



Board Report

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Agenda Number: 49

REVISED
CONSTRUCTION COMMITTEE
JANUARY 19, 2017

SUBJECT: REGIONAL CONNECTOR TRANSIT CORRIDOR PROJECT

ACTION: ESTABLISH A REVISED LIFE OF PROJECT BUDGET TO RIGHT-PRICE THE REGIONAL CONNECTOR PROJECT

RECOMMENDATION

CONSIDER:

- A. INCREASING the Life of Project (LOP) Budget on the **Regional Connector Transit Corridor Project** by \$199 million from \$1,551,840,570 to \$1,750,840,570;
- B. AMENDING the FY17 Budget on the Regional Connector Transit Corridor Project by \$30.6 million from \$220,730,000 to \$251,330,000;
- C. AUTHORIZING the CEO to execute Contract Modification No. 74 with Regional Connector Constructors (RCC) in the amount not to exceed \$50,600,000, for delays and schedule mitigation measures, electrical and water utility relocation costs, additional fire life safety engineering and other design and construction changes, increasing the total contract value from \$1,052,391,660 to \$1,102,991,660.
- D. AUTHORIZING the CEO, as part of a one-year pilot, to negotiate and execute project-related agreements, including contract modification(s) up to the authorized Life of Project budget, to streamline project management of the Regional Connector Transit Corridor Project subject to monthly reporting requirements, that would include any pending project-related agreements, change orders/contract modifications and any significant changes to contract contingency to the Board of Directors. This action would allow the Board to see in advance all project-related agreements and change orders.

ISSUE

The Regional Connector Transit Corridor Project (Project or Regional Connector Project) is a 1.9-mile underground light rail transit subway in Downtown Los Angeles connecting the existing Metro Gold Line, Metro Blue Line, and Metro Exposition Line light rail transit systems. The Project is extremely complex as it will interface with the different system elements from the existing transit lines and is being constructed through one of the oldest and most congested areas in Downtown Los Angeles, traversing through the heart of the Financial District/Historic Core and Little Tokyo/Arts District. Accordingly, traffic mitigation, stakeholder coordination, and aging third party infrastructure are key challenges for the Project.

With 95% of the design completed, a recently-performed risk assessment with the FTA affirms that this large, unique, and complex mega Project requires additional project budget based on a more thorough analysis of Project scope and risks. In conjunction with this review, the CEO has identified the need to streamline the contract administration process for the Regional Connector Project and is requesting the authority to negotiate and execute any remaining agreements such as professional services agreements, City or utility work orders and contract modifications within the LOP budget, subject to monthly reporting to the Board.

BACKGROUND

From the outset, this Project experienced budgetary pressures from a variety of causes. These include minimal initial contingency funding for significant project risks, insufficient funding for professional, agency and third party services, increased costs due to differing site conditions related to utility relocation, cost increases from repeated litigation-related impacts and delays, cost increases due to longer than anticipated durations for plan and permit approvals, and the resultant schedule impacts and mitigation expenses from all these factors. Costs to complete multiple aspects of the project are forecast to exceed the current approved budget and are summarized by major cost element in Table 1.

The Board authorized additional funding for the Project in December 2015, at which time staff indicated that a second budget augmentation request could be forthcoming once project needs were fully identified (Attachment F). Since that time, the Project was re-sequenced to position the project for success. Despite ongoing challenges, project momentum continues to ramp up significantly in all areas. Design is now nearing completion and heavy construction work at all three stations is well underway and the tunnel boring machine (TBM) is being assembled and will begin mining operations in mid-January 2017. Work along Flower Street, while still extremely challenging, is now progressing after extensive re-sequencing. Overall, Project completion is now approaching 30% complete.

The December 2015 Board Report included a “Next Step” Section which explained that the Project would perform a formal risk assessment in conjunction with FTA, where schedule and costs would be evaluated and the results and recommendations thereafter shared with the Board. This schedule and cost risk assessment has been completed and the guidance gained has been addressed and included in the recommendations contained in this report.

The results from the risk assessment indicate that projected costs listed in this Board report are now

reasonably forecast, and the completion schedule closely correlates with a model having a confidence factor consistent with conservative FTA standards. The fact that many of the Project’s risk areas have now been well researched or are now behind the Project, adds to the high level of confidence in both the cost estimate and schedule, and therefore leads to this “right-pricing recommendation.”

The resolution of various schedule issues, payment for compensable delay due the contractor, and additional design and construction scope elements have been incorporated into a comprehensive agreement which places the responsibility for a timely construction completion with the design-build contractor. This comprehensive agreement has the added benefit of simplifying the Project by consolidating milestones and bus bridging operations to provide for a single stage opening of the line earlier than would otherwise be possible under the original two-phased opening.

DISCUSSION

The Regional Connector Project has experienced budgetary pressures from a variety of causes since the outset of the Project. These include costs for mitigating construction permitting risks, normally assumed by the contractor and responding to continuing litigation related impacts beginning with an initial temporary restraining order requiring a Supplemental Environmental Impact Report (SEIR). Two subsequent and pending lawsuits continue to impact the Project and have required work re-sequencing, adoption of inefficient work methods and have resulted in permitting delays.

Additionally, at contract award, 21 bid options were identified as a means to allow the project additional design time to investigate further cost saving measures. Some cost saving measures proved to be feasible, however not as many as had been anticipated, thereby placing additional strain on the project budget. Nine (9) bid options were later exercised totaling \$47.5 million that was not included in the original Project budget.

Furthermore the minimal funding of professional services, agency expenses, third party and master cooperative agreements (MCA) now require that the cost for each of these elements be augmented to successfully complete the Project. A narrative describing broad areas of budget variances and requirements to right-price the project is provided below.

Table 1: Summary of Budget Variances Dollar in Millions

Element Description	Original LOP	Current Budget	Current Forecast	\$ Var
Design Build Contract	927.2	1,056.4	1,138.6	82.2
3rd Party, City of LA	28.4	57.1	70.4	13.3
ROW	74.2	82.7	92.7	10.0
Professional Services (CPJV)	154.6	164.8	227.3	62.6
Other Professional Services	26.1	32.6	46.1	13.6
Community Relations Office, PMA, QA, and				
Unallocated Contingency	126.9	67.6	84.9	17.3

Design-Build Contracts. In April 2014 the Board approved an LOP budget of \$1,420 million and awarded the C0980 Design/Build Contract for \$927,226,995, which was approximately \$53 million over the design-build budget established at the time the FTA Full Funding Grant Agreement was obtained in February 2014. To reduce costs during the solicitation of Contract No. C0980, Metro assumed responsibility for obtaining all City work hour variances and permits. At the time of the C0980 contract award, the Board was informed that this assumption of risk by Metro would save up to 15% on the contract value and one year of schedule. Contingency for this added risk was not included in the LOP budget. Subsequent experience has shown that these risks are significant and have contributed to major cost and schedule impacts on the project, particularly along Flower Street, at 1st/Alameda and 2nd/Broadway. To date, these additional costs have been absorbed through contingency utilization.

In January 2014, Metro awarded Contract No. C0981R to Pulice Construction Inc. for design-bid-build delivery of advanced utility relocations (AUR) of water, sewer and electrical power lines to allow for the cut and cover construction of the stations, guideways and portals by the Project's design-build contractor. During performance of the AUR work, the AUR Contractor encountered a significant number of unknown and abandoned utilities and structures that were either not shown, or shown incorrectly on the current as-built drawings. As a result, construction progress and schedule were significantly impacted. The AUR schedule impacts threatened the progress of the C0980 contract and led to the termination for convenience of the C0981R Contract in April 2015, and the transfer of the remaining AUR work to the Design-Builder. Given the extent of the unforeseen conditions, this was the best possible decision, as the Design-Build Contractor was better positioned to perform the additional work in ways that could mitigate further substantial delays. Notwithstanding these benefits, the transfer of this work to the Design-Builder in April 2015 added to the Project cost with a significant schedule impact.

