for extension of the Metro Gold Line ("Gold Line") from Pasadena to Claremont; and

WHEREAS said Alternatives Analysis evaluated a "no-project" alternative as well as bus rapid transit (BRT), light rail transit (LRT) and diesel multiple unit (DMU) trains serving the corridor from Pasadena to Claremont; and

WHEREAS the eleven cities in the corridor have formed a Project Steering Committee comprised of an elected representative and a staff project manager from each city; and

WHEREAS the Project Steering Committee has reached consensus on goals, objectives, and measure of effectiveness concerning mobility, environmental, costs and finance and has participated regularly in the evaluation of alternatives and has reached consensus on screening of alternatives; and

WHEREAS each of the eleven cities is defining a strategy for using the Gold Line as a tool to shape future transit-oriented development along the corridor which, for many of the cities is contiguous to historic central business districts; and

WHEREAS over two dozen public meetings have been held and many more are planned to discuss project alternatives and their role in each city's future; and

WHEREAS public participation has demonstrated a preference for LRT over BRT or DMU as being more consistent with goals and objectives of the communities in the corridor, a finding supported by the Alternatives Analysis evaluation; and

WHEREAS issues and concerns have been raised in the public participation process, the most common of which relate to noise and traffic impacts;

WHEREAS the Authority is joining with COG to gain approval of federal matching funds to conduct preliminary engineering (PE) of the Gold Line extension and address

project impacts through preparation of an environmental impact report and statement (EIR/S); and

WHEREAS before granting funds for further work, the Federal Transit Administration requires adoption of a Locally Preferred Alternative;

NOW, THEREFORE, BE IT RESOLVED that the City of San Dimas does hereby find, determine and resolve as follows:

- I. This City supports the Locally Preferred Alternative consisting of the extension of the Gold Line; and
- II. This City supports preparation of an Environmental Impact report and Statement and conducting Preliminary Engineering on the Locally Preferred Alternatives and through the public participation process exploring all issues and concerns, including:
  - A. Development of an appropriate Traffic Mitigation and visual impact plan for the intersection of Bonita Avenue and Cataract Avenue.
  - B. Relocation of the existing spur/siding line at the southeast corner of Bonita Avenue and Cataract Avenue.
  - C. Development of an intermodal station in the city along the extension to be served by the Gold Line.
  - D. Development of a Drainage Study to Analyze the Capacity of existing storm drains and culvert systems crossings within the railroad right-of-way.
  - E. Expansion of bus services and bicycle, pedestrian and auto access facilities at each of the intermodal stations.

RESOLVED, FURTHER, that a copy of this Resolution shall be sent to the Chairman of the Authority.

APPROVED AND ADOPTED THIS 14<sup>th</sup> DAY OF MAY, 2002.

  
MAYOR

ATTEST:

  
CITY CLERK

I HEREBY CERTIFY that Resolution No. 02-29 was passed at the regular meeting of the San Dimas City Council held on May 14, 2002 by the following vote:

AYES: Councilmembers Bertone, McHenry, Templeman, Morris

NOES: None

ABSENT: None

ABSTAIN: Mayor Pro Tem Ebiner



---

City Clerk

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

RESOLUTION 02-23

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF LA VERNE, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, ENDORSING (1.) LIGHT RAIL TRANSIT FROM ITS PRESENT TERMINUS IN EASTERN PASADENA TO THE CITY OF CLAREMONT AS THE LOCALLY PREFERRED ALTERNATIVE; (2.) THE PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT /STATEMENT ADDRESSING ALL ISSUES RAISED THROUGH PUBLIC PARTICIPATION; (3.) PROCEEDING WITH PRELIMINARY ENGINEERING ON THE LOCALLY PREFERRED ALTERNATIVE; (4.) DEVELOPING AN INTERMODAL STATION IN ALL OF THE CITIES ALONG THE CORRIDOR TO BE SERVED BY THE METRO GOLD LINE INCLUDING A STATION IN THE CITY OF LA VERNE; (5.) EXPANDING BUS SERVICES AND BICYCLE, PEDESTRIAN, AND AUTO ACCESS FACILITIES AT EACH OF THE INTERMODAL STATIONS

WHEREAS the City Council has previously indicated its support of the concept of light rail transit between the terminus of the Gold Line station in Pasadena extending eastward to the City of Claremont; and

WHEREAS the right-of-way is located along the Burlington Northern Santa Fe/Blue Line Construction Authority tracks adjacent to the University of La Verne, Oldtown Lordsburg and near the San Polo Business Park and Los Angeles County Fairplex; and

