Los Angeles County
Metropolitan Transportation Authority

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Metro

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PLANNING AND PROGRAMMING COMMITTEE
OCTOBER 16, 2013

SUBJECT: AIRPORT METRO CONNECTOR

ACTION: APPROVE CONTRACT MODIFICATION

RECOMMENDATION

A. Authorize the Chief Executive Officer (CEO) to:

1. Execute Modification No. 4 to Contract No. PS114330-2636 with STV/PB-ConnectLAX Joint Venture for the inclusion of the "Through Intermodal Transportation Facility" (ITF) alternative in the Draft Environmental Impact Statement/Report (EIS/R) for the Airport Metro Connector (Project) in an amount not-to-exceed $567,813 increasing the total contract value from $5,510,389 to $6,078,202 and extending the period of performance from December 30, 2013 to December 31, 2014 (Attachment A contains the Procurement Summary); and

2. Increase the Contract Modification Authority specific to Contract No. PS114330-2636, Airport Metro Connector, with the Contractor in the amount of $250,000 (Attachment B contains the Contract Modification Authority Summary); and

B. Receive and file the Airport Metro Connector Technical Refinement Study of Alternatives completed in cooperation with the Los Angeles World Airports (LAWA). Attachment C contains the Executive Summary. The full study is available upon request or at www.metro.net/projects/lax-extension. Attachment D contains a map of the Project Study Area.

ISSUE

On June 27, 2013, the Board approved a motion (Motion 73) by former Directors Villaraigosa, Katz, and Wilson and Director Knabe directing the CEO to include the Through ITF alternative in the Draft EIS/R for the Project (Attachment E) and authorizing $600,000 for this work. Since the motion did not authorize contract modification authority, Board authorization is being requested. This report also provides a summary of the Technical Refinement Study completed in cooperation with LAWA.

DISCUSSION

Background

Measure R earmarked $200 million (2008 funding) for the Airport Metro Connector. The constrained element of the 2009 Long Range Transportation Plan (LRTP) identifies this project with a revenue service date of 2028. The Board approved Measure R Acceleration Plan identifies a date of 2019. Both dates are contingent upon a financial contribution by LAWA.

Initial planning work for the Project began in summer 2011 with the preparation of the Alternatives Analysis (AA) Report. In April 2012, we presented the results of the AA Report which recommended several rail alternatives, including Light Rail Transit (LRT) and an Automated People Mover (APM), be advanced to the environmental review phase. In addition to the rail options, LAWA requested that we also include a Bus Rapid Transit (BRT) alternative to be consistent with the alternatives they were evaluating in their Specific Plan Amendment Study (SPAS). As a result of several meetings with the Federal Aviation Administration (FAA) and the Federal Transit Administration (FTA), the FAA advised us that the federal environmental process could not begin until LAWA proposed a project for inclusion on the LAX Airport Layout Plan. In subsequent discussions, LAWA indicated that such a proposal would need to follow their completion of the SPAS. The Los Angeles City Council approved the EIR and associated Land Use Ordinance for the SPAS in June 2013.

Coordination with LAWA, FAA and FTA

Over the last year, we have worked very closely with LAWA to better understand the opportunities and constraints associated with connecting rail transit to LAX. Since the release of the AA Report in April 2012, LAWA has been a key partner in the development of the Technical Refinement Study providing data and input on the design of the alternatives, specifically the APM alternative.

In January 2013, LAWA's Executive Director presented to the Metro Board three preferred locations for the interface with Metro facilities: the Crenshaw/LAX Aviation/Century station, LAWA's proposed ITF, and the eastern edge of the Central Terminal Area (Attachment F). These locations have been explored in the Technical Refinement Study.

With the completion of SPAS and LAWA's recommendation to advance several ground transportation facilities within this Project's Study Area, we conducted numerous technical workshops with LAWA and the Crenshaw/LAX Project team. The purpose of the workshops was to identify design solutions that could minimize future conflicts between LAWA and Metro facilities.

Since all alternatives require the temporary or permanent use of airport property, LAWA must help identify the Locally Preferred Alternative (LPA). Additionally, because

Measure R does not fully fund the Project, LAWA and the FAA need to partner with us to support the Airport Metro Connector.

Technical Refinement of Alternatives

With input from LAWA, we have organized the alternatives according to where Metro Rail passengers connect to LAX facilities. Listed below are the three connection locations and the alternatives associated with each that will be analyzed in the draft environmental document:

- Metro Aviation/Century Station – in construction as part of Crenshaw/LAX Project
  - APM Alternative – Metro Rail passengers transfer to a new, separate APM system in order to reach the LAX terminals.
- LAWA Intermodal Transportation Facility (ITF)
  - Through ITF Alternative – Crenshaw/LAX and Metro Green Lines are shifted to the west to connect with the LAWA ITF near Airport Boulevard. Metro Rail passengers would transfer from an underground station to an aerial APM system to complete their trip to the LAX terminals.
- LAX Terminals
  - LRT Branch Alternatives – extends Crenshaw/LAX and Metro Green Lines to the LAX terminals with an underground station near the ITF and one or two underground stations in the terminal area.
  - LRT Through Alternatives – extends Crenshaw/LAX and Metro Green Lines through the LAX terminals with an underground station near the ITF and one or two underground stations in the terminal area.

Based on the results of the SPAS EIR, we are not including the Bus Rapid Transit (BRT) with elevated busway as an alternative in the Draft EIS/R analysis. The alternatives presented in the Technical Refinement Study are limited to the LRT and APM options and the various connection points.

DETERMINATION OF SAFETY IMPACT

There is no impact on the safety of our employees or patrons.

FINANCIAL IMPACT

The FY14 budget includes $1,715,000 for the Airport Metro Connector in Cost Center 4330 (Transit Corridors/Systemwide Planning), Project 460303 (Metro Green Line to LAX), Account 50316 (Professional Services). Since this is a multi-year contract, the cost center manager and the Executive Director, Countywide Planning will be accountable for budgeting the cost in future years.

Impact to Budget

The funding for this project is from Measure R Transit Capital 35% Funds. These funds are earmarked for this project and as such, are not eligible for bus and rail capital or operating expenses.

