



Foothill Gold Line

Metro Gold Line Foothill Extension Construction Authority

406 East Huntington Drive, Suite 202
Monrovia, CA 91016-3633

p 626.471.9050 f 626.471.9049
www.foothillgoldline.org

Metro Gold Line Foothill Extension Construction Authority

CONSTRUCTION COMMITTEE

Arabella Conference Room
406 E. Huntington Drive, Suite 202
Monrovia, California 91016

AGENDA

September 6, 2023

12:30 PM

NOTICE ON PUBLIC PARTICIPATION AND ACCESSIBILITY

This meeting will be conducted in-person from the Arabella Conference Room, located at 406 E. Huntington Drive, Suite 202, Monrovia, California 91016.

PUBLIC COMMENT:

You may provide public comment at the time reserved during the meeting when the presiding officer calls for public comment. Speakers are limited to three (3) minutes, speaking once, on both on-agenda and off-agenda items. If there are any public hearings scheduled, individuals will be given an additional opportunity to comment under said items. To ensure that the public will be able to participate, the Committee is providing three methods in which the public can submit their comments:

OPTION 1: LIVE COMMENTS

Public is invited to participate in-person at the Arabella Conference Room, located at 406 E. Huntington Drive, Suite 202, Monrovia, California 91016.

OPTION 2: E-MAIL

Public Comments can be submitted via email to npeterson@foothillgoldline.org with the subject "Public Comment – *Insert Committee Meeting Date*". Public Comments received will be added to the associated Agenda Packet.

OPTION 3: MAIL

Public comments may be mailed to:

Foothill Gold Line Construction Committee
ATTN: Clerk of the Board – Public Comments
406 E. Huntington Drive, Suite 202
Monrovia, CA 91016

Public comments will not be read aloud at the meeting, but will be part of the meeting record. When submitting a public comment, please make sure to include the following:

- 1) Name (optional), and
- 2) Agenda item for which you are submitting public comment.

Board Members:

Ed Reece
Chair
Mayor,
City of Claremont
Appointee, SGVCOG

Mendell Thompson
Vice Chair
Mayor Pro Tempore,
City of Glendora
Appointee, City of
South Pasadena

Tim Sandoval
Member
Mayor,
City of Pomona
Appointee, LACMTA

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City of Los Angeles
Appointee

Tim Hepburn
Mayor
City of La Verne
Appointee,
City of Pasadena

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Governatorial
Appointee

Gene Masuda
Member, Non-Voting
Councilmember,
City of Pasadena
Appointee, City of
Pasadena

Daniel M. Evans
Member, Non-Voting
Appointee, City of
South Pasadena

Alan D. Wapner
Member, Non-Voting
Councilmember,
City of Ontario
Appointee, SBCTA

Executive Officer:

Habib F. Balian
Chief Executive Officer

Public comments should be submitted no later than 10:00am, on the day of the Construction Committee meeting, otherwise, public comments will be considered late correspondence and incorporated into the meeting minute record.

In compliance with the American with Disabilities Act, any person with a disability who requires modification or accommodation to participate in a meeting should contact Clerk of the Board's office at (626) 305-7002 at least 48 hours prior to the meeting.



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AGENDA

September 6, 2023

12:30 PM

NOTICE IS HEREBY GIVEN that the Foothill Gold Line Construction Committee Meeting is to be held at the time and date listed above in the Arabella Conference Room, located at 406 E. Huntington Drive, Suite 202, Monrovia, California 91016. The agenda for the meeting will consist of the following:

Items:

1. **Call to order**
2. **Pledge of Allegiance**
3. **Roll Call**
4. **Public Comment on items on or off the Agenda**
5. **Cost-of-Living Adjustment (COLA)**
6. **Approval of Revisions to Project Management Plan (PMP)**
7. **Authorize the Chief Executive Officer to execute a Change Order to the Phase 2B Alignment Contract (C2002) with Kiewit-Parsons, Joint Venture (KPJV) in an amount of \$862,045 for Post-Tensioning Duct Location Changes at the Foothill/Grand and Bonita/Cataract Bridges**
8. **Authorize the Chief Executive Officer to execute a Change Order to the Phase 2B Alignment Contract (C2002) with Kiewit-Parsons, Joint Venture (KPJV) in an amount not-to-exceed \$731,000 for an Additional Sound Wall East of the RTE-66 Bridge**
9. **Adjournment**

Upcoming Committee Meetings:

- October 4, 2023 @ 12:30 PM
- November 1, 2023 @ 12:30 PM
- December 6, 2023 @ 12:30 PM



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Executive Officer:

Habib F. Balian
Chief Executive Officer

Agenda Item: 5

TO: Chair and Members of the Construction Committee
FROM: Habib F. Balian, Chief Executive Officer
DATE: September 6, 2023
SUBJECT: Approval of Cost-of-Living Adjustment (COLA)

RECOMMENDATION:

That the Finance and Construction Committees approve and recommend to the Board of Directors approval of a fiscal year 2024 Cost of Living Adjustment (COLA) of 1.6% for all current Authority employees.

SUMMARY:

In fiscal year 2001, after reviewing the merit and COLA increase policies of comparable agencies, the Board of Directors directed staff to follow the methodology that was based on the June Consumer Price Index (CPI) for salary escalation. The Authority's methodology has been consistent since inception and uses a widely accepted year-to-year CPI from the U.S. Bureau of Labor Statistics.

In June 2023, the Board of Directors approved a Fiscal Year 2024 Operating Budget with an allowance for a COLA to Authority staff. The actual COLA will be set by Board action.

In accordance with the operating budget assumptions and using the Authority's traditionally accepted methodology described above, a COLA adjustment of 1.6% is warranted for all Authority employees.

BUDGET IMPLICATIONS:

The proposed COLA is consistent with the budget assumptions included in the Fiscal Year 2024 Operating Budget. Funds are available within the Authority Administration line item WBS 2.10.10.10.N, which has a \$9.0 million overall FY24 Administrative operating budget.

DISCUSSION:

Since 2001, the Authority has based its COLA adjustments on the official Bureau of Labor Statistics Consumer Price Index Los Angeles and vicinity (Long Beach, Anaheim). The fiscal year 2024 calculation was made based on this same index. The index of 305.577 for June 2022 and 310.540 for June 2023 represents an escalation of 1.6%.

The Authority's methodology is based on a standard year-to-year analysis of a widely accepted Consumer Price Index and is accurate and fiscally sound. Comparing the results of this methodology against an annualized average analysis (taking a daily average) shows no material divergence, indicating an approximately 0.04% annual variance over two decades (see table on subsequent page).

The Authority's separates COLA adjustments from merit increases. The Cola adjustment is to keep pace with the Consumer Price Index, while merit increases are based solely on merit following a positive annual review. Some other agencies combine or blend these two, using different vocabulary and mechanisms to achieve a very similar result.

Based upon the methodology used by the Authority since its inception, the COLA of 1.6% for Fiscal Year 2024 appears reasonable. If approved by the Board, the Authority salary ranges will be adjusted by the allowable calculated Cost-of-Living Adjustment (COLA) retroactive to July 1, 2023, the beginning of the fiscal year.



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Agenda Item: 6

TO: Chair and Members of the Construction Committee
FROM: Habib F. Balian, Chief Executive Officer
DATE: September 6, 2023
SUBJECT: Approval of Revisions to Project Management Plan (PMP)

RECOMMENDATION:

That the Construction Committee recommend to the Board of Directors approval of the revisions to the Project Management Plan (PMP).

SUMMARY:

The PMP provides general guidance as to how the Foothill Gold Line project will be managed. The Board adopted the PMP at its April 2009 meeting. The PMP requires updating as the project evolves. The last update of the PMP was approved by the October 2019 Board. The changes proposed in this action are summarized as follows:

1. Editorial changes
2. Updated Project budget
3. Updated Project schedule
4. Organizational Chart changes

More detailed descriptions of the proposed changes are shown in the attached revision table and Project Management Plan.

BUDGET IMPLICATIONS:

No budget implications.

ATTACHMENTS:

Revision Table
Project Management Plan

Executive Officer:

Habib F. Balian
Chief Executive Officer

PROPOSED AMENDMENTS/REVISIONS TO ADOPTED PMP

The PMP (Project Management Plan) was adopted by the Metro Gold Line Foothill Extension Construction Authority Board at its April 2009 meeting. Since adoption, revisions and supplements have been identified as proposed changes, and are to be adopted by the board in the future.

Rev #	Description	Board Adoption
1.	<p>Editorial changes throughout document. These changes were mainly made to update the document for current status of the Project; namely, the following:</p> <ul style="list-style-type: none"> a) Updated contract information including expiration of the two-year contract option to Montclair and addition of two separate contracts for Pomona to Montclair segment. These two contracts are for the alignment from Pomona to Montclair and construction of the Claremont parking structure. b) Moved “human resource and personnel management” responsibilities from Administrative Services Director & Clerk of the Board to Chief Financial Officer (CFO). 	TBD
2.	<p>Project budget updated as follows:</p> <ul style="list-style-type: none"> a) The overall budget to Montclair was changed from \$2.076.9 billion to \$2.370.9 billion per the board approved Financial Plan Revision 18 in February 2023. 	TBD
3.	<p>Project Schedule updated as follows:</p> <ul style="list-style-type: none"> a) Added Pole Line Elimination Contract. b) DB2 title clarified to Glendora to Pomona segment. c) Glendora to Montclair option title revised to Alignment Design-Build Contract (Pomona to Montclair). d) Alignment Design-Build Contract (Pomona to Montclair) Substantial Completion date changed from January 2026 to TBD. e) Alignment Design-Build Contract (Pomona to Montclair) Final Acceptance date changed from January 2027 to TBD. f) Alignment Design-Build Contract (Pomona to Montclair) ROD date changed from May 2027 to TBD. 	TBD

	<ul style="list-style-type: none"> g) Alignment Design-Build Contract (Pomona to Montclair) CPUC Approval of Safety Certification date changed from May 2027 to TBD. h) Added Claremont Parking Structure Contract. 	
<p>4.</p>	<p>Organizational restructuring resulting in the following changes:</p> <ul style="list-style-type: none"> a) Community Relations Manager title changed to Director of Community Relations. b) Media Relations title changed to Media Relations Manager. c) Project Administrator Coordinator position removed. d) Deputy Director of Engineering position removed. e) Engineering Manager position removed. f) Stations Coordinator title revised to Architectural Design Manager. g) Resident Engineer SCRRA position removed. h) Resident Engineer Bridge & Civil position removed. i) Resident Engineer Roadway & X-ings revised to Construction Manager. j) Resident Engineer Stations & Parking position removed. k) Field Office Manager/Inspector revised to Field Office Manager. l) Quality Manager position filled. m) Four (4) inspector positions (1 filled and 3 vacant) revised to five (5) Quality Auditor positions (filled). n) Project Operations Manager position vacant. o) Submittals Manager position revised to Submittals/Office Manager. <p>The total number of Authority positions was unchanged. The total number of consultant positions was reduced by five (5). No Authority positions were filled and five (5) consultant positions were filled.</p>	<p>TBD</p>

PROJECT MANAGEMENT PLAN

Foothill Gold Line

~~October 2019~~ September 2023



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1 INTRODUCTION

1.1 PURPOSE OF THE PROJECT MANAGEMENT PLAN (PMP)

The purpose of the PMP is to establish policies for project control, quality assurance, quality control and safety, and provide an overview of the management requirements needed to ensure completion of the Foothill Gold Line Project (Project). The PMP defines the scope of Project implementation during planning, preliminary engineering, final design, construction, testing and start-up; and is intended to describe the general framework and organization for management of the Project. Detailed procedures, consistent with the requirements of this PMP, are developed separately and are incorporated herein by reference.

This PMP defines methodologies to be utilized by the Metro Gold Line Foothill Extension Construction Authority (Authority) to manage budgets, schedules, funding, procurement, staffing, interdepartmental and external agency coordination, consultants, and contractors. In addition, the PMP describes how the Authority will disseminate Project-related information to the public and external agencies.

The specific objectives of the PMP are to:

- Provide a Project overview;
- Communicate Project objectives to all participants along with methods and identified resources required in meeting them;
- Create a team approach;
- Develop a framework for monitoring the Project;
- Develop a framework for establishing policies, procedures and standards;
- Develop a framework for updating the PMP;
- Identify responsibilities and relationships within the organization;
- Identify milestones for subsequent phases;
- Promote consistency;
- Promote schedule awareness; and
- Provide instructions for the coordination of schedule interfaces.

For reader reference, a comprehensive list of acronyms used in this document can be found in Appendix A.

1.2 STAGED COMPLETION OF THE PLAN

The PMP is a dynamic document, which will be periodically updated and supplemented as the definition of the Project continues to be developed and refined. Specifically, this PMP addresses the planning, design, and construction of the Glendora to Montclair segment. This plan will be modified to address the various stages of the Project as work is progressing on the various stages above.

1.3 CONFLICT WITH AUTHORITY POLICIES

If any inconsistencies or conflicts arise between this PMP and other currently established or future policies and procedures, the Authority's policies and procedures take precedent. Wherever any inconsistencies or conflicts arise between any current or future Authority contractual agreement with a contractor or a consultant, the contract or agreement shall govern.

1.4 CREATION AND COMMISSION OF THE METRO GOLD LINE FOOTHILL EXTENSION CONSTRUCTION AUTHORITY

On September 30, 1998, Governor Pete Wilson signed the State of California Senate Bill 1847, introduced by Senator Adam Schiff. SB-1847 established the Pasadena Metro Blue Line Construction Authority for the purpose of awarding and overseeing all design and construction contracts for completion of the 13.7-mile Pasadena Metro Blue Line light rail project from Union Station in the city of Los Angeles to Sierra Madre Villa Boulevard in the city of Pasadena (Phase 1), and any mass transit guideway that may be planned east of Sierra Madre Villa Boulevard along the rail right-of-way (ROW) extending to the city of Montclair (Phase 2). The Authority was later renamed the "Metro Gold Line Foothill Extension Construction Authority", which is now the entity's official title and will be herein referred to as such. Phase 1 of the Gold Line was successfully constructed and turned over to the Los Angeles County Metropolitan Transportation Authority (herein referred to as "Metro") for revenue operations on July 26, 2003. The Pasadena to Azusa segment which extended Phase 1 of the Gold Line through the cities of Arcadia, Monrovia, Duarte, Irwindale, and Azusa was successfully constructed and turned over to Metro for revenue operations on March 5, 2016.

This PMP is prepared for the Glendora to Montclair portion of the project that is planned to continue the light rail transit (LRT) system to the cities of Glendora, San Dimas, La Verne, Pomona, Claremont, and Montclair. Any extension beyond Los Angeles County (into Montclair)

requires an agreement between San Bernardino County Transportation Authority (SBCTA) and Metro regarding operations and maintenance cost-sharing. The Authority Board of Directors certified the FEIR for the Glendora to Montclair segment under CEQA in March 2013. In April 2009, the Authority’s Board of Directors adopted a plan using Measure R as the sole source of funds to complete the Pasadena to Azusa segment. The remainder of these funds will be used in the planning and design phase of the Glendora to Montclair segment. In June 2016, the Authority’s Board of Directors adopted a plan using Measure M, which passed in the November 2016 ballot, to fund the majority of costs associated with the Glendora to Montclair segment (hereinafter referred to as the “Project”). In April 2018 the Project was awarded nearly \$300 million from the State’s Transit and Intercity Rail Capital Program, an SB1 program that is mostly funded by Cap and Trade auction proceeds but which also receives funds from the SB1 gas tax increase. These funds will be used to fill the estimated funding gap that currently exists on the Project in both Los Angeles and San Bernardino Counties.

A contract for design and construction of the alignment for the Glendora to ~~Montclair~~Pomona project was awarded in 2019. This contract includes a ~~base~~-scope for the first nine miles of the project from Glendora to Pomona, ~~with~~. ~~There was~~ a two-year contract option to complete the full 12.3-mile project to Montclair if additional funds ~~are~~were secured ~~by~~, ~~however, that option expired~~ September 2021. Construction of the Glendora to Pomona segment is planned to be completed in 2025. ~~If the~~A separate contract ~~option will be awarded when additional funding is secured to complete the project from Pomona to Montclair is exercised, construction of~~. ~~Depending on funding availability, an early work package may be used to begin work on the~~ GlendoraPomona to Montclair segment ~~is planned to be completed in 2026~~. The objectives of constructing the Project are to:

- Improve regional transit mobility;
- Provide fixed transit service to residents, workers, and visitors of the San Gabriel Valley, connecting them to other areas of Los Angeles County and the Inland Empire through an efficient and sustainable transportation mode;
- Provide regional connectivity to the expanding rail transit network, including Metro Rail, Metrolink, and Amtrak systems, all of which directly connect via transfers or extensions to the current Metro Gold Line system;
- Promote investment in potential transit-oriented development sites by connecting the area’s transit systems; and

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- Construct the line rapidly and in a way that can be operated efficiently by Metro as part of its regional responsibility to operate all urban rail transit lines in Los Angeles County.

1.5 LEGAL AUTHORITY AND ORGANIZATION

1.5.1 Los Angeles County Metropolitan Transportation Authority (Metro)

- On March 28, 1990 the LACTC (a predecessor of Metro) formally adopted the Metro Gold Line Project (at that time known as the Pasadena Blue Line Project); and
- On January 27, 1998, Metro’s Board of Directors formally approved the CEO’s recommendation to suspend, indefinitely, the partially completed Pasadena Gold Line Project.

1.5.2 Metro Gold Line Foothill Extension Construction Authority (Authority)

- State of California Senate Bill 1847, introduced by Senator Adam Schiff and signed by Governor Pete Wilson on September 30, 1998, established the Metro Gold Line Foothill Extension Construction Authority (at that time known as the Pasadena Metro Blue Line Construction Authority), effective January 1, 1999. The Authority was established for the purpose of awarding and overseeing all design and construction contracts for completion of the Pasadena Gold Line light rail project from Union Station in the city of Los Angeles to Sierra Madre Villa Boulevard in the city of Pasadena and any mass transit guideway that may be planned east of Sierra Madre Villa Boulevard along the rail right-of-way extending to the city of Montclair;
- Senate Bill 1847 added Public Utilities Code Division 12.7, Chapter 6 Sections 132400 et seq. to the Public Utilities Code. Those sections outline the legal authority of the Authority and duties of Metro;
- The Authority is governed by a Board of Directors as defined by bill number AB 1600, originally passed in Senate on September 6, 2011. According to the bill:
 - The Authority Board of Directors consists of five voting members and four nonvoting members who shall be appointed as follows:
 - Three voting members shall be appointed by the City councils of the cities of Los Angeles, Pasadena, and South Pasadena, with each city council appointing one member by a majority vote of the membership of that city council;

- One voting member shall be appointed by the President of the Governing Board of the San Gabriel Valley Council of Governments, subject to confirmation by that Board;
 - One voting member shall be appointed by Metro;
 - One nonvoting member shall be appointed by the Governor;
 - Two nonvoting members shall be appointed by the City councils of the cities of Pasadena and South Pasadena, with each city appointing one nonvoting member; and
 - One nonvoting member shall be appointed by the President of the San Bernardino County Transportation Authority;
- All members shall serve a term of not more than four years, with no limit on the number of terms that may be served by any person;
 - Each appointing authority shall also appoint an alternate member to serve in a member's absence. If the position of a voting member becomes vacant, the alternate member shall serve until the position is filled as required pursuant to the appointment guidelines listed above;
 - Members of the Board are subject to the Political Reform Act of 1974 (Title 9 (commencing with Section 81000) of the Government Code);
 - Three voting members of the Board shall constitute a quorum;
 - The Board shall elect a chairperson and vice chairperson from among the membership of the Board;
 - Each member of the Board may be compensated at a rate of not more than one hundred fifty dollars (\$150) per day spent attending to the business of the Authority. Compensation, if paid, shall not exceed six hundred dollars (\$600) per month, plus expenses directly related to the performance of duties imposed by the Authority, including, but not limited to, travel and personal expenses; and
 - Members appointed to the Board may include members of the entities set forth in aforementioned list, members of the City councils, elected officials and non-elected officials of the extension cities, or both. The simultaneous membership on the Board of as an elected official on a separate entity described in this subdivision shall not constitute a violation of Section 1099 or 1126 of the Government Code.

- The Authority has all the powers necessary for planning, acquiring, leasing, developing, jointly developing, owning, controlling, using, jointly using, disposing of, designing, procuring, and building the Project, including, but not limited to all of the following:
 - Acceptance of grants, fees, and allocation from state, local agencies, and private entities;
 - Acquiring, through purchase or through eminent domain proceedings, any real property necessary for, incidental to, or convenient for the exercise of the powers of the authority;
 - Incurring indebtedness, secured by pledges of revenue available for Project completion;
 - Contracting with public and private entities for the planning, design, and construction of the Project;
 - Entering into cooperative or joint development agreements with local governments or private entities; and
 - Relocation of utilities, as necessary for completion of the Project.
- The Authority Board of Directors may appoint an executive director to serve at the pleasure of the Authority. The executive director may appoint staff or retain consultants as necessary to carry out the duties of the Authority;
- Metro shall identify and expeditiously enter into an agreement with the Authority to hold in trust with the Authority all real and personal property, and any other assets accumulated in the planning, design, and construction of the Project, including, but not limited to rights-of-way, documents, third-party agreements, contracts, and design documents, as necessary for the completion of the project;
- Metro shall transfer the unencumbered balance of all local funds programmed for completion of the project and that have been identified in the Restructuring Plan adopted by Metro Board of Directors on May 13th 1998 to the Authority for completion of the project;
- The Authority shall enter into a Memorandum of Understanding (MOU) with Metro that shall specifically address the ability of Metro to review any significant changes in the scope of the design or construction, or both design and construction, of the project;
- The Authority shall not encumber any future fare box revenue anticipated from the operation of the Project;
- With the exception of joint development projects, the Authority shall not encumber the Project with any obligation that is transferable to Metro upon completion of the design

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and construction of the Project. The design and construction to be administered by the Authority does not include rolling stock, which is a component of the operation of the Project and shall be administered by Metro; and

- The Authority shall be dissolved upon completion of construction of the Project.

2 PROJECT HISTORY AND DESCRIPTION

2.1 HISTORY OF THE PROJECT

Extension of the Metro Gold Line through the San Gabriel Valley has been under study in various forms since of the early 1990s. Early studies included the Northern San Gabriel-San Bernardino Valley Transportation Corridor Preliminary Planning Study, completed in October 1992, and the Northern San Gabriel-San Bernardino Valley Rail Transport Corridor Final Environmental Impact Report in May 1994. During this period, the Atchison Topeka & Santa Fe (AT&SF) Pasadena Subdivision between Pasadena and Claremont was purchased along with other AT&SF-owned rights-of-way (ROW). No further action was taken, due to lack of funding.

In 1999, the Authority authorized the preparation of the Metro Gold Line Phase 2 Corridor Alternatives Analysis Study, which was completed in April 2002. At the conclusion of this study, a light rail alternative extending the Metro Gold Line 24 miles east of the Sierra Madre Station in Pasadena to the city of Montclair became the recommended alternative adopted by the eleven City councils, the Governing Board of the San Gabriel Valley Council of Governments, and the Authority Board of Directors. This extension is referred to as the Foothill Gold Line.

In February 2004, a preliminary DEIS/R was submitted to the FTA for review/comment. Resolution of the comments were made and incorporated into the revised DEIS/R completed on April 23, 2004 and distributed for public review. On May 7, 2004, a 45-day public hearing process was conducted to solicit comments and input from the public on the DEIS/R. Following the public hearing process and after reviewing the comments received, the Authority's Board of Directors recommended a refined Locally Preferred Alternative (LPA) in August, 2004. In January 2007, the Authority published the FEIS/R for the Project. The Authority's Board of Directors adopted and certified the first phase of the Project the Pasadena to Azusa segment, under the California Environmental Quality Act (CEQA) in February 2007. Shortly thereafter, the Authority entered into Advanced Conceptual Engineering (ACE). The Pasadena to Azusa segment included three design-build contracts: DB1 for construction of the Gold Line Bridge in Arcadia, DB2 for construction of the rail alignment, and DB3 for construction of the parking facilities and intermodal enhancements. All three contracts were successfully constructed and the entire Pasadena to Azusa segment will begin revenue operations on March 5, 2016.

A DEIR was prepared for the Glendora to Montclair segment and was distributed for public review in August 2012. A 45-day public hearing process was conducted to solicit comments and input

from the public on the DEIR. Following the public hearing process and after reviewing the comments received, the Authority’s Board of Directors recommended the Build Alternative. On March 6, 2013, the Authority published the FEIR for the Project. The Authority’s Board of Directors adopted and certified the Glendora to Montclair segment, under the California Environmental Quality Act (CEQA) in March 2013. Shortly thereafter, the Authority entered into Advanced Conceptual Engineering (ACE).

The Glendora to Montclair segment will include ~~four~~five contracts including those for relocation of various utilities, ~~construction of the rail alignment, construction of the parking facilities, and~~ elimination of an existing pole line along the right of way, construction of the alignment from Glendora to Pomona, and construction of the alignment from Pomona to Montclair, and construction of the Claremont parking structure. Depending on funding availability, an additional contract may be used for early work on the Pomona to Montclair segment.

2.2 PROJECT DESCRIPTION

The Project expands the Metro Gold Line 12.3 miles east from the city of Glendora to the city of Montclair. The extension runs along the previously acquired AT&SF railroad ROW, paralleling Interstate 210 (I-210) and Arrow Highway, and connects the cities of Glendora, San Dimas, La Verne, Pomona, Claremont, and Montclair.

The Authority plans to execute final design and construction largely through the design-build method of project development and the Authority’s organization, staffing, and procedures will be created commensurate with this Project delivery approach.

The LRT expansion includes laying two new tracks in the railroad ROW for the LRT service and relocating and reconfiguring the existing freight rail service where necessary. Additional property may be needed for stations, parking, and maintenance facilities.

Once the Glendora to Montclair segment is completed, 6 passenger stations will have been constructed serving each of the cities the Project will serve. See exhibit below.



2.3 PROJECT COST AND FINANCIAL PLAN

The capital costs for the overall project in 2019 year dollars are estimated at \$2.076.9Billion (YOE dollars). During Advanced Conceptual Engineering efforts, value engineering principles will be applied to evaluate opportunities to reduce capital costs while maintaining the same high construction and engineering standards applied to Phase 1 and the Pasadena to Azusa segment.

