



Board Report

File #: 2018-0383, **File Type:** Motion / Motion Response

Agenda Number: 5.

AD HOC CONGESTION, HIGHWAY AND ROADS COMMITTEE NOVEMBER 14, 2018

SUBJECT: I-5 NORTH CAPACITY ENHANCEMENTS UPDATE

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE report on the history and status of the I-5 North capacity enhancements construction projects (Project) and enhancing Metro and Caltrans coordination to deliver the remaining segments in response to Board Motion 2018-0115 (Attachment A).

ISSUE

At the May 2018 Regular Board Meeting, Director Dupont-Walker requested Metro staff to provide a status report on the Project and Metro-Caltrans collaboration to effectively complete the Project.

BACKGROUND

The Project is a mega-project, which includes construction of High Occupancy Vehicle (HOV) Lanes and pertinent improvements between State Route 134 (SR-134) in Glendale and State Route 118 (SR-118) in Pacoima area in four segments:

- Segment 1: SR-118 to SR-170
- Segment 2: SR-170 to Buena Vista St.
- Segment 3: Buena Vista St. to Magnolia Blvd.
- Segment 4: Magnolia Blvd. to SR-134

Caltrans designed and is managing construction of the Project. Segments 1 & 2 are complete and opened to traffic. Segments 3 & 4 are currently in construction. Table 1 shows the history and status of the four segments of the Project.

Table 1: Project History and Current Status

Project Limits	Award Date	Original Scheduled Completion Date	Actual/Anticipated Completion Date	% Complete to Date
SR-118 to SR-170 (Segment 1)	May 2010	Jun. 2015	Jul. 2016	100%
SR-170 to Buena Vista St. (Segment 2)	Oct. 2010	May 2014	Dec.2015	100%
Buena Vista St. to Magnolia Blvd. (Segment 3)	Nov. 2012	Sep. 2017	TBD (Apr. 2022)	70%
Magnolia Blvd. to SR-134 (Segment 4)	Dec. 2010	Aug. 2014	TBD (Mar. 2020)	83%

DISCUSSION

The Project has experienced schedule delays and cost increases. A number of challenges occurred during the construction of the Project including survey discrepancies, design inconsistencies requiring re-work/design modifications, as-built plans not matching actual field conditions, unknown utilities encountered necessitating relocation, additional right-of-way easements and acquisitions, differing site conditions, third party-caused delays, community concerns and other issues.

Table 2 shows the total values and numbers of approved Contract Change Orders (CCOs) as of November 2018 and those values as percentage of the contract allotment values of each segment.

Table 2: Construction Change Order Records (as of November 2018)

Segment	Contract Allotment (\$Million)	Number of CCOs	Total Value of CCOs (\$Million)	Total CCO Value as % of Contract Allotment Value
1	\$120.59	129	\$11.6	9.6%
2	\$ 59.96	168	\$22.4	37.4%
3	\$195.79	198	\$37.7	19.3%
4	\$ 57.86	225	\$42.3	73.1%

Major Accomplishments

- 1) Segments 1 & 2 are complete and open to traffic.
- 2) Segment 2: \$14.6 million claim submitted by the contractor was settled at \$11 million.

- 3) Segment 3: Buena Vista and Empire Avenue railroad grade separations are complete and operational.
- 4) Segment 4: Verdugo Avenue Undercrossing widening is complete and open to traffic.
- 5) Segment 4: \$28.62 million claim submitted by the contractor was settled at \$20.8 million. This settlement will be presented to the Board for approval.