WHEREAS the locally preferred alternative includes a station in the City of La Verne; and

WHEREAS the City of La Verne has been an active member of the Gold Line Phase II Project Steering Committee since its inception; and

WHEREAS the San Gabriel Valley Council of Governments (COG) and the Metro Blue Line Construction Authority (Authority) have conducted an Alternatives Analysis for extension of the Metro Gold Line from Pasadena to Claremont; and

WHEREAS the Alternatives Analysis evaluates a "no project" alternative, a bus rapid transit (BRT) and diesel multiple unit (DMU) trains serving the corridor; and

WHEREAS the Project Steering Committee has reached consensus on goals, objectives, and measures of effectiveness concerning mobility, environmental issues, costs, and finance; has participated regularly in the evaluation of alternatives and has reached consensus on screening of alternatives; and



1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

WHEREAS each of the eleven cities is defining a strategy for using Metro Gold Line as a tool to shape future transit-oriented development along the corridor which, for many of the cities, is contiguous to historic central business districts; and

WHEREAS over two dozen public meetings have been held and many more are planned to discuss project alternatives and their role in each city's future; and

WHEREAS public participation has demonstrated a preference for LRT over BRT or DMU as being more consistent with goals and objectives of the communities in the corridor, a finding supported by the Alternatives Analysis evaluation; and

WHEREAS issues and concerns have been raised in the public participation process including noise, aesthetics/visual disturbance, traffic and congestion at intersections, parking impacts, financial impacts on the City, frequency of trains, and impacts from San Bernardino County riders; and

WHEREAS, the Authority is joining with the COG to gain approval of federal matching funds to conduct preliminary engineering of the Metro Gold Line extension and address project impacts through an environmental impact report and statement; and

WHEREAS before granting funds for further work the Federal Transit Administration requires adoption of a Locally Preferred Alternative.

NOW, THEREFORE, IT IS HEREBY RESOLVED by the City Council of the City of La Verne as follows:

Section 1. The City of La Verne supports the Locally Preferred Alternative consisting of:

1. An extension of the Metro Gold Line (due to open in 2003) light rail transit from its present terminus in eastern Pasadena to the City of Claremont;
2. Preparing an EIR/EIS and conducting preliminary engineering on the Locally Preferred Alternative;
3. Addressing in the EIR/EIS and preliminary engineering all environmental issues and concerns raised through public participation, and including the following:
  - Noise, especially horns on trains;

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

- Aesthetics and visual disturbance, especially poles and overhead wires;
- Traffic and congestion at intersections;
- Parking impacts on residential neighborhoods, downtown, and University of La Verne;
- Financial impacts to the City to build a station and parking structure;
- Impacts of train frequency;
- Impact of riders coming from cities to the east without a station in Montclair;

4. Developing an intermodal station in each of the cities along the extension to be served by the Metro Gold Line; and
5. Expanding bus service and bicycle, pedestrian and auto access facilities at each of the intermodal stations.

Section 2. The Mayor shall sign and the City Clerk shall certify to the passage and adoption of this Resolution and thereupon the same shall take effect and be in force.

APPROVED AND ADOPTED this 6<sup>th</sup> day of May, 2002.

**/S/ JON BLICKENSTAFF**

\_\_\_\_\_  
Mayor of the City of La Verne

ATTEST:

**/S/ N. KATHLEEN HAMM**

\_\_\_\_\_  
N. Kathleen Hamm, City Clerk

STATE OF CALIFORNIA        )  
COUNTY OF LOS ANGELES ) ss. CITY CLERK'S CERTIFICATE  
CITY OF LA VERNE            ) RE ADOPTION OF RESOLUTION

I, N. KATHLEEN HAMM, City Clerk of the City of La Verne, California, DO HEREBY CERTIFY that the forgoing **Resolution No. 02-23** was duly adopted by said City Council at a regular meeting of the said City Council held on the **6th day of May, 2002**, and by the following vote to wit:

AYES:           Council Members: Harden, Gatti, Harvey, and Mayor Blickenstaff.  
NOES:           Council Members: None.  
ABSENT:        Council Members: Rodriguez.  
ABSTAIN:       Council Members None.