2.3.1 Financial Plan

Capital funding for the Glendora to Montclair segment (Project) is provided through the approved Measures R and M, and the State’s Transit and Intercity Rail Capital Program (TIRCP). The Project cash flow from Measure M funds will be in accordance with the fund transfer agreement between the Authority and Metro. The budget for the Project from Glendora to Pomona is \$1.532.9 billion with the overall budget to Montclair ~~\$2.076.9~~ \$2.076.370.9. Of the total committed budget, \$1.019 billion is available through Measure M, \$96.5 million is available through Measure R, \$42.2 million is available from the cities, \$126 million is available from Metro, and \$290.2 million is available through TIRCP (\$249.2 million for Los Angeles, \$41.0 million for San Bernardino).

2.4 PROJECT SCHEDULE

The anticipated schedule for the Project can be found in Appendix B of this document.

3 MANAGEMENT ORGANIZATION, APPROACH, AND RESPONSIBILITIES

The Project’s organizational structure, key management and staff positions, internal and external interfaces as they relate to capital projects, and personnel policies are described in this section. Also identified in this section are the major participants in the Project and their general functions and roles.

3.1 MANAGEMENT RESPONSIBILITY

The Authority is responsible for managing the planning, engineering, and construction of the Project.

The Authority is not responsible for the operation or maintenance of the Gold Line. In accordance with State of California Senate Bill 1847, the Authority is only responsible for development, design, and construction of the Gold Line and therefore, the Authority’s organization and structure is directed only toward this purpose. Operations and maintenance of the Gold Line is the responsibility of Metro. The organization and structure necessary to support these tasks are not within the purview of the Authority and are not addressed in this PMP.

3.2 MANAGEMENT STRUCTURE

The Chief Executive Officer (CEO) is responsible for managing all phases of the Project and is the single point of contact for the Authority. The CEO reports to and is directed by a Board of Directors consisting of representatives appointed by the cities of Pasadena, South Pasadena and Los Angeles, Metro, and the San Gabriel Valley Council of Governments. In addition, there are four ex-officio members on the Board of Directors including a Governor appointee, two city of Pasadena and city of South Pasadena appointees, and a SBCTA appointee.

Authority staff regularly meets with members of a Joint Powers Authority (JPA) and Technical Advisory Committee (TAC) to discuss Project issues and develop recommendations for the Authority’s Board of Directors. The role of the JPA is to provide the Authority with guidance regarding planning, funding, design, and construction of the line. The JPA is comprised of elected representatives from 14 cities from South Pasadena to Ontario, and a SBCTA appointee. The TAC acts as an advisory board to the JPA, providing technical guidance and support. The TAC is comprised of city managers from each JPA city and a SBCTA appointee.

The Board of Directors sets overall Project goals and directives. The CEO is responsible for the successful implementation of these policy goals and directives. Under the CEO's delegated authority, the department officers/managers have a wide range of responsibilities for the management of resources and progress of the Project. The Authority's internal structure consists of a small core of dedicated staff, supported by consultants who bring in specialized management and technical expertise.

The following describes the overall responsibilities of the Authority and the delegated duties.

3.2.1 Authority Duties

The overall responsibility of the Authority is to successfully complete the Project on schedule and within budget. Among the more significant responsibilities of the Authority are:

- Develop a plan for design-build procurement;
- Finalize a fund transfer agreement with Metro to secure funding to complete the extension;
- Negotiate a Master Cooperative Agreement (MCA) with Metro that defines the roles and responsibilities of both parties;
- Maintain the staff and assemble the consultant resources for project management, control, design, construction, procurement, quality assurance, environmental compliance, related administration, start-up, and testing;
- Reach agreement with each agency where their facilities or operations are impacted temporarily or permanently by the Project, such that means of resolving such conflicts become formally agreed to in all respects;
- Execute the adopted procurement code and enter into contracts for management, design, construction, and procurements;
- Oversee the ongoing work of the project management consultants, and design-build contractors, other contractors, suppliers and other Project participants;
- Manage risks inherent to the Project;
- Provide the planned levels of public transit service, including the adopted levels of system assurance, safety, and security;
- Maintain an effective program of public information pertaining to the Project;
- Establish and maintain liaison with local and state agencies;
- Enter into agreements with developers and other private sector entities to effect their participation in Project implementation;

- Acquire property for station parking lots, and other small parcels along the corridor for alignment purposes, including imposition of powers of eminent domain, and obtain temporary or permanent easements as required;
- Project annual cash flow and manage fund commitments and expenditures on a day-by-day basis;
- Protect Authority rights and interests and defend same for the public good; and
- Review, test, approve and accept work products, equipment and items furnished by all consultants, contractors and suppliers.

Although the Authority will retain consultants to oversee the day-to-day management of the Project, there are program requirements and responsibilities that cannot be delegated by contract or agreement to entities beyond the Authority itself. These include:

- Oversight of consultants;
- Preparing various senior staff-level policies and procedures in furtherance of Board of Directors policies;
- Applying for, receiving, and administering state, local, and federal funds for Project implementation;
- Ensuring control over the Project;
- Entering into agreements with other agencies and third-parties which permit changes to their facilities and operations necessary for implementation of the Project;
- Establishing risk management programs and related insurance coverage;
- Preparing and adopting annual budgets for capital expenditures;
- Certifying safety and security of the system; and
- Grantee responsibility for Project.

3.2.2 Further Considerations

The Project is not funded by the Federal Government (Federal Transit Administration) and, therefore, FTA oversight is not required. If it is determined that FTA funding is required for future phases, this PMP will be revised accordingly.

3.3 PROJECT STAFFING REQUIREMENTS

The Authority was created for the sole purpose of developing, designing, and constructing the Gold Line. Therefore, the Authority's and the Project's organizational structure is subject to

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change as the Project moves forward. To maximize efficiency of the Project organization, multiple roles may be filled by single individuals and each position will be filled at appropriate points during the Project.

The Authority will undertake responsibility for direct management of its staff. Should the need arise, additional staff can be hired on an as-needed basis to support Project management, subject to budget department review, approval, and compliance with internal hiring practices. If additional staff needs are identified, the vacancies will be filled using the normal Authority process. The recruitment of qualified candidates outside of the Authority is expected after it has been determined there is no probability that a qualified in-house candidate will be found.

Technical and/or management assistance shall be augmented through the use of consultants retained by the Authority to provide such assistance on an as-needed basis. Consulting teams providing services to the Authority will do so under well-defined contractual agreements. However, through their respective contracts, each consultant could be called upon to provide additional assistance if requested by the CEO or his designee.

The staffing plan comprises an integrated team of Authority staff and Program Management Consultants (PMC). The responsibilities for the Project lie with the Chief Executive Officer (CEO) and his core management team. Appendix C illustrates the Project's organization structure. A brief explanation of roles and responsibilities is provided below.

3.3.1 Chief Executive Officer

The Authority Board of Directors selects the Chief Executive Officer (CEO) who provides administrative and executive level program management oversight of the Project. The CEO is the Procurement Officer for the Project and is responsible to the Board of Directors for ensuring that contracts and contracting procedures comply with established procedures and requirements. The CEO is also responsible for the successful implementation of Board-directed policy goals and directives.

The following staff supports the CEO in the delivery of the Project:

Chief Communications Officer

The Chief Communications Officer oversees community outreach and communications activities for the Project and manages external communications, including media and community relations,

both internally as well as with the design-build contractor. The following is a list of some specific responsibilities of the Chief Communications Officer:

- Sets department policies and oversees all activities of department staff;
- Oversees all public outreach programs;
- Directs all external communications;
- Manages special events and public relations;
- Coordinates with all cities along the alignment; and
- Directs all public and collateral materials.

Administrative Services Director & Clerk of the Board

The Administrative Services Director & Clerk of the Board's role is to supervise administration of key staff support services for Authority employees and to provide administrative services for Authority meetings included but not limited to the following: Board of Directors, Joint Powers Authority and Technical Advisory Committee. The following is a list of some specific responsibilities of the Administrative Services Director & Clerk of the Board:

- Public agency interface;
- Board administration support and compliance;
- ~~Human resources and personnel management;~~
- Office Administration;
- Document control administration;
- Public records request coordination; and
- Provide a variety of administrative services for the Chief Executive Officer and Board of Directors.

3.3.2 Project Executive Level Staff Roles & Responsibilities

The Project is managed overall at the executive level through a Chief Executive Officer (CEO). Key personnel include the Chief Project and Planning Officer, Chief Financial Officer, and Chief Contracting Officer.

A. Chief Project and Planning Officer

The Chief Project and Planning Officer (CPPO) is responsible to the CEO and the Authority Board of Directors for overall management of Project planning, design, and

construction. The CPPO, as the project manager for the Project, is responsible for overseeing the engineering, construction, quality, and controls of all Project activities including coordination with Project stakeholders such as Metro, SCRRA, Caltrans, CPUC, corridor cities, and SBCTA, and Project schedule and budget management. The CPPO also assesses Project risk items and implements appropriate mitigations, as well as acts as the single point of contact for the Program Management Consultant's Program Manager. The CPPO's planning responsibilities include managing transit planning and programming, policy analysis, integration, and capital planning of the Project.

The following key staff members support the CPPO in the delivery of the Project:

Program Manager

The Program Manager is responsible for overseeing and managing activities of the PMC and maintaining its budget. The following is a list of specific responsibilities of the Program Manager:

- Manages Program Management Consultant (PMC) contract;
- Coordinates PMC subcontractors;
- Manager of PMC resource pool; and
- Reviews PMC expenditures against budget and forecast expenditures.

Deputy Chief Project Officer

The Deputy Chief Project Officer is responsible for overseeing the project's construction, safety, third party management, and environmental efforts. The following is a list of specific responsibilities of the Deputy Chief Project Officer:

- Oversees the Project's construction;
- Reports on progress of construction;
- Reviews estimates/progress payments;
- Resolves field issues;
- Reviews potential change orders (PCOs) and requests for change (RFCs);
- Interfaces with stakeholders;
- Oversees quality compliance;
- Oversees safety compliance;

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- Oversees environmental compliance and work;
- Oversees third party management and agreements; and
- Oversees Project's utility relocations/modifications.

Quality Manager

The Quality Manager is responsible for overseeing the design-build contractors' quality program. The following is a list of specific responsibilities of the Quality Manager:

- Oversees Project's quality compliance program; and
- Conducts process audits of contractor.

Director of Systems

The Director of Systems oversees all activities on the Project relative to design and implementation of the systems elements, including traction power, overhead contact system (OCS), signaling / train control and communications systems, along with integration of these elements with equipment and systems that are existing or supplied by third parties. The following is a list of a few specific responsibilities of the Director of Systems:

- Oversees Project's systems design;
- Ensures systems design complies with all applicable criteria/standards and federal, state, and local laws;
- Ensures proper systems constructability reviews are conducted;
- Oversees construction of the project's systems elements;
- Reviews estimates/progress payments; and
- Reviews potential change orders (PCOs) and requests for change (RFCs).

Director of Engineering

The Director of Engineering is responsible for all fixed facility design, including track (mainline and yard) horizontal and vertical alignment, at-grade crossings, real property requirements, on-site drainage, site grading, structures (bridges, walls, buildings, etc.), building architecture & MEP, trackwork components including special trackwork, and all other civil works. The following list represents a few of the Director of Engineering's responsibilities:

- Oversees the Project's engineering;
- Leads value engineering effort;
- Ensures design complies with all applicable criteria/standards and federal, state, and local laws;
- Ensures proper constructability reviews are conducted;
- Reviews estimates/progress payments;
- Oversees preparation of grade crossing applications and deviation requests; and
- Reviews potential change orders (PCOs) and requests for change (RFCs).

Director of Construction

The Director of Construction is responsible for overseeing the design-build contractors' construction activities. The following is a list of specific responsibilities of the Director of Construction:

- Oversees the Project's construction;
- Reports on progress of work;
- Reviews estimates/progress payments;
- Resolves field issues;
- Reviews potential change orders (PCOs) and requests for change (RFCs);
- Interfaces with stakeholders;
- Oversees quality compliance; and
- Oversees safety compliance.

Operations Manager

The Operations Manager oversees the design-build contractors' administrative and operational processes and is responsible for overseeing document submissions and managing the electronic project management system. The following is a list of specific responsibilities of the Operations Manager:

- Oversees the development of the technical portion of the Project's design-build contracts;
- Analyzes and mitigates risk;
- Reviews and approves submittals from contractors, including drawings and reports;

- Ensures contractors are in compliance with legal requirements, specifications, and government regulations;
- Ensures contractors are in compliance with document submission requirements; and
- Oversees closeout of contracts;

Contract Manager

The Contract Manager oversees the change control process and is responsible for evaluating proposed changes and ensuring any contract changes are processed in accordance with contract requirements. The following is a list of specific responsibilities of the Contract Manager:

- Provide overall management of design-build contracts, including evaluating merit of change order requests, overseeing development of independent cost estimates, negotiating change orders, and processing change order paperwork;
- Meeting with design-build contractors on a regular basis to review open change management items;
- Maintain detailed and organized change order files;
- Track change order total amounts against budgeted amounts;
- Ensure design-build contractors are in compliance with legal requirements, specifications, and government regulations;
- Manages closeout of design-build contracts;
- Manages change control board;
- Negotiates change orders;
- Drafts contractual letters; and
- Other duties as assigned.

Project Controls Manager

The Project Controls Manager develops, implements, and maintains cost controls and completes planning/scheduling assignments for the Project's facilities and systems as well as supporting the development and implementation of policies and procedures which assure the effectiveness of project control activities. The following list represents a few of the Project Control Manager's responsibilities:

- Develops Project's master schedule;
- Develops Project's budget;
- Reviews budget against expenditures and forecast expenditures;
- Reviews design-build contractor schedules/updates;
- Reviews design-build contractor invoices and approves payment; and
- Reviews time impact analysis.

B. Chief Financial Officer

The Chief Financial Officer (CFO) is responsible for all financial administration, Project accounting, ~~and~~ financial reporting, ~~and~~ human resource and personnel management for the Project. The CFO also administers grants, funding, information management systems, and develops the Project financial plan and schedule.

C. Chief Contracting Officer & In-House Counsel

The Chief Contracting Officer is responsible for the contracting and procurement activities of the Authority, including the following functions: bid management; contract drafting, negotiating, and management; proposal oversight and other procurement related activities. The function of the In-House Counsel is to advise on a broad range of legal issues related to the Authority's activities.

3.4 KEY CONSULTANTS AND CONTRACTORS

3.4.1 Program Management Consultant (PMC)

The PMC serves as an extension of the Authority staff, whose Program Manager will report directly to the Chief Project and Planning Officer. Specifically, the PMC will provide the following services through a dedicated management and engineering staff supported by a technical resource pool available to support short-term and specialized tasks as required. The PMC is fully integrated into the Authority's organization structure and for the purposes of this PMP reference to "Authority staff" may mean actual Authority employees or PMC staff. PMC responsibilities include:

- Working with the design-build contractor in developing and maintaining the Project schedule;
- Overseeing the completion of ACE and FEIS/R consultant's technical progress and schedule;
- Reviewing the final ACE and FEIS/R deliverables to assure the proposed elements are within the requirements of the design criteria, and that the costs for these systems are reasonable;
- Coordinating the review of the final ACE and FEIS/R deliverables by third parties;
- Developing stakeholder agreements with the cities and operating entities;
- CPUC coordination and development of CPUC grade crossing applications;
- Establishing and administering Project/document control and configuration management policies and procedures;
- Assisting in development of the financial plan;
- Identifying property required for the Project and providing acquisition support;
- Developing the scope of work and selection criteria for the design-build contracts;
- Assisting in the preparation of design-build pre-qualifications packages;
- Participating in the design-build pre-proposal conferences;
- Participating in the design-build qualifications evaluations;
- Preparing addenda to design-build contracts;
- Assisting in the evaluation of proposals/bids;
- Participating in negotiations with design-build contractors;
- Providing oversight of quality assurance and quality control;
- Providing system safety oversight;

- Assessing Project risk;
- Reviewing and approving final design;
- Providing construction management and inspection;
- Reviewing shop drawings;
- Monitoring construction schedule and budget;
- Monitoring construction adherence to Project requirements;
- Witnessing testing and commissioning of the Project;
- Performing technical studies; and
- Performing other technical services, as required.

4 PROJECT MANAGEMENT CONTROL SYSTEMS

This section describes the Authority's control systems and procedures implemented to manage the Project. The primary purpose of the Authority's control systems is to maintain the Project budget and schedule in adherence with contract requirements. This is achieved through structured procedures for the management, control, and monitoring of the Project and the early identification, analysis, and resolution of problems as they arise.

4.1 CONFIGURATION MANAGEMENT

The scope of the Project has been initially defined through the public process seeking and acquiring funds and carrying out the CEQA process to achieve environmental clearance. That scope definition is further refined, as contract documents are developed to carry out the construction. At regular intervals, schedules and estimates will be developed that correspond to Project scope updates. At each of these intervals or review points, the scope, schedule, and estimate will be compared to those parameters, primarily budget and key milestones, established as the basis for funding and for achieving environmental clearance under the CEQA process. Where differences are identified, adjustments will be made to the scope, schedule, and budget necessary to deliver the Project in a way that is in the best interest of the Authority. Decisions that require adjustment to these three parameters will be made with the appropriate approvals of the Authority staff, and/or Board of Directors based on policies and procedures identified herein.

To ensure that those changes are managed properly, processes to ensure configuration management will be implemented that includes the control and monitoring of scope, schedule, and budget. Specific processes include implementation of the configuration management and Change Control Committee. The requirements and procedures for the configuration management and Change Control Committee are specified in the Authority's Change Control Procedures for consultant and design-build contracts.

4.2 CONTRACT CHANGE CONTROL

All revisions to a consultant's or contractor's scope of work shall be recorded and monitored to predict cost and/or schedule implications. The Authority has established procedures for managing and approving contract modifications which include:

- Contract change control procedures for design-build contracts; and

- Contract change control procedures for professional services/consultant contracts.

Changes or proposed changes to the contract will be reported under the following three categories:

- Approved change orders: contract changes which have been approved by the Authority;
- Pending change orders: contract changes, which have been approved by the Authority but not yet executed; and
- Potential change orders: possible changes to the contract.

The formal process by which changes are identified, prepared, reviewed, executed, and tracked, is detailed in the Authority's Change Control Procedure. Whether initiated by the Authority, the consultants/contractors, or those providing force account services, each potential change order will be evaluated to confirm that the work required represents a change to the existing contract. Changes will be approved in accordance with a tiered delegation of authority process managed by the Contract Manager working jointly with the Change Control Board (CCB). The general philosophy behind the Authority's approach to contract scope control is summarized in the following paragraphs.

4.2.1 Change Management

The Change Control Procedure defines the process by which changes to the work performed by Authority consultants and contractors are initiated, documented, reviewed, and executed.

The change process is intended to control contract amendments that may affect, but are not limited to, the following:

- Scope of work;
- Schedule;
- Contract price; and
- Other terms and conditions of the contract.

All proposed contract amendments are subject to an approval process to ensure that changes are necessary, changes are outside of the contractual requirements, the scope and budget are reasonable for the work proposed, and that all Authority objectives remain unchanged.

An electronic change order log will be maintained in the Contract Management System (CMS) to track the type of change order, the status of all potential change orders, the cost impacts, the contract terms affected, and the final disposition of the change order.

4.2.2 Cost Impacts

Change orders increasing the cost of a contract will not necessarily cause a revision in the budget. The CPPO, in coordination with his staff, shall be responsible for determining the extent and impact of the change order to the respective budget items and assure that appropriate revisions are made within the Capital Project Accounting Systems (CPAS).

4.2.3 Schedule Impacts

Change order requests submitted by a consultant or contractor must be accompanied by the estimated time needed to accomplish the work, if any additional time is required. It should be noted that change orders causing an increase in the duration of an "activity" of a contract might not necessarily affect the duration of the "overall" contract. Change orders involving contract extensions require the following actions:

- The Contract Manager shall review the change order request to validate the need for a revision in the contract; and
- Extensions of time to complete the particular contract element will be evaluated by the Project Controls Manager and recommended for approval. If the work being revised does not affect duration on the contract's critical path, no extension of time will be granted to complete the overall contract.

4.3 SCHEDULE MANAGEMENT

The ability to rapidly move the Project forward depends on the level of effort expended on planning and prioritizing a well defined and managed schedule. The Authority has developed a master Project schedule, with input from the Project stakeholders, identifying all tasks and their dependencies through Project completion. These tasks will include not only items that are the responsibility of the Authority and the contractors it engages, but also third party items upon which the success of the Project are dependent but are outside the control of the Authority and its contractors. These include items such as real estate and utilities, and coordination with BNSF and Metrolink. The Authority will initially estimate the activities and schedule for final design and

construction. Once design-build contracts are awarded, the approved design-build baseline schedule will be incorporated.

The successful on-time completion of the Project depends on the ability of the Project participants to address in a timely manner the delays, both critical and non-critical, as described below. By highlighting work sequences that experience an increasing depletion of positive float, potential delay-causing issues can be managed aggressively. The Authority's participation in Project schedule update meetings will encourage open discussion regarding problem areas on the Project as demonstrated by the Project schedule.

4.3.1 Scheduling System

The Project will be managed using a critical path schedule. The Authority will include requirements in all professional services and design-build contracts to provide and manage a contract schedule. Professional services contracts will include scheduled deadlines for critical deliverables.

Design-build contracts will include scheduled requirements for substantial completion and Project completion, as well as applicable intermediate milestones and constraints. Typical intermediate milestones include completion of contract elements for coordination with other contracts. Typical Project constraints include restrictions on access to acquired property or access to parts of the Project requiring construction by other contractors. Design-build contractors will be required to submit a baseline schedule that will be folded into the Authority's master schedule. Thereafter, the contractor(s) will be required to provide monthly updates, together with analysis of schedule float and any slippage. The contractor's schedule will be discussed with Project management staff at regular Project management meetings.

4.3.2 Program Master Schedule

At the beginning of the Project, a Master Schedule has been developed for the planning, design, and construction of the Glendora to Montclair project. This schedule is updated monthly to reflect current status of activities. As individual design-build projects are awarded, detailed project schedules are received, reviewed, and approved which are then used to update the Program Schedule. The Program Schedule serves as the baseline document for reporting program status.

The Program Schedule control and reporting functions include maintenance of the Program Schedule database and performance of regular reviews of scope, progress, changes, milestones,

and work-arounds to ensure that the schedule accurately depicts Project status and plans. The Program Schedule must roll up from the contractor Level 3 schedules. Design status input from the Director of Engineering is incorporated as appropriate.

The Program Schedule, when approved by Chief Project and Planning Officer, is used as the basis for schedule control across the various contracts. The approved schedule will be designated the "Baseline Schedule – Revision 0". Schedule reporting and maintenance are measured against the baseline schedule for variance detection and analysis.

Changes to the Program Schedule and Basis and Assumptions must be identified and incorporated by the Project Controls Manager. These changes to the baseline schedule result in an "Adjusted Baseline". Changes to the Program Schedule, once approved by the CPPO will be designated the "Baseline Schedule – Revision 1" or the next revision number in sequence as the schedule is revised. Subsequent schedule reporting and maintenance will be measured against the most recent baseline schedule for variance detection. The master schedule status and progress will be presented by the Authority's Project Controls Manager and reviewed by Authority staff on a monthly basis. This forum will provide an opportunity to forecast and discuss schedule issues and provide resolution.

4.3.3. Project Schedules

The design-build contractor's baseline schedules and updates will be reviewed by the Project Controls Manager, with the assistance of relevant Project management staff, for contract compliance. The Authority's Project Controls Manager will review contractor schedules and updates to monitor trends in activity slippage, even if such trends are not on the current critical path, in order to forecast and anticipate problems at the earliest opportunity so that maximum mitigation time is available.

The Project Controls Manager will verify construction progress on a weekly basis and coordinate with Project Engineers or QA Inspectors to verify progress and perform routine analysis to review the CPM schedule submittal. The Project Controls Manager will review and analyze the design-build contractor's monthly schedule update as follows:

- Assure adherence to cost and schedule management requirements of the contract documents;

- Verify that contract milestone dates are satisfied and all approved changes have been incorporated;
- Run a variance report to see if schedule durations have been altered and identify any new or missing activities;
- Verify progress and actual start and finish dates;
- Review the contract critical path and resource allocation reports;
- If design-build contractor is behind schedule, analyze mitigation measures ("what if" analyses, schedule acceleration, etc.); and
- Provide review comments and analysis with recommendations for approval/disapproval of design-build contractor monthly schedule in writing to the Director of Construction.

The Director of Engineering, Director of Construction, and Project Controls Manager will meet with the Contractor at least once a month to review the design-build contractor's schedule and come to a mutual agreement on job progress to be entered into the design-build contractor's Monthly Status Report. More frequent status meetings (weekly, biweekly, etc.) may be requested as necessary.

4.3.3 Critical Delays

Should an update of the Project schedule report negative float, immediate action will be taken to recover the lost float and bring the Project completion date back on schedule. The Authority will direct the consultants or contractors to develop work to re-sequence or prioritize alternatives. Analyses of resource and productivity data collected from previous schedule updates will be used to review projected durations of similar activities.

A recovery plan will be developed for all instances of negative float by the consultant or contractor, subject to approval by the Authority and monitored by the Authority's Project Controls Manager.

4.3.4 Non-Critical Delays

Non-critical delays will be encountered as a result of Project dynamics. Consumption of positive float will be monitored with each month's schedule update. Excessive float consumption will be reported to highlight issues potentially delaying the Project.

4.3.5 Impact Evaluation – What-if Analysis

In order to maintain the integrity of the baseline schedules, any 'what-if' analysis must be done within Primavera utilizing a separate file. Therefore, the current working schedule must be duplicated and renamed as a separate file.

Proposed changes will be made to the test file and impacts to other contracts and contract milestones analyzed.

The schedule study and proposed changes will be submitted to the Director of Construction for review and approval. If approved, schedule changes must be authorized via a change order and sent to the Chief Project and Planning Officer for approval.

Following approval, the main Primavera file is updated from the test file to reflect changes and summarize contractor progress against the revised plan beginning with the next update.

4.3.6 Reporting

The Authority issues a monthly report to its Board of Directors members identifying progress made, issues, and potential delays followed by schedule mitigation recommendations and the financial status of the Project.

These monthly reports will be the primary conduit for status analysis and forecasting. Specific issues will be monitored through successive reports and will be taken to the change control board as applicable.

The reports typically contain the following information:

- Overall status of each design, construction, and procurement contract, including original and current value, progress made since the last report and a report from the QA/QC team on the contractor's compliance status;
- Status of other major Project elements such as: regulatory agency coordination and oversight (e.g., CPUC); agreements and third party betterments; real estate; hazardous materials and environmental issues; and community outreach;
- Anticipated key activities during the next period;

- Project concerns; items of concern will be raised, monitored, and close-out recorded in successive reports;
- Budget status;
- Schedule status; and
- Detailed charts and tables of budget; percentage complete and variances; QA/QC compliance and performance charts.

A sample report is provided in Appendix D.