Major Challenges

- 1) Segment 3: Delay in opening Empire Avenue and start of Burbank Blvd. Bridge demolition due to differing site conditions, architectural treatment adjustments, Burbank Water and Power asbestos conduits removal, contractor issues, and claims related to delays.
- 2) Segment 4: Delay in LA River Bridge demolition

Caltrans-Metro Collaborative Efforts

- 1) Weekly field construction meetings and field reconnaissance are held by Metro, Caltrans, impacted cities and contractors to resolve the pending issues.
- 2) Monthly project coordination meetings are held by Metro and Caltrans to discuss the Project's progress and risks and to identify appropriate measures to control schedule and cost overruns.
- 3) Caltrans and Metro worked together to establish procedures to ensure the construction changes are monitored and approved as stipulated in the Funding Agreement. Procedures are as follows:
 - a. Ensure a uniform implementation of Funding Agreement language.
 - b. Enact an acceptable Contract Change Order (CCO) concurrence process.
 - c. Implement a reporting process of project status along with CCO requests.

4) Risk Assessment

Metro began assessing risks in the project schedule and cost in 2014 by hiring a risk assessment/management consultant, holding monthly risk management meetings with Caltrans, and identifying risks and mitigation measures to minimize cost increases and schedule delays.

Table 3 shows the anticipated completion schedule per August 2018 risk assessment.

Table 3: Completion Schedule Assessment

Segment No.	Original Schedule		Actual Start Date and Anticipated Completion Including Risks		Anticipated Delay in Months
	Start	Finish	Start	Projected Finish @ 70 Percentile	
3	Feb. 2013	Sep. 2017	Feb. 2013	Apr. 2022	55
4	Feb. 2011	Aug. 2014	Feb. 2011	Mar. 2020	68

5) Schedule and Time Impact Analysis (TIA) Support

Construction schedule review and time impact analysis services were provided by Metro to assist Caltrans in construction administration for the claims and schedule dispute.

6) Underground Utilities Scanning Support

Metro provided 3D scanning for the existing underground utilities to check against as-built plans and identify the potential conflicts in construction for Empire Avenue in Segment 3.

7) Administrative Support

Additional support cost monitoring, evaluation and analysis service was provided by Metro to control support cost expenditures.

8) Community Impacts Mitigation

Due to the impacts of the Project to the communities, Metro staff carried the Board motions in May and June 2014 by utilizing a construction mitigation project manager to mitigate the impacts and to establish the mitigation measures approved by the Board in October 2014.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

Staff will continue to coordinate with Caltrans to complete the remaining work while minimizing schedule and cost overruns. This collaboration is consistent with the following Metro Vision 2028 Goals and Objectives:

Goal 1: Providing high-quality mobility options that enable people to spend less time traveling by widening the freeway; providing additional capacity, and including HOV lanes to encourage carpooling and improve transit efficiency;

Goals 4 and 5: Transforming LA County through regional collaboration with Caltrans and the Corridor Cities by contributing funds and providing resources to assist Caltrans in management and delivery of these projects.

NEXT STEPS

Staff will continue to assist Caltrans through the completion of the remaining two segments to avoid/mitigate the risks and will inform the Board of progress of the remaining segments.

ATTACHMENT

Attachment A - Board Motion (File # 2018-0115)

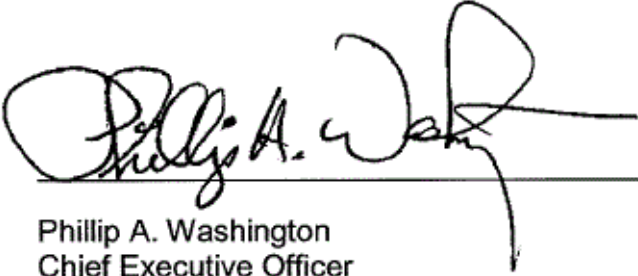
Prepared by:

Victor Gau, Director Engineering, Highway Program (213) 922-3031

Abdollah Ansari, SR. Executive Officer, Highway Program (213) 922-4781

Bryan Pennington, Deputy Chief Program Management Officer, (213) 922-7449

Reviewed by: Richard F. Clarke, Chief Program Management Officer, (213) 922-7557



Phillip A. Washington
Chief Executive Officer



Board Report

File #: 2018-0115, **File Type:** Contract

Agenda Number: 6.