N.KATHLEEN HAMM  
City Clerk of the City of  
La Verne, California



By Lupe Estrella  
Deputy City Clerk

(SEAL)

**RESOLUTION NO. 2002-117**

**A RESOLUTION OF THE COUNCIL OF THE CITY OF POMONA, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, SUPPORTING THE LOCALLY PREFERRED ALTERNATIVE CONSISTING OF AN EXTENSION OF THE METRO GOLD LINE LIGHT RAIL TRANSIT FROM ITS PRESENT TERMINUS IN EASTERN PASADENA THROUGH POMONA AND ENDING IN THE CITY OF CLAREMONT**

**WHEREAS**, the San Gabriel Valley Council of Governments (COG) and the Metro Blue Line Construction Authority (Authority) have conducted an Alternatives Analysis for the extension of the Metro Gold Line from Pasadena to Claremont; and

**WHEREAS**, said Alternatives Analysis evaluates a “no-project” alternative as well as bus rapid transit (BRT), light rail transit (LRT) and diesel multiple unit (DMU) trains serving the corridor from Pasadena to Claremont; and

**WHEREAS**, the eleven cities in the corridor have formed a Project Steering Committee comprised of an elected representative and a staff project manager from each city; and

**WHEREAS**, the Project Steering Committee has reached a consensus on goals, objectives, measures of effectiveness concerning mobility, environmental, costs and finance, and has participated regularly in the evaluation of alternatives and reached consensus on screening of alternatives; and

**WHEREAS**, the City of Pomona will define a strategy for using the Metro Gold Line as a tool to shape future transit-oriented development along the corridor; and

**WHEREAS**, public meetings have been held and more are planned to discuss project alternatives and their role in each city’s future; and

**WHEREAS**, there is a preference for LRT over BRT or DMU as being more consistent with the goals and objectives of the communities in the corridor, a finding supported by the Alternatives Analysis evaluation; and

**WHEREAS**, the Authority is joining with COG to gain approval of federal matching funds to conduct preliminary engineering of the Metro Gold Line extension and address project impacts through an environmental impact report and statement; and

**WHEREAS**, before granting funds for further work, the Federal Transit Administration requires adoption of a Locally Preferred Alternative.

**NOW, THEREFORE, BE IT RESOLVED** by the Council of the City of Pomona, California, as follows:

**Section 1.** That the City Council supports the Locally Preferred Alternative consisting of an extension of the Metro Gold Line light rail transit from its present terminus in eastern Pasadena through the City of Pomona and ending in the City of Claremont.

**Section 2.** That the City Council supports preparing an Environmental Impact Report/Statement and conducting Preliminary Engineering on the Locally Preferred Alternative.

**Section 3.** That the City Council supports development of a station in Pomona to be served by the Metro Gold Line.

**Section 4.** The City Clerk shall certify to the passage of this Resolution and it shall there upon take effect and be in full force.

APPROVED AND PASSED this 20<sup>th</sup> day of May, 2002.

ATTEST

THE CITY OF POMONA

ELIZABETH VILLERAL, CMC  
City Clerk

EDWARD S. CORTEZ  
Mayor

APPROVED AS TO FORM

ARNOLD M. ALVAREZ-GLASMAN  
City Attorney





**CITY OF CLAREMONT**

*Glenn D. Southard, City Manager*

City Hall  
207 Harvard Avenue  
P.O. Box 880  
Claremont, CA 91711-0880  
FAX (909) 399-5492  
www.ci.claremont.ca.us

City Manager • (909) 399-5441  
City Clerk • (909) 399-5460  
Personnel • (909) 399-5450  
Community Information • (909) 399-5497

**RECEIVED**

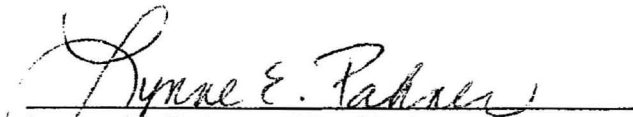
MAY 20 2002

PBL  
CONST. AUTHORITY

I, Lynne E. Pahner, City Clerk of the City of Claremont, California, hereby certify, under penalty of perjury, that the following is a true and correct copy of action taken by the City Council of the City of Claremont at their regular meeting held April 23, 2002, regarding Gold Line Transportation Technology.

COUNCILMEMBER BALDONADO MOVED TO SELECT LIGHT RAIL TRANSIT AS THE CITY'S PREFERRED ALTERNATIVE, SECONDED BY COUNCILMEMBER ROSENTHAL AND UNANIMOUSLY CARRIED.

Executed this 16<sup>TH</sup> day of May, 2002, Claremont, California.

  
\_\_\_\_\_  
Lynne E. Pahner, City Clerk  
City of Claremont