4.4 COST CONTROL

The cost control system provides the mechanism and procedures for managing the budget, cost estimates, expenditure, and cost trends for the Project. Included in the cost control is the management of budgetary and actual costs as well as management of Project contingency. Critical to this is the early prediction of negative trends in expenditure and the planning of mitigation.

Cost control is a multi-tier function with an emphasis on the importance of cost management throughout the Project organization:

- Primary responsibility for cost management lies with the finance department. Here, the Project budget and major cost element budgets, including Authority contingency, are managed and monitored. The finance department reports to the Change Control Board (CCB) for significant changes to Project cost;
- The Project delivery team, under the leadership of the Chief Project and Planning Officer, is responsible for managing individual contracts to budget, including cost control of contract changes; and
- As the primary interface with contractors, the Project management department takes the lead responsibility for early identification of potential impacts to contract cost, including scope changes, scope gaps, disputes, and delay. Potential impacts to the Project will be taken to the CCB for review, disposition and monitoring in accordance with change control procedures.

4.4.1 Capital Project Accounting System (CPAS)

Upon receipt of executed funding agreements from the funding sources, the Chief Financial Officer (CFO) will assign specific cost objective codes for each funding source into the Authority's CPAS. Assigning individual codes will require the Authority to provide specific expenditure data for each funding source and allow all parties to evaluate progress against costs. To achieve this, the CFO will create task codes with budgets structured in such a way as to allow efficient management of the Project.

CPAS is the primary tool for budget control and monitoring for the Project and will form the primary financial input to Project progress reports to the Authority's Board of Directors.

Prior to making modifications to CPAS, the CFO will process required technical amendments or other funding source actions. As a financial fail-safe procedure, the CPAS system will not allow budgets to be transferred away from committed funds (purchase orders, etc.).

4.4.2 Cost Estimating

Capital cost and expenditure curve estimates for the Project will be prepared at the FEIS/R and ACE levels and will be used as the basis for Project funding. FEIS/R and ACE estimates will be prepared by the FEIS/R and ACE consultants under the direction of the Authority. Capital cost estimates will include assignment of contingencies. Contingency percentages will be assigned to different Project elements according to assessment of risk.

Costs for professional services contracts will be estimated by the Project management department and used as the basis for negotiation of final cost and scope.

During final design and construction, independent cost estimates will be prepared with the assistance of the facilities and systems engineering managers. These independent estimates will be used as the basis for negotiation of final cost and scope.

4.4.3 Professional Services Agreements

To initiate professional services agreements, the following financial control steps shall be taken:

- The leads of the various departments shall prepare a purchase requisition and an estimated cost for the goods or services required and forward them to the CFO. The purchase requisition identifies all necessary Project account code data;

- Upon approval by the CFO, a purchase order for approval by the CEO shall then be issued in the Authority’s Purchasing/Accounts Payable/Materials Management System (PAPMM). The purchase order establishes the interface with the Authority’s general ledger systems; and
- Execution of the purchase order signals the start of work and creates the compensation mechanism for the same. Once invoices are posted on the general ledger system, accounting prepares an application for reimbursement, and then forwards it to the funding agency. Project accounting is the responsibility of the Authority’s CFO. Accounts payable is the responsibility of the finance department, as are properly documented authorizations for contract payments. Depending on the specific professional services being purchased, the Authority reserves the right to utilize any of the following contract mechanisms: cost-plus-fixed-fee, cost-plus-incentive-fee type of contracts, time and materials, or lump sum.

4.4.4 Construction Contracts

Cost control for the design-build contractor will be affected through the use of a payment schedule defined in the design-build contract. The design-build contractor will report value earned in their monthly pay estimate. Payment will be rendered based on the completion of specific payment milestones or schedule of values defined in the design-build contractor’s contracts, with concurrence from Authority staff.

Estimates at Completion (EAC) are used to predict the final cost of a contract work package. When the forecast EAC deviates from the budget, it signals that additional management attention is required in specific areas of the Project. It also allows management the opportunity to reduce the forecast by implementing various cost mitigation measures.

The Project Controls Manager works directly with the Director of Construction, Estimator, and Contract Manager to determine changes that might impact the cost of the Project.

4.4.5.1 Estimate-at-Completion (EAC)

The Estimates at Completion (EAC) represents the expected total cost of a project. The EAC equals the actual cost paid by the Authority for completed work (Earned Value), plus the cost estimated to complete the remainder of the Project. This Estimate to Complete (ETC) equals the remaining contract value plus projected change order costs, including the costs of identified risk elements.

The Contract Management System (CMS) maintains the Project EAC. The Project Controls Manager is responsible for ensuring that the earned value is updated monthly in the CMS system. Change orders and potential change orders are managed by the Contract Manager who is responsible for ensuring that identified scope changes are documented and maintained in the CMS. The Director of Construction identifies potential cost risks on the project and works with the Project Controls Manager to ensure that appropriate contingency funding is available.

4.4.5.2 Change Order Cost Estimating

It is important that Authority pay fair market prices for changes to the contract scope. For that reason, all change orders, potential change orders, and identified Project risks are independently estimated by the Project Controls Manager and supporting estimating staff. These estimates are utilized to evaluate the cost estimates presented by the design-build contractor for additional scope. Independent estimates are also used to assign appropriate value to potential change orders or identified Project risks so that the ETC accurately represents the anticipated Project cost at completion. The Project Risk Register is used as a tool to identify the appropriate budget within the EAC for potential change orders or claims.

4.4.5 Force Account Agreements

Force account agreements normally pertain to those agreements formed with public and private utility companies, particularly water, electric, communications, and gas. In addition, the Authority anticipates force account agreements for flagging services for construction adjacent to or on the operational freight track and the existing Gold Line. Force account services will be managed by a force account administrator assigned by the Authority.

Prior to the completion of design-build procurement, the Authority will develop and negotiate Master Cooperative Agreements (MCAs) with each of the entities as a means to identify future interfaces and reimbursement procedures.

4.4.6 Invoice Control

To initiate invoice payment, a purchase order, contract, or work authorization must be prepared and entered into the Authority's accounts payable system. Invoices received will be reviewed and recommended for payment by the appropriate department manager and approved by the CFO. Upon approval of an invoice by the CFO, a receipting form indicating the amount being approved

and status of the work shall be completed and forwarded to accounts payable. All invoices in excess of \$50,000 must be hand signed by the responsible department manager and the CFO before payment from the accounts payable.

Upon receipt of an invoice and receipting form, accounts payable shall issue payment after taking the following actions:

- Checking the invoice against the previously created purchase order;
- Paying the invoice and reducing purchase order balance by the check amount;
- Posting the transaction to Authority's general ledger system; and
- Preparing and forwarding the application for reimbursement to those funding sources.

Within the contractually required time after receipt by the Authority of each invoice, the Authority shall pay the consultant or contractor in the amount of the approved invoice. All invoice modifications, if any, shall be reviewed with the consultant or contractor to facilitate its cost control functions.

4.5 DOCUMENT CONTROL

The Authority's document control system for the Project is based upon the Authority's document control system as described in the Document Control Procedure. The document control system provides consistent document management across all contracts, including all contract deliverables and all Project correspondence. The document control system establishes an efficient and effective document control, recording, and retrieval system of items including: submittals; contracts; change orders; potential change orders; request for change notices and requests for change; non-compliance notices; Requests for Information (RFIs); schedules; budgets and cost estimates; plan drawings and specifications; general and contract correspondence; construction and progress reports; meeting minutes; contractor claims; and disputes.

Incoming and outgoing correspondence are assigned unique identification numbers and are recorded in a database for easy search and retrieval. In addition, design-build contractor submittals receive unique CDRL identification numbers and are tracked as to distribution, comments received, and final disposition (approved as submitted, approved as noted, rejected, or for record only). To facilitate document management, the Authority is using the project management web-based application by e-Builder. Details of the system are contained in the

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Authority's Document Control Procedure. The Authority will perform regular audits of the design-build contractor's document control system for conformance to the processes and procedures.

5 HUMAN RESOURCES AND LABOR RELATIONS

In implementing the Project, the Authority shall follow all applicable State and Federal regulations and internal procedures relating to human resources and labor relations. All such procedures are detailed in the Authority’s Personnel Policy and Procedure Manual. The areas covered in the policy manual directly related to the Project and as discussed in this section are:

- Staff ~~Wages~~wages;
- Staff training; and
- Equal Employment Opportunities (EEO) Program.

The manual is hereby incorporated by reference into this Project Management Plan. A copy of the manual shall be maintained on file within the offices of the Authority.

5.1 STAFF WAGES

5.1.1 Wage Rates and Classifications

Employee salaries will be established and periodically reviewed for adjustment based on the Authority’s Salary Administration Guidelines.

5.1.2 Wage and Hour Requirements

Exempt employees are those employees who occupy executive, administrative, or professional positions, including, but not limited to: the Chief Executive Officer, Administrative Services Director and Clerk of the Board, Chief Financial Officer, Chief Project and Planning Officer, Chief Contract Officer and In-House Counsel, and Chief ~~Communications~~ Communications Officer. Non-exempt employees are all employees who are not considered “exempt.”

Staffing needs and operational demands may necessitate variations in starting and ending times, as well as variations in the total hours that may be scheduled each day and week, based on Supervisor’s approval and the Authority’s work requirements.

5.2 STAFF TRAINING

The Authority staff will be held responsible for managing the Project. As such, the staff will need wide-ranging educational backgrounds with significant work experience related to the needs of

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the Project. In continuance of maintaining and enhancing the background of its staff, Authority will consider providing training programs in the following areas:

- **Project Management – Technical:** The Authority will allow employees to take advantage of numerous courses offered by various companies and agencies. Staff is encouraged to attend courses and seminars covering such topics as Project management, computer scheduling, database management, environmental law, quality assurance auditing, and other specialized courses or seminars relating to their project responsibilities; and
- **Safety Training:** Once the Project advances into construction, management staff must attend an approved site safety training seminar/courses to familiarize the staff on general industry and construction industry safety standards as required by California Occupational Safety and Health Administration (OSHA), as well as safety regulations for working in active railroad property.

5.3 EQUAL EMPLOYMENT OPPORTUNITIES (EEO)

The Authority shall fully commit to an affirmative action plan for the Project. All employment practices shall be in accordance with the applicable Federal and California Equal Opportunity laws and regulations. The Authority’s Administrative Services Director shall participate in all internal hiring activities and monitor enforcement of these regulations.

Every effort shall be made to recruit applicants from underutilized groups to fill any position. However, there is no quota system, and a needed position will not be held vacant if a reasonable recruiting effort fails to identify a fully qualified candidate from such groups.

6 RISK MANAGEMENT

In managing completion of established Project goals, the Authority will institute a Risk Management Program to identify, assess, and mitigate areas of potential risk to budget, schedule, safety, security, operations, and quality. The Risk Management process is described in the Project's Risk Management Plan, and entails information gathering, assignment of actions, assessment of the information, recording of the findings, and tracking of status and progress. The process includes the following activities:

- Identification and categorization of risks that are potentially inherent to a project of this type and magnitude;
- Identification and assessment of potentially negative impacts to the Project that are associated with the risks;
- Identification and implementation of measures to avoid, eliminate or mitigate each of the risks identified;
- Recording of the findings from the process;
- Periodic updating, re-assessment, and tracking as the mitigation measures are applied through the duration of the Project;
- Determination of approach to, and implementation of, the Project's insurance coverage needs; and
- Determination of cost contingency for the Project.

6.1 INITIAL RISK REGISTER

During ACE, the Authority will commence the risk management process by producing an Initial Risk Register (IRR). As an overview document, the IRR provides the foundation for risk management on the Project with the following:

6.1.1 Risk Definition

Risk items are identified from various sources, including lessons learned from other projects, items inherently known to be of potential risk to a project of similar nature and magnitude, and items known to present risks that are specific to the Project. Interviews and workshops with persons performing the diverse functions on the Project are performed to complete the list of items. Once identified, each risk item is numbered, typed, and categorized to assist in identifying

where mitigating actions should be applied, and assigned to an “owner” responsible for managing the actions.

6.1.2 Risk Impacts

Each risk item is further described by identifying the specific consequences, potential costs, and potential schedule delays to the Project if the risk was left unchecked.

6.1.3 Risk Assessment

By performing an evaluation factoring likelihood and severity of each risk item, a rating is determined that provides an indication of importance and priority.

6.1.4 Mitigation Plan

Finally, the measures to avoid, eliminate, or mitigate each risk item are identified.

6.2 MITIGATED RISK REGISTER

From the IRR, a Mitigated Risk Register (MRR) is developed, which presents and formats each risk item to allow monitoring, tracking and assessment updating by each of the owners. The MRR is updated on a regular basis throughout the course of the Project. Ultimately, the MRR will provide a record of actions and corresponding success in mitigating each of the risk items.

6.3 INSURANCE

Design and construction are inherently risky endeavors, and the Project presents exposure to loss and liability for all parties involved, including the Authority, the design-build contractors, the corridor cities, and other third parties. The risks on a typical design-build project include property damage, bodily injury, and design flaws. There are several different types of insurance programs that can be used to protect the Authority from many of the risks associated with the Project.

The insurance for the Project is categorized into two general types: professional liability and construction. Within the professional liability category there are two common approaches. One is a project specific policy and the other is to use existing insurance policies used by the firms performing the work on the Project. There are numerous types of construction insurance programs but these programs are generally divided into two categories. One is when all parties involved obtain their own individual policies and the other is when there is one umbrella or wrap

policy. Within the wrap policy category, either the owner or the contractor obtains and administers the policy.

The Authority has conducted a detailed evaluation of the appropriate insurance programs for the design-build contracts, including discussions with the Metro Risk Management Department. Based on this evaluation, the Authority will implement a project specific professional liability policy and a Contactor Controlled Insurance Program (CCIP). The project specific professional liability policy will provide the Authority a significant amount of protection from risk as it is free from any encumbrances or changes to the individual firms' policies and provides consistent coverage for all professional services firms. A wrap insurance program is intended for the construction insurance because it will provide a consistent level of coverage for all subcontractors, ensure dedicated and adequate coverage limits, provide single claims process, and eliminate duplications and gaps in the insurance program. A CCIP over an Owner Controlled Insurance Program (OCIP) is intended because the design-build contractor is better equipped to manage the majority of the project risks; a CCIP will further encourage the design-build contractor to have a robust safety program, relieving the Authority of the responsibility of administering an insurance and claims program.

The Authority will coordinate with Metro's Risk Management Department to establish the proper coverage, liability and deductible levels. The cost of the insurance program, both professional liability and the CCIP, will be included in the design-build contractor's lump sum fixed price proposals for each of the design-build contracts. Copies of the final insurance "binders" will be provided to Metro's Risk Management Department for review.

As a minimum, the program will provide the following:

- Standard Commercial Automobile Liability Insurance;
- Workers' Compensation and Employer's Liability Insurance;
- Commercial General Liability Insurance;
- Railroad Protective Liability Insurance;
- Watercraft and Aircraft Liability Insurance;
- Umbrella/Excess Liability Insurance;
- Contractor's Pollution Liability Insurance;
- Builder's Risk Insurance;
- Professional Liability Insurance;
- Property Insurance;
- Pollution Legal Liability; and

- Valuable Papers Insurance.

6.4 CONTINGENCY

In consideration of insurance coverage and execution of the Risk Management Program, the Authority will establish a contingency amount in the Project budget for items not covered by insurance, not predictable, and not completely avoidable by mitigation.

7 SYSTEMS SAFETY AND SECURITY PROGRAMS

In addition to the mandated California state safety oversight requirements, as defined by the California Public Utilities Commission (CPUC), the Authority will institute system safety and security programs for the Project to ensure that the proper considerations are made in defining and implementing the Project scope. The construction safety program is addressed in Section 13 of this plan.

7.1 PRELIMINARY HAZARD ANALYSIS

Prior to completion of ACE, a conceptual Preliminary Hazard Analysis (PHA) will be conducted to identify and systematically assess conditions, which could potentially affect the safe construction and operation of the transit system. The purpose of the PHA is to identify hazardous conditions, which could exist; evaluate the effects of the hazards to personnel and equipment; and define designs and criteria to eliminate or control the identified hazards. The PHA report is provided in the contract documents as a starting point for the design-build contractor to update and mitigate the associated hazards during implementation of the Project.

7.2 FIRE / LIFE SAFETY AND SECURITY COMMITTEE

During ACE the Authority will establish a Fire / Life Safety and Security Committee (FLSSC) comprising representatives of fire department, law enforcement, and safety agencies having jurisdiction for the alignment. The Committee will convene on a regular basis to address matters and resolve issues regarding safety and security on the Project. The meetings will provide an opportunity for the Authority, and ultimately the design-build contractor, to address the requirements, concerns, and interests of these agencies in both design and implementation.

7.3 SAFETY AND SECURITY CERTIFICATION

As required by CPUC General Order (GO) 164-D section 11.2, "*Each RTA (Rail Transit Agency) shall prepare a Project specific Safety Certification Plan for each of its projects.*" The Authority has completed and attained informal CPUC approval for the Safety and Security Certification Plan (SSCP) for the Glendora to Montclair segment. The SSCP will be officially sent to the CPUC for approval after March 5, 2016.

The SSCP outlines the Project safety certification process and responsibilities, discussing the following 10 elements required for successfully certifying the Project:

- **Design Verification:** Checklists will be developed that include requirements of design criteria, specifications, and applicable codes and regulations;
- **Construction Verification:** Checklists will be developed that include field verifications and audits performed to confirm that construction is completed as intended;
- **Inspections:** The equipment and facilities are inspected to verify that the contract requirements are properly implemented;
- **Hazard & Vulnerability Management:** Any hazards or vulnerabilities that become apparent during design reviews, audits, inspections or testing are resolved, either by redesign, by implementation of special procedures, or by other effective forms of hazard mitigation;
- **Testing Verification:** A comprehensive testing program will be developed that provides a high level of design, installation and performance verification, beginning with factory acceptance, and then field acceptance includes component and systems integration testing;
- **Rules, Operations & Training Verification:** Contract requirements will be established to ensure that Metro employees are adequately trained on the equipment in coordination with the Authority and design-build contractor via required vendor training. Metro will also verify that its employees are familiar with the new alignment and trained to operate, maintain, and respond to any incidents that may occur;
- **Emergency Response Exercises:** Emergency response training exercises will be performed by Metro with support from the Authority and its design-build contractor, as well as involved first responder agencies, to assure local fire and law enforcement agencies are familiar with the project and its operation prior to revenue service;
- **Fire/Life Safety & Security Committee (FLSSC):** The FLSSC will verify that the Project is compliant with applicable fire codes and regulations; ready for Certificate(s) of Occupancy for fire/life safety considerations, as required; and free of security concerns;
- **Safety and Security Certification Review Team (SSCRT):** The SSCRT will comprise the appropriate personnel from the Authority, design-build contractor, and Metro, as appropriate, to verify that the project is ready for safety and security certification by the

CPUC prior to opening date, in compliance with CPUC GO-164D. Reviews will commence during the Project’s final design phase, and the team will convene on a regular basis that is consistent with design and construction progress and the Project schedule; and

- **Safety and Security Certification Verification Report:** Responsible participants of the SSCRT will verify that the Safety and Security Certification process has been properly completed by means of certificates or discussion in the Safety and Security Certification Verification Report (SSCVR).

The design-build contractor, in conjunction with the Authority’s participation and oversight, will be responsible for safety and security certification of the Project design and construction, whereas Metro will be responsible for certifying its operational readiness and the light rail vehicles (LRV).

8 CONFLICT RESOLUTION AND DISPUTE MITIGATION

The purpose of this section is to outline a framework which mitigates conditions that may result in disputes and claims submitted by professional services, design-build contractors, and/or equipment and materials suppliers. This section also addresses resolution of disputes in the event the parties are unable to reach resolution.

8.1 CONSULTANT DISPUTES

It is anticipated that from time to time disputes may arise between the Authority and its consultants. Both the Authority and the consultant(s) parties assume responsibilities to minimize the occurrence of disputes as follows:

- The Authority’s CEO or Authority representative shall endeavor to define work scopes in plain and precise language that avoids the use of vague or ambiguous wordings; and
- The consultant shall provide its services in conformance with the scope set forth in the contract. Any changes to the scope of work must be approved in writing by the CEO or Authority representative.

Disputes arising in the interpretation and intent of the work required, or in the performance of the same, shall be mediated jointly between the Authority’s CEO and the consultant’s Program Manager.

Should initial efforts fail to resolve a dispute, each contract will provide specific remedy provisions and contract language to advance the dispute to resolution through third parties, termination for convenience, or assigning tasks to another consultant to perform the work.

8.2 COOPERATING AGENCY DISPUTES

All contract documents must be compatible with the goals and objectives of the cooperating agency as are outlined in Master Cooperative Agreements (MCAs) or Memoranda of Understanding (MOUs) executed between the cooperating agency and the Authority wherein design requirements, design and construction support, and cost reimbursement provisions are specified to the extent possible. To avoid potential disputes, it is the primary responsibility of the Authority to ensure that the Advanced Conceptual Engineering (ACE) integrates compulsory standards mandated by the cooperating agencies, into the contract documents to produce an end

product that meets these standards, while at the same time achieving the desired operational objectives.

Resolution of disputes with the cooperating agencies will be documented in writing between the Authority and the affected agency. However, acceptance of a resolution by cooperating agency may also be accomplished through approval of plans, specifications, comment resolution forums, or other resolution-driven contract documents.

In the event of a dispute that is significant in nature, the MCA or MOU, as applicable, will include a process for resolving disputes which include but are not limited to:

- Establishment of a Dispute Resolution Board (DRB);
- Process governing the actions of the DRB;
- Feasibility of arbitration and the process through which arbitrators are chosen; and
- Other items that clearly detail the terms under which a major dispute is to be resolved.

8.3 DESIGN-BUILD CONTRACTOR DISPUTES

Many tasks or activities necessary to mitigate issues are performed concurrently during pre-construction and construction phases of the Project.

8.3.1 Pre-Construction Phase Mitigation Responsibilities

The design-build contractor is responsible for preparing complete plans and specifications during the design and pre-construction phase; coordinating design efforts to assure that there are no gaps between consecutive scopes of work; providing designs meeting constructability standards; and incorporating accepted modifications from design reviews and value engineering. The design-build contractor maintains the schedule for the submittal of the design documents and coordinates the design reviews at the preliminary, pre-final, and final design completion points in the design process. Once a design package has been submitted, according to schedule, design-build contractor will conduct comment resolution meetings with the Authority and all cooperating agencies to discuss any issues or deviations from the initial review of the design. As a minimum, review comments for these packages will include design adequacy, owner requirements, completeness, constructability, schedule, and cost effectiveness. Authority staff will monitor the design-build contractor’s design and pre-construction activities for compliance with plans, specifications, and contractual provisions. All necessary design changes and deviations are accepted by the Authority and cooperating agencies prior to the start of the construction.

Pre-construction and post-construction surveys or inspections of existing buildings and structures adjacent to the right-of-way are conducted by the design-build contractor and provided to the Authority for review, record, and file. The survey provides documentation, including photographs and written descriptions, to identify and record conditions existing prior to construction and record any damage caused by the construction.

8.3.2 Construction Phase Mitigation Responsibilities

The design-build contractor conducts periodic job coordination meetings and keeps detailed minutes. Discussions at these meetings include work progress, reviews of schedule, as well as field, administrative, and Project issues. The design-build contractor assigns responsibility and deadlines for resolving Project issues.

The design-build contractor will review the work for compliance with plans, specifications, Project definition documents, and contractual provisions. The design-build contractor’s staff also has responsibility for maintaining the overall project schedule as well as monitoring the Contract Schedules. They record construction milestones and compare the schedule progress against actual observed field progress. From time to time, the design-build contractor shall be requested to provide mitigation plans to recover the schedule if the contractor is not maintaining schedule progress. The design-build contractor and Authority will participate in the review of submissions and as-built schedule to ensure accurate recording of schedule progress.

The design-build contractor is required to process payment requests, change notices, and change orders in a timely manner according to the pre-established contract policies and established levels of the Authority. The design-build contractor is required to prepare monthly progress reports summarizing work progress to date.

The design-build contractor is required to plan, schedule, and expedite the delivery of Metro standardized materials and equipment, including warehousing and coordination between supplier and design-build contractor for these items.

The design-build contractor gathers existing documentation relating to disputed work and documents through correspondence, notices, memos, diaries, etc., and photographs continuing actions and events when a potential claim is recognized.

8.3.3 Conflict and Dispute Submittals through Change Management

The Project's contracts allow the design-build contractor to be compensated for increased costs or delays associated with work outside the original baseline scope of work. Any submission of claims and disputes by the design-build contractor or its subcontractors during the Project must meet all requirements set forth in the contract documents. Any adjustments for increased costs or time extensions must adhere to the Request for Change (RFC) process. Any RFC that has been deemed merited and is approved by Authority or its designee is processed as a change order. If the request is denied and the design-build contractor believes the request has merit, the design-build contractor may ask to elevate the request to executive management for resolution. If executive management is unable to resolve the dispute, the matter will be referred to the Dispute Resolution Board (DRB), as outlined by the contract documents.

Any claims for time extensions must include a revised construction schedule showing effects of the delay and proposals to minimize these effects. No claim for time extension is considered after final payment is made.

8.3.4 Claims and Disputes Resolution through Dispute Resolution Board (DRB)

If the Authority and the design-build contractor are unable to settle any claim for increased costs or time extensions, Authority and the design-build contractor may agree to submit the claim to a Dispute Resolution Board (DRB).

The DRB acts an unbiased body whose primary purpose is to assist and facilitate resolution of disputes between the contracting parties. The DRB, acting independently, can offer observations and opinions regarding new and pending issues. This preliminary assessment provides both contracting parties with an early indication as to the potential outcome of the dispute. Such indications often motivate the parties to resolve the dispute through negotiations before the matter escalates to more formal forums. It is intended that the DRB encourage the Authority and design-build contractor to resolve potential disputes without resorting to an appeal process. The recommendations of the DRB are based on the contract documents, applicable law, and information provided at hearings. If a party rejects the DRB's recommendations, it may appeal the recommendation. If the amount in controversy is less than the binding levels in the contract, then the appeal decision shall be binding and final on the parties. If the amount at issue is greater than the binding contract level, either party may submit the dispute to judicial resolution by filing a complaint in the proper jurisdiction court for judicial review.

Provisions for the establishment of a DRB will be included in each major design-build contract. With the establishment of a DRB, the parties will be required to enter into a Disputes Board Agreement which formalizes the creation and operations of the DRB.

8.4 PARTNERING

The Authority is committed to a partnering process with its design-build contractor and subcontractors. The partnering process is intended to draw on the strengths of each organization to help identify and achieve reciprocal goals, including achieving completion of the work on time, within budget, and in accordance with the contract documents. A primary consideration of partnering is the prompt and equitable resolution of issues affecting the conduct of the work under the contract and the rights and responsibilities of the respective parties. Requirements for a bilateral partnering process will be incorporated into each major contract specification.