REVISED
AD HOC CONGESTION, HIGHWAY AND ROADS COMMITTEE
MAY 16, 2018

**SUBJECT: I-5 NORTH CAPACITY ENHANCEMENTS FROM
SR-134 TO SR-118 (FUNDING AGREEMENT NO.
MOU. P0008355/8501A/A6)**

ACTION: AUTHORIZE CONTRACT MODIFICATION

RECOMMENDATION

AUTHORIZE Contract Modification No. 198 by the California Department of Transportation (Caltrans) for construction contract of the Segment 4 of the I-5 North Capacity Enhancements Project between SR-134 and SR-118 (Project) under the Funding Agreement No. MOU. P0008355/8501A/A6, in the amount of \$1,242,619.51 within the project Life of Project budget.

DUPONT-WALKER MOTION: report back to the Board in September in enhancing Metro and Caltrans coordination in delivering Highway Projects.

ISSUE

As part of the I-5 North Segment 4 construction, temporary protective concrete barriers (K-Rail) have been placed as per contract plan for Stage 1 and Stage 2 construction locations since the beginning of construction in March 2011.

Construction Change Order 198 authorizes compensation to the contractor in the amount of \$1,242,619.51 for additional costs of keeping the K-rails in place at various locations from April 2014 through June 2018 due to an extension of the project schedule.

Contract modifications exceeding \$500,000 require Board authorization per the Staff Delegations.

DISCUSSION

The I-5 North Capacity Enhancement project includes freeway widening and construction of High-Occupancy Vehicle (HOV) lanes and other improvement between SR-118 and SR-134. Caltrans designed and is managing construction of the Project. Segment 4 of the I-5 North Capacity Enhancement Project is between Magnolia Boulevard and SR-134.

The K-rails were set in place at various locations along the freeway to protect the work areas during construction activities. The project was delayed due to various utility conflicts, necessary design corrections and remedies for which time extension was granted through Change Orders 145, 182, 188 and 183 approved by Metro. As a result of the delays, the K-rails had to remain in place longer than planned. In July 2017 the Contractor provided a proposed resolution to delays and disruptions submittal package for the project including additional costs for K-rail, which was reviewed and approved by Caltrans. Caltrans has submitted the invoices to Metro for approval/payment.

DETERMINATION OF SAFETY IMPACT

There is no impact to public safety by approving this action.

FINANCIAL IMPACT

The project budget for Segment 4 is \$137,366,000 of which \$64,767,000 is Federal funds (Congestion Mitigation and Air Quality (CMAQ)), \$22,707,000 is State funds (RIP, IIP and RSTP) and \$49,892,000 is Local funds (Prop C and Measure R).

The total cost of \$1,242,619.51 for this Contract Modification No. 198 does not require an increase in the overall project budget. ~~as it will be funded from Federal (CMAQ) funds or other non-local funds. Current Metro FY18 budget of \$800,000 in Cost Center 0442 (Highway Subsidies), Project 460332, Tasks 5.4.100 and 5.5.100, Account 54001 (Subsidies to Others) will not be impacted.~~

Since this is a multi-year contract/project, the Project Manager, Cost Center Manager, and Senior Executive Officer of Program Management - Highway Program will be responsible for budgeting costs in future fiscal years.

Impact to Budget

~~The source of funds for this recommendation is Federal (CMAQ) funds or other non-local funds, administered by Caltrans. Metro's FY18 budget will not be impacted.~~

ALTERNATIVES CONSIDERED

The Board may choose not to approve the staff's recommendation. However, this disapproval would result in a likely dispute by the Contractor and potential cost overruns due to interest payments that would accrue during the dispute.

Authorization of Contract Modification No. 198 in the amount of \$1,242,619.51 will allow Caltrans to compensate the Contractor for the additional costs of keeping the K-rails in place on the project from March 2014 through December 2016 due to project delays.