A number of schedule recovery measures were authorized by the Board in December 2015 which yielded schedule mitigation of six (6) months. The costs associated with the transfer of the AUR work and schedule recovery measures to the design-build contract was \$76,100,000 and was included in the LOP Budget increase also authorized by the Board at that time.

Despite the successful implementation of these schedule recovery measures, construction progress continued to slip due to delays in the start of construction activities resulting from litigation, a delay to the start of work in Little Tokyo in response to community concerns, and increased time for approvals of design elements. Construction progress was further impacted by the inability to receive work-hour variances, particularly along Flower Street, which added significant schedule impacts that required mitigation. Over the course of several months, it became clear that further work re-sequencing was necessary to ensure that a practical and achievable schedule was in place for the balance of the Project. Collaboration between the Project and RCC resulted in a re-baselined project schedule that now demonstrates high confidence levels with reasonable flexibility.

However, the potential for future legal actions, late approvals to begin work and the continued difficulty in receiving extended construction work hours remain as serious threats to the project schedule. To successfully complete the Project as currently scheduled, Project staff requires assistance from all parties to maintain timely design approvals, and to receive and maintain extended construction work hours. Without continued assistance, further cost and schedule impacts are to be

expected.

The collective impact of utility conflicts, construction delays and work inefficiencies, together with outstanding design and construction scope items will, subject to Board approval of Recommendation B, be addressed in a comprehensive agreement (Contract Modification No. 74) with RCC for an amount up to \$50.6 million. This comprehensive agreement includes payment for compensable time due the contractor, for the above mentioned impacts and for associated engineering costs to manage and implement the added scope. The comprehensive agreement also pays for extensive electrical relocation work at 6th and Flower streets which was not part of the original project scope. This comprehensive agreement also further simplifies the construction of the north and east Gold Line tie-ins by consolidating project milestones and bus bridging operations into a more efficient, single-stage reopening of the Gold Line, at a lower overall cost to Metro.

Third Party, MCAs and Private Utilities: Significant scope and cost growth has occurred in this element due to previously described inaccuracies in the identified location and condition of underground utilities and the level of City effort required to support the project. The current budget of \$57.1 million is now estimated to cost \$70.4 million at completion.

Professional Services (Agency, CMSS, CPJV): This cost element consists of professional services from the project's consultant teams and Metro staff including project management, construction management and design support. This element has risen by more than 41% over the course of the Project due primarily to underfunding during the out years at the time of project inception. A protracted NEPA/CEQA and preliminary design phase also consumed significant resources during the planning phase.

These "soft costs" (including the Other Professional Services described below) now represent approximately 16% of revised total project costs. This is consistent with industry standards and below the 20% goal that Metro's Program Management Department has set. The current professional services budget of \$164.8 million is now estimated at \$227.3 million at completion.

Other Professional Services: Other professional services comprise legal counsel, auditing, project management assistance and construction relations. Continuing litigation defense costs on the Project and a significant level of necessary community and construction relations support in a challenging downtown environment have been largely responsible for cost growth in this category to \$46.1 million.

Real Estate: With rising property values in the Little Tokyo area, the planned three-year extension of the Temporary Construction Easement of the Mangrove Yard is now being valued well above the anticipated rates, resulting in a projected budget impact of \$10 million. Negotiations with the City of Los Angeles (the owner of the property) are pending.

Unallocated Contingency: While the cost forecast has considered all risks known to date and which are currently being actively managed, it does not account for other potential risks which may surface over the next five years. Examples of these risks include the following items among others:

- Easements or Right of Entry delays
- Processing and approvals of designs and permit delays
- Safety certification issues or incompatibility of tie-ins related to existing Metro facilities
- Right-of-Way court awards which exceed prudent forecasts
- Schedule improvements
- Work hour variances that are delayed or revoked leading to schedule erosion
- Unknown utility or private-party encroachments impacting design or construction.

Additionally, if the above risks manifest themselves, their impacts may likewise range from mild to severe. A major element of the FTA risk assessment process discussed above is the evaluation of contingency. While the recommended contingency value of \$85M or 8% of estimated costs-to-go is lower than FTA's recommended value, total project costs are consistent with their risk findings.

Supporting Effective Project Management

The Regional Connector Project, like many Metro projects, is a fast-moving, challenging and uniquely complex design-build project. Quick decision-making is required to take advantage of cost and scheduling opportunities and to keep the project moving. A slow contract administration process is not consistent with the needs of a large, design-build project. There are limited project management resources, so the more time that project managers work on process-related activities, the less time they have solving problems. No process or too much process likely results in confusion, inefficiencies, and in some cases, conflicts. Part of the current process is the requirement to receive Board of Directors approval for project-related agreements and contract changes above a specified threshold. (On the Regional Connector Project, this threshold is for \$500,000 for agreements and \$1 million for change orders.)

On a large mega-project, the thresholds requiring approval are easily exceeded. The need to bring a project-related agreement or design-build contract modification to the Board for approval can add two months to the schedule when contractors could have started the work immediately. This time can be critical to project schedules and risks exposure to extended overhead payments due the contractor, should the project be delayed.

As mentioned in the most recent Los Angeles Construction Market Analysis Update received by the Board in September 2015, contractors have indicated that delays in processing changes to be a significant risk when working on Metro projects. As a result they have had to include contingencies in their proposals to address this risk. This delay also puts DBE subs at risk of not receiving timely payment for work performed.

The cost to the Regional Connector project for a schedule delay is \$5 million per month for a total of \$10 million for a 2 month delay. Much of this delay could be avoided if Board approval was not required prior to implementing a change.

Therefore, staff is proposing CEO authority, as part of a one-year pilot, to execute project-related agreements and change orders in any amount up to the Life of Project budget subject to monthly reporting requirements, that would include any pending project-related agreements, change orders/contract modifications and any significant changes to contract contingency. This action would allow the Board to see in advance all project-related agreements and change orders but would allow the staff the flexibility, responsibility and authority to manage this large, fast moving project consistent with the need for rapid decision-making and Project Schedule. Any change that results in a LOP budget increase would still require Board approval, which is the most critical aspect of managing projects. This approach is consistent with other transit agencies including San Jose, Seattle and Denver.

In addition, staff would continue to report on the project budget, project labor agreement and small business/disadvantaged business compliance as part of the monthly updates to the Construction Committee and the detailed monthly reports that are issued to all stakeholders including the Board.

The benefits of this action are:

- Provides staff with the flexibility, responsibility and authority to manage this large, fast moving project consistent with the need for rapid decision-making and Project Schedule
- Still requires approval for any action requiring a LOP budget increase
- Keeps the big picture focus on overall management of the Project Budget as opposed to detailed change orders
- Consistent with industry best practices for time sensitive, effective project management.

Lessons Learned: Several lessons learned on the Regional Connector project have already been adopted by the agency on other major capital projects. These include:

1. Establishing the LOP budget later in the development phase to provide sufficient time to perform a higher level of engineering that will enable Metro to better identify scope and project risks;
2. Modifying the LOP budget at project award to reflect any increases in project award costs over budget and other modifications made during the procurement process;
3. Provide sufficient schedule for the procurement and execution of Advance Utility Relocation Contracts and agency approval of permits, in anticipation of encountering changed conditions

resulting in schedule impacts.

DETERMINATION OF SAFETY IMPACT

This Board action will not have any negative impact on established safety standards.