9 ENVIRONMENTAL COMPLIANCE PROGRAM

9.1 PROJECT ENVIRONMENTAL COMPLIANCE

This section addresses the Authority's plan to ensure compliance with the National Environmental Policy Act (NEPA) and/or the California Environmental Quality Act (CEQA), when applicable, and also addresses the environmental permitting process for the Project.

9.1.1 CEQA/NEPA Compliance

The Project is required to comply with the laws and regulations as set forth in NEPA and/or CEQA. NEPA and CEQA are similar laws with a common purpose: examining and weighing the potential environmental consequences of proposed government actions before such actions are undertaken. Meeting the requirements of these State and Federal Laws, the environmental analysis of the Project alternatives requires an evaluation of the Locally Preferred Alternative's (LPA) impact upon the following topics:

- Transportation;
- Land use and planning;
- Neighborhoods;
- Acquisitions and displacements;
- Population growth and housing;
- Economic and fiscal conditions;
- Public services and utilities;
- Visual quality and aesthetics;
- Safety and security;
- Cultural resources;
- Air quality;
- Noise and vibration;
- Geology and seismicity;
- Hazardous materials;
- Water resources;
- Natural resources;
- Energy;
- Electromagnetic fields;

- Recreation;
- Demographics, environmental justice, and protection of children;
- Section 4(f) evaluation; and
- Construction impacts.

During Advanced Conceptual Engineering (ACE), the FEIS/R consultant shall complete their review of the ACE consultant's engineering efforts and recommend applicable mitigations for harmful environmental impacts imposed by the Project. The ACE consultant shall then mitigate the impact by design or other means.

A FEIS/R will be prepared by the FEIS/R consultant and shall identify environmental impacts and mitigations using NEPA and/or CEQA regulations and guidelines. The FEIS/R will also include the commitment to implement the mitigation measures required to reduce significant impacts. In conjunction with the FEIS/R, the Authority will prepare Findings of Fact, Statement of Overriding Considerations, and a Mitigation Monitoring Program to achieve a Record of Decision and/or a Certified EIR.

Once the Authority Board of Directors certifies the FEIS/R and approves the Project, the FTA may be requested to issue the Project a Record of Decision to move into final engineering and construction, depending on the funding source.

9.2 ENVIRONMENTAL PERMITS

The Authority shall identify environmental permits required to be obtained by the Authority to facilitate Project implementation. The Environmental Manager will determine which permits will be obtained by the Authority (Authority-provided permits) and which permits will be obtained by design-build contractors.

The following permits will be obtained for implementation of all design and construction activities:

- Clean Water Act, Section 404 permit from the United States Army Corps of Engineers (USACE);
- Rivers and Harbors Act, Section 408 from USACE;
- Clean Water Act, Section 401 water quality certification from the California Regional Water Quality Control Board (RWQCB);
- Lake or Streambed Alteration Permit, Section 1602; and

- National Pollutant Discharge Elimination System (NPDES) Construction General Permit for Stormwater discharges, from the State Water Resources Control Board.

Besides waterways, other protected resources may be affected by implementation of the Project. Issuance of a Section 404 permit for the transportation corridor may trigger consideration of the other federal laws, regulations, and policies that will be coordinated by the Environmental Manager:

- Endangered Species Act (federal and state);
- Migratory Bird Treaty Act; and
- Clean Air Act.

9.2.1 Hazardous Materials Management

The Authority will perform environmental investigations along the alignment to identify contaminated and hazardous substances existing within the project right-of-way. Because the Authority is considered the generator of any regulated waste removed from the project right-of-way, the Environmental Manager will prepare required submittals and permits necessary to ensure that there are no negative environmental impacts during construction to reduce the likelihood of present or future environmental liability. The Environmental Manager will ensure the following:

- Environmental protection is provided and maintained for the duration of the project;
- Environmental protective measures to control pollution that develops during normal construction practices are planned for and provided, and subsequently removed upon project completion;
- Environmental protective measures required to correct conditions that develop during the construction of permanent or temporary features associated with the project are planned for and provided; and
- The project complies with Federal, State and local regulations pertaining to the environment, including water, air, solid waste, hazardous waste and substances, oily substances, and noise pollution.

The Authority shall obtain a United States Environmental Protection Agency identification number for the tracking and management of all hazardous wastes generated along the Project right-of-way. The following practices and procedures shall be implemented and overseen by the

Environmental Manager as a measure of reducing potential liability to the Authority due to the management of hazardous materials:

- Sampling/analysis plan;
- Procedures ensuring a written waste determination is made for appropriate wastes; Methods of waste accumulation/storage (i.e., in tanks and/or containers);
- Management procedures for storage, labeling, transportation, and disposal of waste (treatment of waste onsite is not allowed unless specifically noted);
- Management procedures and regulatory documentation ensuring disposal of Hazardous Waste complies with Land Disposal Restrictions (40 CFR 268);
- Management procedures for recycled, re-used, or reclaimed solid waste, contaminated materials, or non-hazardous waste;
- Used oil management procedures in accordance with 40 CFR 279;
- Pollution prevention/waste minimization procedures;
- Plans for the disposal of all wastes by permitted facilities; and
- Procedures ensuring all required employee training records are maintained.

10 DESIGN PROGRAM

The Chief Project and Planning Officer (CPPO), with the support of the project management team, will manage the Project's design activities. The Project's design program will advance through four stages, each corresponding to a shift in scope and responsibility regarding design development and implementation. Prior to contracting for fixed-price, design-build services, it is beneficial from a risk perspective to identify, to the maximum extent possible, all design requirements resulting from: community planning goals, location decisions, environmental impacts, design criteria, system operating considerations, engineering solutions, and cost and schedule improvements and constraints. Decisions regarding alignment, locations of structures and equipment, construction techniques, and design approaches will be most effectively made prior to this critical milestone to minimize rework and promote design progression with efficiency.

Design activities, along with corresponding roles and responsibilities, will change as the Project progresses through the four major stages defined below:

- Stage I – Planning (Environmental Impact Studies and Conceptual Engineering);
- Stage II – Advanced Conceptual Engineering (ACE);
- Stage III – Final Design; and
- Stage IV – Construction, Testing and Commissioning.

10.1 DESIGN REQUIREMENTS AND STANDARDS

The designs produced for the Project will conform to applicable codes, standards, manuals, directives and criteria. Although not comprehensive, the following listing identifies some of the prominent requirements that will establish the Project's design definition:

- Metro design criteria documents, and standard and directive drawings;
- Caltrans Standard Specifications;
- California Public Utilities Commission (CPUC) General Orders (GO);
- Southern California Regional Rail Authority (SCRRA) Design Criteria and Standards;
- American Railway Engineering and Maintenance-of-Way Association (AREMA) manuals;
- Code of Federal Regulations (CFR);
- International Building Code (IBC);
- National Fire Protection Association (NFPA) codes;
- Federal Highway Administration (FHWA) standards and manuals;

- American Association of State Highway and Transportation Officials (AASHTO) specifications;
- Occupational Safety and Health Administration (OSHA) requirements; and
- Americans with Disabilities Act (ADA).

In addition to the applicable published documents, the Project's designs will conform to specific performance and operating requirements identified during coordination efforts with the various stakeholders.

10.2 ENGINEERING MANAGEMENT

The Authority's design team, under the direction of the CPPO, will be responsible for overall management, administration, and oversight of all design activities on the Project. It is intended that the actual technical design and engineering production be contracted to outside consultants and contractors, as appropriate to the Project stage; however, at the discretion of the CPPO, PMC staff may be assigned individual design tasks that are required to support the overall design effort.

The Authority's organization will be structured to monitor the complete spectrum of design elements required on the Project. Because of the varied nature of the design approach and activities, the design organization will be structured into two "departments": Facilities Engineering and Systems Engineering. The directors of each of these departments will report directly to the CPPO, and close coordination between the two will be maintained to ensure that an integrated, seamless light rail transit (LRT) system is designed.

The Authority's design team will be responsible for performing the following:

- Oversight of the Stage I studies, statements, reports and design documents, especially to assure compliance with the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA) requirements, as applicable. This oversight role requires close coordination with the Authority's legal counsel experienced in NEPA and CEQA regulations and requirements;
- Monitoring of the design production processes through Project completion, including assurance of proper content, quality, constructability, and reliability and maintainability; as applicable to engineering reports, calculations, drawings, specifications and associated construction documents;

- Review of design documents to ensure adherence to codes and standards, design criteria, standard specifications, general design planning concepts, standard drawings, directive drawings, systems assurance considerations, fire/life safety and security requirements, operations and maintenance considerations, and good design practices;
- Oversight of, and participation in, design reviews, peer reviews, constructability reviews, value engineering reviews, quality assurance reviews, and other evaluation processes during the design development activities to ensure tracking and resolution of issues prior to commencement of construction;
- Monitoring and verification of design documentation prepared subsequent to Stage I, relative to compliance with environmental impact statements, mitigation measures and environmental assessments;
- Conducting public hearings, presentations and reports as necessary to present Project, facilities, systems and services to the community and agencies that are involved or concerned;
- Preparation of agreements with public and private agencies, as required;
- Coordination and identification of interfaces with Metro and other third parties;
- Oversight of, and technical input to, contracted designers; and
- Test witnessing, observation and review, as appropriate.

10.3 FACILITIES ENGINEERING

Facilities Engineering comprises the architectural, civil, corrosion control, utility, trackwork, structural, geotechnical, traffic signaling, traffic control, surveying, right-of-way, mechanical, plumbing, and facilities-electrical elements of the Project.

Throughout the Project's duration, the Authority's organization will be structured and staffed to perform Facilities Engineering services, management and oversight, as appropriate to the Project stages and activities. Facilities Engineering staff will comprise a full-time Director of Engineering, Civil Engineer, Station Coordinator, and other appropriate full-time engineering positions, along with temporary support staff on an as-needed basis, to provide the varied expertise required. Coordination and interface design with systems elements, existing Gold Line facilities, elements provided by Metro and other third parties and stakeholders will be key functions for the Authority's Facilities Engineering staff.

10.4 SYSTEMS ENGINEERING

Systems elements for the Project include: traction power; Overhead Contact System (OCS); signaling / train control; communication systems, including Carrier Transmission System (CTS), Closed Circuit Television (CCTV), Fire Detection System (FDS), Intrusion Detection System (IDS), Public Address (PA), radio system, Supervisory Control and Data Acquisition (SCADA), telephones, and Visual Message Signs (VMS); Light Rail Vehicles (LRV); and the Universal Fare System (UFS).

Throughout the Project's duration, the Authority's organization will be structured and staffed to perform systems engineering services, management and oversight, as appropriate to the Project stages and activities. Systems Engineering staff will be comprised of a Director of Systems, Communications Engineer, and Signals Engineer, along with temporary support staff on an as-needed basis. Interface design and systems integration will be an especially critical function of Systems Engineering, as Metro will be furnishing Traction Power Substations (TPSS), new CTS equipment and infrastructure in the Phase 1 segment of the Metro Gold Line, radio equipment, the existing SCADA system, LRVs, UFS equipment, and Rail Operations Control (ROC).

10.5 DESIGN ACTIVITIES IN PROJECT STAGES

As the Project progresses through its four stages from inception to completion, the scope and nature of the design activities change, along with roles and responsibilities of the Authority staff, consultants and contractors. Following are descriptions of those design activities, roles and responsibilities during each stage of the Project.

10.5.1 Stage I – Planning (Environmental Impact Studies and Conceptual Engineering)

The initial planning study for the project is called the "Project Definition." The Project Definition addresses various planning, development, land use, community participation, station location, route alignment, environmental, operations and maintenance issues. These are presented to the Authority, associated agencies and related community groups for endorsement by the FEIS/R Consultant. These studies examine significant factors such as, topography, geology, roadway improvements, right-of-way, utility networks, and private and public developments in or along the Project alignment. The work will be performed under the direct supervision of the Authority. Primary technical input and review for this stage will be the responsibility of the Director of Engineering and Facilities Engineering staff. Systems Engineering staff will provide technical input and review for those systems elements deemed to require environmental clearances.

Typically, TPSS site locations for real estate considerations, and track crossover configurations and locations for noise and vibration considerations will be addressed.

A competitive procurement for professional services will be used to select a team as the FEIS/R Consultant. The selected consultant will be responsible for the following activities:

- Review existing information, applicable data, development criteria, standards, environmental issues, community issues, and information provided to develop the basis for design;
- Initiate evaluation and analysis of traffic, noise, and planning issues to facilitate resolution of community concerns;
- Develop a satisfactory basis for a realistic schedule and budget for conceptual design;
- Develop engineering studies and reports to present alternate project development concepts for the work;
- Prepare Draft Environmental Impact documents that comply with NEPA and CEQA, as applicable, and all technical information as described in the professional services contract;
- Conduct scoping meetings and public hearings to present Project information to the public. The FEIS/R Consultant will also analyze community comments/requests for agency response in route planning, station locations and other germane aspects of the Project;
- Assist in meeting with the affected agencies and representative groups, as requested to present the design concepts to the general public; and
- Prepare a basis of design document.

The FEIS/R Consultant will develop detailed work plans and schedules for acceptance by the Authority. NEPA and CEQA, as applicable, environmental scoping meetings will be conducted based on preliminary Definition of Alternatives Report developed by the FEIS/R Consultant and in conjunction with local jurisdictional requirements. This plan is based on the FTA and Authority as joint lead agencies; with the FTA for NEPA compliance, and Authority for CEQA compliance. The documents will be prepared as a NEPA/CEQA EIS/R document referencing NEPA and CEQA, to meet federal and state requirements, respectively, and as applicable.

During this stage, the FEIS/R Consultants will prepare the Final Environmental Impact Statement/Report (FEIS/R). The fundamental requirements are to complete the environmental analysis and documentation required under NEPA and CEQA, as applicable, for the Project.

10.5.2 Stage II – ACE

Significant design issues are typically identified during the planning work. During Stage II, the issues will be further investigated and resolved. The primary design product from ACE will be required engineering study reports, and engineering drawings and performance specifications developed to an adequate level for solicitation in a design-build delivery method.

Typically, the FEIS/R Consultant will also be contracted to provide engineering services for ACE; however, a separate competitive procurement may be planned at the discretion of the CPPO. Also, the CPPO may elect to assign PMC staff members design tasks for ACE.

Authority responsibilities during Stage II will be general oversight and monitoring of, and technical input to, the ACE consultant's design activities. Facilities Engineering will oversee the ACE consultant's facilities design effort, and provide design services as needed in establishing the facilities requirements for the Project, reviewing the associated design-build specifications and drawings. Systems Engineering will oversee the ACE consultant's systems design effort, and provide design services as needed in establishing the systems requirements for the Project, reviewing the associated design-build specifications and drawings. Typical studies performed during ACE include the Traction Power Load Flow Study, geotechnical investigation, PSR-PR, and assessment of UFS equipment quantities and infrastructure needs. The Authority will conduct a preliminary constructability review and industry review as part of the process. The ACE consultant has the following responsibilities during the ACE design process:

- Review information from Stage I, including agreements with third parties, FEIS/R requirements, design criteria, standards and directives, LRV fleet requirements, technical study reports, operations requirements, along with the basis of design statements;
- Develop a satisfactory basis for a realistic project design schedule;
- Refine the basic scope-of-work and design details that affect alignment, station location, right-of-way purchases, equipment selection, and operations planning for the Project;
- Review Metro Gold Line Phase 1 systems elements and ensure that the remainder of the Project will functionally work as one rail system;
- Define the impact of Project construction on governmental agencies, railroads, utilities and other affected parties;
- Develop and verify right-of-way acquisition needs; commence certification of full property takes; delineate, mathematize and certify partial takes; identify and certify easements, as well as identify other property acquisition needs;

- Develop preliminary cost estimates;
- Update the basis of design document;
- Meet with affected agencies, and representative groups, as requested, to coordinate and finalize the ACE drawings;
- Define the contract packages for Project implementation; and
- Provide design input for contract addenda, as requested.

The ACE consultant will advance and refine the Stage I conceptual designs. During Stage II, extensive coordination with Metro, SCRRA, local agencies having jurisdiction, and other regulatory agencies will occur. Deviations to applicable design criteria will be identified and will be submitted formally for approval, as appropriate. The design-build contract documents, including performance specifications and contract drawings will be developed. Typical drawings produced in Phase II will be as follows:

- Right-of-way;
- Alignment Plan and Profile;
- Typical Sections and Cross Sections;
- Preliminary Structures;
- Trackwork Schematics;
- Preliminary Stations and Station Site Plans;
- Grade Crossings for CPUC review and approval;
- Landscape;
- Existing Composite Utilities; and
- Systems Drawings.

10.5.3 Stage III – Final Design

Following the completion of ACE, the selected design-build contractor will proceed with final design. The design-build contractor will be responsible for the development of design details necessary for manufacturing, fabrication, and construction. Final dimensions, locations, and associated details will be provided on signed and sealed engineering drawings and documents. The design-build contractor will be responsible for preparing engineering drawings supported by calculations and specifications to define the technical requirements for construction and fabrication of the following project elements:

- Architectural, civil, corrosion control, utility, rail and special trackwork, structural, geotechnical, mechanical, traffic signaling, traffic control, surveying, right-of-way, and facilities-electrical designs, along with interface design with the systems elements;
- Detailed designs and books of plans for traction electrification/OCS, signaling/train control and communications systems. Drawings will include circuit plans, equipment layout plans, wiring diagrams, field installation drawings, shop drawings, and interconnection block diagrams;
- Assurance that final design is consistent with project requirements;
- Internal design-build contractor technical design support during construction, testing and commissioning; and
- Coordination of design with governmental agencies (i.e., Caltrans, L.A. County, local jurisdictions, and Utilities).

The design-build contractor will be the Designer of Record for the Project and will be responsible for all technical design and specifications for the construction of work within the specific design-build contract documents and coordination, as required, with other contractors on the Project.

The Authority will be responsible for overseeing the activities of the design-build contractor in the development of designs for all elements within contract-defined limits of the work. Facilities Engineering will focus on the facilities aspects of the design. Systems Engineering will monitor the design-build contractor's systems design approaches, progress and attention to integration. Systems Engineering will review all systems design submittals, including equipment and product selections, reports, interface submittals, books-of-plans, and test procedures.

10.5.4 Stage IV – Construction, Testing & Commissioning

The primary responsibility for design during this stage is design support during construction, testing, and commissioning. In order to assure continued compliance with applicable criteria, standards, etc., the Authority will oversee any Requests for Information (RFIs) generated by the design-build contractor for the purpose of formally obtaining information to move forward with the Project.

System Engineering's role during construction, testing, and commissioning will continue with review of submittals, including installation documents, test reports and final commissioning procedures. Systems Engineering will continue to respond to RFIs, monitor and witness testing

and start-up activities, and participate-in/oversee Safety and Security Certification, and other ongoing Safety and Security programs and activities.

10.6 DESIGN CONFIGURATION CONTROL

Maintaining configuration control of the design documents throughout all stages of the Project is critical to ensure that all design, construction, and commissioning work is performed on the basis of the most current, approved versions. The process includes the following:

- The planning phase will culminate with documents that form the design basis for the subsequent phases. The FEIS/R Consultant will be required to develop a document log and drawing inventory. Both will be updated as changes to the base documents are finalized;
- During Stage I, the ACE consultant will continue the tracking of all changes to each drawing and document. Prior to issuing the contract documents for solicitation each revision to the drawings will be noted with a revision date in the title block. During the procurement period, any changes issued by an addendum will be identified by an alpha character in the "Rev." field of the title block. The final drawing/document revisions will be issued as the contract *Execution* version;
- The design-build contractor will be required to submit a Configuration Management Plan for Authority acceptance;
- Where specific Project segments fall within Caltrans right-of-way, coordination with Caltrans will be required for specific configuration requirements related to their facilities. Configuration control will ensure Caltrans standards are incorporated in all submittals for design, change orders, and as-built drawings. Configuration control procedures will ensure Caltrans is made aware of any design or configuration changes on all pertinent Project documents;
- A design review procedure to distribute design documents, perform design reviews, track design reviews and verify the status of open comments has been established by the Authority and will be implemented in conjunction with the design-build contractor's activities.

10.7 DESIGN REVIEW PROCESS

To ensure the design is progressing and being managed effectively, the Authority's project management team will monitor the design processes and provide oversight review and maintain design related correspondence for the record during each of the Project stages.

The reviews will include the following:

- Technical compliance review;
- Fire/Life Safety and Security review;
- Environmental review;
- Constructability review;
- Operability review;
- Utility review; and
- Public art incorporation review.

The appropriate staff member of the project management team will be assigned as a review manager to one or more of the above reviews based upon qualifications and experience.

10.7.1 Technical Compliance Review

Review of the facilities and systems design documents will be managed by the Director of Engineering and Director of Systems, respectively, to ensure that all relevant codes, standards, and technical requirements are incorporated. As a minimum, the following applicable requirements will be checked:

- Metro requirements, including Rail Design Criteria, Metro Fire / Life Safety Criteria, Metro Rail Standard and Directive Drawings, and Standard Specifications;
- SCRRRA requirements, including Design Criteria and Specifications;
- IBC;
- Uniform Plumbing Code;
- ADA requirements;
- AREMA manuals and standards;
- OSHA standards;
- NFPA Codes, including National Electrical Code (NEC);
- SCRRRA requirements;
- BNSF requirements;

- CPUC GOs;
- Caltrans requirements;
- AASHTO specifications;
- FHWA requirements and standards;
- Local City and County requirements,
- Utility Owner requirements; and;
- Other codes standards and specifications identified in the Project's contract documents.

10.7.2 Fire / Life Safety and Security Review

This review will include at a minimum all relevant CPUC, State, and local codes and regulations, as well as the Metro Fire/Life Safety Design Criteria. The status of fire/life safety and security reviews of the documents will be monitored at the FLSSC meetings.

10.7.3 Environmental Review

Both NEPA (when applicable) and CEQA compliance will be reported by the design-build contractor and reviewed by the Authority. Chapter 9 of this document identifies the environmental concerns to be addressed.

10.7.4 Constructability Review

Formal constructability reviews will be established by the design-build contractor, as appropriate, at various milestones within the design development process. The Director of Engineering, Director of Construction, Director of Systems, Deputy Chief Project Officer, and required support staff will review constructability review reports and/or attend constructability review meetings to ensure the Project can be constructed in light of physical and environmental constraints.

10.7.5 Operability & System Review

To ensure the system, as designed, can be operated effectively and efficiently, Metro and SCRRA/Metrolink, as appropriate, will be requested to participate in a review of pertinent designs for the Project. This review will focus on the stations, track, maintenance needs, and the system elements such as signaling, traction electrification, and communications.

Operating rulebooks and procedures will be included in the contract package to provide operational guidance regarding the systems elements that support Metro's operations in a safe and reliable manner.

10.7.6 Utility Review

The Director of Construction, in coordination with the Director of Engineering, will assure the design-build contractor's proposed construction addresses the required rearrangement, protection-in-place, or relocation of the existing utilities identified on the ACE drawings.

10.7.7 Public Art Incorporation Review

The Authority's Station Coordinator will oversee the system's public art program including attending appropriate project status meetings, City and Authority meetings, and working with the artists. Reviews of the ACE and final design will ensure that the artwork is incorporated into the design as appropriate.

10.7.8 Design Review Submittals

During the final design process, the design-build contractor will be required to submit the developing designs for review at specified levels of completion, including preliminary design (workshop), interim design (60%), pre-final design (85%) and final design (100%).

10.8 RELIABILITY, AVAILABILITY, AND MAINTAINABILITY

Reliability, availability, and maintainability are in the general heading of Systems Assurance (SA). During ACE, Systems Engineering will incorporate the Systems Assurance requirements into the contract documents for the design-build contractor to implement a program during final design that establishes Systems Assurance goals for key systems, equipment, and assemblies.

Through analyses, the design-build contractor will determine the specific Systems Assurance requirements, which will be factored into equipment selection. Systems Engineering will monitor and review the program. Achieved total system reliability will be demonstrated as an aspect of the System Performance Demonstration (SPD) required after Substantial Completion, but before Final Acceptance.

11 REAL ESTATE ACQUISITION PROGRAM

This section describes the real estate acquisition program for the Project and the process related to the identification, appraisal, acquisition, relocation, and interim property management of real property required for the Project. The Authority is empowered to acquire property through authority conferred by the State of California in Public Utilities Code Section 130051.15 and 132410. Eminent Domain procedures are set forth in the California Code of Civil Procedures 1230.010, etc. Resolution No. 2011-R-02 defines the rules and regulations for implementation of the California relocation assistance and real property acquisition guidelines for the Authority.

Additionally, Master Cooperative Agreements (MCA), between the Authority and five cities along the Project alignment have been executed. Within these MCAs, provisions regarding property conveyance and exchange between the parties have been defined.

11.1 IDENTIFICATION OF PROPERTY

Properties required for the Project will be identified during ACE (with the exception of temporary construction easements which will be identified and acquired by the design-build contractor). The types of acquisitions anticipated are as follows:

- Fee;
- Easements; and
- Temporary construction easements.

The existing ownership of parcels required for the Project will be identified. Engineering, surveying, and other related activities to define the limits of the property required, will be performed by consultants.

Property owners include the following:

- Private property owners;
- Public agencies;
- Los Angeles County;
- Caltrans; and
- Cities along the Project alignment.

11.2 APPRAISALS

All real estate appraisals required will be performed by independent certified real estate appraisers and based on current market conditions. Just Compensation for the property is then based on fair market value estimate, as determined by the appraisal. The following summarizes the appraisal process:

- The selection of independent fee appraisers (if applicable) is based on qualifications and experience.
- The property owner is notified in writing of the Project requirements and the name(s) of the selected appraiser(s).
- The appraiser prepares an independent appraisal report to provide an estimate of fair market value.
- Just compensation is recommended by the review appraiser and approved by the Authority Board of Directors.

In accordance with the city MCAs, city-owned properties which are required for the Project will not be required to go through the appraisal, negotiation, offer, and agreement process, to the extent permissible by law.

11.3 PROPERTY ACQUISITION

The need to acquire real property (in fee or easement) will be determined by the Authority. Such transactions shall either be uncontested or contested acquisitions.

Acquisitions shall follow the following property acquisition process which was successfully used during Phase 1 and the Pasadena to Azusa segment.