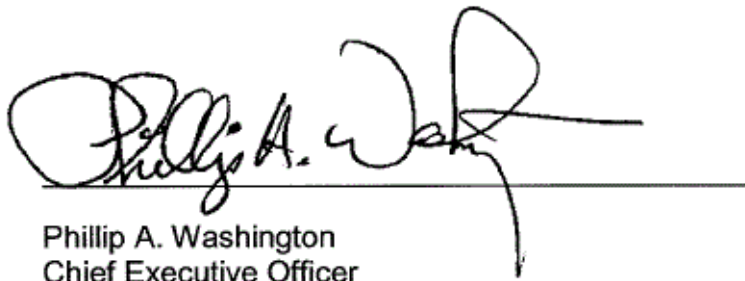
NEXT STEPS

Upon Board's approval of the recommended action, Metro staff will coordinate with Caltrans to pay

Contractor's invoices upon receipt.

Prepared by: Maher Subeh, Director of Engineering, Highway Program (213) 418-3291
 Abdollah Ansari, Senior Executive Officer, Highway Program (213) 922-4781
 Bryan Pennington, Deputy Chief Program Management Officer (213) 922-7449

Reviewed by: Richard F. Clarke, Chief Program Management Officer (213) 922-7557



Phillip A. Washington
Chief Executive Officer

I-5 North HOV Lanes Construction Project

Status Update – November 2018



Project Limits



I-5 North, SR-118 to SR-134



Project is Managed by Caltrans

- Approved budget: \$880.9 M after FA #A8
- Estimated Cost to Complete Construction: TBD

Accomplishments:

Segment 1: SR-118 to SR-170

- **Open to traffic.**
- Contract acceptance and close out audit in progress

Segment 2: SR-170 to Buena Vista

- **Open to traffic.**
- Contract acceptance and close out audit in progress
- Final Settlement approved by the Board in September 2018.

Segment 3: Buena Vista to Magnolia Blvd (Empire Ave IC)