ALTERNATIVES CONSIDERED

The Board could direct that we use in-house resources to complete the supplemental work associated with the Through ITF alternative. This alternative is not recommended. We do not have sufficient in-house resources to complete the supplemental work and the current contractor has the technical expertise, qualifications and in-depth understanding of the Project.

NEXT STEPS

We will continue working with LAWA to initiate the environmental review process.

ATTACHMENTS

A. Procurement Summary
B. Contract Modification/Change Order Log
C. Airport Metro Connector Technical Refinement Study of Alternatives – Executive Summary
D. Project Study Area Map
E. Motion 73 – Los Angeles International Airport Rail Connection
F. LAWA Map of Potential Connection Locations

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Chief Executive Officer

PROCUREMENT SUMMARY

AIRPORT METRO CONNECTOR

1.	**Contract No.:** PS114330-2636			
2.	**Contractor:** STV/PB-ConnectLAX Joint Venture			
3.	**Mod. Work Description:** Increased Scope and Period of Performance			
4.	**Work Description:** Professional A&E Services			
5.	**The following data is current as of :**		September 16, 2013	
6.	**Contract Completion Status:**			
	Bids Opened	N/A	Financial Status	
	Contract Awarded	03/24/11	Contract Award Amount	$4,751,273
	NTP	04/15/11	Total of Modifications approved	$759,116
	Orig. Complete Date	12/15/12	Pending Modifications (including this action	$567,813 NTE
	Current Est. Complete Date	12/30/13	Current Contract Value (with this action)	$6,078,202
7.	**Contract Administrator:** Samira Baghdikian		**Telephone Number:** (213) 922-1033	
8.	**Project Manager:** Cory Zelmer		**Telephone Number:** (213) 922-1079	

A. Procurement Background

This proposed modification is for an amount not-to-exceed (NTE) $567,813 and extends the period of performance from December 30, 2013 through December 31, 2014.

This contract modification will be processed in accordance with the LACMTA approved Acquisition policy and procedure for contract modifications.

On March 24, 2011, Contract No. PS114330-2636, formerly known as the Metro Green Line to LAX, was awarded to STV/PB-ConnectLAX Joint Venture in the firm fixed price contract amount of $4,751,273 for professional services to complete the Alternatives Analysis (AA), Draft Environmental Impact Statement/Report (EIS/R), and Conceptual Engineering (CE) for the Metro Green Line to LAX project.

Attachment B shows that three modifications have been issued to date to increase the level of effort and extension of period of performance.

B. Evaluation of Proposals/Bids

The final negotiated amount will comply with all requirements of Metro's Acquisition policy and procedures, including fact-finding, clarifications, negotiations and cost analysis to determine a fair and reasonable price before the contract modification is executed.

	Proposal Amount	MTA Estimate	Negotiated Amount
1.	**$567,813**	**$584,450**	**$TBD**

C. Small Business Participation

STV/PB-ConnectLAX Joint Venture made a 29.10% Disadvantaged Business Enterprise Anticipated Level of Participation (DALP) commitment. STV/PB-ConnectLAX Joint Ventures' DALP participation[1] is 9.87%. STV/PB-ConnectLAX Joint Venture was contacted to address their current participation, and they indicated that due to an extension of the initial planning phase, there has been less DBE participation to date; however, participation will increase as the project transitions from planning to environmental activities.

SMALL BUSINESS COMMITMENT	**DBE 29%**	**SMALL BUSINESS PARTICIPATION[1]**	**DBE 9.87%**

DBE Subcontractors		**Commitment %**	**Current Participation[1]**
1.	Cityworks Design	0.70%	0.00%
2.	Coast Surveying, Inc.	3.40%	7.70%
3.	D'Leon Consulting Eng. Corp	1.70%	0.00%
4.	Epic Land Solutions, Inc.	0.61%	0.00%
5.	Ted Tokio Tanaka Architects	3.90%	0.00%
6.	Terry A. Hayes & Associates, LLC	11.40%	2.17%
7.	VCA Engineers, Inc.	6.30%	0.00%
	Total:	**29.10%**	**9.87%**

[1] *Current Participation = Total Actual Amount Paid-to-Date to Subs + Total Actual Amount Paid-to-Date to Prime*

D. All Subcontractors Included with Recommended Contractor's Proposal

Name of Subcontractor		Services Provided
1.	Cityworks Design	Urban Design
2.	Coast Surveying, Inc.	Aerial Photography/Surveying
3.	D'Leon Consulting Eng. Corp	Utilities
4.	Epic Land Solutions, Inc.	Right of Way
5.	Ted Tokio Tanaka Architects	Station Design
6.	Terry A. Hayes & Associates, LLC	Environmental
7.	VCA Engineers, Inc.	Civil Engineering

ATTACHMENT B

Summary of Contract Actions/Contract Modification Authority

Contract Actions	Amount	Authority	Amount
Original Contract Award	$4,751,273	Original Award	$4,751,273
Approved Modifications	$759,116	CMA Authorized by the Board	$950,255
Pending Modification	$567,813	CMA this action	$567,813
		CMA Increase	$250,000
Total Contract Amount with this Modification	$6,078,202	Total Award Authority with this increase	$6,519,341

Contract Modifications

	Original Contract	**05-13-11**	**$4,751,273**
1.	**Supplementary Data Collection, Design and Environmental Analysis and extension of period of performance.**	**08-28-12**	**$759,116**
2.	**Correction of Contract Amount**	**10-25-12**	**$0**
3.	**Extension of Period of Performance**	**05-16-13**	**$0**
4.	**Inclusion of Through Intermodal Transportation Facility Alternative in the Draft Environmental Impact Statement/Report (EIS/R) and extension of period of performance**	**Pending**	**$567,813 NTE**
5.	**Total**		**$6,078,202**