FINANCIAL IMPACT

Upon approval of recommendation A, the LOP Budget will be increased by \$199,000,000 from \$1,551,840,570 to \$1,750,840,570 under Project 860228 - Regional Connector Transit Corridor, in Cost Center 8510 - Construction Project Management. Upon approval of recommendation B, the FY 17 budget will be amended by \$30,610,000 to a revised total of \$251,330,000 per attachment D affecting the aforementioned project and cost center. Since this is a multi-year capital project, the Chief Program Management Officer and the Project Manager will be responsible for budgeting costs for future fiscal years.

Impact to Budget

The sources of funds for \$199 million LOP increase are: Repayment of Capital Project Loans, Congestion Management/Air Quality (CMAQ) and the August Redistribution of CMAQ funds as shown in Attachment E. The proposed funding for the Regional Connector project does not negatively impact funding for operations or safety. The Measure R Cost Management Process and Policy Analysis, Attachment E, describes the process used to analyze the availability of funds for these cost and revenue assumption changes.

ALTERNATIVES CONSIDERED

The Board may decline to approve any or all of the recommended actions. This is not recommended for the following reasons:

1. If Recommendations A and B are not approved, the Agency will have a significant challenge delivering the Regional Connector Project and could place at risk the receipt of future FTA funds for other Metro projects.
2. If Recommendation C is not approved, the project will continue to seek Board approval of project-related agreements and contract modifications in accordance with current practice.

..Next Steps

NEXT STEPS

Under the terms of the Design-build contract and as part of risk sharing, Metro and the Design-Build Contractor have respective responsibilities for applying for, and obtaining, the necessary City permits, variances and approvals. Staff will continue working closely with City staff and the Council representative to obtain all necessary permits, variances, and approvals to expedite the project schedule so that Metro meets its commitment to FTA.

ATTACHMENTS

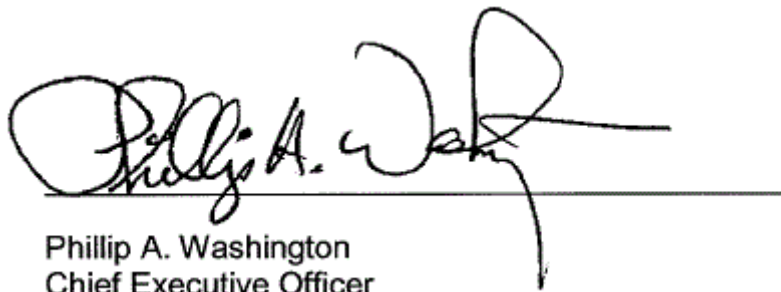
Attachment A - Procurement Summary
Attachment B - DEOD Summary
Attachment C - Contract Modification/Change Order Log
Attachment D - Funding and Expenditure Plan
Attachment E - Measure R Cost Management Process and Policy Analysis
Attachment F - Construction Committee Report dated November 19, 2015.

Prepared by:

Gary Baker, Deputy Executive Officer, Project Director, (213) 893-7191
Dan Estrada, Deputy Executive Officer, Project Controls, (213) 893-7130
David Yale, Managing Executive Officer, Countywide Planning & Development,
(213) 922-2469

Reviewed by:

Richard Clarke, Executive Director Program Management, (213)922-7557
Debra Avila, Chief Vendor/Contract Management Officer, (213) 418-3051
Stephanie Wiggins, Deputy Chief Executive Officer, (213) 922-1023
Phillip A. Washington, Chief Executive Officer, (213) 922-7555



Phillip A. Washington
Chief Executive Officer

PROCUREMENT SUMMARY

REGIONAL CONNECTOR TRANSIT CORRIDOR PROJECT/
CONTRACT NO. C0980

1.	Contract Number: C0980		
2.	Contractor: Regional Connector Constructors, J.V.		
3.	Mod. Work Description: Agreement to revise project schedule due to impacts from additional utility relocations and third party impacts		
4.	Contract Work Description: Regional Connector Transit Corridor Project		
5.	The following data is current as of: December 5, 2016		
6.	Contract Completion Status:		
	Bids/Proposals Opened:	4	% Completion \$s (Total Incurred Cost per November 2016 Invoice): 40.4%
	Contract Awarded:	05/06/14	% Completion time (Duration % Complete): 34%
	NTP:	07/07/14	Original Contract Days: 2,300
	Original Complete Date:	03/01/21	Change Order Days: 150
	Current Est. Complete Date:	07/28/21	Suspended Days: 0
		Total Revised Days:	2,450
7.	Financial Status:		
	Contract Award:	\$ 927,226,995	
	Total Contract Modifications Approved:	\$ 125,164,665	
	Current Contract Value:	\$1,052,391,660	
	Contract Administrator: Susan Santoro	Telephone Number: 213-922-4974	
8.	Project Manager: Gary Baker, Deputy Executive Officer, Project Management	Telephone Number: 213-893-7118	

A. Contract Action Summary

This Board Action is to approve Contract Modification No. 74 issued in support of a comprehensive agreement with Regional Connector Constructors, JV to resolve outstanding schedule mitigation and work scope issues.

On May 6, 2014, Contract No. C0980 was awarded to Regional Connector Constructors (RCC), a Joint Venture between Skanska USA Civil West California District, Inc., and Traylor Bros. Inc., the responsive and responsible proposer determined to provide Metro with the "Best Value", in the amount of \$927,226,995 for the final design and construction of the Regional Connector Transit Corridor Project.

Metro and RCC have negotiated a comprehensive agreement that addresses schedule mitigation measures, compensable delays that have been determined to be due to RCC, and various outstanding and/or disputed design and construction elements. This agreement achieves a mutually agreed amount for the work items, and acknowledges RCC's responsibility for prompt construction completion.

B. Cost/Price Analysis

The negotiated amount of the comprehensive agreement is a business decision by the Project to resolve a number of changes, resolve all known potential claims, and to compensate RCC for excusable and compensable delays through December 8, 2106.

Contractor's Amount	Metro's Estimated Amount	Negotiated Amount
\$52,070,997	N/A	\$50,600,000

DEOD SUMMARY

REGIONAL CONNECTOR TRANSIT CORRIDOR PROJECT/
CONTRACT NO. C0980A. (1) Small Business Participation - Design

Regional Connector Constructors (RCC) made a 22.63% Disadvantaged Business Enterprise (DBE) commitment for Design. 11 DBE commitments were made at the time of award, and one additional DBE subcontractor has been added to-date. Current DBE participation is 23.32%. RCC is exceeding its Design commitment.

DISADVANTAGED BUSINESS ENTERPRISE COMMITMENT	22.63%	DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION	23.32%
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	Design DBE Subcontractors	Ethnicity	% Committed	Current Participation¹
1	Abratique & Atienza, Inc.	Asian-Pacific American	1.32%	0.60%
2	Anil Verma Associates, Inc.	Subcontinent Asian American	0.25%	1.07%
3	Armand Consulting, Inc.	Subcontinent Asian American	2.19%	1.61%
4	D'Leon Consulting Engineers Corporation	Hispanic American	2.50%	2.49%
5	Earth Mechanics Inc.	Asian-Pacific American	1.32%	0.50%
6	Electrical Building Systems, Inc.	Hispanic American	3.21%	2.29%
7	MARRS Services, Inc.	Subcontinent Asian American	1.75%	2.28%
8	Mc Lean & Schultz, Inc.	Hispanic American	3.51%	4.23%
9	PacRim Engineering, Inc.	Asian-Pacific American	2.19%	2.65%
10	Parthenon Corporation*	Hispanic American	ADDED	0.62%
11	Transmetrics, Inc	Hispanic American	1.76%	1.51%
12	V & A Inc.	Hispanic	2.63%	3.47%

	American		
Total		22.63%	23.32%

¹Current Participation = Total Actual amount Paid-to-Date to DBE firms ÷ Total Actual Amount Paid-to-date to Prime.
 *DBE added after contract award

A. (2) Small Business Participation – Construction

RCC made an 18% Disadvantaged Business Enterprise (DBE) commitment for Construction at the time of contract award, listing one known DBE subcontractor and identifying DBE scopes of work. After the start of Construction, 50 DBE subcontractors were added. RCC is currently achieving 4.1% of their proposed 18% DBE subcontract commitment for Construction. It is expected that DBE commitments will continue to increase as Construction progresses.