- 70% Complete

Segment 4: Magnolia Blvd to SR-134

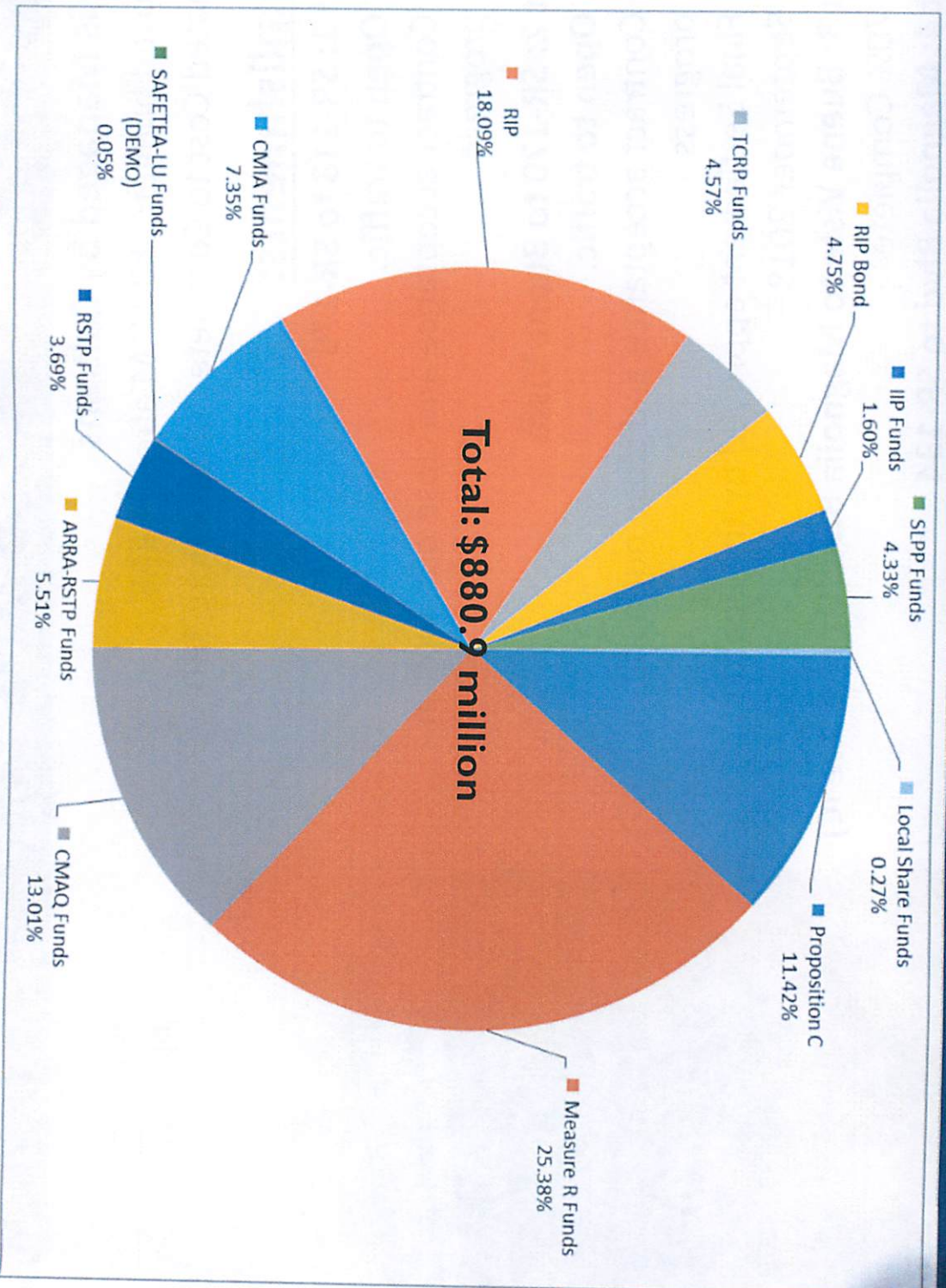
- 83% Complete



Metro



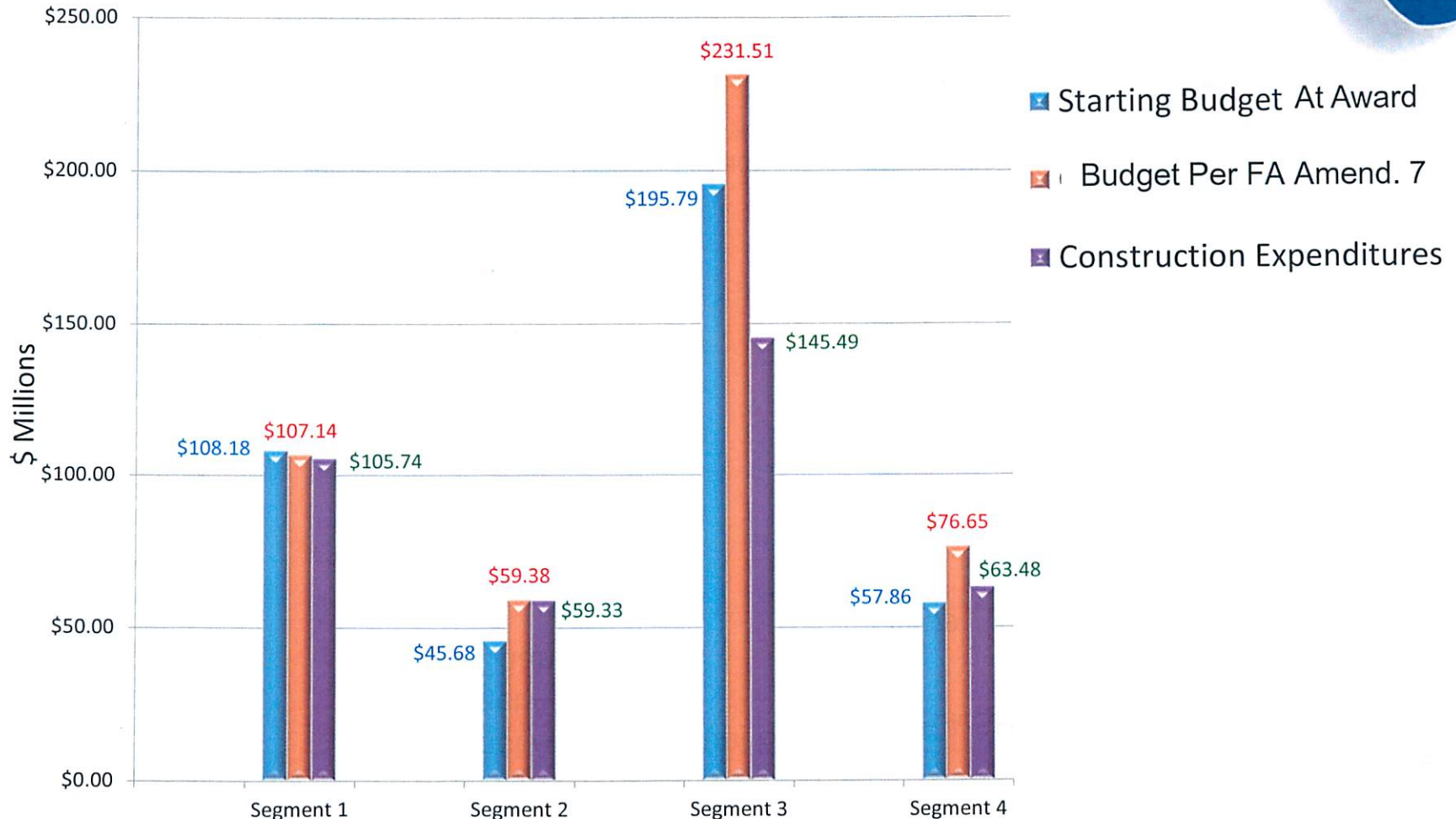
Fund Sources – All Phases



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*\$880.9 million total funds for the Project per Funding Agreement (FA) #A8
 *Additional \$30 million from ARRA-SHOPP programmed for Segment 1 & 2 not included in FA