Attachment C

Los Angeles County
Metropolitan Transportation Authority

Airport Metro Connector

Technical Refinement Study of Alternatives - Executive Summary

October 2013

1. INTRODUCTION

The Los Angeles County Metropolitan Transportation Authority (Metro) is working in collaboration with Los Angeles World Airports (LAWA) to identify a reliable and convenient connection for passengers and employees traveling between the Los Angeles International Airport (LAX) and the regional transit system. This connection would facilitate the movement of airport bound passengers from the Metro Crenshaw/LAX Line, under construction, and the existing Metro Green Line. In April 2012, the Metro Board received the Metro Green Line to Los Angeles International Airport (LAX) Alternatives Analysis (AA) Report and approved changing the name of the Project to the Airport Metro Connector. In addition to the No Build and Transportation System Management (TSM) alternatives, the 2012 AA Report recommended the following three Build Alternatives for further evaluation in the Draft Environmental Impact Statement (EIS)/ Environmental Impact Report (EIR):

- Direct Light Rail Transit Branch
- Modified Light Rail Transit Trunk (Through LAX)
- Circulator(Automated People Mover)

As a result of several meetings with the Federal Aviation Administration (FAA) and the Federal Transit Administration (FTA), Metro was advised by the FAA that the federal environmental clearance process for the Airport Metro Connector could not begin until LAWA proposed a project for inclusion on the LAX Airport Layout Plan. In subsequent discussion, LAWA indicated that such a proposal would need to follow the completion of their Specific Plan Amendment Study (SPAS). The SPAS involved the identification and evaluation of potential alternatives to improve air and ground transportation operations at the airport. The ground transportation element in SPAS highlights an Automated People Mover (APM) system that would connect the airport terminals with a future Intermodal Transportation Facility (ITF), Consolidated Rental Car Facility (ConRAC) and the Metro Rail system. With the completion of the SPAS not anticipated until the spring of 2013, Metro began this Technical Refinement Study, in cooperation with LAWA, to further evaluate the opportunities and constraints associated with the three build alternatives listed above. Although LAWA previously requested a Bus Rapid Transit (BRT) alternative be evaluated in the Draft EIS/EIR, it was not included in this study. The exclusion of the BRT is consistent with the 2012 AA Report and the transit alternative recommended in SPAS.

In June 2013, the Metro Board awarded a Design/Build contract for the Metro Crenshaw/LAX project with an opening date expected in 2020. The alternatives evaluated in this report assume the Metro Crenshaw/LAX project as an integral component of the transportation network within the Project Study Area. As such, most of the alternatives either extend from or connect to the Metro Crenshaw/LAX station near the intersection of Aviation and Century Boulevards. Also in June 2013, the Metro Board approved studying a Metro Rail connection at LAWA's ITF ("Through ITF" alternative) during the environmental review process. A preliminary evaluation of that alternative is also provided in this report.

The Airport Metro Connector project has $200 million (2008 dollars) in Measure R funds reserved in the constrained element of Metro's 2009 Long Range Transportation Plan (LRTP)

with a revenue service date of 2028. The opening date is contingent upon a financial contribution by LAWA.

This Technical Refinement Study builds upon the 2012 AA Report with input and data provided by LAWA and the SPAS EIR. This report is intended to advance the analysis of alternatives in order to better inform the public, Metro and LAWA and ultimately help expedite the subsequent environmental review process.

2. DEFINITION OF ALTERNATIVES

The concepts considered in the Technical Refinement Study fall into three main categories based on their interface point between the Metro Rail system and LAX facilities:

- **Alternative A: Aviation/Century Connection** – the Metro Crenshaw/LAX and Metro Green Lines connect to a LAWA-operated APM at the Aviation/Century Station.
- **Alternative B: ITF Connection** – the Metro Crenshaw/LAX and Metro Green Lines "shift" to the west to connect to a LAWA-operated APM at the ITF near Airport Boulevard.
- **Alternative C: CTA Connection** – the Metro Crenshaw/LAX and Metro Green Lines extend into the CTA to provide direct rail service to the LAX terminals. Within the CTA Connection category, there are several different configurations:
  - **Alternative C1: LRT Branch, 1 Station in the CTA** – the Metro Crenshaw/LAX and Metro Green Lines branch off to serve stations at the ITF and the eastern CTA. Metro Rail would connect to a LAWA-operated APM at these two stations. Two operating scenarios are under consideration – one with 10-minute headways and one with 5-minute headways. Two operating scenarios were considered due to the operating constraints associated with a stub-end terminal.
  - **Alternative C2: LRT Branch, 2 Stations in the CTA –** the Metro Crenshaw/LAX and Metro Green Lines branch off to serve stations at the ITF, the eastern CTA and the western CTA. This alternative is designed to test performance without an APM. However, the existing LAWA Shuttle A bus would remain in service and provide connections to each terminal within the CTA.
  - **Alternative C3: Through LRT, 1 Station in the CTA** – the Metro Crenshaw/LAX and Metro Green Lines branch to go through the LAX area to reconnect to the Metro rail system south of LAX. This alternative would serve stations at the ITF, the western CTA and Sepulveda Boulevard. This alternative is designed to test performance without an APM. However, the existing LAWA Shuttle A bus would remain in service and provide connections to each terminal within the CTA.
  - **Alternative C4: Through LRT, 2 Stations in the CTA**– the Metro Crenshaw/LAX and Metro Green Lines branch to go through the LAX area to reconnect to the Metro rail system south of LAX. This alternative would serve stations at the ITF, the eastern CTA, the western CTA and Sepulveda Boulevard. This alternative is designed to test performance without an APM. However, the existing LAWA Shuttle A bus would remain in service and provide connections to each terminal within the CTA.

Table 1 provides an overview of key characteristics of each alternative, including stations, headways, and connections. Refer to Section 2 of the Technical Refinement Study for a more detailed description of the alternatives.