Based on the total amount paid-to-date to RCC, and the total actual amount paid-to-date to DBE subcontractors, current participation is 18.94%. RCC is expected to continue ongoing outreach and good faith efforts to meet their DBE contract commitment.

DISADVANTAGED BUSINESS ENTERPRISE COMMITMENT	18%	DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION	18.94%
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Item No.	Construction DBE Subcontractors	Ethnicity	% Commitment	Current ¹ Participation
1.	AAA Oil, Inc. dba California Fuels & Lubricants*	Hispanic American	0.01%	0.03%
2.	Abratique & Atienza, Inc.*	Asian-Pacific American	0.05%	0.28%
3.	Absolute Security International, Inc. dba Absolute International Security*	Asian-Pacific American	0.00%	0.38%
4.	Alameda Construction Services, Inc.*	African American	0.04%	0.13%

5.	Angela Liu Consulting Arborist, LLC*	Asian-Pacific American	0.00%	0.01%
6.	Anytime Dumping, Inc.*	African American	0.01%	0.11%
7.	APW Construction, Inc. dba Ace Fence Co.*	Hispanic American	0.03%	0.17%
8.	Aragon Construction Inc*	Hispanic American	0.01%	0.04%
9.	Armed Exterminators*	African American	0.00%	0.00%
10.	BA, Inc.*	African American	0.02%	0.10%
11.	C G O Construction Company*	African American	0.03%	0.11%
12.	C2PM, Inc.*	Asian-Pacific American	0.00%	0.00%
13.	Clean Street Sweeping, Inc.*	Hispanic American	0.01%	0.03%
14.	Clean Up America, Inc.*	African American	0.08%	0.11%
15.	D & D Lee, Inc.*	African American	0.00%	0.00%
16.	Davis Blue Print Co., Inc.*	Hispanic American	0.00%	0.07%
17.	E-Nor Innovations Inc.*	African American	0.03%	0.51%
18.	Ellis Equipment, Inc.*	Asian-Pacific American	0.00%	0.02%
19.	Empire Steel, Inc.*	Asian-Pacific American	0.01%	0.06%
20.	EW Corporation Industrial Fabricators*	Hispanic American	2.07%	11.65%

21.	EW Moon Inc*	African American	0.01%	0.09%
22.	G & C Equipment Corporation*	African American	0.06%	0.43%
23.	G & F Concrete Cutting, Inc.*	Hispanic American	0.02%	0.15%
24.	JET Drilling, Inc.*	Hispanic American	0.11%	0.32%
25.	Invictus Environmental Safety Solutions*	African American	0.00%	0.00%
26.	J L M Staffing Solutions*	African American	0.00%	0.05%
27.	J N A Builders, Inc.*	Asian-Pacific American	0.03%	0.19%
28.	JET Drilling, Inc.*	Hispanic American	0.00%	0.00%
29.	Juan Carlos Marquez Vega*	Hispanic American	0.02%	0.18%
30.	Jungle Communications, Inc.*	Hispanic American	0.00%	0.01%
31.	Jungle Nursery, Inc., The*	Hispanic American	0.00%	0.00%
32.	Kramer Translation*	Asian-Pacific American	0.00%	0.00%
33.	M&J Works, LP*	Hispanic American	0.01%	0.03%
34.	MAD Transportation*	Hispanic American	0.01%	0.00%
35.	Miranda Logistics Enterprise, Inc.*	Hispanic American	0.02%	0.04%
36.	Morgner Technology Management*	Hispanic American	0.07%	0.40%

37.	EXARO Technologies Corp.*	Hispanic American	0.00%	0.00%
38.	Parthenon Corporation*	Hispanic American	0.00%	0.04%
39.	Pre-Con Products Ltd.*	Hispanic American	0.01%	0.04%
40.	PTS Surveying Inc.*	Native American	0.05%	0.89%
41.	California Testing & Inspections, Inc.*	Hispanic American	0.40%	0.49%
42.	R. Dugan Construction*	Caucasian Female	0.01%	0.04%
43.	Rivera Trucking LLC*	Native American	0.81%	1.41%
44.	Robnett Electric, Inc.*	African American	0.00%	0.06%
45.	Soteria Company, LLC (formerly Griego and Associates)	Hispanic American	0.01%	0.02%
46.	Super Seal & Stripe*	Caucasian Female	0.01%	0.04%
47.	Supreme Wholesale Electric, Inc.*	African American	0.00%	0.13%
48.	Treesmith Enterprises, Inc.*	Hispanic American	0.00%	0.00%
49.	TSG Enterprises, Inc.*	Hispanic American	0.04%	0.07%
50.	Ultimate Maintenance Services*	Hispanic American	0.00%	0.01%
51.	Young Communications Group*	African American	0.00%	0.00%

	Total Commitment		4.1%	18.94%
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¹Current Participation = Total Actual amount Paid-to-Date to DBE firms ÷ Total Actual Amount Paid-to-date to Prime.
 *DBE added after contract award

B. Project Labor Agreement / Construction Careers Policy (PLA/CCP)

The Contractor has committed to complying with PLA/CCP requirements for this project. This project is 14.06% complete (based on total construction labor hours expended, divided by the total estimated construction labor hours in the approved Employment Hiring Plan) and the contractor is achieving the 40% Targeted Worker Goal at 57.95%, not achieving the 20% Apprentice Worker Goal at 19.10%, and not achieving the 10% Disadvantaged Worker Goal at 9.37%. Prime Contractor has submitted an Employment Hiring Plan which states compliance with the PLA/CCP workforce goals will be met in mid-2018. Staff will continue to monitor and report the contractor's progress toward meeting the goals of the PLA/CCP.

C. Prevailing Wage Applicability

Prevailing Wage requirements are applicable to this project. DEOD will continue to monitor contractors' compliance with the State of California Department of Industrial Relations (DIR), California Labor Code, and, if federally funded, the U S Department of Labor (DOL) Davis Bacon and Related Acts (DBRA).

D. Living Wage Service Contract Worker Retention Policy

The Living Wage and Service Contract Worker Retention Policy is not applicable to this modification.