11.3.1 Property Acquisition Process

Once a property is identified as needed for the Project, the following actions will be taken:

- The Authority will prepare a parcel map for the property including an additional deed research;
- The Authority will obtain a title report from a private title guarantee company;

- The CEO or designee will formally notify the property owner that the Authority and its consultants will enter its property, under provisions of California Statutes, to survey the property and to conduct geotechnical, hazardous materials and other analyses;
- The property owner is formally advised of the Authority's intent to conduct appraisals;
- The Authority's hazardous material remediation consultant will perform the necessary borings, testing, and analysis to provide plans and cost estimates for any in-site hazardous materials remediation;
- The Authority will review the results of the hazardous materials work for consistency with other remediation estimates for the Project;
- The Board of Directors will review and approve all appraisals and determinations of fair market value before an offer is made to a property owner;
- Once the appraisal has been reviewed, a right-of-way negotiator will initiate the offer consisting of the appraisal amount and conduct negotiations consistent with the authority granted by the Board of Directors and every reasonable effort will be made to acquire the property through negotiation; and
- If contested, the Board of Directors will conduct a Hearing of Necessity and consider the exercise of its power of Eminent Domain. If necessary, the Board of Directors will instruct staff to initiate condemnation proceedings.

11.3.2 Land Acquisition by Agreement

Upon successful completion of negotiations, the acquisition will be finalized based upon approval by the Board of Directors and transfer of ownership is completed through escrow.

11.3.3 Contested Land Acquisition

If it is determined by the CEO, with the advice of real estate and legal personnel, that the property owner will not sell the property, or requires a price too high compared to the appraised value, the CEO will initiate acquisition utilizing Eminent Domain proceedings provided by the SB-1847 if authorized by the Board of Directors.

Once it has been determined that bona fide negotiations will not result in an agreement with a property owner, the condemnation process will be considered and if approved by the Board said process will be initiated.

11.4 RELOCATION PLAN

Relocations shall be accomplished in accordance with applicable State and Federal laws and requirements. On April 13, 2011 the Construction Authority Board of Directors adopted Resolution 2011-R-02 setting forth Rules and Regulations for Implementation of the California Relocation Assistance and Real Property Acquisition Guidelines. These guidelines will be used to develop and execute relocation settlements.

11.5 PROPERTY MANAGEMENT

Owners and tenants may continue to occupy properties on an interim basis after Authority acquisition, until the property is needed for construction. Interim property management may include short-term leases for continued uses of a building until it is needed for construction, fencing, and securing of vacant parcels or structures, and maintenance of land.

11.6 CONSTRUCTION EASEMENTS

The design-build contractor will be responsible for identifying and acquiring temporary construction easements. If the negotiations are unsuccessful, the Authority may proceed with condemnation.

11.7 UTILITY EASEMENTS

The Authority, its consultants, and the design-build contractors will identify properties required to relocate or rearrange utility facilities in coordination with the affected owning utility company. The Authority will initiate negotiations with the property owner(s) to obtain the necessary property rights. If negotiations are unsuccessful, the Authority may consider proceeding with condemnation. Upon completion of the relocation and/or rearrangement, and in conjunction with the MCA with the owning utility company, the property interest obtained by or for the Authority for the relocated and/or rearranged utility will be transferred to the owning utility company.

11.8 EXCESS REAL PROPERTY

Certain real property, held in trust by the Authority, may be determined to be not required for the Project. If such real property is desired for acquisition by a private or public party (with whom there is no cooperative agreement), the property disposition process as described in section 11.8.1 shall be followed.

Within the city MCAs, provisions regarding property conveyance and exchange, between City and Authority have been defined, and shall be followed.

11.8.1 Property Disposition Process

Once a property which is held in trust by Authority has been identified as not being required for the Project and is desired for acquisition by a private or public party (with whom there is no cooperative agreement defining property conveyance procedures), the following actions will be taken:

- The Authority will define the area to be disposed of. If a parcel is intended to be split or “carved out” of a larger parcel, a survey will be completed with a legal description prepared to define the area;
- The defined area will be reviewed by the Authority CEO;
- The Board of Directors will be presented with a report regarding the proposed property disposition and will then authorize the property disposition, if applicable;
- Appraisal of the property will be prepared by an independent certified real estate appraiser, unless deemed not required by the Board of Directors due to the anticipated value of the property;
- The Board of Directors will review and approve all appraisals and determinations of fair market value before a purchase and sale agreement is executed; and
- Transfer of ownership will be completed through escrow.

12 PROCUREMENT PROGRAM

The underlying premise of Authority procurement program is to foster free and open competition and to provide specified goods and services and enter into contracts, including Joint Development Agreements, on a timely basis and in a cost-effective manner. The Authority will follow sound business and public policy principles in its procurements so that they are performed efficiently and in a manner that serves the best interest of the Authority and the public. Refer to Authority's Administrative Code, Title III, which establishes the framework, standards, and procedures of Authority's procurement program.

13 CONSTRUCTION PROGRAM

The Construction Program will be executed through a construction management process which addresses the following:

- Construction Management;
- Construction Control;
- Construction Compliance Audits;
- Construction Safety;
- Community Interface in regard to Construction; and
- The Emergency Communication Action Plan.

13.1 CONSTRUCTION MANAGEMENT

Construction management is the process of exercising control over the progressing construction and fabrication work through monitoring the design-build contractor's compliance with the contract documents. For those projects executed under the design-build procurement methodology, the construction management and quality monitoring functions typically performed by an owner's construction manager have been assigned to the design-build team. To assure the design-build contractor meets the contract requirements, the Authority will require by contract that the design-build contractor develop detailed procedures for controlling quality, cost, and schedule. The Authority has established an oversight team to audit contractor compliance with these procedures. These positions will be filled by individuals with specialized experience in the construction of structures, systems, and trackwork. The Authority will provide oversight of the design-build contractors' construction, quality control and assurance, project control, and construction safety activities.

13.2 CONSTRUCTION CONTROL

The design-build contractors shall complete the construction and fabrication of the facilities and systems in accordance with the provisions of the contract with the Authority along with their design and construction documents, applicable laws, regulations and codes. Such implementation will be consistent with the design-build contractor's quality assurance and control plan, safety plan and other documents approved by the Authority. Contract specifications will require that the design-build contractor provides a copy of all project documents to the Authority. Critical submittals, as identified in the Contract Data Requirements List (CDRL) list, require

Authority review and approval. The procedures for control of construction documents are contained in Section 4 of this plan.

13.3 CONSTRUCTION COMPLIANCE AUDITS

The Authority's overview of construction will consist of field surveillance activities on an intermittent basis performed on the design-build contractor's construction processes, procedures, and activities. Such efforts will be focused on auditing the design-build contractor activities for adhering to its internal quality control, quality assurance, and corrective action procedures established in their quality management plan. The Authority quality audit staff will document daily observations, monitor corrective actions identified and undertaken by the design-build contractor, and engage the contractor where negative trends are developing. Records maintained by Authority field staff will also document the design-build contractor's daily personnel reports and equipment records for schedule monitoring, production measurement, and claims mitigation purposes. Detailed procedures for quality compliance auditing of the design-build contractor's performance during construction are contained in the Authority's Quality Management Plan.

13.4 CONSTRUCTION SAFETY

Employees, contractors, and their dedicated employees are the most important assets of the Project, and the safety and health of all employees is paramount to the success of the program. It is the Authority's policy that every person is entitled to a safe and healthful place in which to work. Establishment and maintenance of a safe environment is the shared responsibility of the Authority and design-build contractors at all levels of the program. The Authority considers the safety of its workforce to be a core value, and requires everyone's full cooperation. Safety will not be ignored when it is convenient; it is integral to the success of the Project. There is no job so important – nor any service so urgent – that Project staff cannot take time to work safely.

Once the Project moves into construction all construction activities shall be conducted in accordance with the Construction Safety Code as promulgated by the California Department of Labor and Industry under the authority of the Construction Safety Act, MBLSA 34:5-166 to 34:5-181. Where the Construction Safety Code refers to the designation of a general contractor for enforcing compliance with the code, such designation shall be intended to refer to all agencies and firms performing work under the program, including:

- Design-build contractor;
- Subcontractors; and

- Third party agencies.

The contract documents will also reference the rules governing the performance of work within public streets and highways. The contractor shall obtain from California DOT and from the county and the cities having jurisdiction, the requirements for maintenance and protection of motor vehicle, bicycle, and pedestrian traffic. Design-build contractors are responsible for the avoidance of accidents causing injuries or property damage in their respective sphere of control.

Each design-build contractor shall provide the essential leadership and influence to attain maximum control regarding safety and health hazards. These principals are embodied in the contract documents. All safety activities shall be conducted in accordance with the design-build contractor's approved safety plan. Since the work involves working in an active railroad right-of-way, the design-build contractor is also responsible for enforcing all required on-track safety and security requirements for all Project personnel (including Authority staff) entering the railroad right-of-way.

The Authority will review safety plans submitted by design-build contractors for conformance with their contract. The Authority will monitor the design-build contractors' safety performance to verify compliance with their safety plan. The Authority will also attend design-build contractor safety meetings on a regular basis.

Safety is the direct responsibility of all participants during construction. Each participant is responsible for staying abreast of the requirements of laws pertaining to construction safety. The Authority will provide periodic railroad and general construction safety training to staff planning to visit the construction site.

The design-build contractor will also be responsible for preparing a safety plan and field manuals specifically geared to the Project. The plan shall include a comprehensive listing of safety standards, and roles and responsibilities of all Project participants. The means to monitor and enforce safety shall be addressed as well as the procedures for evaluation and mitigation of hazardous conditions. It is also important that the design-build contractor communicate with the Authority when safety related incidents or near misses on the project site occur. A notification matrix has been defined in the Authority's Emergency Communication Action Plan; part 2 of the Emergency Communication Action Plan addresses safety guidelines for Authority staff when visiting project sites or responding to job site emergencies.

13.5 COMMUNITY INTERFACE

The success of the Project will largely depend upon successfully managing interfaces with the public, project stakeholders, businesses, and residents impacted by the construction effort. Each design-build contractor will be required to develop a comprehensive and proactive communications program that coordinates/integrates with the Authority's ongoing communications program. Each plan will be uniquely designed to meet the needs of the individual project, and will be overseen by the Authority's public affairs department. These include implementation of required mitigation measures, development of informational material, community outreach (e.g., community walks and meetings), media and social media outreach, and daily coordination with impacted parties. As interfacing with the community is an important component of the program during each phase of project delivery, a specific approach is presented in Section 14, *Public Participation/Public Relations*, of this Plan.

13.6 EMERGENCY COMMUNICATION ACTION PLAN

The Authority's Emergency Communication Action Plan establishes response guidelines and responsibilities for Authority staff and management in the event of an emergency on a construction site or other event likely to create public or media interest. This Emergency Communication Action Plan shall be used to prepare for, oversee, and evaluate the handling of communications around an emergency situation both internally and externally. As emergencies are frequently associated with, or in direct response to, safety incidents, the plan is divided into two sections: 1) emergency communication and 2) safety guidelines for Authority staff when visiting the Project site or responding to job site emergencies.

14 PUBLIC PARTICIPATION/PUBLIC RELATIONS

The Authority’s goal for the ongoing public participation process is to increase public awareness about the Project and to solicit comments during the public review process as mandated by the National Environmental Policy Act (NEPA) and by the California Environmental Quality Act (CEQA).

The key components of the public participation program include community outreach, public relations, media outreach, and board and elected official briefings, each outlined below.

14.1 PUBLIC PARTICIPATION PROGRAM

14.1.1 Community Outreach

Community outreach for the public participation program involves:

- Conducting regular meetings with the communities;
- Attending and participating in local events and activity centers to distribute the latest Project information;
- Creating and implementing milestone events;
- Developing and implementing community presentations;
- Coordinating and providing guided tours; and
- Developing public awareness and safety education programs.

14.1.2 Public Relations

The public participation program’s public relations activities include:

- Developing and updating public information materials;
- Providing information to City and community-based organization newsletters and websites;
- Sending stakeholders updated information through such avenues as direct mail, e-mail blasts, and text messages; and
- Producing and distributing Project-related video and webisodes.

14.1.3 Media Relations

Media relations activities of the public participation program include:

- Ongoing media relations efforts including creating and distributing press releases and advisories, targeted media briefings and story pitching, invitations to milestone events/tours, and responses to media requests; and
- Expanding use of social media platforms to reach new audiences, including the media.

14.1.3.1 Interface with the Press and the Public

Project staff, consultants, and contractors are prohibited from discussing project details with the press without explicit approval by the Authority. Staff should follow approved protocols, and defer all questions to the Authority’s Chief Communications Officer.

14.1.4 Board of Directors and Elected Official Briefings

The public participation program will provide assistance to the Board of Directors and elected officials in the development of reports and briefings.

15 THIRD PARTY MANAGEMENT

Third Party staff will work to develop, negotiate, and execute agreements with third parties (Cities, Agencies, and Utility Owners). The agreements will define the roles and responsibilities of the third party during the planning, procurement, design, and construction of the Project, as well as how the third party will be paid for any work/service, if applicable.

Third Party staff will manage the third parties during the Project and will coordinate with design-build contractor and third parties in the relocation of conflicting structures. Third Party staff will monitor and track design reviews and submittals issued to third parties, in addition to the progress of third parties' work.

Third Party staff will establish, negotiate, and manage work authorizations and billings with/from third parties.

15.1 PARTICIPATING THIRD PARTIES

15.1.1 Los Angeles County Metropolitan Transportation Authority

The Los Angeles County Metropolitan Transportation Authority (Metro) is the owner of the Project alignment and will become the designated operator of the Gold Line once construction is substantially complete. Metro is involved in the Project from conception to completion and provides various documents and services to the Project, including:

- Design criteria and standards and approval of waivers thereto;
- Membership of Fire/Life Safety Committee;
- Leadership of the Rail Activation Group;
- Design review;
- Provider of rail vehicles and operators;
- Operating procedures and rule book;
- Central control and train dispatch;
- Certain maintenance and operations personnel and services during testing and start-up;
and
- Maintenance and operations personnel and services from pre-revenue operations onwards.

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Additionally, Metro will provide certain procurements and equipment for the Project, such as fare gates, Ticket Vending Machines (TVMs), and light rail vehicles (LRVs).

The relationship between Metro and the Authority is formalized through a Master Cooperative Agreement (MCA) and funding agreement.

15.1.2 San Bernardino County Transportation Authority (SBCTA)

The San Bernardino County Transportation Authority is the owner of the Project alignment in San Bernardino County. SBCTA is involved in the Project from conception to completion and provides design review for the Project. SBCTA will be responsible funding Metro's operations and maintenance within San Bernardino County.

The relationship between SBCTA and the Authority will be formalized through a Construction Agreement.

15.1.3 Southern California Regional Rail Authority (SCRRA)

The Southern California Regional Rail Authority (SCRRA) is the operator and maintainer of the Metrolink commuter train system within portions of the right-of-way. SCRRA's role on the Project is to ensure that any freight/Metrolink track relocation within the Project is compatible, functionally connected, and operative with the existing freight/Metrolink trackway system.

The relationship between SCRRA and the Authority is formalized through a Master Cooperative Agreement (MCA).

15.1.4 California Public Utilities Commission

The California Public Utilities Commission (CPUC) is the designated state safety oversight agency. The CPUC is responsible for review of the Project from a safety standpoint and for review of the Project for compliance with CPUC General Orders (GOs) and regulations.

15.1.5 California Department of Transportation

The California Department of Transportation (Caltrans) is involved in the Project to the extent that portions of the Project crosses, or are within, Caltrans' right-of-way. Where this occurs, the design must be coordinated with Caltrans and, where applicable, comply with Caltrans standards. Caltrans has approved the Project Study Report - Project Report (PSR-PR) for the Glendora to

Montclair segment of the Project, which identifies portions of the Project that are within Caltrans' jurisdiction.

The relationship between Caltrans and the Authority is formalized through an MCA.

15.1.6 BNSF Railway

The BNSF Railway has a Shared Use Agreement with Metro, providing them exclusive access rights to the rail corridor for the freight rail service. BNSF is involved in the Project to the extent that existing freight tracks are modified and relocated as part of the Project.

Metro will execute an Amendment to the Shared Use Agreement with BNSF for the purpose of establishing freight track relocation placement. This agreement also outlines the design review process for BNSF's review of Project drawings.

15.1.7 Cities

There are six corridor cities for the Glendora to Montclair segment of the Project. The roles, responsibilities, and relationship between the Authority and each corridor city are formalized through an MCA. Agreements have been executed with the following corridor Cities:

- Glendora
- San Dimas
- La Verne
- Pomona
- Claremont
- Montclair

Portions of the Project will be located outside the rail right-of-way, but inside City right-of-way. In places that this occurs, the design must be coordinated with the jurisdictional City and, where applicable, comply with City standards.

15.1.8 Local and Other Agencies

The Project requires coordination and approval from various other agencies, including the U.S. Army Corps of Engineers (USACE); Los Angeles County Department of Public Works; the Southern California Regional Rail Authority (SCRRA/Metrolink); and the Federal Railroad Administration (FRA).

Agreements defining the agency's interaction with the Authority have been executed with the following agencies:

- Los Angeles County Department of Public Works; and
- USACE Los Angeles District.

15.1.9 Utility Owners

There are numerous utilities which will be impacted by the Project, inside and outside the railroad right-of-way. Some utilities are owned by one of the aforementioned corridor Cities or County agencies, whereas many other utilities are owned by a utility company or private party. In some instances, license agreements exist between the utility owner and the owner of the railroad right-of-way, now Metro, but held in trust by Authority. These license agreements define the roles and responsibilities of the utility owner and owner of the railroad right-of-way, with respect to that specific utility crossing. To address instances where such license agreements do not exist, the roles and responsibilities, and relationship between the Authority and various utility companies are formalized through an agreement, namely, a Memorandum of Understanding (MOU). Such agreements will be executed with:

- LA County Sanitation Districts;
- Metropolitan Water District;
- Golden State Water;
- Southern California Edison;
- Charter Communications;
- AT&T;
- Southern California Gas Company; and
- Frontier.

In instances where there are no agreements with the utility owner and/or no license agreement for a specific utility crossing, the Third Party staff will work with the utility owner to define the roles and responsibilities of both parties.

Any improvement or relocation of a utility will require the review and approval of the utility owner.

16 QUALITY ASSURANCE/ QUALITY CONTROL

Quality management will be executed through a quality management process which addresses the following:

- Design compliance with all the mandatory criteria and mandatory regulations;
- Accuracy of calculations, dimensions, scales, etc.;
- Configuration Management to control design changes;
- Construction conformance and work quality; and
- Process audits.

Quality assurance requirements are incorporated into each process and procedure, including the construction management, design management, and project control systems as defined in Sections 4, 10, and 13 of this PMP. To confirm compliance with these established processes and procedures, the Authority will retain an independent process auditor to periodically evaluate and report on general conformance, as defined in the Authority's Quality Management Procedure.

16.2 FINAL DESIGN AND CONSTRUCTION QA/QC CONTROL PLAN

The QA/QC program to be employed for the Project will be similar to those used on other design-build projects. The design-build contractors will be responsible for Quality Assurance (QA) and Quality Control (QC) and the Authority will be responsible to ensure quality compliance by the design-build contractors. Contents of the program include the following:

- Design-build contractor's QA/QC management plans;
- Authority's Quality Management Procedure;
- Standards compliance;
- Authority verification of plan implementation;
- Design-build contractor's configuration management plan;
- Design-build contractor's document control plan; and
- QA/QC management plan update process.

16.3 QUALITY SYSTEM REQUIREMENTS

A quality system is defined as the organizational structure, responsibilities, procedures, processes and resources for implementing quality management. The quality system

requirements for the design-build contractors will be in accordance with ISO 9001 and include the following items:

- Management responsibility;
- Quality system;
- Contract review;
- Design control;
- Document and data control;
- Materials purchasing;
- Control of customer-supplied product;
- Product identification and traceability;
- Process control;
- Inspection and testing;
- Control of inspection, measuring and test equipment;
- Inspection and test status;
- Control of nonconforming product;
- Corrective and preventive action;
- Handling, storage, packaging, preservation and delivery;
- Control of quality records;
- Internal quality audits;
- Operational training;
- Statistical techniques; and
- Standards compliance.

The design-build contractor's Quality Assurance and Control Plan shall comply with all applicable laws and regulations of all State, regional and regulatory agencies exercising jurisdiction over the project including, but not limited to:

- Caltrans;
- Americans with Disabilities Act (ADA);
- American Railway Engineering and Maintenance of Right-of-Way Association (AREMA);
- American Society for Testing and Materials (ASTM); and
- California Uniform Construction Code (UCC).

17 TESTING AND ACTIVATION

This section describes the Project organization and plan for testing and activation of the Project. The Director of Systems will be assigned responsibility for Authority oversight and management of the Project's testing and activation program, including associated liaison with Metro and SCRRA/Metrolink.

17.1 INTEGRATION TESTING AND START-UP PLAN

The design-build contractor will develop and submit for Authority approval an integration testing and start-up plan that describes the planned organization, roles and responsibilities, schedule, procedures, and activities for testing and activation of the Project. Integration testing will be performed in two phases, Phase 1 and Phase 2, each of which will require the design-build contractor's participation in lead and support roles. The plan will focus on the activities for integrated testing and the support of rail activation. The plan will not describe operational staffing needs, as this is the responsibility of Metro. The integration testing and start-up plan will include the following sections:

17.1.1 Introduction

This section will provide a general description of the Project and contracting regime, an overview of the responsibilities of the major Project participants, and stated objectives of the integration testing and rail activation program.

17.1.2 Project Organization

This section will describe the Project organization and define the roles and responsibilities relative to testing and start-up, including those of the Authority staff; the design-build contractor; Metro; SCRRA/Metrolink; and regulatory agencies such as the CPUC and FRA. This section will specifically identify the role of Metro's rail activation group in organizing, managing, and scheduling integrated testing and activation activities.

17.1.3 Integrated Testing

This section will identify and describe each of the tests to be conducted, along with the pre-requisites for each and planned testing sequence.

17.1.4 Testing Schedule and Resource Allocation

This section will provide an integration testing schedule that is compatible with the master Project schedule, and establish resource allocations for the design-build contractor, the Authority, Metro, and other agencies participating in and supporting the integration testing and start-up activities.

17.2 FACTORY AND LOCAL FIELD ACCEPTANCE TESTING

Factory and local field acceptance testing are solely the responsibility of the design-build contractor, including the development of the testing plan, test procedures, scheduling and execution of tests, and submittal of test reports. The Authority will be notified in advance of all testing to provide ample opportunity to witness testing. Tests to be performed are defined mainly by the design-build contract documents, and as mandated by national, state, and local standards and codes. The tests performed for the various Project elements are typical and traditional for a transit system project.

Authority witnessing of testing will focus on tests that are determined to be of highest risk to the Project, and especially those tests that will impact rail activation, safety, and system performance.

17.3 INTEGRATION TESTING

Phase 1 of the integration testing is primarily the responsibility of the design-build contractor, including the development of a testing plan, test procedures, execution of tests, and submittal of test reports. Phase 2 integration testing will primarily be led by Metro for those Project elements that Metro will provide, including point-to-point testing of SCADA at Metro's Rail Operations Control (ROC). The design-build contractor, Authority, and Metro will discuss, organize, and schedule integration tests through the ROC (refer to Section 17.1). Tests to be performed will be defined in the design-build contract, in addition to traditional tests performed for the various Project elements.

Some tests require the support of Metro-provided facilities and equipment, especially rail vehicles for the overhead contact system (OCS) and train control local field acceptance dynamic testing. The contract documents contain specific requirements, including earliest availability, limitations on quantity, and requirements for prior notification/request.

17.4 FIRE AND EMERGENCY DRILLS

Fire and emergency drills are primarily the responsibility of Metro, including the development of a testing plan, test procedures, and execution of tests. The design-build contractor, Authority and Metro will discuss, organize and schedule tests through ROC (refer to Section 17.1) and the Fire/Life Safety and Security Committee.

Metro will organize and execute (with as-needed design-build contractor assistance) fire/life safety and emergency drills to enable emergency responders to simulate various emergency situations. The list of drills to be performed will be defined by the Fire/Life Safety and Security Committee.

The design-build contractor will be required to provide as-needed support to Metro fire and emergency drills.

17.5 PRE-REVENUE OPERATIONS

Pre-revenue operations testing is primarily the responsibility of Metro, including the development of a testing plan, test procedures, and execution of tests.

The design-build contractor will be required to provide as-needed support to Metro during pre-revenue operations in order to respond to any problems or issues that arise.

17.6 POST-REVENUE TESTING

During the first months of revenue operations, the design-build contractor will be required to conduct a 30-day system performance demonstration to demonstrate the ability of the system to achieve the required on-time performance of rail operations.

APPENDIX A: ACRONYMS

The following acronyms are used throughout this PMP:

AASHTO	American Association of State Highway and Transportation Officials
ACE	Advanced Conceptual Engineering
ADA	Americans with Disabilities Act
APTA	American Public Transit Association
AREMA	American Railway Engineering and Maintenance of Right-of-Way Association
ASTM	American Society for Testing and Materials
AT&SF	Atchison, Topeka & Santa Fe Railway
BNSF	BNSF Railway
CCIP	Contractor-Controlled Insurance Program
CCTV	Closed Circuit Television
CDRL	Contract Data Requirements List
CCB	Change Control Board
CCO	Chief Contracting Officer
CEO	Chief Executive Officer
CEQA	California Environmental Quality Act
CFO	Chief Financial Officer
CFR	Code of Federal Regulations
CMS	Contract Management System
CPAS	Capital Project Accounting System
CPM	Critical Path Method
CPPO	Chief Project and Planning Officer
CPUC	California Public Utilities Commission
CTS	Carrier Transmission System
DBE	Disadvantaged Business Enterprise
DEIS/R	Draft Environmental Impact Statement/Report
DRB	Dispute Review Board
DUI	Document Upload Interface
EAC	Estimate at Completion
EEO	Equal Employment Opportunities
ETC	Estimate to Complete
FDS	Fire Detection System

FEIS/R	Final Environmental Impact Statement/Report
FFGA	Full Funding Grant Agreement
FHWA	Federal Highway Administration
FLSSC	Fire/Life Safety and Security Committee
FMEA	Failure Modes & Effects Analysis
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
GO	General Order
IBC	International Building Code
IDS	Intrusion Detection System
IRR	Initial Risk Register
JPA	Joint Powers Authority
LACMTA	Los Angeles County Metropolitan Transportation Authority
LACTC	Los Angeles County Transportation Commission
LPA	Locally Preferred Alternative
LRT	Light Rail Transit
LRV	Light Rail Vehicle
M&O	Maintenance & Operations Facility
MCA	Master Cooperative Agreement
MOU	Memorandum of Understanding
MRR	Mitigated Risk Register
NEC	National Electrical Code
NEPA	National Environmental Policy Act
NFPA	National Fire Protection Association
NPDES	National Pollutant Discharge Elimination System
NTP	Notice to Proceed
OCIP	Owner-Controlled Insurance Program
OCS	Overhead Contact System
OSHA	Occupational Safety and Health Administration
PA	Public Address
PAPMM	Purchasing/Accounts Payable/Materials Management System
PE	Preliminary Engineering
PHA	Preliminary Hazards Analysis
PMC	Program Management Consultant
PMOC	Program Management Oversight Consultant

PMP	Project Management Plan
PSR-PR	Project Study Report – Project Report
QA	Quality Assurance
QC	Quality Control
QCP	Quality Control Program
QMS	Quality Management System
RAG	Rail Activation Group
RFC	Request for Change
RFI	Request for Information
RFP	Request for Proposals
ROC	Rail Operations Control
ROD	Record of Decision/Revenue Operations Date
ROW	Right-of-way
RTA	Rail Transit Agency
RWQCB	Regional Water Quality Control Board
SA	Systems Assurance
SAV	Stand-Alone Validator
SBCTA	San Bernardino County Transportation Authority
SCADA	Supervisory Control and Data Acquisition
SCRRA	Southern California Regional Rail Association
SCRTD	Southern California Rapid Transit District
SDAR	Station Design and Art Review
SPD	System Performance Demonstration
SSCP	Safety and Security Certification Plan
SSCRT	Safety and Security Certification Review Team
SSCVR	Safety and Security Certification Verification Report
TAC	Technical Advisory Committee
TBD	To Be Determined
TPSS	Traction Power Supply Substation
TVM	Ticket Vending Machine
UCC	Uniform Construction Code
UFS	Universal Fare System
USACE	United States Army Corps of Engineers
VE	Value Engineering
VMS	Visual Message Sign

YOE Year of Expenditure

APPENDIX B: PROJECT SCHEDULE

PROJECT MILESTONES/SCHEDULE

Following are the Glendora to Montclair segment milestones.