Table 1: Description of Alternatives

Alternative	Connection Types		Description
A		Aviation / Century Connection	• Aviation/Century Station connection to APM • Headways: 2.5-minute peak (APM) • Forced transfer to CTA • 8 new APM stations
B		ITF Connection	• ITF connection to APM • Headways: 2.5-minute peak (APM); 5 minute peak per LRT line • Forced transfer to CTA • 6 new APM stations; 1 new LRT station
C1 (10)		Terminal Connection – LRT Branch	• ITF and CTA connection to APM • Headways: 2.5-minute peak (APM); 10-minute peak per LRT line • Direct Metro rail service for eastern terminals; forced transfer for western terminals • 7 new APM stations; 2 new LRT stations
C1 (5)			• ITF and CTA connection to APM • Headways: 2.5-minute peak (APM); 5-minute peak per LRT line • Direct Metro rail service for eastern terminals; forced transfer for western terminals • 7 new APM stations; 2 new LRT stations
C2			• Direct Metro rail service into the CTA for all terminals • No APM • Headways: 5-minute peak per LRT line • 3 new LRT stations
C3		Terminal Connection – Through LRT	• Direct Metro rail service into the CTA • No APM • Headways: 5-minute peak headways per LRT line • Direct Metro rail service for western terminals; forced transfer for eastern terminals • 3 new LRT stations
C4			• Direct Metro rail service into the CTA for all terminals • Headways: 5-minute peak headways per LRT line • 4 new LRT stations

3. PERFORMANCE OF ALTERNATIVES

The Technical Refinement Study assesses the performance of the alternatives across a broad range of criteria, including:

- Passenger Convenience and Travel Time
- Environmental Factors
- Compatibility with Other Projects
- Engineering/Physical Feasibility
- Cost and Financial Feasibility

As with many planning initiatives, there are numerous trade-offs between different alternatives. For example, a concept that provides the best mobility benefits may also have significant environmental impacts or a high price tag. The following discussion is focused around these trade-offs for each of the concepts under consideration.

3.1. PASSENGER CONVENIENCE AND TRAVEL TIME

In general, transit riders consider out-of-vehicle time (i.e. transfers, etc.) to be more onerous than in-vehicle time. As a result, the concepts that provide direct Metro Rail service into the CTA provide the best passenger experience as they reduce the number of transfers, level changes, and associated out-of-vehicle time. Alternatives A and B require a transfer for all Metro Rail passengers destined for LAX.

The concepts that provide direct Metro Rail service into the CTA also provide the greatest travel time savings for those destined to LAX – both regionally, from various Metro rail stations, and locally, from the ITF. All of the passenger convenience factors feed into travel time savings. Alternatives C2, C3 and C4 were designed to test the performance of a Metro Rail connection to LAX without a LAWA-operated APM service. Alternatives C3 and C4, which extend the Metro Rail through LAX, provide the greatest travel time savings for passengers destined for the airport. For those alternatives that do not include the APM component, the existing LAWA Shuttle A bus would remain in service and provide connections to each terminal within the CTA.

Conversely, the alternatives that provide direct rail service into the CTA also result in the greatest inconvenience to non-airport destined passengers on the Metro Crenshaw/LAX and Metro Green Lines. Alternative A is the only alternative that does not increase the travel time for passengers who are not destined for the airport. The "Through LRT" alternatives (Alternatives C3 and C4) reroute non-airport destined passengers the farthest and result in the greatest addition of travel time (approximately 4 to 5 minutes).