CONTRACT MODIFICATION/CHANGE ORDER LOG
REGIONAL CONNECTOR TRANSIT CORRIDOR PROJECT - CONTRACT NO. C0980

Mod. No.	Description	Status (approved or pending)	Cost		
			Contract Value	Mods.	Board Approved CMA
N/A	Initial Award	Approved	\$927,226,995		\$ 92,722,700
CO001	TIFIA Certification Requirements	Approved		\$ -	
CO002	Revision to SP-01 DBE Reporting	Approved		\$ -	
CO009	Admin.Modification to Incorporate Missing Specifications	Approved		\$ -	
CO012	Addition of Bulkhead for TBM Retrieval Pit Design Only	Approved		\$ 50,000	
CO013.1	Revisions to TPIS Requirements Design Only	Approved		\$ 214,000	
2	Opt. No. 3 - 2nd/Hope Upper Level Ent. & Ped. Bridge	Approved		\$ 3,320,000	\$3,320,000
3	Opt. RCC-1 2nd/Broadway SEM Cavern	Approved		\$ 16,000,000	
4	Opt. No. 10 Add Open Roof	Approved		\$ 4,100,000	
5	Opt. No. 11 Add Ventilation Under Deck	Approved		\$ 2,150,000	
6	Opt. No. 12 Change Basis of Design to Super Fast/Arson Growth Rate	Approved		\$ 8,000,000	
7	Opt. RCC-2 Add Deep Foundations @ 2nd/Broadway	Approved		\$ 1,250,000	
8	Opt. RCC-5 2nd/Broadway Decking	Approved		\$ 100,000	
9	Opt. RCC-3 Glazing at Portal Canopies	Approved		\$ 500,000	
10	Additional Utility Relocations (Transfers from C0981R)	Approved		\$ 27,100,000	\$ 27,100,000
11	Rail Truck and Trailer	Approved		\$ 991,749	
12	Little Tokyo Second Entrance (Design)	Approved		\$ 150,528	
13	Shoofly Temporary Communications Design	Approved		\$ 26,880	
14	Additional Site Investigation at Volk Property	Approved		\$ 16,606	
15	Additional Abatement at Bldg. Demo.	Approved		\$ 13,115	
16	Analysis of Track Design Options at Wye	Approved		\$ 11,123	
17	Hazardous Soil Removal at Volk Property	Approved		\$ 377,237	
18	1st/Central SOE Tieback Easement	Approved		\$ 595,560	
19	Lead-Contaminated Soil Removal at Volk Property - Ph. 2	Approved		\$ 131,822	
20	Opt RCC-8 Revert to Tunnel Lighting Spacing of 25'	Approved		\$ 340,000	
21	1st/Alameda Bumpouts (Design)	Approved		\$ 626,287	
22	Extra Utility Relocation Mobilization	Approved		\$ 999,971	
23	Deputy Grading Inspector for TBM Launch Pit SOE	Approved		\$ 165,424	
24	Delete subsurface easement at Stavrium Property	Approved		\$ -	
25	Tactile Guidance Strips in Stations - Design Only	Approved		\$ 209,637	
27	JVP Tunnel Liners Reinforcement - Design Only	Approved		\$ 41,209	
28	Buried Bricks in Shoofly excavation in Mangrove (DSC)	Approved		\$ 102,900	
29	Little Tokyo Second Entrance (Construction) & Shoofly Temp Comm.	Approved		\$ 552,520	

CONTRACT MODIFICATION/CHANGE ORDER LOG

REGIONAL CONNECTOR TRANSIT CORRIDOR PROJECT - CONTRACT NO. C0980

Mod. No.	Description	Status (approved or pending)	Cost		
			Contract Value	Mods.	Board Approved CMA
30	Relocate Cherry Tree	Approved		\$ 10,540	
31	Rail Car Transporter Modifications	Approved		\$ 27,200	
32	Schedule Recovery Measures	Approved		\$ 49,000,000	\$49,000,000
33	Add Wye Junction Fan Plant (Design Only)	Approved		\$ 1,210,000	\$1,210,000
34	K-Rail Modifications for Clarke Closure	Approved		\$ 24,193	
35	Additional Traffic Control/Flaggers at 2nd/Broadway LA Times	Approved		\$ 287,830	
36	1st/Alameda Additional Utility Potholing	Approved		\$ 425,010	
37	CN 25.1, CN 32, CN 33	Approved		\$ 51,796	
38	Environmental Impairment Liability Site (Pollution Legal Liability) Ins.	Approved		\$ 402,602	
39	Cut and Cover SOE Redesign (1/A & 2/B)	Approved		\$ 676,749	
40	Tunnel Liner Revisions	Approved		\$ 329,817	
41	Sprint Relocation at 2nd/Broadway	Approved		\$ 87,362	
42	Delete Public Pay Phones	Approved		\$ (25,910)	
43	2nd/Hope Ped Bridge Design	Approved		\$ 123,713	
44	Little Tokyo TVM Relocations	Approved		\$ 24,420	
45	24" W.L Conflict w/MFS telecomm./Flower Exploratory Potholing	Approved		\$ 180,727	
46	Revisions to Metro Station Signage Standards - Design Only	Approved		\$ 181,732	
47	CFD Analysis	Approved		\$ 77,000	
48	Artwork Lighting Revisions	Approved		\$ -	
50	Additional DSSP Install @ JVP	Approved		\$ 106,068	
51	Flower Street Delete Crossover/ Revise Eemrgency Exiting (Design Only)	Approved		\$ 918,000	
52.1	Increase Quantities for Bid Item 64 Removal Hazardous Materials - Asbestos	Approved		\$ 10,000	
53	2nd/Broadway Mandrel Pulice Conduits	Approved		\$ 80,358	
54	Shoofly Catch Basin Revised Design	Approved		\$ 11,818	
55	Automatic Train Control Synchronization	Approved		\$ 59,286	
56	Flower Street Roadway, Sidewalk & Lighting Improvements - (Design Only)	Approved		\$ 372,018	
57	Repair of Qwest Conduit on 5th Street E/O Flower	Approved		\$ 30,280	
58	Temporary Relocation of Storm Drain Lateral at 4th and Flower	Approved		\$ 130,861	
59	Flower Street Cut and Cover Mandrel of DWP(P) Ductbanks	Approved		\$ 53,550	
60	Add ATSAC CCTV Video Camera Sys. at 1st/Hope and 1st/Broadway	Approved		\$ 306,030	
63	Add Longitudinal Settlement Sensors	Approved		\$ 406,849	
64	MFS Telecom Duct bank Relocation on Flower Street	Approved		\$ 362,500	
65	Revise Communications Radio System SOW (Design Only)	Approved		\$ 298,221	
66	Otium Preconstruction Survey - Hope Station	Approved		\$ 45,577	

CONTRACT MODIFICATION/CHANGE ORDER LOG
REGIONAL CONNECTOR TRANSIT CORRIDOR PROJECT - CONTRACT NO. C0980

Mod. No.	Description	Status (approved or pending)	Cost		
			Contract Value	Mods.	Board Approved CMA
67	1/C & Flower Certified Welding Inspector (For 981 work)	Approved		\$ 213,000	
68	Revise Signal Aspects at Venice Interlocking	Approved		\$ 20,100	
69	2nd & Broadway Station Plaza Reconfiguration	Approved		\$ 55,000	
70	Common Station Features Redesign	Approved		\$ 301,000	
71	Add Construction Document Management Software	Approved		\$ 137,800	
72	Backflow Preventer Relocation	Approved		\$ 15,000	
TBD	Add Wye Junction Fan Plant Construction	Approved		\$ 10,790,000	\$ 10,790,000
73	Revise Excavation to Provide TBM Removal Shaft	Approved		\$ 3,700,000	\$ 3,700,000
Subtotal (Approved)				\$ 139,654,665	\$ 187,842,700
74	Agreement to Revise Project Schedule due to Impacts from Additional Utility Relocations and Third Party Impacts	Recommended		\$ 50,600,000	
Subtotal (Recommended)				\$ 50,600,000	

Subtotal - Approved Modifications		\$ 139,654,665	
Subtotal - Recommended Changes/Modifications		\$ 50,600,000	
Subtotal Approved Modifications + Recommended Changes/Modifications		\$ 190,254,665	
Subtotal - Pending Claims		\$ -	
Total: Mods + Recommended Changes/Mods + Possible Claims		\$ 190,254,665	
Previous Authorized CMA			\$ 187,842,700
CMA Necessary to Execute Recommended Changes/Mods + Possible Claims			\$ 50,600,000
Total CMA including this Action			\$ 238,442,700
CMA Remaining for Future Changes/Mods after this Action			\$ 48,188,035

REGIONAL CONNECTOR TRANSIT CORRIDOR PROJECT
ATTACHMENT D
FUNDING/EXPENDITURE PLAN
(Dollars in Millions)