<u>MILESTONES</u>	<u>TARGET DATES</u>
Project Ground Breaking	October 2017
Advanced Utility Relocation Contract (DB1)	
Award Contract	October 2017
Substantial completion <u>Completion</u>	September 2018
Final Acceptance	January 2019
<u>Pole Line Elimination Contract</u>	
<u>Award Contract</u>	<u>May 2018</u>
<u>Substantial Completion</u>	<u>August 2019</u>
<u>Final Acceptance</u>	<u>February 2021</u>
Alignment Design-Build Contract (DB2 <u>Glendora to Pomona</u>)	
Award Contract	August 2019
Substantial Completion (Glendora to Pomona)	January 2025
Final Acceptance (Glendora to Pomona)	January 2026
ROD (Glendora to Pomona)	May 2026
CPUC Approval of Safety Certification (Glendora to Pomona)	May 2026
<u>If Glendora to Montclair Option is exercised:</u>	

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Alignment Design-Build Contract (Pomona to Montclair)

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PROJECT MANAGEMENT PLAN

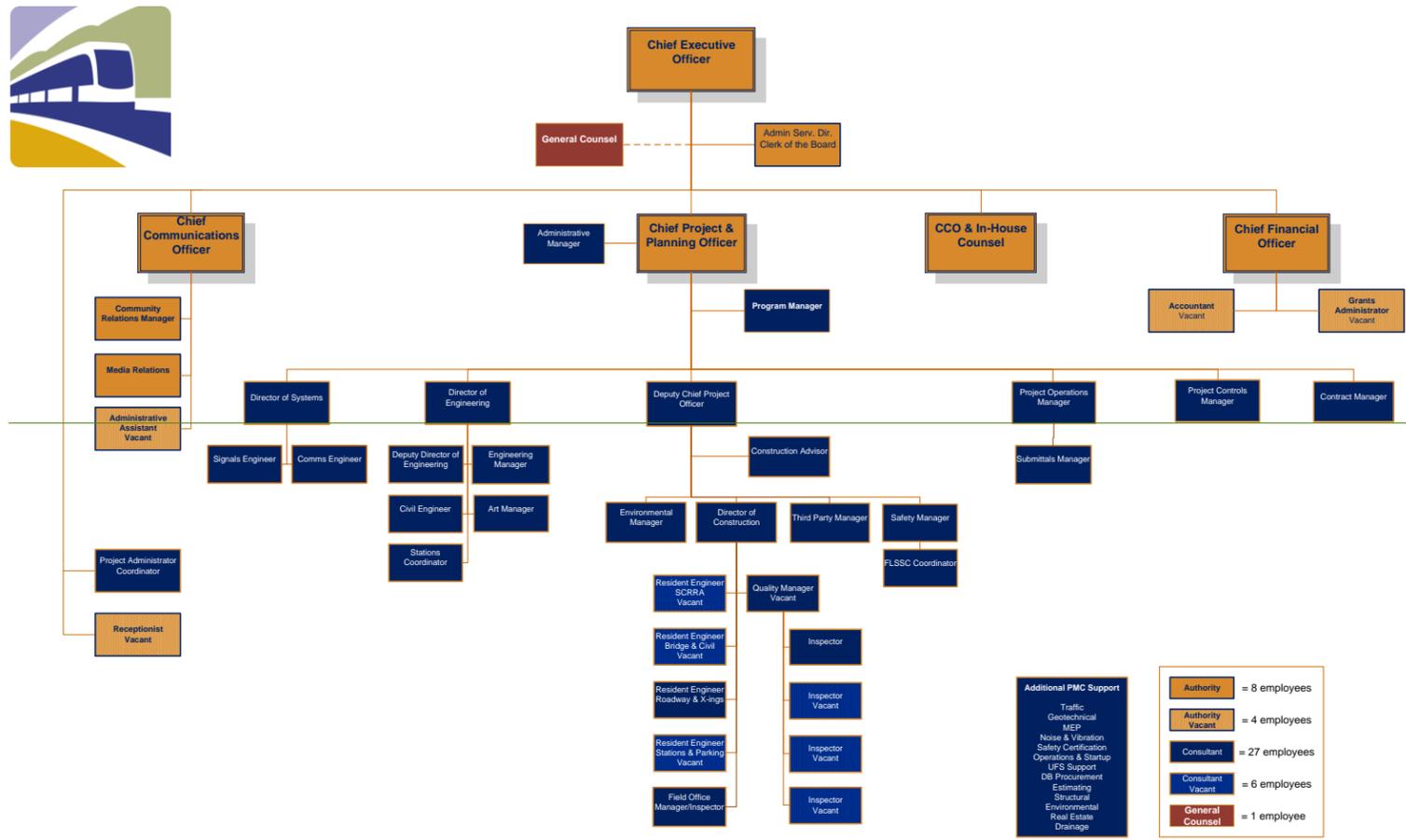
<u>Award Contract</u>	<u>TBD</u>
Substantial Completion (Glendora to Montclair)	January 2026 <u>TBD</u>
Final Acceptance (Glendora to Montclair)	January 2027 <u>TBD</u>
ROD (Glendora to Montclair)	May 2027 <u>TBD</u>
CPUC Approval of Safety Certification (Glendora to Montclair)	May 2027 <u>TBD</u>

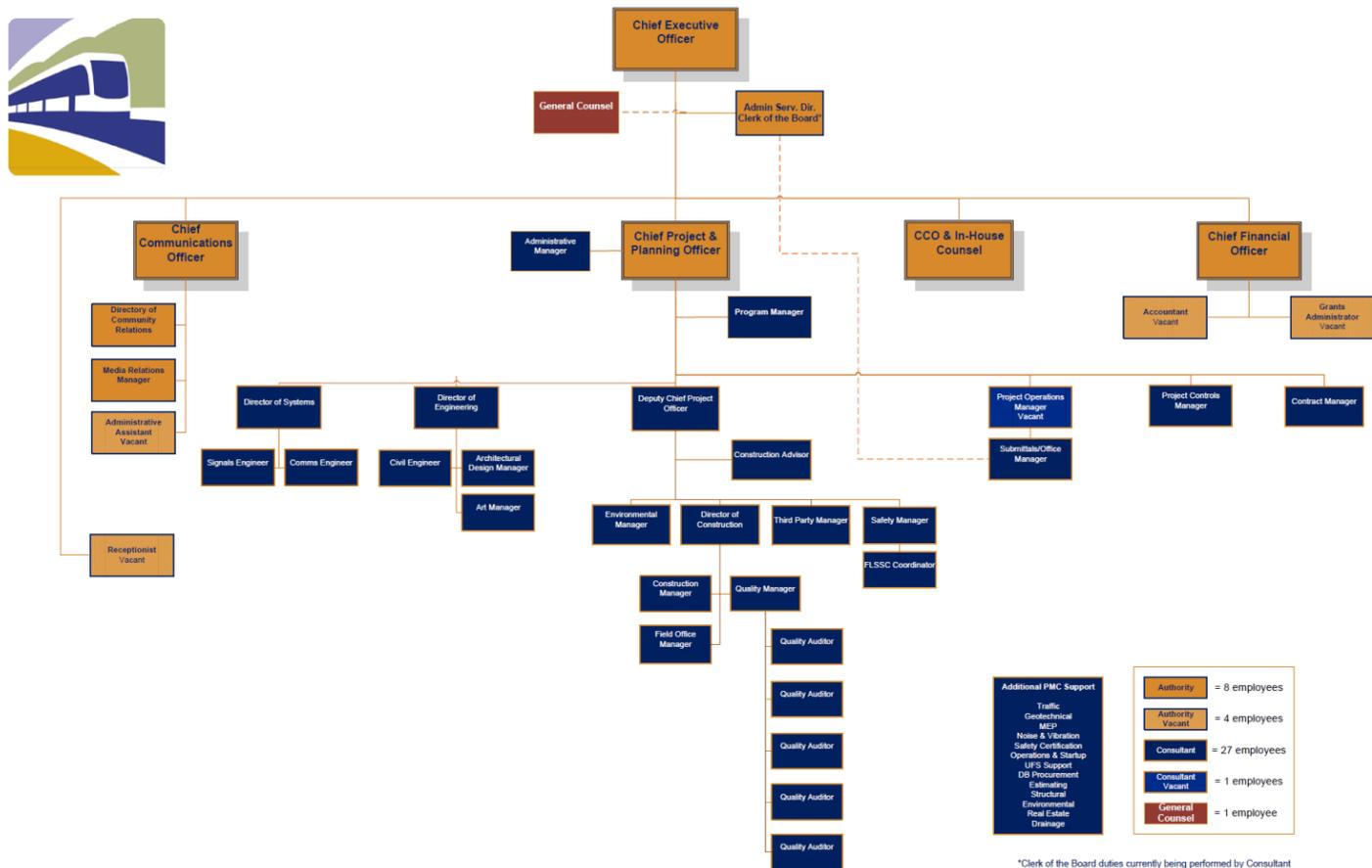
Claremont Parking Structure Contract

<u>Award Contract</u>	<u>TBD</u>
<u>Substantial Completion</u>	<u>TBD</u>
<u>Final Acceptance</u>	<u>TBD</u>

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APPENDIX C: PROJECT ORGANIZATION CHART





APPENDIX D: SAMPLE MONTHLY REPORT

Metro Gold Line Foothill Extension Project

Monthly Project Status Report

September 2014



METRO GOLD LINE FOOTHILL EXTENSION CONSTRUCTION AUTHORITY
Monthly Project Status Report
Period Ending: September 30, 2014



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METRO GOLD LINE FOOTHILL EXTENSION CONSTRUCTION AUTHORITY
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FOOTHILL EXTENSION PROJECT DESCRIPTION

The Authority's mandate is to plan, design and construct a 37-mile light rail link between Downtown Los Angeles and Claremont. In addition, the San Bernardino Associated Governments (SANBAG) has requested that planning be extended one mile inside San Bernardino County to the City of Montclair and then to Ontario Airport.

The Metro Gold Line Phase II (Foothill Extension) corridor includes the cities of Pasadena, Arcadia, Monrovia, Duarte, Irwindale, Azusa, Glendora, San Dimas, La Verne, Pomona, Claremont, and Montclair; and the counties of Los Angeles and San Bernardino (Figure 1). The Foothill Extension is estimated to cost approximately \$1.950 billion.

The Foothill Extension will be built in two segments to align effectively with projected cash flows and financial capacity constraints. The first segment is defined from the Sierra Madre Villa Station in Pasadena to the city of Azusa. Revenue service along this segment is planned for the year 2015. The second segment would include an extension from Azusa to the City of Montclair with revenue service projected for the year 2017 and the third segment will be comprised of an extension from Montclair to the Ontario Airport.



Figure 1: Metro Gold Line Foothill Extension Alignment

METRO GOLD LINE FOOTHILL EXTENSION CONSTRUCTION AUTHORITY
Monthly Project Status Report
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Pasadena to Azusa Segment
MANAGEMENT ISSUES

Metro Betterments

During the design process Metro staff have identified betterments that Metro staff would like to add to the project. Metro has provided a final disposition on all but a few items. Authority staff continues to work with Metro staff to resolve the remaining items.

TPSS Delivery Dates

The traction power substations (TPSS) provide equipment to transform utility power required for Light Rail Vehicle (LRV) propulsion, and then distribute that power to the LRVs via the overhead wires. Metro is responsible for purchasing the traction power substations. Currently, Metro's schedule indicates that the traction power substation delivery schedule is late. This is a major concern for the Authority as it has potential to impact the project schedule; however, staff is coordinating with Metro and FTC to ensure minimal impact to the project.

METRO GOLD LINE FOOTHILL EXTENSION CONSTRUCTION AUTHORITY
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KEY ACTIVITIES COMPLETED THIS PERIOD

FTC reports the following SBE statistics for the month of July:

- o Current SBE commitment: \$ 59,500,000
- o SBE percent committed versus value of Project: 18.13%
- o Overall Authority Project SBE goal: 16%

FTC reports the following approximate safety statistics to date:

- o 1,555,127 total work hours performed by FTC, Mass Electric, and Subcontractors
- o 13 recordable injuries reported
- o 5 lost time injuries reported

Webcor reports the following DBE statistics for the month of July:

- o Current DBE commitment: \$1,788,812
- o DBE percent committed versus value of Project: 3.67%
- o Overall Authority Project DBE goal: 2.3%

Webcor reports the following approximate safety statistics to date:

- o 107,977 total work hours performed by Webcor and Subcontractors
- o 0 recordable injuries reported
- o 0 lost time injuries reported

Completed bridge work at Huntington

Completed construction of Phase 2 Mountain grade crossing, and began construction of Phase 3

Continued structural work at all stations

Continued construction of light rail mainline track - 90% complete

Continued trackwork at the Gold Line Operations Campus (Campus) - 73% complete

Completed installation of Hegenscheidt wheel truing machine at the Campus

Completed installation of 3M grade crossing track and paving of south lot

Completed OCS foundation installation at the Campus and throughout the Alignment

Continued OCS and Site Lighting Pole erection at the Campus and throughout the Alignment

Continued OCS wire runs in Segment 1 and Segment 3

Installed the Los Robles and Michilliinda Traction Power Supply Substations (TPSS) in September:

Continued installation of train control cases/bungalows and associated equipment

Continued construction of Arcadia, Monrovia, Irwindale, and Azusa-Citrus Parking Structures

Authority continued reviewing design submittals for Azusa-Citrus and Irwindale structures

METRO GOLD LINE FOOTHILL EXTENSION CONSTRUCTION AUTHORITY
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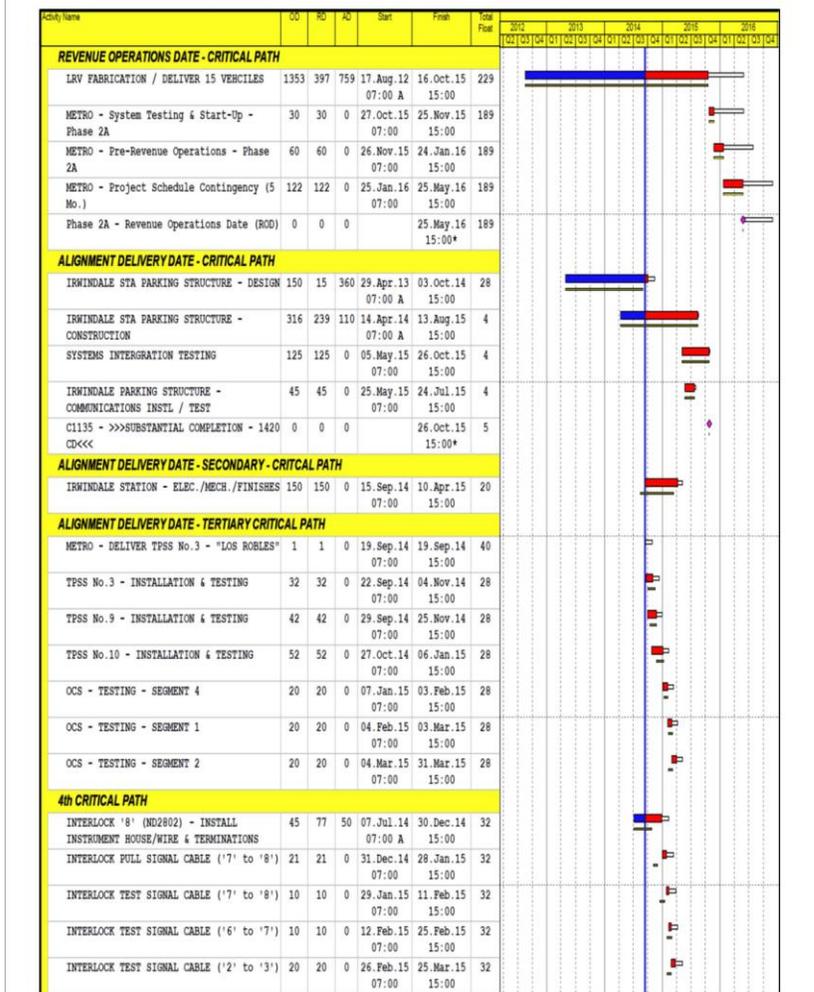
KEY FUTURE ACTIVITIES

- Continue discussions with corridor cities regarding the project
- Continue management of the Alignment contract, which will include oversight of construction activities and preparation for start-up activities
- Continue to meet with Intermodal Parking Facilities and Enhancements Project contractor, Webcor Builders regarding design and construction of the Project
- Continue installation of mainline OCS
- Continue installation of train control cases/bungalows and associated equipment
- Complete trackwork at the Campus
- Complete construction of all stations
- Finish work at Mountain grade crossing
- Finalize design for the following Parking Facilities: Azusa Citrus, Irwindale, and Duarte
- Finalize the following property acquisitions:
 - Arcadia:
 1. Parcel 13010/1311 (Indiana St.) – To be conveyed by the City of Arcadia.
 2. Parcel 1401a (Huntington Dr. Aerial Easement) – To be conveyed by the City of Arcadia.
 3. Parcel 1401b (Huntington Dr. Bridge Abutments) – To be conveyed by the City of Arcadia.
 4. Parcel 1403 (99 N. Second Av.) – Engineers are preparing legal description.
 5. Parcel 1308 (223 N. First Av.) – Expecting possession on 10/27/2014.
 6. Parcel 6009 (Huntington Dr. Bridge Abutments) – To be conveyed by the City of Arcadia.
 7. Parcel 6010 (Huntington Dr. Bridge Abutments) – To be conveyed by the City of Arcadia.
 8. Parcel 6011 (Huntington Dr. Bridge Abutments) – To be conveyed by the City of Arcadia.
 - Monrovia:
 1. Parcel 1601 (Encino Av.) – To be conveyed by the City of Monrovia.
 2. Parcel 1903 (Monrovia Station) – To be conveyed by the City of Monrovia.
 3. Parcel 21A12 (3M Parking Lot) – Waiting for legal description/as-builts.
 4. Parcel 21A23 (Shamrock Trapezoid) – To be conveyed by the City of Monrovia.
 - Duarte:
 1. Parcel 6041/6042 (1500 Duarte Rd) – In escrow. Ready to close.
 - Irwindale:
 1. Parcel 3302a (MillerCoors easement for power utilities) - Negotiating.
 - Azusa:
 1. Parcel 3501 (1220 W. Foothill Blvd.) – Engineers are preparing legal description.

METRO GOLD LINE FOOTHILL EXTENSION CONSTRUCTION AUTHORITY
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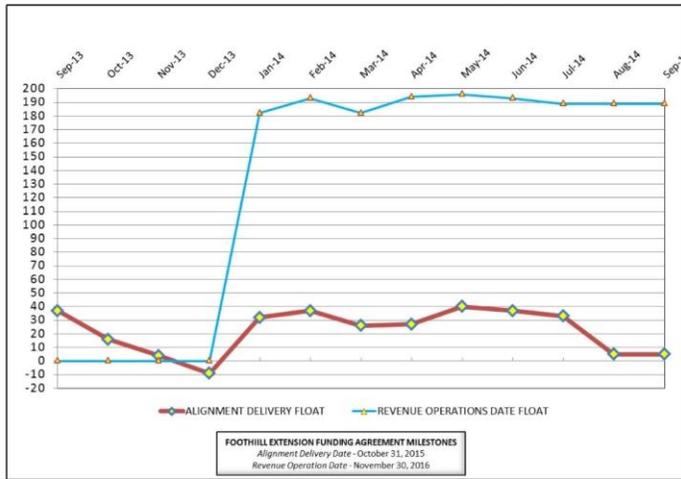
CRITICAL PATH SCHEDULE



METRO GOLD LINE FOOTHILL EXTENSION CONSTRUCTION AUTHORITY
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CRITICAL PATH FLOAT TREND



FOOTHILL EXTENSION FUNDING AGREEMENT MILESTONES
 Alignment Delivery Date - October 31, 2015
 Revenue Operation Date - November 30, 2016

Revenue Operations Date Critical Path - (189 Calendar Days)

The Irwindale Parking Structure, which is the primary critical path for the Alignment Delivery, is also the primary critical path for the Revenue Operations Date (ROD). Upon achieving Substantial Completion on the C1135 Contract, the critical path for meeting ROD will continue through the Metro Systems Testing & Startup, which will then continue through Pre-Revenue Testing and five month schedule contingency. The secondary critical path to achieve the ROD milestone continues through the Metro Light Rail Vehicle Procurement and is 10 days off of the critical path. The current forecast for the acceptance of the 15th of 78 vehicles remains at October 16, 2015. The anticipated ROD date is May 25, 2016. However, Metro is forecasting a March 2016 Revenue Operations Date.

Alignment Delivery Date Critical Path - (5 Calendar Days / 4 Work Days)

The Irwindale Parking Structure, which is currently being constructed by Webcor continues to be the primary critical path. Upon reaching the completion of the concrete structure and electrical room, FTC will be granted access to complete the communications installation at the Irwindale Parking Structure. The critical path continues through systems integration testing and upon completion, FTC will achieve Substantial Completion and turn-over to Metro for Pre-Revenue Testing.

Other elements of construction work, which are in progress and near critical are Irwindale Station mechanical, electrical, and finish installations; TPSS #4 (Yard) and #6 (Irwindale) Installation & Testing, Segments 1 & 4 Train Control Equipment Installations; Huntington Dr bridge installation; Segment 2 & 4 track installations; Segments 3 & 4 OCS installations. Other facility work, which is near critical includes Citrus Parking Structure and the Maintenance & Operations Campus.

Project Float

The project float for the Revenue Operations Date remains at 189 days. The critical activities on this path are on schedule to meet the Target Revenue Operations Date of November 2016. The Alignment Delivery Date float value remained unchanged this period. The Alignment Delivery Date is currently 5 days ahead of the October 31, 2015 deadline.