Figure 1: Passenger Convenience

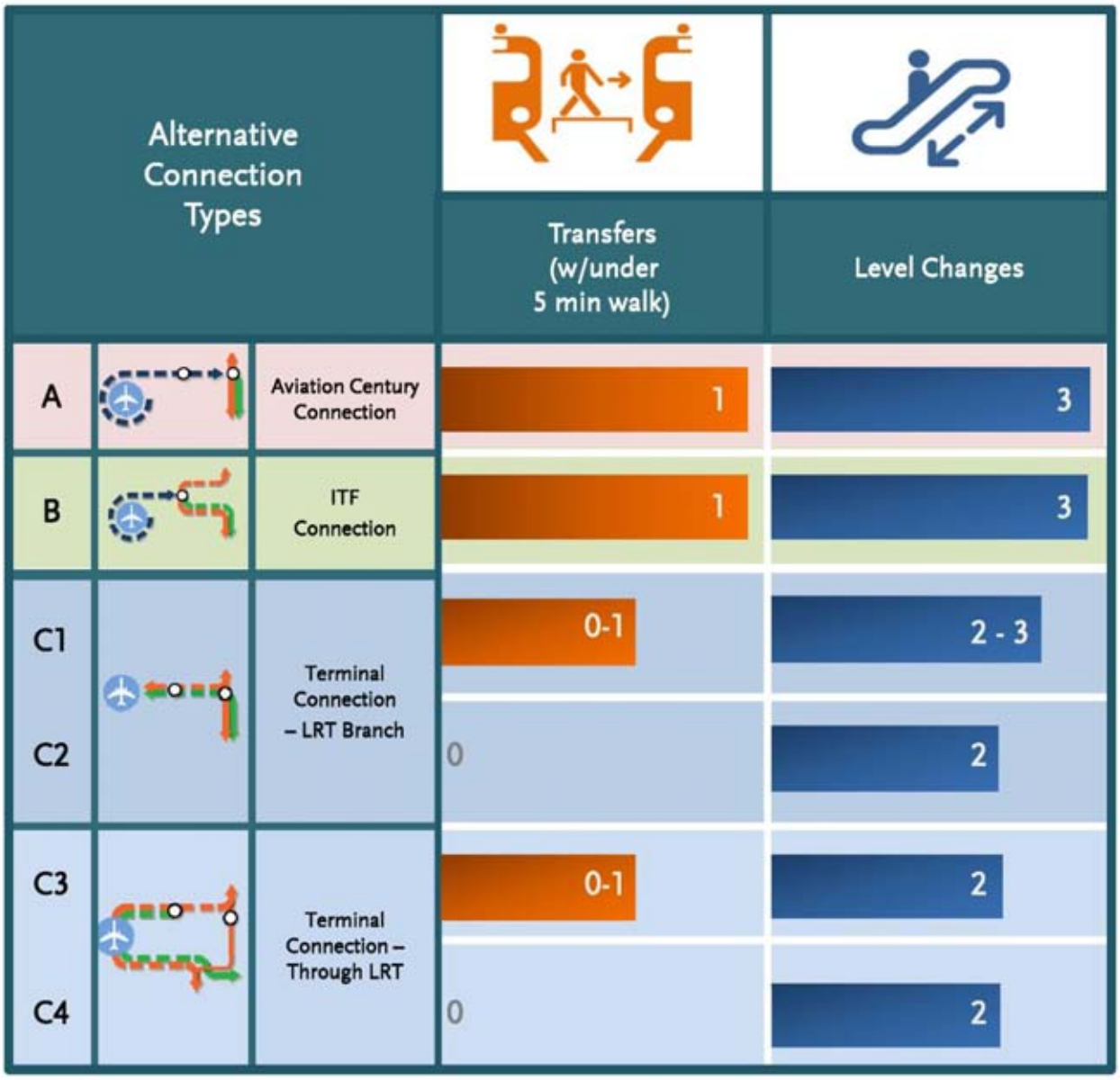
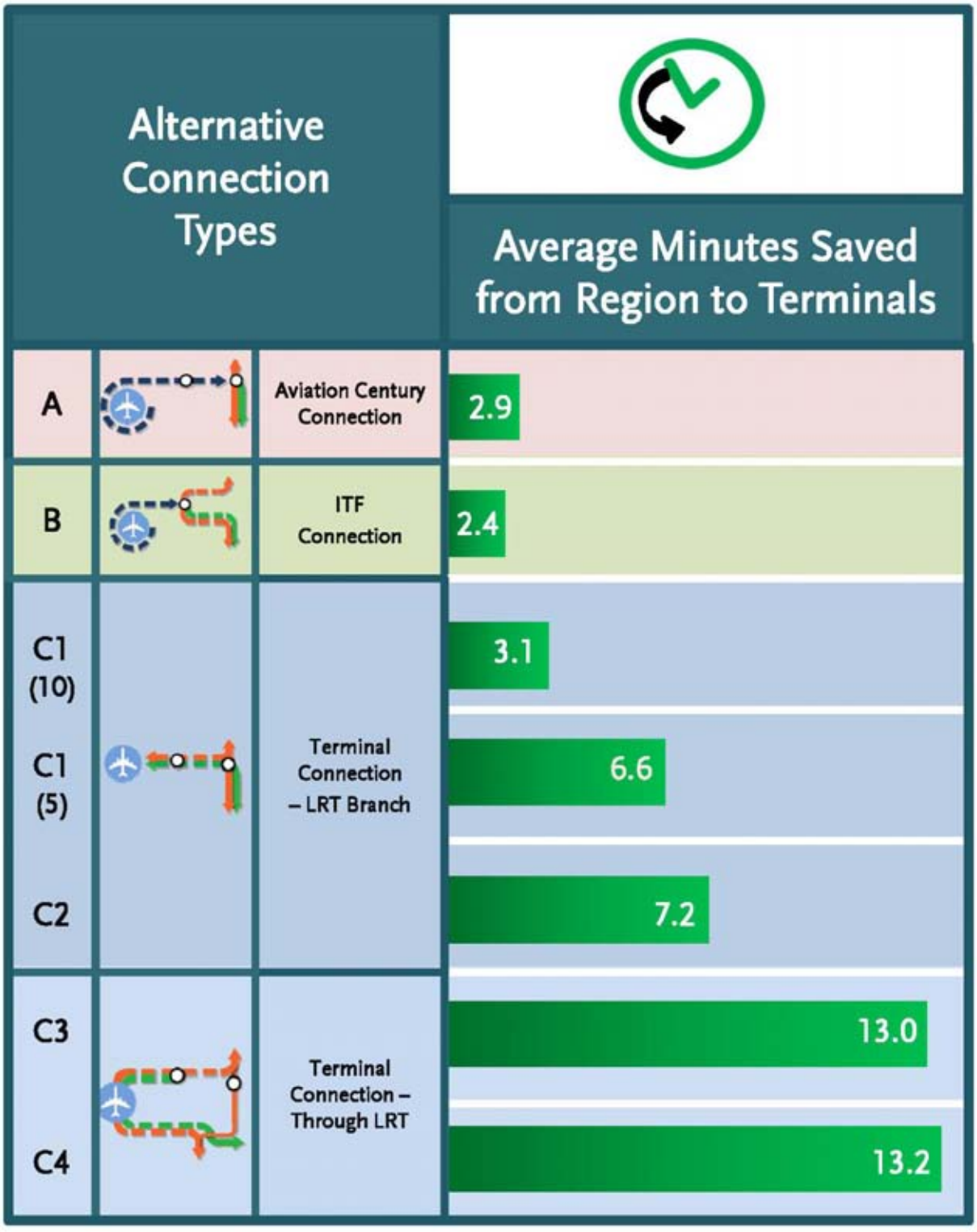


Figure 2: Travel Time Savings



3.2. Environmental Factors

The magnitude of many of the potential construction impacts is related to the length of the alignment, particularly for tunnel alternatives. Therefore, Alternatives C2 through C4, which extend Metro rail into the CTA, have the greatest potential for construction impacts because they involve the longest tunnel alignments. The majority of construction impacts will be at the Tunnel Boring Machine (TBM) launch sites and stations, where the excavated materials will be removed and loaded on trucks for disposal.

Alternative A does not involve any tunneling activity and therefore construction impacts will likely be less intensive than those alternatives that do involve tunneling. However, all alternatives with an APM do require construction activities within the CTA, which has the potential to affect traffic and airport operations.

The construction and operation of the alternatives pose two potential impacts to the historic Airport Theme building – vibration and visual. The first is the potential for vibration impacts during construction and operation for the tunnel alternatives (C1 through C4). The second is the potential for visual impacts for the APM alternatives (Alternatives A, B and C1) due to the aerial structure. Further analysis will be conducted during the preparation of the Draft EIS/EIR to determine whether the construction or operation of the alternatives would create impacts to the Airport Theme Building.

3.3. Compatibility with Other Projects

Most of the proposed alternatives are compatible with projects and plans within the Study Area, including airport, transit, and land use projects. However, Alternative B will require further evaluation as the Metro Crenshaw/LAX line is under construction. Any deviation from the awarded project design has risk in terms of schedule and federal funding requirements.