Budget vs. Expenditures



% Complete

100

100

70

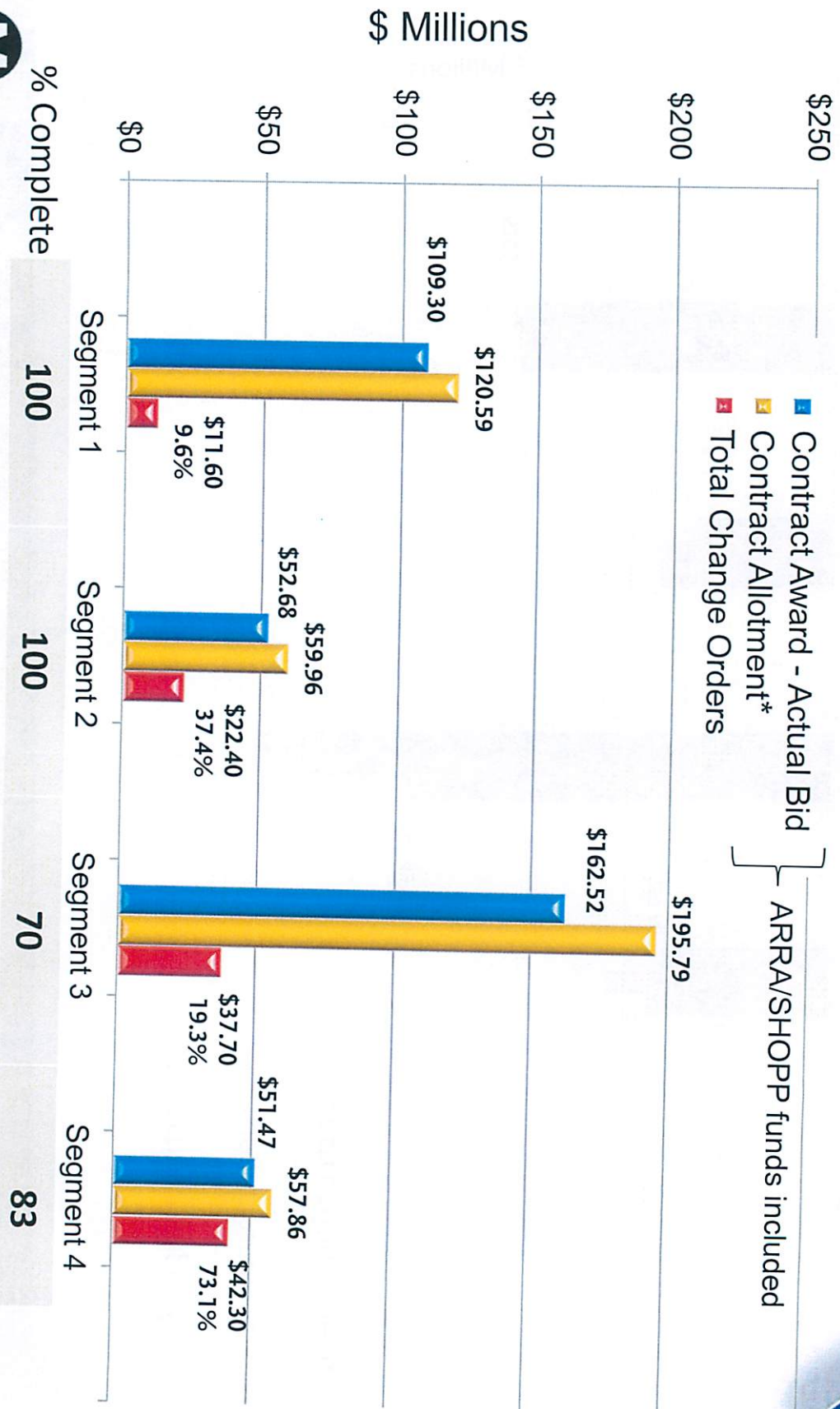
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Metro

- ARRA-SHOPP Fund for Segment 1 & 2 not included in the FA
- Segment 3 and 4 did not have any ARRA/SHOPP funds