METRO GOLD LINE FOOTHILL EXTENSION CONSTRUCTION AUTHORITY
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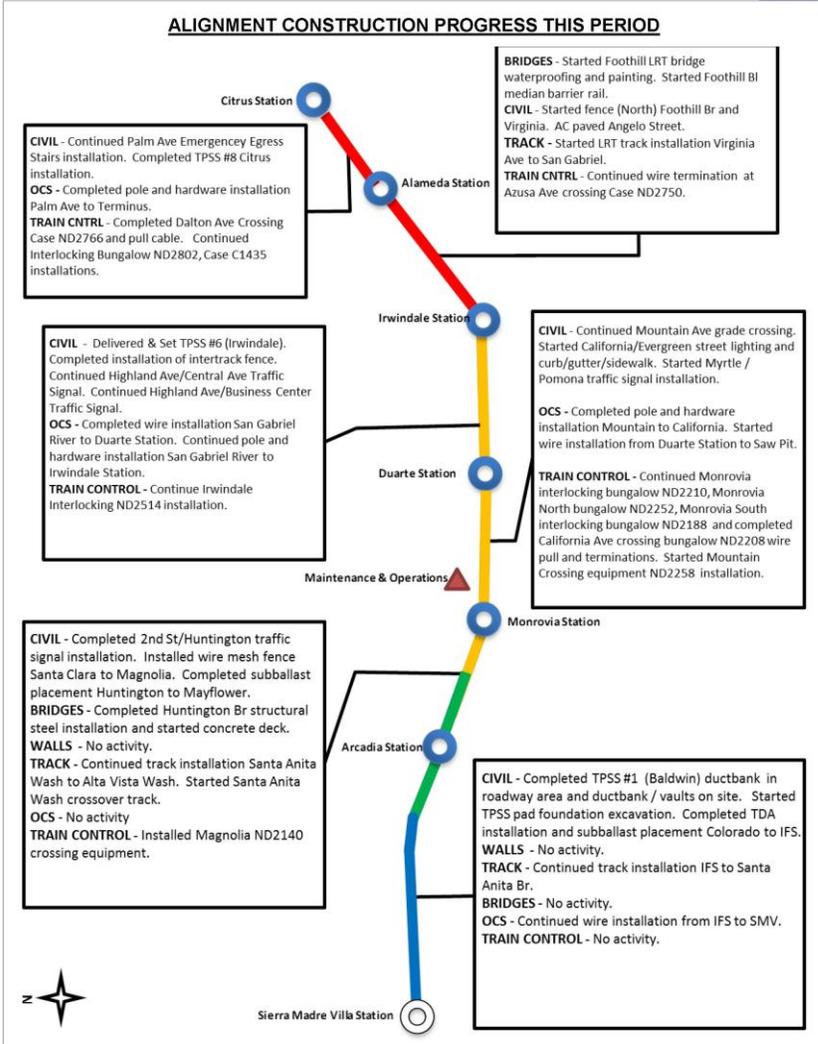


Description: Alignment Design / Build		Status: September 15, 2014																																											
Contract No.: C1135		Contractor: Foothill Transit Constructors (Kiewit-Parsons J.V.)																																											
Cost Summary:		Cost Assessment:																																											
<table border="1"> <thead> <tr> <th></th> <th>Million(s)</th> </tr> </thead> <tbody> <tr> <td colspan="2">CONTRACT</td> </tr> <tr> <td>Contract Award Value:</td> <td>485.9</td> </tr> <tr> <td>Executed Change Orders:</td> <td>15.6</td> </tr> <tr> <td>Current Contract Value:</td> <td>501.4</td> </tr> <tr> <td>Potential Change Orders:</td> <td>1.6</td> </tr> <tr> <td>Current Forecast:</td> <td>503.0</td> </tr> <tr> <td>Earned Value/Actual Cost:</td> <td>376.4</td> </tr> <tr> <td colspan="2">AUTHORIZATION FOR EXPENDITURE</td> </tr> <tr> <td>Budget:</td> <td>507.9</td> </tr> <tr> <td>Commitment:</td> <td>501.4</td> </tr> <tr> <td>Balance:</td> <td>4.9</td> </tr> </tbody> </table>			Million(s)	CONTRACT		Contract Award Value:	485.9	Executed Change Orders:	15.6	Current Contract Value:	501.4	Potential Change Orders:	1.6	Current Forecast:	503.0	Earned Value/Actual Cost:	376.4	AUTHORIZATION FOR EXPENDITURE		Budget:	507.9	Commitment:	501.4	Balance:	4.9	<p>This period the Contract forecast increased \$217 Thousand. The major increase was due to the following: PCO 076.00 - M&O Tactile Guidance Changes, PCO 084 - M&O Service Vehicle Pathways, PCO 089 - M&O Lobby Aesthetic Changes, and PCO 090 - Replace Michillinda Pull Boxes. The net increase this period was offset by cost reductions, which was due to CO 079.01 - M&O Canopy Solar.</p> <p>The Design-Build Contractor has earned 376.4 Million and is currently 77.4% complete. The progress is currently 16.7% behind the early planned curve, which is due to Segment 2 & 4 track, Segment 1, 2, 3 OCS, and train control installation progress.</p>																			
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Contract Award:	07/27/11	<table border="1"> <thead> <tr> <th>Milestones</th> <th>Description</th> <th>Original Contract</th> <th>Current Contract</th> <th>Forecast</th> <th>Variance</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Substantial Completion</td> <td>09/23/15</td> <td>09/23/15</td> <td>10/26/15</td> <td>(33)</td> </tr> <tr> <td>2</td> <td>Punchlist Complete</td> <td>06/19/16</td> <td>06/19/16</td> <td>07/22/16</td> <td>(33)</td> </tr> <tr> <td>3</td> <td>Final Completion</td> <td>09/17/16</td> <td>09/17/16</td> <td>10/20/16</td> <td>(33)</td> </tr> <tr> <td>4</td> <td>Access - IFS Br.</td> <td>12/15/12</td> <td>12/15/12</td> <td>12/15/2012 A</td> <td>0</td> </tr> <tr> <td>5</td> <td>Test Track Complete</td> <td>03/27/15</td> <td>03/27/15</td> <td>02/21/15</td> <td>34</td> </tr> <tr> <td>6</td> <td>Colorado Br. Demo Complete</td> <td>02/01/12</td> <td>02/01/12</td> <td>6/15/2012 A</td> <td>(135)</td> </tr> </tbody> </table>		Milestones	Description	Original Contract	Current Contract	Forecast	Variance	1	Substantial Completion	09/23/15	09/23/15	10/26/15	(33)	2	Punchlist Complete	06/19/16	06/19/16	07/22/16	(33)	3	Final Completion	09/17/16	09/17/16	10/20/16	(33)	4	Access - IFS Br.	12/15/12	12/15/12	12/15/2012 A	0	5	Test Track Complete	03/27/15	03/27/15	02/21/15	34	6	Colorado Br. Demo Complete	02/01/12	02/01/12	6/15/2012 A	(135)
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Interim Notice to Proceed (NTP):	11/03/11																																												
Original Contract Duration:	1,780 Calendar Days																																												
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Elapsed Time from NTP:	1,047 Calendar Days																																												
Schedule Assessment:																																													
<p>With the progress continuing to trend at the rate of the late progress curve, activities in all Segments continue to approach near critical. The Design-Build Contractor continues to meet the requisite use of resources in order to meet the critical elements of the schedule. At this time, the primary activities which are critical or near critical by Segment are as follows: Segment 1 - Train Control Installation, Segment 2 - Track Installation and Huntington Bridge Installation, Segment 3 - Duarte Station mechanical/electrical & finishes and M&O yard lead, Segment 4 - LRT track and OCS Installation, and Invaldale Station mechanical/electrical & finishes. Maintenance & Operations Facility - train control installation & testing.</p> <p>The Test Track Completion is forecast to be available on February 21, 2015, which is 34 days ahead of the target date.</p>																																													

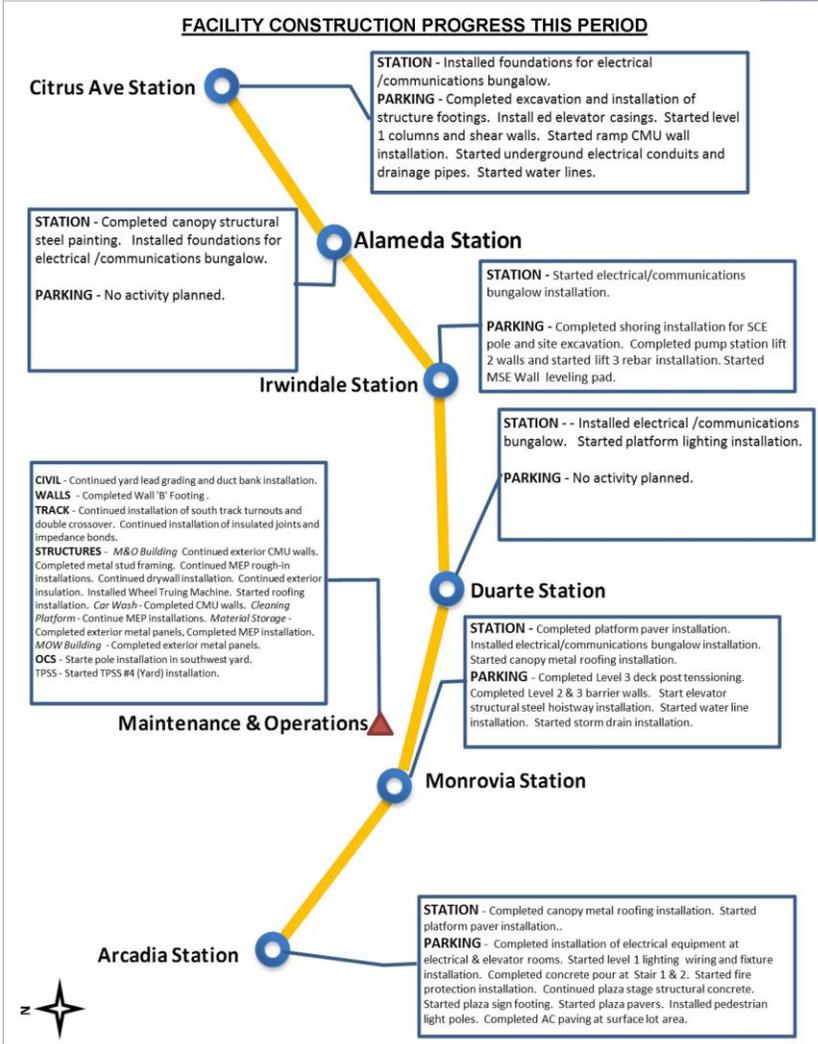
METRO GOLD LINE FOOTHILL EXTENSION CONSTRUCTION AUTHORITY
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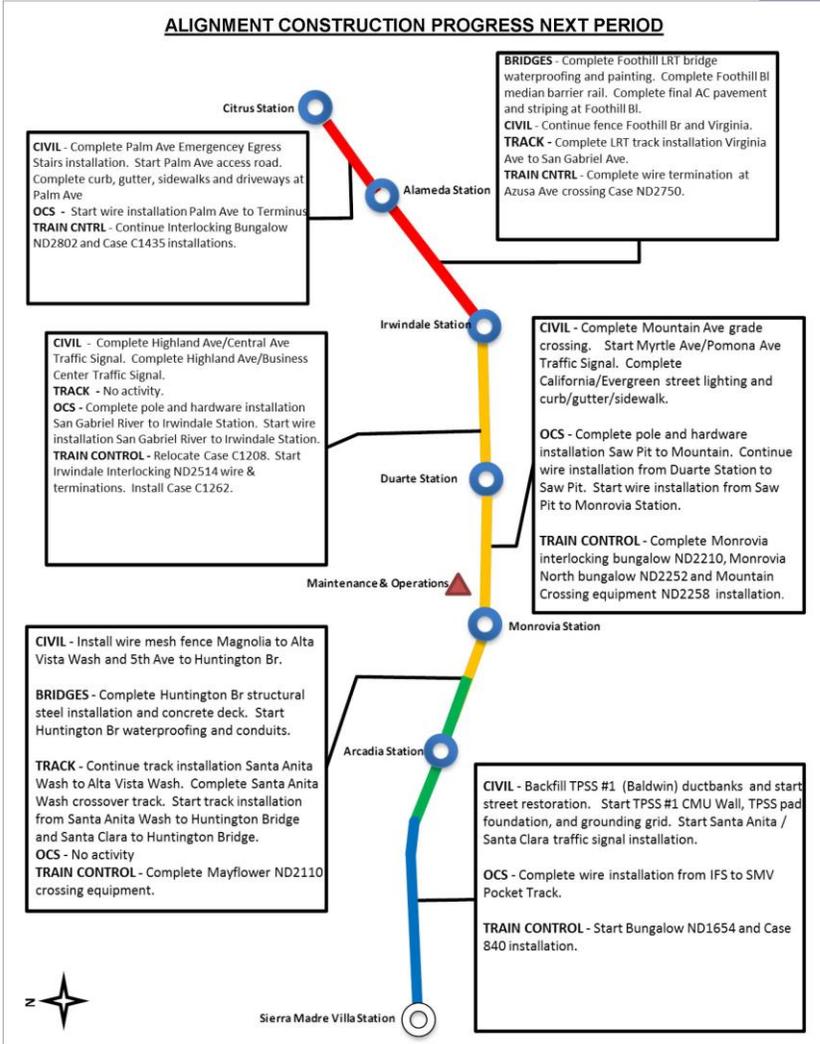
ALIGNMENT CONSTRUCTION PROGRESS THIS PERIOD



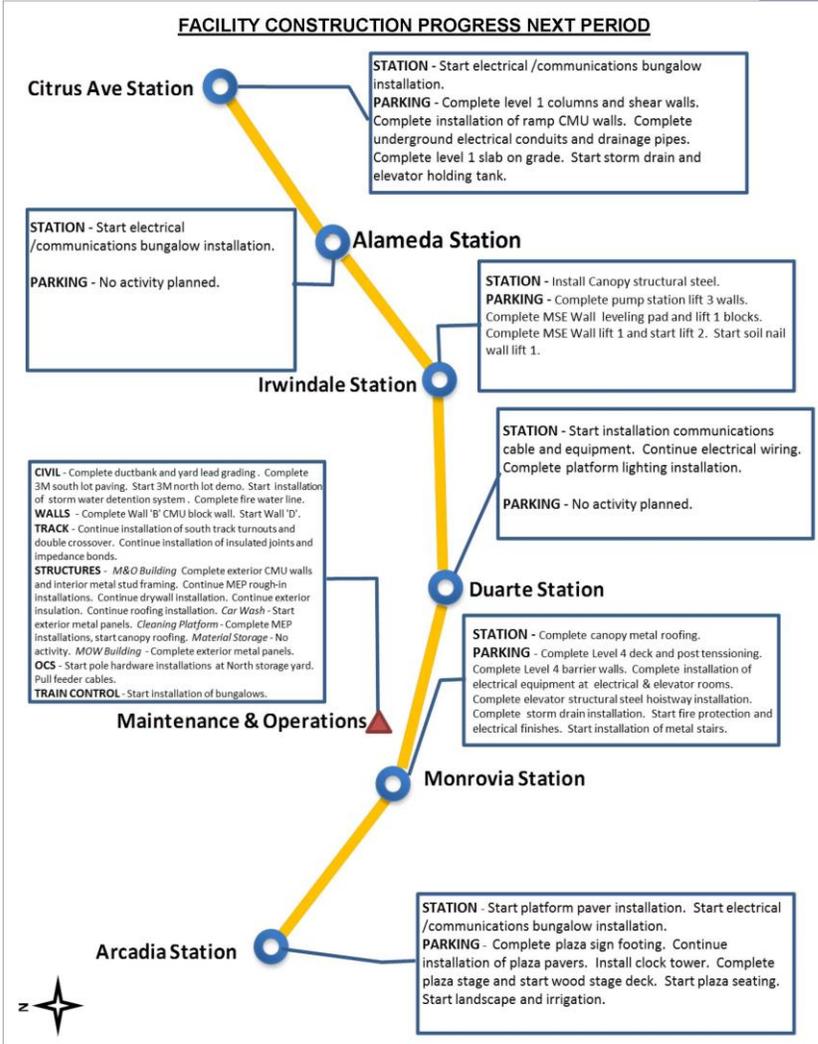
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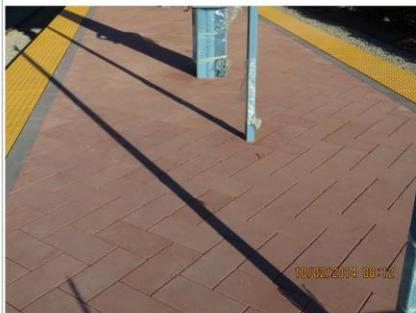


METRO GOLD LINE FOOTHILL EXTENSION CONSTRUCTION AUTHORITY
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ALIGNMENT CONSTRUCTION IMAGES

Segment 1: Track Alignment Recording from IFS to Colorado



Segment 2: Arcadia Station Pavers

Segment 3: Monrovia Station - Canopy Roof Panel Installation



METRO GOLD LINE FOOTHILL EXTENSION CONSTRUCTION AUTHORITY
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ALIGNMENT CONSTRUCTION IMAGES (CONTINUED)



Segment 4: Irwindale Communications Bungalow Installation

Operations Campus: Blow Down Shop



Operations Campus: Shop Lead Track Installations



Metro Gold Line Foothill Extension Construction Authority

406 East Huntington Drive, Suite 202
 Monrovia, CA 91016

Change Management Log

Date: 10/16/2014
 Page: 1 of 4

Project: C1135 Alignment - FTC Contract #: C1135

Original Contract Amount:	\$485,867,000				
Approved Change Orders:	\$16,614,363	3.42%	Pending Change Orders:	\$0	0.00%
Current Contract Total:	\$502,481,363		Pending Contract Total:	\$502,481,363	3.42%

Change Orders						
Number	Change Management Title	Initiated Date	Approved Date	Outstanding Days	Time Extension	Amount
EXECUTED Change Orders						
001.00	000.00	Interim NTP	11/3/2011	11/3/2011	0	\$0
002.00	013.00	Colorado Bridge Haz Mat	5/17/2012	5/18/2012	1	\$121,382
002.01	013.01	Colorado Bridge HazMat - Final	9/5/2012	9/7/2012	2	\$13,164
003.00	001.00	Sound Wall Deletion - Duarte Road	7/12/2012	7/18/2012	6	(\$74,707)
004.00	018.00	Revise Block Design - CBD Calc	8/23/2012	8/29/2012	6	\$3,986
004.01	018.01	Revise Block Design - CBD Calc - 2	9/5/2013	9/11/2013	6	\$0
005.00	023.00	Wayside Signal Aspect Revision	9/6/2012	9/7/2012	1	\$26,072
005.01	023.01	Wayside Signal "Call On" Function	10/30/2013	11/1/2013	2	\$75,169
006.00	040.00	Arcadia Frieze, Bench-Artist Design	9/6/2012	9/10/2012	4	\$13,683
006.01	040.01	Arcadia Frieze, Bench-Construction	3/7/2013	3/12/2013	5	\$155,894
007.00	019.02	Soils Testing Abutments & Fdns	9/14/2012	9/18/2012	4	\$44,993
008.00	041.00	Unknown Utilities RFCN 005 006 008	9/14/2012	9/18/2012	4	\$132,450
009.00	038.00	Illuminate City Names @ Stations	9/18/2012	9/24/2012	6	\$184,657
010.00	046.00	SGRB - Lead Based Paint Remediation	9/21/2012	9/24/2012	3	\$244,536
011.00	004.00	Station Architectural Changes	10/11/2012	10/12/2012	1	\$443,950
012.00	003.01	Systems and Testing for Added TPSS	12/13/2012	12/14/2012	1	\$1,443,193
013.00	005.02	IDQ Comm Contract (Rev 2)	12/14/2012	1/22/2013	39	\$698,259
014.00	060.00	Sewer Encasement Changes in Azusa	12/18/2012	1/24/2013	37	\$141,354
015.00	037.02	M&O - Materials Storage Revisions	12/26/2012	1/15/2013	20	\$62,862
015.01	037.03	M&O Storage Shelving Revisions	9/16/2013	9/19/2013	3	\$20,380
016.00	002.00	Relocation of Access Road to 3M Fac	12/26/2012	1/16/2013	21	\$53,814
017.00	025.00	3 Electrical Casings for ALW	2/27/2013	3/1/2013	2	\$219,033
018.00	073.00	Hazardous Abatement at Bridges	1/15/2013	2/6/2013	22	\$1,081,803
019.00	054.00	City of Hope Conduits	1/11/2013	1/22/2013	11	\$34,313
020.00	059.00	Citrus TPSS Transformer Pad Changes	2/6/2013	2/7/2013	1	\$34,536
021.00	075.00	Demo & Replace Palm Dr Roadway	2/7/2013	2/14/2013	7	\$90,365
022.00	077.00	M&O Differing Site Conditions, Pt 1	2/13/2013	2/15/2013	2	\$66,360
022.01	093.00	M and O DSC T and M Work Part 2	3/8/2013	3/12/2013	4	\$66,625
022.02	103.00	M and O DSC Part 3	3/27/2013	3/28/2013	1	\$35,211
022.03	115.00	DSC at M and O Part 4	5/3/2013	5/7/2013	4	\$5,706
023.00	089.00	Contaminated Soil Abatement	2/26/2013	2/27/2013	1	\$422,068
024.00	068.00	Monrovia Sound Wall Panel Change	2/26/2013	2/28/2013	2	(\$24,150)
025.00	052.00	Santa Anita Trail Detour	3/8/2013	3/12/2013	4	\$27,691
026.00	070.00	Block Type Change at M&O Building	3/26/2013	3/26/2013	0	\$35,016
027.00	065.00	M&O IT Changes-Duct Banks/Conduits	3/26/2013	3/26/2013	0	\$88,650
027.01	065.01	M&O IT Changes - Power to WAP	9/4/2013	9/6/2013	2	\$73,049
027.02	065.02	M&O IT Changes - Remaining Work	7/16/2014	7/17/2014	1	\$155,991
028.00	039.01	Delete Layover Building	4/11/2013	4/12/2013	1	(\$313,832)
029.00	095.00	8in Sanitary Sewer Line- Alameda Av	4/23/2013	4/25/2013	2	\$26,089
029.01	095.01	Alameda Sewer Line Revised Scope	11/22/2013	11/26/2013	4	(\$37,425)
030.00	102.00	M&O-Disconnect Switches, Insulators	4/23/2013	4/25/2013	2	\$67,817
031.00	110.00	Rmv Abandoned Utility Line @ Dalton	4/23/2013	4/25/2013	2	\$1,562
032.00	104.00	Highland Ave Abandoned CMP sleeves	5/1/2013	5/3/2013	2	\$15,005
033.00	114.00	Remove contaminated wood culvert	5/2/2013	5/7/2013	4	\$4,714
034.00	128.00	M&O Backup Power/Generator Changes	5/13/2013	5/21/2013	8	\$121,340

Change Management Risk Log rev 2010-02-02 ADL f_rmi_chm_log



Metro Gold Line Foothill Extension Construction Authority

406 East Huntington Drive, Suite 202
Monrovia, CA 91016

Change Management Log

Date: 10/16/2014
Page: 2 of 4

Project: C1135 Alignment - FTC Contract #: C1135

Change Orders							
Number	Change Management	Title	Initiated Date	Approved Date	Outstanding Days	Time Extension	Amount
EXECUTED Change Orders							
035.00	083.00	M&O Vehicle Sanding System Changes	5/21/2013	5/24/2013	3		\$27,483
036.00	006.00	IFS Related Contract Changes	6/7/2013	6/11/2013	4		(\$263,111)
037.00	137.00	CTS Redesign	7/12/2013	7/16/2013	4		\$58,214
038.00	138.00	Segment 4 Safety Manager	7/12/2013	7/16/2013	4		\$157,274
038.01	138.01	Segment 4 Safety manager - Part 2	11/19/2013	11/21/2013	2		\$72,963
038.02	138.02	Segment 4 Safety Manager - Part 3	4/3/2014	4/7/2014	4		\$82,271
039.00	085.00	M&O Drainage System Enhancements	7/19/2013	8/13/2013	25		\$251,579
040.00	067.00	Station Paver Changes	7/23/2013	8/13/2013	21		\$728,340
040.01	067.01	Rebar Changes for Station Pavers	10/28/2013	10/31/2013	3		\$10,586
041.00	112.00	12" Pasadena Waterline Potholes	8/12/2013	8/16/2013	4		\$19,735
042.00	150.00	Demo/Abandoned Water Lines @ Dalton	8/12/2013	8/16/2013	4		\$5,937
043.00	007.01	Emer Backup for Guideway Lighting	8/16/2013	10/11/2013	46		\$359,158
044.00	172.00	Contaminated Wood Culvert Sta. 1202	8/27/2013	8/28/2013	1		\$7,712
045.00	139.00	BLS Changes	8/28/2013	9/4/2013	7		\$110,801
046.00	165.00	Azusa-Alameda Station, 2nd Portal	8/28/2013	9/4/2013	7		\$77,175
047.00	145.00	St. Joseph drainage enhancements	9/4/2013	9/6/2013	2		\$17,592
048.00	149.00	M&O - Lights at NW Corner Park	9/4/2013	9/6/2013	2		\$29,351
049.00	174.00	TPSS #5 Cal-Am Power Conflict	9/4/2013	9/6/2013	2		\$127,260
050.00	171.00	Relocate Access Stair to Foothill	9/4/2013	9/6/2013	2		\$20,276
051.00	173.00	Dalton 8" Water Line Work	9/5/2013	9/12/2013	7		\$35,316
052.00	071.00	Duarte Rd Screen Wall Change	9/5/2013	9/17/2013	12		(\$133,864)
053.00	176.00	Remove Contaminatd Wood-Buena Vista	9/10/2013	9/12/2013	2		\$5,543
054.00	147.00	DECCO Bypass	9/10/2013	9/12/2013	2		\$18,519
055.00	166.00	Foothill Blvd. Water/SD Relocation	9/20/2013	9/20/2013	0		\$127,074
056.00	196.00	Contaminated Wood @ San Gabriel Ave	9/23/2013	9/24/2013	1		\$4,291
057.00	194.00	California/Duarte Water Line Work	10/28/2013	10/31/2013	3		\$220,743
058.00	189.00	Four Utility Changes	10/28/2013	10/31/2013	3		\$14,157
059.00	180.00	Remove/Dispose of ACM E of Highland	10/30/2013	11/1/2013	2		\$29,311
060.00	179.00	CTS Upgrade to OC-192	10/30/2013	11/1/2013	2		\$112,543
061.00	213.00	Invaldale On-ramp Stockpile	11/8/2013	11/21/2013	13		\$200,185
062.00	053.00	Delete Totten Tubes Scope of Work	11/8/2013	11/21/2013	13		(\$143,801)
063.00	146.00	Home Depot Striping and Signing	11/15/2013	11/21/2013	6		\$21,003
064.00	204.00	Unknown Duct Bank @ San Gabriel Ave	11/15/2013	11/21/2013	6		\$1,265
065.00	140.00	M&O-Overhead Work Platform Changes	12/5/2013	12/16/2013	11		\$317,656
066.00	217.00	Buried SD & Headwall, STA 1306+50	12/6/2013	12/17/2013	11		\$1,020
067.00	219.00	Contaminated Soil, Monrovia Station	12/12/2013	12/17/2013	5		\$17,503
068.00	220.00	DSC at Sawpit Wash Abutments	12/12/2013	12/17/2013	5		\$12,668
069.00	188.00	Costco Emergency Gate-Path to POS	1/21/2014	1/22/2014	1		\$19,882
070.00	214.00	M&O - Generator Load Bank	1/21/2014	1/22/2014	1		\$38,092
071.00	224.00	Alameda South Water Line Tie-in	1/30/2014	1/31/2014	1		\$6,330
072.00	202.00	Aesthetic Lighting Provisions-SGRB	2/3/2014	2/4/2014	1		\$27,055
073.00	160.00	Move Mountain Interlocking Bungalow	2/11/2014	2/13/2014	2		\$68,596
074.00	200.00	M&O Parts Carousel Warranty & PM	2/11/2014	2/13/2014	2		\$68,906
075.00	235.00	Remove Contaminated Wood Ties	2/14/2014	2/18/2014	4		\$4,571
076.00	234.00	Accelerate Work at California Ave	2/14/2014	2/18/2014	4		\$5,663
077.00	247.00	Line Stop in California	2/18/2014	2/20/2014	2		\$14,524
078.00	201.00	Added Sound Wall, SW of IFS	2/27/2014	2/28/2014	1		\$18,201
079.00	238.00	M&O-MOW Canopy Structural Eval	2/27/2014	2/28/2014	1		\$7,147
079.01	238.01	M&O - MOW Canopy Solar	8/20/2014	8/26/2014	6		\$714,659
080.00	232.00	Car Moving Tractor-Coupler Upgrade	2/27/2014	2/28/2014	1		\$177,145

Change Management Risk Log rev 2013 02-02 ADL

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Metro Gold Line Foothill Extension Construction Authority

406 East Huntington Drive, Suite 202
Monrovia, CA 91016

Change Management Log

Date: 10/16/2014
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Project: C1135 Alignment - FTC Contract #: C1135