3.4. Engineering/Physical Feasibility

The APM and tunnel alternatives each present a unique set of design challenges. For APM alternatives, existing physical infrastructure within the CTA, such as the parking structures and foundations as well as the roadway columns and foundations, present a potential constraint.

For tunnel alternatives, geotechnical and below-grade infrastructure would be a challenge. All tunneled alternatives are deemed feasible from a geotechnical perspective. However, LAWA has identified three areas that they believe to be high risk for tunneling due to vital airport operations – runways, World Way and terminals. Alternatives C2, C3 and C4 will require tunneling under sensitive areas as defined by LAWA and FAA. Slurry shield TBMs are well suited for the subsurface conditions along the proposed underground segments. Gasketed tunnel liners and safety systems at stations would likely be required to mitigate hazardous soil gas conditions, which would increase the cost of constructing and operating the project.

Alternative B was added to this study, per Board direction, in June. Therefore, the engineering and feasibility analysis for the LRT component are not as advanced as the other alternatives

evaluated in this study. The design for this alternative will be developed further during the environmental review phase.

3.5. OPERABILITY

Alternative A is the only alternative which does not involve extending Metro rail and adjusting operations for the Metro Crenshaw/LAX and Metro Green Lines. However, for the alternatives that do extend Metro rail – three issues were considered:

- Capacity at terminal station within the CTA
- Junctions and their capacity to accommodate multiple lines
- Access to the Southwest Yard Maintenance Facility

Alternative C1, which terminates at the eastern CTA station, was analyzed for terminal capacity under two headway scenarios. For one scenario, both the Metro Crenshaw/LAX and the Metro Green Lines would operate on 10-minute headways and include a terminal station in the CTA with two tracks and a single passenger platform. However, with five-minute headways on each line, three tracks and two platforms would be necessary at the terminal station in order to accommodate a higher volume of train traffic. In the constrained CTA environment, constructing a station of this size is a significant and costly undertaking.

All of the alternatives scenarios could feasibly operate through both junctions, although the combined five-minute headway scenarios (C1, C2, C3, C4) encounter potential issues at the junctions. There is very little leeway in the schedule and any small schedule shift would have a cascading effect on all operations through the junctions. If the junctions are redesigned to accommodate the five-minute headways, these scenarios could feasibly operate.

Similar to the junctions, the track(s) leading into the Southwest Yard could feasibly operate under either headway scenario. But again, the combined five-minute scenario presents potential issues because the tight operations could quickly experience multiple conflicts/delays if there are changes in schedules. Furthermore, under any headway scenario, it is assumed that more than one access point will be designed for the Southwest Yard in order to maintain operations should any one yard lead be out of service for any length of time. Assuming the yard lead issues could be resolved, all alternatives could feasibly operate under all headway scenarios.

3.6. COST AND FINANCIAL FEASIBILITY

Extending Metro Rail directly into the CTA will cost more than constructing an APM due to the longer alignment length and tunnel profile. In general, the tunnel length and the number of stations is correlated directly to cost as longer tunnel alignments with more stations cost more to construct. The exception is Alternative C1 with five-minute headways for each LRT line, which is the most expensive to construct due to the necessary infrastructure at the terminal station in the CTA.

Alternative B was added to this study, per Metro Board direction, in June. Therefore, the capital and operating costs for the LRT component are not as advanced as the other alternatives evaluated in this study. These costs will be further explored during the environmental review phase.

All alternatives exceed the $200 million in funding reserved in Metro's LRTP. Therefore, additional funding will need to be identified during preparation of the Draft EIS/EIR.

In general, longer alignments and more frequent headways result in higher operating costs. Most LRT alternatives are more expensive to operate than the APM alternatives because the APM is automated, reducing labor costs. Since the alternatives that branch Metro Rail into the airport would build on existing transit service, the operating cost is the incremental increase compared to the No Build or "No Project" scenario.