Capital Project 860228	Prior	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Total	% of Total
Uses of Funds										
Construction	327.86	180.37	128.34	175.18	211.11	123.65	7.37	0.00	1,153.87	65.9%
Right-of-Way	46.32	16.95	17.15	9.26	3.06	-	-	-	92.74	5.3%
Vehicles	0.84	5.85	7.40	1.91	0.27	-	-	-	16.28	0.9%
Prof. Services	188.37	45.52	39.58	29.35	29.81	25.37	14.23	4.28	376.51	21.5%
Project Contingency	-	2.38	22.99	17.98	18.11	14.10	8.40	1.00	84.95	4.9%
Subtotal Project	563.38	251.07	215.46	233.68	262.36	163.12	30.00	5.28	1,724.34	98.5%
Environmental/Planning	24.85	0.27	0.31	0.31	0.31	0.31	0.16	-	26.50	1.5%
Total LOP Cost	588.23	251.33	215.77	233.99	262.66	163.42	30.15	5.28	1,750.84	100.0%
LOP Budget as of Dec. 2015	662.28	220.73	156.60	179.93	246.62	65.99	19.70	-	1,551.84	
Variance	(74.05)	30.61	59.17	54.06	16.05	97.44	10.45	5.28	199.00	
Sources of Funds										
Federal 5309 New Starts	167.39	97.61	100.00	100.00	133.18	71.72			669.90	38.3%
Measure R 35% (TIFIA Loan Proceeds)	25.21	36.66	55.94	17.91	6.18	18.11			160.00	9.1%
Lease Revenues			6.01	27.84	30.40				64.25	3.7%
Repaymnt of Cap Proj Loans	122.48	38.20	10.80	65.37	20.91	51.49	10.95	5.28	325.48	18.6%
TDA	0.26								0.26	0.0%
STIP Regional Improvement Program	2.59								2.59	0.1%
City of Los Angeles contribution	5.00	7.00	6.00		23.98				41.98	2.4%
High Speed Rail Bonds	114.87								114.87	6.6%
Prop 1B PTMISEA	109.14	8.90	13.18	3.88					135.10	7.7%
CMAQ & RSTP	41.29	62.97	23.84	18.99	48.02	22.10	19.20		236.41	13.5%
Total Project Funding	588.23	251.34	215.76	233.99	262.67	163.42	30.15	5.28	1,750.84	100.0%

Variance 0.00 (0.00) 0.00 (0.00) (0.00) (0.00) 0.00 0.00 0.00 0.00 -

ATTACHMENT E

Regional Connector

Measure R Cost Management Process and Policy Analysis

Introduction

The Measure R Cost Management Process and Policy (the Policy) was adopted by the Metro Board of Directors in March 2011. The Policy caps Measure R project funding at the amounts in the Measure R Expenditure Plan. The intent of the Policy is to inform the Metro Board of Directors regarding potential cost increases to Measure R-funded projects and the strategies available to close any funding gaps. The Regional Connector project is subject to this policy analysis.

The Regional Connector Project Life-of-Project (LOP) budget requires an increase of \$199 million, from \$1,551.84 million to \$1,750.84 million. This analysis recommends trade-offs required by this policy to identify the funds necessary to meet the \$199 million cost increase. Table 1 summarizes the approach to addressing the cost increase.

Table 1 – Strategy to Address Regional Connector Cost Increase (\$ in millions)

	Repayment of Capital Proj. Loans	Prop. C 25%	MR 35%	CMAQ	CMAQ August Redist.	Total
Regional Connector	\$41.0			\$98.0	\$60.0	\$199.0
Westside Purple Line Ext. Sect. 1	(\$6.6)		\$6.6			\$0.0
Crenshaw/ LAX LRT	(\$34.4)	\$132.4		(\$98.0)		\$0.0
New Revenues/ Efficiencies					(\$60.0)	(\$60.0)
Balance	\$0.0	\$132.4	\$6.6	\$0.0	\$0.0	\$139.0

Measure R Cost Management Policy Summary

The adopted Policy stipulates the following:

If a project increase occurs, the LACMTA Board of Directors must approve a plan of action to address the issue prior to taking any action necessary to permit the project to move to the next milestone. Increases will be measured against the 2009 Long Range Transportation Plan (LRTP) as adjusted by subsequent actions on cost estimates taken by the LACMTA Board of Directors. With certain exceptions, shortfalls will first be addressed at the project level prior to evaluation for any additional resources using these methods in this order:

- 1) Value engineering and/or scope reductions;
- 2) New local agency funding resources;
- 3) Shorter segmentation;
- 4) Other cost reductions within the same transit corridor or highway corridor;
- 5) Other cost reductions within the same sub-region; and finally,
- 6) Countywide transit and highway cost reductions and/or other funds will be sought using pre-established priorities.

The policy was amended in January 2015 to establish Regional Facility Areas at Ports, airports and Union Station; and states that any:

“...capital project cost increases to Measure R funded projects within the boundaries of these facilities are exempt from the corridor and subregional cost reductions. Cost increases regarding these projects will be addressed from the regional programs share.”

The Regional Connector Project does not fall within a Regional Facility Area.

Value Engineering and/or Scope Reductions

The Regional Connector Project has undergone several scope reductions, including the removal of the 5th/Flower Street Station. Further reductions in scope would likely substantially delay the project or result in a project not consistent with the Locally Preferred Alternative. As a result, we recommend moving to the next step.

New Local Agency Funding Resources

We recommend programming \$60.0 million in Congestion Mitigation and Air Quality Improvement (CMAQ) Program funds to the project. Given the prohibition on using Proposition A and C funds, CMAQ is the only available discretionary fund source available.

This approach is to advance \$60.0 million of Metro’s share of CMAQ funds through the statewide pool of such funds managed by Caltrans. By drawing from the statewide pool, the funding advance will come from other possible commitments Caltrans could have made to other projects across the entire state. Over time, Metro will seek to roll the advance of its share forward each year by continuing to over-deliver projects into

the statewide pool. If we are successful, each year Caltrans redistributes (in August) similar advances that it receives from a nationwide pool of federal funds. These “August Redistribution” funds from the national pool are the ultimate target funding source for the \$60.0 million commitment to the Regional Connector Project.

We have been successful in the past with this approach. However, there may be the possibility of not being able to roll the CMAQ share advance forward into the statewide pool each year. The tradeoff with this approach is the potential to experience funding delays for CMAQ-funded projects. However, we still recommend this strategy as these expenses are not avoidable and the only other alternative is to fully fund the cost increase with Metro’s own cash resources.

While the passage of Measure M brings new revenue to the agency, the Regional Connector is not part of the expenditure plan and thus is not eligible for Measure M funds.

As a result of this step, a \$139 million funding gap remains. We recommend strategies in the following steps to close the remaining funding gap.

Shorter Segmentation

Given that the goal of the Regional Connector project is to provide seamless travel between two points, it is not possible to shorten the project. The two end points of the project (Little Tokyo/Arts District Station and 7th Street/Metro Center Station) are 1.9 miles apart and there is no possible way to shorten the segment between these points which is consistent with the LPA and the operational objectives of the project. We therefore recommend moving to the next step.

Other Cost Reductions within the Same Transit Corridor

As the Regional Connector links several corridors together into one, we looked at possible cost reductions along all connected corridors. The corridors included in this analysis were Exposition Light Rail Transit Phase II, Gold Line Foothill Extension Phase 2A, and the Gold Line Eastside Transit Corridor Extension Phase II.

The Exposition Light Rail Transit Phase II and Gold Line Foothill Extension have been completed and have no additional savings which could be transferred to the Regional Connector Project. While the Gold Line Eastside Transit Corridor Extension Phase II is in the same corridor, the funding for the project is outside of the timeframe needed for the Regional Connector.

Other Cost Reductions within the Same Sub-region

The Regional Connector Project is located within the Central Subregion. Given that this project will create continuous corridors between several subregions (Central, Gateway, San Gabriel Valley, and Westside), we are recommending that any remaining funding shortfall for the Regional Connector Project be dealt with at the Countywide level.