Change Orders

Number	Change Management	Title	Initiated Date	Approved Date	Outstanding Days	Time Extension	Amount	
EXECUTED Change Orders								
081.00	242.00	Car Moving Tractor Options/Features	2/27/2014	2/28/2014	1		\$69,099	
082.00	091.00	Rockvale Water Line Mitigation	3/4/2014	3/5/2014	1		\$163,750	
082.01	091.01	Rockvale Water Line-EIC credit	4/11/2014	4/14/2014	3		(\$5,391)	
083.00	251.00	Cut and Move Rail to Segment 1	3/4/2014	3/5/2014	1		\$249,934	
084.00	218.00	Delete Equipment at ROC	3/26/2014	3/27/2014	1		(\$91,708)	
085.00	239.00	Install Sound Wall Door @ STA. 1169	3/26/2014	3/27/2014	1		\$12,737	
086.00	250.00	Change Top Row of Block Wall 1124.1	3/26/2014	3/27/2014	1		\$3,688	
087.00	229.00	Irwindale TPSS-Adjust Eqpt. Layout	4/3/2014	4/7/2014	4		\$17,878	
088.00	262.00	Provisional Sum Adjustment	4/3/2014	4/7/2014	4		\$0	
088.01	262.01	Provisional Sum Adjustment - 2	9/19/2014	9/25/2014	6		\$0	
089.00	261.00	Longer DF Bolts - SGRB	4/3/2014	4/7/2014	4		\$17,331	
090.00	169.02	M&O Tramming Table Changes (rev. 2)	4/11/2014	4/14/2014	3		\$54,083	
091.00	181.00	Alameda Utility Changes	4/11/2014	4/14/2014	3		(\$9,599)	
092.00	241.00	Business Center TPSS Crane Changes	4/23/2014	4/28/2014	5		\$13,655	
093.00	276.00	Myrtle Early Completion Incentive	4/23/2014	4/28/2014	5		\$160,000	
094.00	254.00	Drainage East of Pasadena Ave	4/23/2014	4/28/2014	5		\$6,569	
095.00	275.00	Remove Rail Ties at 1st/Santa Clara	4/23/2014	4/28/2014	5		\$2,270	
096.00	274.00	Buried Concrete @ Huntington Bridge	4/23/2014	4/28/2014	5		\$2,819	
097.00	269.00	Asbestos Pipe at Duarte and Myrtle	4/23/2014	4/28/2014	5		\$6,583	
098.00	278.00	Abandoned Gas Line at California	5/6/2014	5/7/2014	1		\$8,170	
099.00	170.00	M&O Car Wash Betterments	5/6/2014	5/7/2014	1		\$166,144	
100.00	223.00	M&O Volume Control for PA Speakers	5/6/2014	5/7/2014	1		\$38,105	
101.00	283.00	Track Work Around at Mountain Ave	5/6/2014	5/7/2014	1		\$29,996	
102.00	294.00	Install 115# Buffer Rails in Seg. 1	5/6/2014	5/7/2014	1		\$29,442	
103.00	230.00	Azusa Citrus Ped Crossing Operation	5/6/2014	5/7/2014	1		\$84,183	
104.00	231.00	Red Signal Violation Indication	6/3/2014	6/3/2014	0		\$335,134	
105.00	253.00	Remove Stem Wall along Duarte Rd.	6/11/2014	6/12/2014	1		\$37,527	
106.00	271.00	DVR Changes	7/16/2014	7/17/2014	1		\$181,301	
107.00	260.00	M&O Supplemental Fire Water System	7/16/2014	8/4/2014	19		\$1,642,824	
108.00	163.00	1st/Santa Clara Grade X-ing Changes	7/25/2014	7/30/2014	5		\$156,177	
109.00	164.00	M&O Body Shop Changes	7/25/2014	8/4/2014	10		\$488,598	
110.00	256.00	Monrovia North Bungalow LCP Changes	7/25/2014	7/30/2014	5		\$125,313	
111.00	237.00	M&O-Signaling System Changes	7/29/2014	8/4/2014	6		\$1,133,746	
112.00	252.00	Irwindale Security Kiosk Provisions	8/4/2014	8/6/2014	2		\$178,044	
113.00	281.00	M&O - Accent Colors	8/4/2014	8/6/2014	2		\$26,928	
114.00	305.00	Lead Paint, Foothill Median Barrier	8/18/2014	8/20/2014	2		\$5,690	
115.00	270.00	TES Load Flow Simulation	8/19/2014	8/21/2014	2		\$22,399	
116.00	203.00	Mayflower Driveway/Wall Credit	8/20/2014	8/26/2014	6		(\$19,138)	
117.00	307.00	Contaminated Wood Ties-Santa Anita	8/20/2014	8/26/2014	6		\$3,226	
118.00	082.01	M&O / 3M Fence Revisions (rev 1)	9/17/2014	9/25/2014	8		\$886,650	
119.00	314.00	Mountain Early Completion Incentive	9/17/2014	9/24/2014	7		\$80,000	
120.00	301.00	Santa Anita Avenue Bridge Artwork	9/17/2014	9/25/2014	8		\$57,224	
121.00	313.00	Additional Traffic Signal Testing D	9/19/2014	9/25/2014	6		\$7,875	
							Subtotal:	\$16,614,363
							Subtotal:	\$16,614,363
							Total:	\$16,614,363



Metro Gold Line Foothill Extension Construction Authority
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Project: C1135 Alignment - FTC Contract #: C1135

Open PCOs

PCO Number	Title
OPEN	
029.00	Del. Irwindale/Gladstone Mitigation
053.01	Irwindale Ramp Changes (Rev 1)
070.01	Irwindale Security Kiosk - Part 2
073.00	Virginia TPSS Access Road
075.00	Comm. Changes Parking Structures
076.00	M&O Tactile Guidance Changes
080.00	Delete Evergreen / Myrtle Mitigation
081.00	Eliminate 'Train Coming' Signs
082.00	M&O - Guard House Changes
084.00	M&O Service Vehicle Pathways
085.00	Joseph TPSS Power Feed Credit
087.00	ETEL/PTL Faceplate Betterment
088.00	Additional Anti-Graffiti Coating
089.00	M&O Lobby Aesthetic Changes
091.00	UP Tunnel Analysis & Modifications
092.00	Abandoned California Water Lines
093.00	Replace Existing OCS Pole at SMV
094.00	Add Pavers to Duarte Station W. Ramp

Open RFCs

RFC Number	Title
OPEN	
078.00	Add Fence To Close Gaps at Alignmn
079.00	Asbestos Pipe Found at Virginia Gra

Open RFC Notices

Number	Title
037.00	DSC at Santa Anita Wash Abutment 1
044.00	DSC Utility at Azusa Avenue
071.00	Create Access for TPSS No. 7 Delive
077.00	Mountain Ave Pedestrian Crossing Ch
080.00	Irwindale Signal Case Location
081.00	Car Puller for Wheel Truing Machine
083.00	Sierra Madre Track Rehab
084.00	Delay in Setting of Yard Substation
086.00	Ground Grid Damaged at Citrus TPSS
088.00	Change to Exit Gate Procedure

METRO GOLD LINE FOOTHILL EXTENSION CONSTRUCTION AUTHORITY
 Monthly Project Status Report
 Period Ending: September 30, 2014



Description: Intermodal Parking Facilities & Enhancements Status: September 15, 2014 Contract No.: C1150 Contractor: Webcor Builders	
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Progress Completed This Period Design <ul style="list-style-type: none"> • Submit AFC Design - Irwindale Traffic Signals • Submit - CDRL Schedule of Values • Submit 100% Duarte - Parking Lot Design • Submit 100% Duarte - Site Enhancements Design • Submit Arcadia - Verdin Clock Tower 	Activities Planned Next Period Design <ul style="list-style-type: none"> • Submit AFC Design - Azusa-Citrus Parking Structure • Submit AFC Design - Irwindale Enhancements • Submit AFC Design - Irwindale Parking Structure • Submit AFC Design - Irwindale Site Prep Design Revision 2 • Re-Submit 100% Specification - Earthwork
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Areas of Concern <ul style="list-style-type: none"> • IRWINDALE PARKING STRUCTURE RECOVERY - The Design-Build Contractor is currently sixty-one (61) days behind the revised Contractual Completion date of June 13, 2015. The delay is attributed to the SCE Pole Shoring and Irwindale pump station re-design. The schedule impact will potentially impact the C1135 Design-Build Contractor's communications installation work and the completion of systems integration testing. The Authority will discuss potential schedule recovery solutions in order to mitigate the potential impacts. 	Areas of Concern (Continued) <ul style="list-style-type: none"> • IRWINDALE SCE POLE SHORING - The existing SCE pole, which was left in place to avoid relocation requires shoring to complete the site excavation. This period the Design-Build Contractor completed the shoring installation for the existing utility pole.
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METRO GOLD LINE FOOTHILL EXTENSION CONSTRUCTION AUTHORITY
 Monthly Project Status Report
 Period Ending: September 30, 2014



Description: Intermodal Parking Facilities & Enhancements **Status:** September 15, 2014
Contract No.: C1150 **Contractor:** Webcor Builders

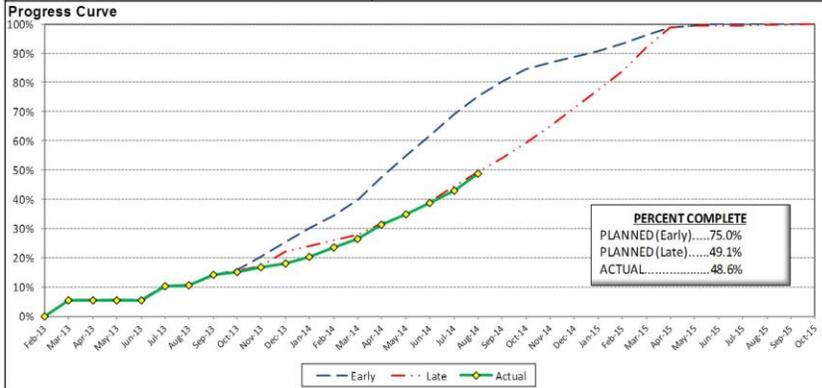
Cost Summary:

	Million(s)
CONTRACT	
Contract Award Value:	48.8
Executed Change Orders:	0.6
Current Contract Value:	49.4
Potential Change Orders:	0.4
Current Forecast:	49.8
Eamed Value/Actual Cost:	24.0
AUTHORIZATION FOR EXPENDITURE	
Budget:	50.3
Commitment:	49.4
Balance:	0.5

Cost Assessment:

The current cost forecast is 49.8 Million and has increased \$208 Thousand from the previous period. The increase is due to the execution of CO 015 - *Unforeseen Conditions at Michillinda, PCO 006 - Conduit Demo & Pull Box RFC 015 - Metro Requested Elevator Vent Detail*. In addition, the cost increased due to the elimination of PCO 004 - *TPSS Grounding Grid Modification*, which was returned to the Design-Build Contractor for Value Engineering. The current forecast is within the authorized budget.

Although a 90 day time extension was granted, the Design-Build Contractor remains behind the revised plan due to schedule delays at the Irwindale site.



Schedule Summary:

Contract Award:	02/27/13
Notice to Proceed (NTP):	03/20/13
Original Contract Duration:	845 Calendar Days
Current Contract Duration:	935 Calendar Days
Elapsed Time from NTP:	544 Calendar Days

Contract Milestones

Milestones	Description	Original Contract	Current Contract	Forecast	Variance
1	Substantial Completion	03/15/15	06/13/15	08/13/15	(61)
2	Punchlist Complete	05/29/15	08/27/15	10/27/15	(61)
3	Final Completion	07/13/15	10/11/15	12/11/15	(61)
4	TPSS Work	03/01/14	03/01/14	3/31/2014 A	(30)

Schedule Assessment:

The critical path is currently through the Irwindale site preparation. The SCE pole shoring installation was completed. The pump station progress continues with the second of four concrete lifts completed this period. Next period, the site area will be backfilled, which will allow the MSE wall construction to start. The soil nail wall construction, which is critical will begin after the first of seventeen MSE wall lifts is completed.

The Design-Build Contractor is approximately 61 days behind schedule, which is due to the pump station re-design and SCE pole shoring installation. However, if the Design-Build Contractor is going to meet the Contractual Dates identified in Change Order No.4, then it will need to mitigate the delays by accelerating the MSE wall and soil nail wall activities.

METRO GOLD LINE FOOTHILL EXTENSION CONSTRUCTION AUTHORITY
Monthly Project Status Report
Period Ending: September 30, 2014



PARKING FACILITY CONSTRUCTION IMAGES

Arcadia Parking Structure Site View



Arcadia Transit Plaza Overview

Monrovia Parking Structure Site Overview



METRO GOLD LINE FOOTHILL EXTENSION CONSTRUCTION AUTHORITY
Monthly Project Status Report
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PARKING FACILITY CONSTRUCTION IMAGES

Monrovia Parking Structure Stairwell



Irwindale Parking Structure Site Excavation

Azusa-Citrus Parking Structure Overview



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 Monrovia, CA 91016
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Project: C1150 Parking - Webcor Contract #: C1150

Original Contract Amount:	\$48,750,000				
Approved Change Orders:	\$600,747	1.23%	Pending Change Orders:	\$0	0.00%
Current Contract Total:	\$49,350,747		Pending Contract Total:	\$49,350,747	1.23%

Change Orders

Number	Change Management	Title	Initiated Date	Approved Date	Outstanding Days	Time Extension	Amount	
EXECUTED Change Orders								
001.00	001.00	Monrovia Parking Alternative Layout	6/25/2013	7/11/2013	16		\$21,382	
001.01	001.01	Monrovia Alternative - Cancellation	9/17/2013	10/7/2013	20		(\$12,006)	
002.00	003.00	Clock Tower Procurement	7/3/2013	7/11/2013	8		\$107,246	
003.00	002.00	Relocate Elevator @ Azusa-Citrus PF	12/18/2013	1/8/2014	21		\$159,899	
004.00	013.00	Inwindale Structure Relocation	1/23/2014	8/28/2014	217	90	(\$65,564)	
005.00	018.00	Monrovia Demo Unforeseen Conditions	3/18/2014	3/26/2014	8		\$17,013	
006.00	010.00	Arcadia Transit Plaza Betterments	3/14/2014	3/26/2014	12		\$35,466	
007.00	009.01	Inwindale Intersection Betterments	3/25/2014	3/26/2014	1		\$19,985	
008.00	017.00	Inwindale Intersection Water Line	3/25/2014	4/14/2014	20		\$7,748	
009.00	020.00	Unforeseen Underground Demo-Arcadia	6/13/2014	7/9/2014	26		\$6,313	
010.00	011.00	Soldano TPSS Added ROW Fence	7/24/2014	7/28/2014	4		\$8,481	
011.00	024.00	SCE Power Feed to DB2 Arcadia TPSS	7/24/2014	7/28/2014	4		\$17,199	
012.00	025.00	Additional Sidewalk at Arcadia	7/24/2014	7/28/2014	4		\$3,342	
013.00	006.00	St. Joseph Drainage Enhancements	7/31/2014	7/31/2014	0		\$139,488	
014.00	012.00	Additional Conduit Provisions	8/13/2014	9/3/2014	21		\$57,262	
015.00	030.00	Unforeseen Conditions at Michillind	8/22/2014	8/28/2014	6		\$1,643	
016.00	019.00	Parking Facility Artwork	8/27/2014	8/28/2014	1		\$75,850	
							Subtotal:	\$600,747
							Subtotal:	\$600,747
							Total:	\$600,747

Open PCOs

PCO Number	Title
OPEN	
	Inwindale Kiosk Foundation
008.00	Azusa-Citrus Plaza Pavers
013.00	Primrose Avenue cul-de-sac Deletion
014.00	Delete Azusa-Alameda Enhancements
017.00	Michillinda Pull Box Replacement

Open RFCs

RFC Number	Title
OPEN	
006.00	Conduit Demo and Pull Box Re-work a
007.00	Added PME Switch & 2 Spare Conduits
011.00	Comm. Duct Bank Interface with DB2
012.00	SCE Capacitor Bank at Michillinda T
013.00	ETEL Enclosures
015.00	Metro Requested Elevator Vent Detail

Open RFC Notices

Number	Title
005.00	Inwindale CCTV Power Pole
016.00	Inwindale Added FH for LACFD Code C

METRO GOLD LINE FOOTHILL EXTENSION CONSTRUCTION AUTHORITY
Monthly Project Status Report
Period Ending: September 30, 2014



AZUSA TO MONTCLAIR SEGMENT

ACTIVITIES COMPLETED THIS PERIOD

Authority and City staff continued to hold coordination meetings to discuss the project. A draft of the Master Cooperative Agreement (MCA) has been distributed to all cities for review, after which all parties will convene to discuss and negotiate the MCA for execution.

The Authority has also initiated the restart of the Station Design Art Program (SDAR). The first SDAR meetings are planned to begin in late October 2014.

This period, Authority staff worked on the following technical elements of the project:

- Continued advancement of the plan and profile drawings
- Completed development of surveying scope of work for AECOM to perform and gave AECOM direction to proceed with this work
- Completed development of geotechnical scope of work for AECOM to perform
- Completed development of Pomona parking facility scope of work for AECOM to perform - requested Form 60 from AECOM

KEY FUTURE ACTIVITIES

The advanced conceptual engineering process is an 18-month process. Upon completion, the Azusa to Montclair segment will be ready for a design-build procurement. Upcoming activities include continuing to attend coordination meetings with each corridor city, kickoff of the ROW drawing work, refinement of the alignment, completing the SDAR, and kickoff of geotechnical investigations.

Federal Transit Administration (FTA)

The Metro Board of Directors excluded the Gold Line from seeking federal New Starts funding. The Authority will work together with Metro along with the Congressional delegation to seek funding to construct the extension following completion of the environmental review.

METRO GOLD LINE FOOTHILL EXTENSION CONSTRUCTION AUTHORITY
 Monthly Project Status Report
 Period Ending: September 30, 2014



PHASE II FOOTHILL EXTENSION FINANCIAL STATUS
Project Operating Budget Summary in Millions of Dollars
September 30, 2014

	(a)	(b)	(c=a-b)	(d)
FINANCIAL PLAN	Current Budget	Funding Committed to Project	Uncommitted Funds	Revenues Received
SCAG	1.0	0.9	0.1	0.9
Interest Income	2.0	2.0	-	2.0
Bridge Replacement	13.9	13.9	-	13.9
Phase I Carryover	4.0	4.0	-	4.0
Maintenance and Operations Facility	-	-	-	-
Cities	11.0	-	11.0	-
Measure R - Pasadena to Azusa	810.5	777.0	33.5	427.3
Measure R - Azusa to Montclair	-	-	-	-
SANBAG	55.2	1.5	53.7	1.5
Federal TCSP	2.9	2.9	-	2.7
Federal Bus Intermodal Plan	9.0	9.0	-	3.6
Federal New Starts 2004 MTA Passthrough	4.0	4.0	-	4.0
Federal New Starts 2005 MTA Passthrough	0.5	0.5	-	0.5
Federal New Starts 2006 Corridor Study	2.5	2.5	-	2.5
Federal/Other	1,033.5	-	1,033.5	-
Total Revenues	1,950.0	818.2	1,131.8	462.9
	(a)	(b)	(c)	(d=a-b)
	Current Budget	Current Obligation	Current Expenditures	Current Available Balance
EXPENSES				
Program Management and Administration	107.9	86.1	86.0	21.8
Master Cooperative Agreements	12.0	3.3	3.2	8.7
Real Estate including ROW Acq	21.0	21.0	18.8	-
Special Programs	0.3	-	-	0.3
Procurement/Vehicles	60.0	-	-	60.0
Maintenance and Operations Facility Land	22.0	22.0	22.0	-
Construction - IFS	19.8	19.8	19.8	-
Construction - Pasadena to Azusa segment	328.9	328.9	277.7	-
Construction - Azusa to Montclair segment	1,181.0	-	-	1,181.0
Construction - M&O	46.0	44.0	27.5	2.0
Construction - Parking Structures	44.2	44.2	24.0	-
MTA Project Costs	64.0	64.0	14.3	-
Contingency	27.4	-	-	27.4
Project Reserve	15.5	-	-	15.5
Total Project	1,950.0	633.3	493.3	1,316.7



Foothill Gold Line

Metro Gold Line Foothill Extension Construction Authority

406 East Huntington Drive, Suite 202
Monrovia, CA 91016-3633

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www.foothillgoldline.org

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City of Claremont
Appointee, SGVCOG

Mendell Thompson
Vice Chair
Mayor Pro Tempore,
City of Glendora
Appointee, City of
South Pasadena

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Mayor,
City of Pomona
Appointee, LACMTA

Vacant
City of Los Angeles
Appointee

Tim Hepburn
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Appointee,
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Appointee, City of
Pasadena

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Appointee, City of
South Pasadena

Alan D. Wapner
Member, Non-Voting
Councilmember,
City of Ontario
Appointee, SBCTA

Executive Officer:

Habib F. Balian
Chief Executive Officer

Agenda Item: 7

TO: Chair and Members of the Construction Committee
FROM: Habib F. Balian, Chief Executive Officer
DATE: September 6, 2023
SUBJECT: Authorize the Chief Executive Officer to execute a Change Order to the Phase 2B Alignment Contract (C2002) with Kiewit-Parsons, Joint Venture (KPJV) for the construction of modifications to the locations of the post tensioning ducts in the Foothill/Grand and Bonita Cataract bridges in the amount of \$862,045

RECOMMENDATION:

That the Construction Committee recommend that the Board of Directors authorize the Chief Executive Officer (CEO) to execute a change order to the Phase 2B Alignment Contract (C2002) with Kiewit-Parsons, Joint Venture (KPJV) for the construction of modifications to the locations of the post tensioning ducts in the Foothill/Grand and Bonita Cataract bridges in the amount of eight hundred sixty-two thousand forty-five dollars (\$862,045).

SUMMARY:

KPJV elected to utilize a non-standard design for the location of the post-tensioning ducts for the Foothill/Grand and Bonita/Cataract bridges, placing the ducts in the bridge soffit. Los Angeles County Metropolitan Transportation Authority (LA Metro) technical reviewers requested KPJV move the location of the post tensioning ducts for these two bridges to a more standard location, within the bridge girders. Construction Authority staff examined LA Metro's concerns, and determined that, while the initial location in the bridge soffit is not standard, it is not inherently unsafe or inferior, and is not precluded by any Project standards, specifications, or criteria, therefore, KPJV is entitled to design and construct the bridges in the manner they originally planned.

In order to progress the project and their technical reviewers' initial concerns, LA Metro agreed to fund a betterment to change the design of these two bridges to shift the location of the post tensioning ducts into an additional, hidden bridge girder. LA Metro has since approved one million, three hundred thousand dollars (\$1,300,000) for the design and construction of the changes for this betterment. The Construction Authority has already issued Change Order No. 029 to KPJV for the design of these changes, for the total amount of four hundred thirty-seven

thousand nine hundred fifty-five dollars (\$437,955). Construction Authority staff has completed negotiations with KPJV for the construction cost for these changes for the lump sum fixed price of eight hundred sixty-two thousand forty-five dollars (\$862,045), equaling the remaining betterment funding approved by LA Metro.

If this action is approved, staff will prepare a change order for the CEO to execute to add this work to the Phase 2B Alignment Contract (C2002).

BUDGET IMPLICATIONS:

Note: This work is a betterment for Metro thus Metro will ultimately pay for this work and reimburse the Foothill Gold Line after the work is completed so basically this is a cost-neutral transaction. The work will be funded from the accounts noted below, then the Foothill Gold Line will seek reimbursement as per the agreed upon Betterment agreement.

This work in an amount not-to-exceed \$865,045 will be funded from WBS 2.70.20.10.N.9980 Phase 2B Construction DB2 Alignment Pomona and WBS 2.70.20.20.N.9980 Project Contingency, which have a Financial Plan Revision 18 budget of 2,370,900,000 of which \$807,700,000 is Construction DB2 Alignment-Pomona and \$132,600,000 is Project Contingency of which \$1,941,526 has been allocated to date. Also, there is a Board Approved FY24 Foothill Gold Line operating budget of \$240,000,000.



Foothill Gold Line

Metro Gold Line Foothill Extension Construction Authority

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Alan D. Wapner
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Agenda Item: 8

TO: Chair and Members of the Construction Committee
FROM: Habib F. Balian, Chief Executive Officer
DATE: September 6, 2023
SUBJECT: Authorize the Chief Executive Officer to execute a Change Order to the Phase 2B Alignment Contract (C2002) with Kiewit-Parsons, Joint Venture (KPJV) for the design and construction of an additional sound wall east of the Route 66 bridge in an amount not-to-exceed \$730,308

RECOMMENDATION:

That the Construction Committee recommend that the Board of Directors authorize the Chief Executive Officer (CEO) to execute a change order to the Phase 2B Alignment Contract (C2002) with Kiewit-Parsons, Joint Venture (KPJV) for the design and construction of an additional sound wall east of the Route 66 bridge in an amount not-to-exceed seven hundred thirty thousand three hundred eight dollars (\$730,308).

SUMMARY:

During the planning phase and development of the Environmental Impact Report (EIR) for Phase 2B, the Construction Authority utilized a consultant to perform noise and vibration analysis and to develop the corresponding specifications for the mitigation measures incorporated into the EIR and Contract C2002. Included in this noise and vibration analysis was the identification of potential sensitive receptors near the ROW.

During construction, Construction Authority staff identified an additional residential parcel, on the north side of the ROW, east of Route 66, which was not initially identified during the planning-phase. The subsequent noise and vibration analysis determined that an additional sound wall is needed in this location, and the Construction Authority issued a potential change order to KPJV to obtain a proposal to add this sound wall to Contract C2002 with the following parameters:

Executive Officer:

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- A total length of approximately 725 feet,
 - The western 375 feet of this wall must be built on top of the planned retaining wall east of the Route 66 bridge, on top of a “moment slab” which structurally ties the two walls together,
 - The eastern 400 feet of this wall are to be built on top of the standard ballast curb and must extend seven feet above the top of rail elevation,
- Both sections of this added wall will match the pattern of the other Phase 2B sound walls,
- Grading activities in this area have already been completed, so KPJV must construct, then remove a crane pad and access pathway for the equipment required to construct the moment slab and install the sound wall pilasters and panels in the constrained site between the edge of the ROW and the adjacent LRT trackway.

KPJV has submitted their proposal to design and construct this additional sound wall in the total amount of seven hundred thirty thousand three hundred eight dollars (\$730,308). Construction Authority staff is currently reviewing this proposal, resolving comments and questions regarding scope and pricing with KPJV to align the proposed scope and corresponding cost with its own independent cost estimate, and negotiating a lump sum fixed price for the additional work.

If this action is approved, staff will complete negotiations with KPJV, then prepare a change order for the CEO to execute to add this work to the Phase 2B Alignment Contract (C2002).

BUDGET IMPLICATIONS:

This work in an amount not-to-exceed \$730,308 will be funded from WBS 2.70.20.10.N.9980 Phase 2B Construction DB2 Alignment Pomona and WBS 2.70.20.20.N.9980 Project Contingency, which have a Financial Plan Revision 18 budget of 2,370,900,000 of which \$807,700,000 is Construction DB2 Alignment-Pomona and \$132,600,000 is Project Contingency of which \$1,941,526 has been allocated to date. Also, there is a Board Approved FY24 Foothill Gold Line operating budget of \$240,000,000.