Figure 3: Estimated Capital Costs

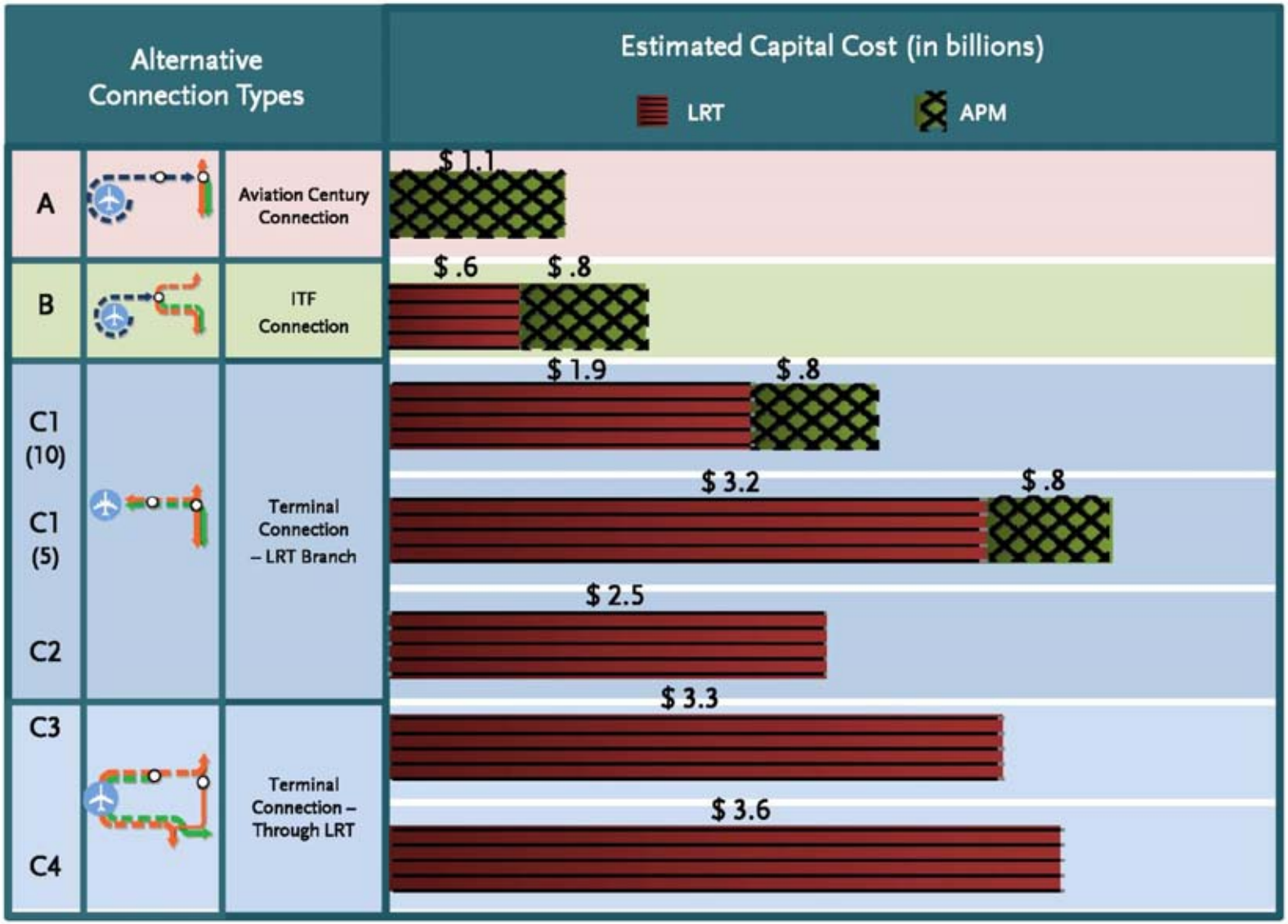
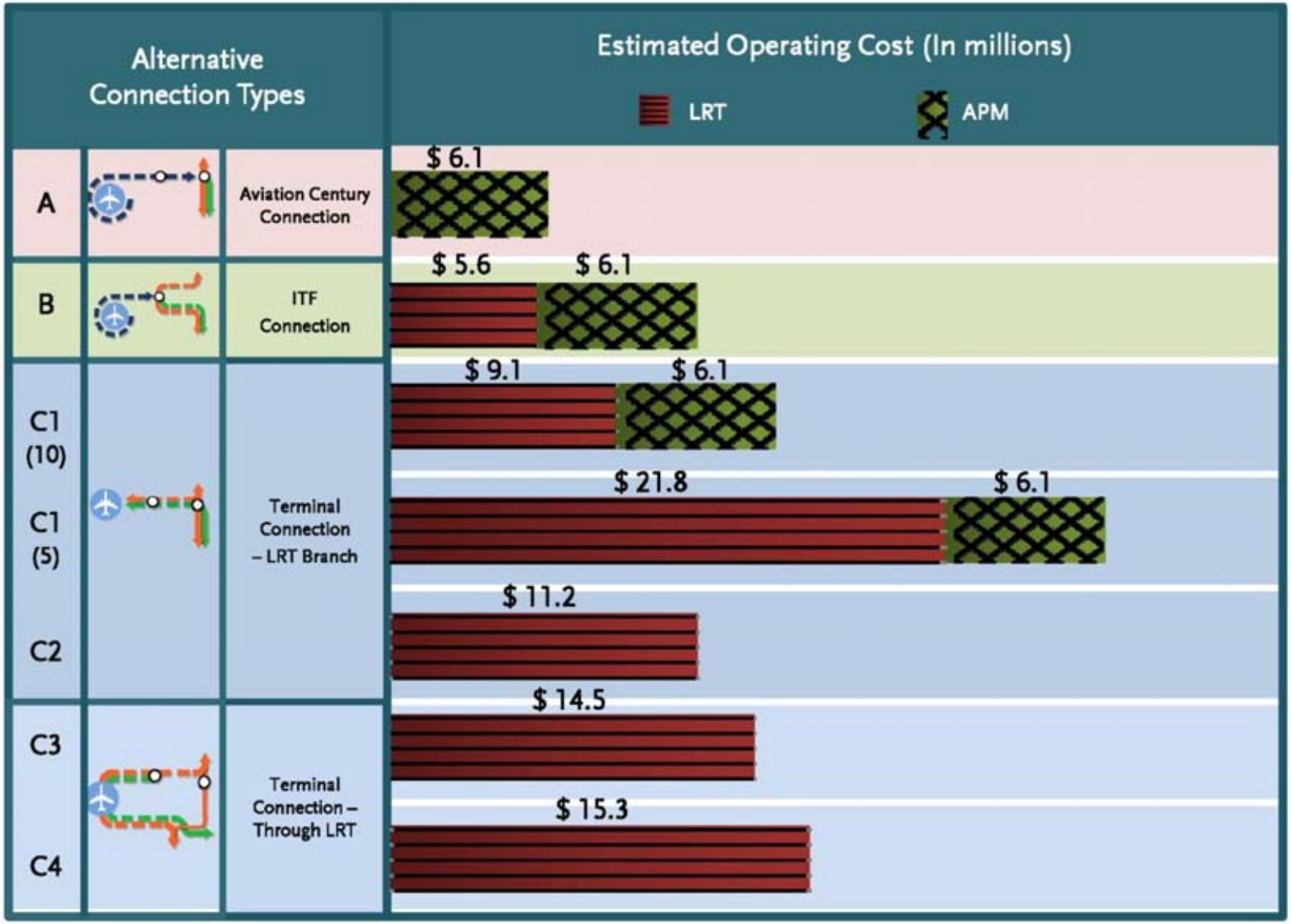


Figure 4: Estimated Operating Costs (annual)



4. SUMMARY AND NEXT STEPS

All of the proposed alternatives meet the Project's Purpose and Need. However, the alternatives do vary in terms of their ability to address program goals. Alternatives that provide a direct LRT connection into the CTA provide faster regional transit travel time and more convenient regional connections than alternatives that force a transfer. However, they also present the greatest inconvenience for passengers not destined for the airport. Conversely, the APM alternatives best serve the travel needs of passengers and employees getting around within the airport area.