Countywide Cost Reductions and/or Other Funds

Given the regional nature of this project, we are proposing shifting funds from the Crenshaw/LAX Transit Light Rail Transit Project and the Westside Purple Line Extension Section 1. This is necessary for two principal reasons: 1) Proposition A and Proposition C funds are restricted to non-subway uses only; and, 2) no additional Measure R 35% Transit Capital can be assigned to this project because the Measure R Expenditure Plan caps the Measure R 35% allocation to the Regional Connector at \$160 million.

We propose transferring \$98 million in CMAQ funds and \$34.4 million in Repayment of Capital Project Loans Fund 3562 from the Crenshaw/LAX Transit Light Rail Transit Project to the Regional Connector. To backfill the Crenshaw/LAX Transit Light Rail Transit Project, we propose using Proposition C 25% by issuing additional bonds.

We also recommend transferring \$6.6 million of Repayment of Capital Project Loans Fund 3562 from the Westside Purple Line Extension Section 1 to the Regional Connector Project. The Westside Purple Line Extension Section 1 will be backfilled with some of the total remaining Measure R 35% designated for all three sections of the Westside Purple Line Extension.

Metro

Los Angeles County
Metropolitan Transportation
Authority
One Gateway Plaza
3rd Floor Board Room
Los Angeles, CA



Board Report

File #:2015-1630, File Type:Contract

Agenda Number:28.

2nd REVISED
CONSTRUCTION COMMITTEE
NOVEMBER 19, 2015

SUBJECT: REGIONAL CONNECTOR TRANSIT CORRIDOR PROJECT

ACTION: ESTABLISH A REVISED LIFE OF PROJECT BUDGET AND AUTHORIZE CONTRACT MODIFICATIONS TO CONTRACT C0980 TO MITIGATE COST AND SCHEDULE IMPACTS

RECOMMENDATION

- A. INCREASING the **Life of Project (LOP) Budget on the Regional Connector Project** by \$131.8 million, from \$1,420 million to \$1551.8 million;
- B. INCREASING the **Regional Connector FY16 Budget by \$20 million**;
- C. AUTHORIZING the CEO to execute Contract Modification No. 32 to Contract C0980, Regional Connector Constructors (RCC) for additional utility work and schedule recovery measures, in an amount not-to-exceed \$49,000,000, increasing the total contract price from \$986,177,590 to \$1,035,177,590; and
- D. AUTHORIZING the CEO to execute Contract Modification No. 33 to Contract C0980, Regional Connector Constructors (RCC) for the addition of a fan plant at the wye junction, in an amount not-to-exceed \$12 million, increasing the total contract price from \$1,035,177,590 to \$1,047,177,590. Upon Board approval of this recommendation and execution of Modification no. 33, staff will cancel Modification No. 4 \$4.1 million. Therefore, the net effect of this additional work is \$7.9 million.

ISSUE

In May 2014, the Metro Board awarded the C0980 contract to RCC for \$927.23 million, and established a life of project budget for the project at \$1,420 million, including \$92.7 million in contingency. Since contract award, several significant costs have been incurred which have eroded project contingency. Furthermore, FTA requested a project contingency analysis be performed which indicated that additional contingency is required to complete the project. The staff recommendation includes additional funding of \$132 million to cover cost growth on the project and to replenish contingency. Staff intends to aggressively manage all areas of the project and to continue to reduce costs wherever possible.

On April 30, 2015, the Metro Board approved Contract Modification No. 10, to transfer the remaining utility relocation work from Contract C0981R, for a not-to-exceed amount of \$27.1 million. Staff has negotiated the direct costs this work in the amount of \$18.1 million. The remaining amount is associated with extended overhead associated with schedule delay. These costs are currently being audited by MASD and the audit is expected to be completed by the end of November. As a follow-up to the Board's previous authorization, this report also recommends the approval of a not-to-exceed Contract Modification of \$49 million, to Contract C0980 to resolve all remaining costs associated with the additional utility work as well as schedule recovery measures, to ensure the project is completed by the FTA FFGA Revenue Service Date (RSD) of May 2021 and TIFIA. Staff is requesting approval of a not-to-exceed value at this time so that work critical to the project recovery schedule may begin by early January 2016. The recommended recovery measures must be started no later than January 4, 2016, or the Project will not be completed per the FFGA schedule agreed with FTA and TIFIA. If the FFGA schedule is not met, then as much as \$587.24 million in FFGA/TIFIA funds may be at risk. Late completion will also entitle the C0980 Contractor to additional extended overhead costs of \$3 million per month, as well as other Project costs, totaling approximately \$5 million per month. Also, late completion of the Regional Connector may put at risk future FTA funds for other Metro projects.

This report also recommends the approval of a not-to-exceed Contract Modification of \$12 million, to Contract C0980 to design and construct a fan plant at the wye junction. The addition of the fan plant resolves a long-standing project design issue to address on-going operational and fire/life safety recommendations. Upon Board approval of this recommendation and execution of the Modification no. 33, staff will cancel Modification No. 4 (Option 10 - Add Open Roof) as it will not be necessary when the fan plant is added, saving the project \$4.1 million. Therefore, the net effect to this Project of this additional work is \$7.9 million. Staff is requesting approval of a not-to-exceed value at this time so that work critical to the project schedule may begin in early December 2015. Overall design of the project is now 85% complete and delays in implementing the fan plant will negatively impact the overall project completion schedule and increase project costs.

There are a number of Lessons Learned arising from the content of this Board Report, many of which have already been implemented by staff and include, but are not limited to: timing of development of the final LOP in relation to the ~~Full Funding Grant Agreement process~~ project budget; additional risk assessments beyond those normally conducted; increased early utility investigations with a corresponding budget increase (additional community interface); and, close collaboration with the City of Los Angeles departments and Council to garner and receive support for granting of variances, permits and necessary street closures. These items are essential to progress and success of Metro projects.

DISCUSSION

Project Description:

The Regional Connector Transit Corridor Project (the Project) consists of the design and construction of a 1.9-mile light rail transit subway in downtown Los Angeles which creates an underground trunk line, connecting the existing Metro Gold Line, Metro Blue Line, and Metro Exposition Line light rail transit (LRT) systems.

The Project begins at the existing 7th/Metro Station and extends north to 2nd Street and Hope Street,

turning east along 2nd street to a new underground rail junction on Alameda street. The Project will include three new underground stations at 2nd/Hope, 2nd/Broadway, and 1st/Central Avenue.

The contract currently calls for construction to be substantially complete on October 23, 2020, followed by two months of pre-revenue testing to be completed on December 23, 2020. The Revenue Service Date (RSD) required under the FFGA is May 29, 2021, which provided five months of schedule float for project completion.

Background

In February 2014, the FFGA budget of \$1,402.9 million was approved for the project, including \$670 million in federal New Start funds. In May 2014, the C0980 design-build construction contract was approved awarded for \$927.23 million establishing and the life of project budget was established at \$1,420 million, including ~~\$92.7~~ 141.7 million in project contingency. The design-build construction contract (including options) was \$111 million higher than what was the estimated ~~construction line item~~ in the approved FFGA budget. The budget and estimate was set very early in the process with only a conceptual engineering design since Metro wanted to expedite the execution of the FFGA and secure the funding early to advance the project.

Contingency Recovery: The current project contingency is \$67.5 million including allocated and unallocated contingency. A project risk assessment has been performed in accordance with FTA guidelines, which establishes contingency level recommendations for the project. The revised LOP budget in amount of \$1,551.8 million contains Accordingly the revised LOP budget contains the FTA recommended the contingency of \$114.9 million, including allocated contingency of \$34.6 million and \$80.3 million of unallocated contingency (FFGA and Non-FFGA). This will increase the current project percentage contingency from ~~4.87.1%~~ to 7.410.7% of remaining project budget that is within FTA guidelines.