The alternatives that extend Metro Rail into the CTA require tunneling within the CTA and are therefore the most expensive. These longer tunnel alignments also pose greater potential for significant environmental impacts and design challenges.

Of the alternatives that do not tunnel in the CTA, Alternative A is less expensive than Alternative B. Alternative B involves the additional cost of potentially shifting the Metro Crenshaw/LAX alignment, which is currently under construction, as well as expensive tunnel construction required for the LRT extension to the ITF. Metro will work closely with LAWA and the Crenshaw/LAX Construction Team during the environmental phase to refine the design of all the alternatives under consideration to minimize impacts to the Metro Crenshaw/LAX project.

The six Build alternatives, along with the No Build and TSM alternatives, are recommended for advancement to the environmental review phase. Metro will continue to work closely with LAWA to identify a transit connection to LAX that best serves Metro Rail passengers and LAWA's need to connect several transportation facilities identified in the SPAS.

Airport Metro Connector

Attachment D

Metro

MOTION BY MAYOR ANTONIO R. VILLARAIGOSA, DIRECTOR RICHARD KATZ & DIRECTOR MEL WILSON

MTA Planning & Programming Committee

June 20, 2013

Los Angeles International Airport Rail Connection

A direct MTA rail connection into Los Angeles International Airport (LAX) is a critical element of the regional transportation network, and shall be properly studied in close coordination with Los Angeles World Airports (LAWA).

On April 30, 2013, the Los Angeles City Council approved the LAWA Specific Plan Amendment Study (SPAS), which evaluated at a programmatic level various airport improvements at LAX.

This includes various ground transportation improvements and transit access to the airport's Central Terminal Area.

As part of SPAS, LAWA proposed a new ground transportation facility – also known as the Intermodal Transportation Facility ("ITF") – which is approximately half a mile from the airport's Central Terminal Area.

The ITF could provide airport passengers, employees, visitors and transit commuters with access to various transit connections and passenger amenities within a single location.

This also includes transit oriented development opportunities, concessions, passenger ticketing, baggage handling services and a potential airport processor facility.

These amenities, along with a direct link via an Automated People Mover to the airport's Central Terminal Area, make the ITF an ideal location for MTA to integrate their countywide rail system.

Furthermore, the ITF will create a world-class facility and be the new "front door" into the Los Angeles International Airport.

Over the last year, both MTA and LAWA have closely coordinated rail connection options and alternatives that aim to finally create a smart rail connection into LAX.

WE THEREFORE MOVE THAT the MTA Board of Directors adopt and direct the CEO to do the following:

A. Adopt as policy a rail alignment alternative that connects the existing Crenshaw/LAX and Green Line alignments to the ITF.

B. Include the rail ITF connection to the Airport Metro Connector Environmental Impact Report & Study (EIR/EIS) and authorize up to $600,000 in Airport Measure R 35% funds.

C. Determine construction cost of project as described above.

D. Conduct a modeling/ridership analysis to determine passenger and employee ridership in coordination with LAWA.

E. Explore and recommend a financial plan to fully fund the Airport Metro Connector which includes but is not limited to the following sources:

   1. Eligible airport revenues

   2. Federal Transit Administration and/or Federal Aviation Administration eligible funds

   3. Transit Oriented Development & property leases

   4. Public Private Partnerships

F. By the September 2013 Board meeting, in cooperation with LAWA, transmit to Federal Aviation Administration a formal request to allow initiation of the EIS/EIR and report to the Board in October 2013 the results of this request.

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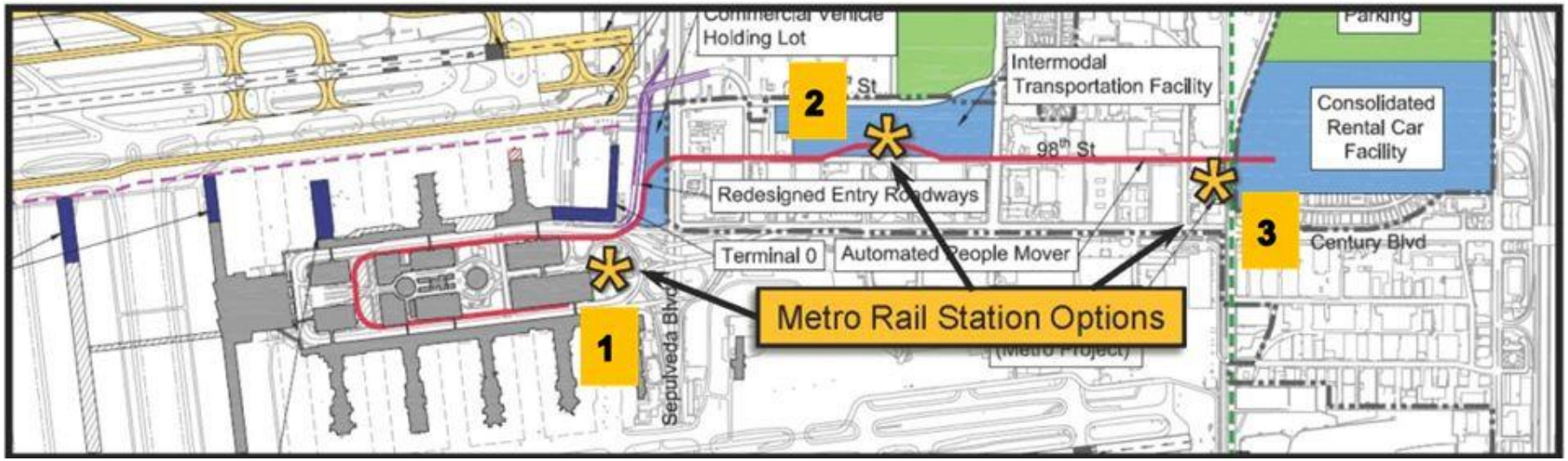
LAWA Map of Potential Connection Locations



- Three potential locations:
  1. West of Sepulveda Boulevard on east end of terminal area;
  2. Intermodal Transportation Facility south of Parking Lot C; or
  3. Future Crenshaw/LAX / Metro Green Line rail station at Aviation and Century Boulevards

Metro