Since the inception of the contract, additional work scope has been identified requiring the issuance of contract modifications to the design-builder. Additionally, there has been a corresponding increase in associated support costs which collectively have eroded contingency levels on the project. A summary of 1) design-build contract costs, and 2) associated project support costs is provided below. A detailed discussion of each major project cost element is provided in Attachment D.

Since the award of the Design-Build contract (C0980), the following three significant events have occurred which have increased, or will potentially increase, the contract cost.

1.0 Design Build Contract Costs

- A. Selection of Design Options: During the Best and Final Offer negotiations with the Design-Builder, a number of project elements were identified as possible options and were added to the contract as potential cost saving measures. The intent was that after award, the Design-Builder would have time to fully investigate these elements and to determine if they were necessary, potentially reducing costs to within the available budget. A total of 21 options totaling \$58.7 million were added to the contract. After award, nine options were exercised, which added \$35.7 million to the contract. By not exercising the remaining 12 options, the project was able to reduce potential costs by \$21 million, along with a

corresponding drawdown from contingency.

- B. AUR Transfer: Due to continuous and multiple unforeseen conditions and schedule delays, the AUR (Advanced Utility Relocation) contract (C0981R) was terminated for convenience and the Board approved transferring the balance of this utility work to the C0980 contract in April 2015, at a cost to the project of \$27.1 million. Since transferring this work to C0980, significant additional discoveries have occurred, including the discovery that electrical utilities, which were originally anticipated to be suspended under the deck, could not be temporarily supported for safety reasons, and which now all must be relocated in advance of construction. This and other unforeseen discoveries have added additional scope, costs and schedule impacts to the project. These additional scope, costs and schedule impacts are addressed in Item C (Schedule Delay Mitigation) below.
- C. Schedule Delay Mitigation: With the transfer the AUR work, the Board action recognized that the project schedule would be impacted by six months, based on the best information available at that time. As mentioned above, the additional work required as a result of the additional utility discoveries have extended the project schedule by a minimum of 2 and potentially 4 additional months, for a total impact of 8 to 10 months to contract C0980. These delays need to be recovered to meet the FFGA RSD of May 29, 2021. Staff has aggressively analyzed multiple schedule recovery scenarios and has worked collaboratively with the Design-Builder over the last several months to jointly develop a schedule recovery plan to meet FFGA schedule. A significant contributor to the LOP budget request is the estimated not-to-exceed amount of \$49 million associated with performing additional utility work required, as well as accelerating construction to meet the FFGA schedule. Without proactive measures to recover lost schedule, the contractor has the contractual right to submit a request for extended overhead costs for the actual utility caused delay. With 8 to 10 months of project delay, the potential cost to the project if mitigation measures are not adopted, ranges between \$49 and \$59 million. The incremental net cost to Metro for accelerating construction for an on-time completion is estimated at up to \$10 million. With the continued support of the City, the recovery strategy is scheduled to begin in early January 2016, subject to Board approval.

2. Associated Project Support Costs:

Additional support services costs are included in the project budget. These costs include: Third Party Work, Right-of-Way Acquisition, P3010 Light Rail Vehicles, Professional Services, Other Support Costs, and Environmental Planning. A detailed discussion of each of these project cost elements is provided in Attachment D.

DETERMINATION OF SAFETY IMPACT

This Board action will not have any negative impact on established safety standards.

FINANCIAL IMPACT

The funding increase of \$131.8 million will be included in the Life-of-Project budget under Project 860228 (Regional Connector Transit Corridor), in Cost Center 8510 (Construction Project Management). The FY16 Budget will be increased by \$20 million.

Since this is a multi-year capital project, the Executive Director of Program Management and the Project Manager will be responsible for budgeting costs for future years.

Impact to Budget

As discussed in Attachment F, the analysis required by the Uniform Cost Management Process and Policy for Measure R projects, the increase to the Life of Project budget for this project presents a special challenge in that the Metro Reform and Accountability Act of 1998 made underground work ineligible for Propositions A and C. In addition, the Regional Connector LOP already includes its full complement of Measure R funding, \$160 million. This leaves very few alternatives for addressing the LOP increase. To address the funding eligibility challenges, we recommend the funding transfers shown in Table 2, Strategy to Address Regional Connector Funding Gap in Attachment F.

The recommended transfers keep the LOP of project budgets whole for the projects already under construction. In June of 2015, we reported to the Metro Board of Directors that a shortfall exists in the SRTP forecast. At that time, the shortfall was still manageable, but we identified the risk of changing circumstances, such as rising costs and the possibility of a recession. Next spring, we will be updating the SRTP forecast and returning to the Metro Board of Directors with a recommendation for addressing this continuing problem.

ALTERNATIVES CONSIDERED

The Board may decline to approve recommended actions A and B. This is not recommended as not approving the LOP budget adjustment and funding under recommendations A and B, would have a significant impact on the Agency's ability to deliver the project with the current total unallocated contingency of ~~2.27.1%~~ (\$~~67.530~~ million). The Board may also decline to approve recommendation C. This is also not recommended as not approving the additional utility work and adoption of schedule recover measures means that work required to complete the project could not be performed, and that the Project would not be completed per the FFGA schedule agreed with FTA and TIFIA. This puts at risks the receipt of future FTA funds for other Metro projects. This late completion also entitles the C0980 Contractor to additional extended overhead costs as well as additional Project costs totaling approximately \$5 million per month.

NEXT STEPS

Under the terms of the Design-Build contract and as part of risk sharing, Metro and the Design-Build Contractor have respective responsibilities for applying for, and obtaining, the necessary City permits, variances and approvals under the terms of the base contract. In this regard, Staff anticipates working closely with City staff and the Council representative to obtain all necessary permits, variances, and approvals to expedite the project schedule so that Metro meets its commitment to FTA.

At this time, the project is approximately 20% complete. By FY18, Staff anticipates the project will be over 50% complete (design will be complete, and tunneling and excavation for stations will be substantially complete). In the intervening period, Staff will undertake a formal risk assessment with FTA. The results of this risk assessment will be shared with the Board, along with a recommendation for the appropriate Board action in FY18, which could include a request for additional funding resources.

ATTACHMENTS

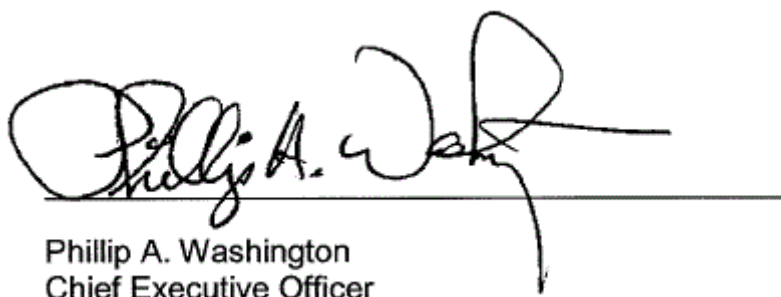
Attachment A - Procurement Summary
Attachment B - DEOD Summary
Attachment C - Contract Modification Authority (CMA) Summary
Attachment D - Project Cost Summary by Element and LOP Variance
Attachment E - Funding/Expenditure Plan
Attachment F - Uniform Cost Management Process and Policy Analysis
Attachment G- Regional Connector Presentation

Prepared by:

Girish Roy, Deputy Executive Officer, Project Director, (213) 893-7119
Ben Bootorabi, Acting Director, Project Controls, (213) 893-7121
David Yale, Managing Executive Officer, Countywide Planning & Development,
(213) 922-2469
Bryan Pennington, Deputy Executive Director, Program Management, (213) 922-7449

Reviewed by:

Ivan Page, Executive Director, Vendor/Contract Management (Interim), (213) 922-6383
Richard Clarke, Executive Director Program Management, (213)922-7557



Phillip A. Washington
Chief Executive Officer