Contract Changes Up to November 2018



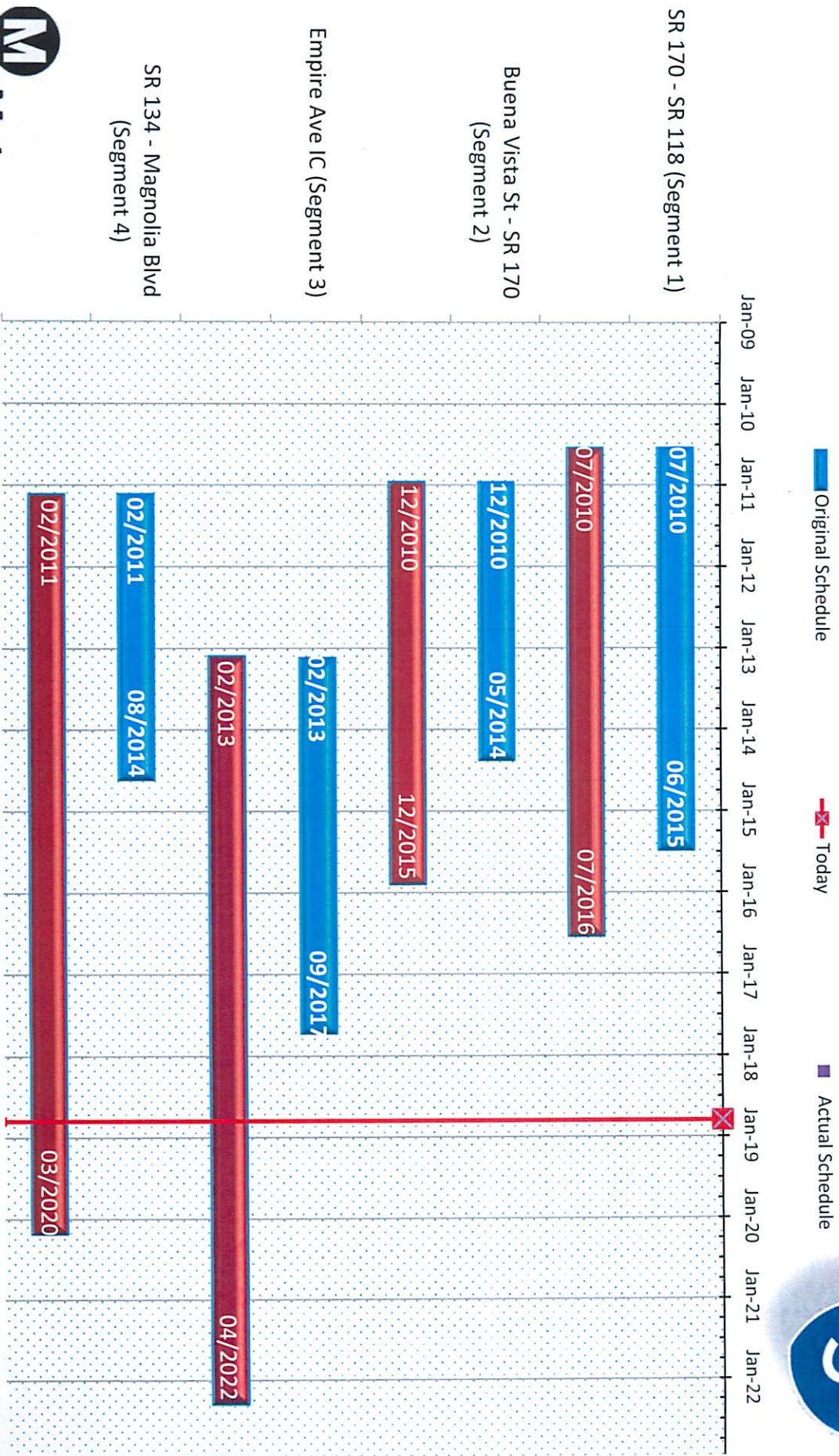
\$ Millions



Metro

* Contract Allotment includes contingencies, supplemental work, and State-furnished material

Construction Schedule



Completion Schedule Risk



Segment	Limits	Original Schedule		Actual Start Date and Anticipated Completion Including Risks		Anticipated Completion Delay in Months
		Start	Finish	Start	Projected Finish @ 70th Percentile	
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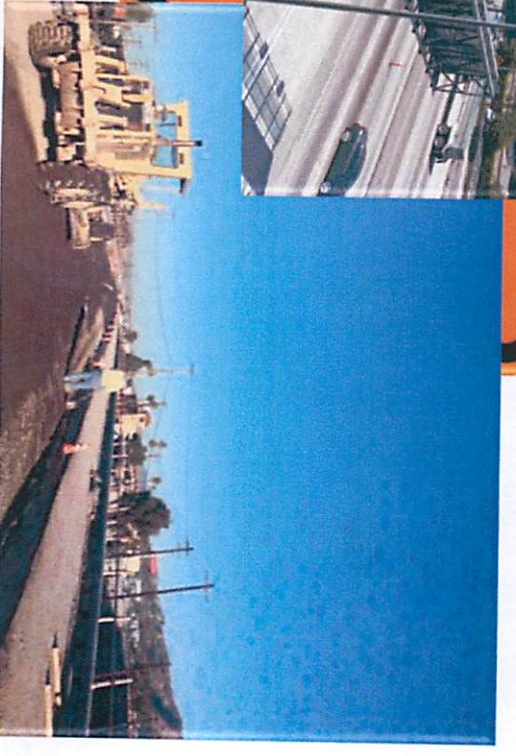
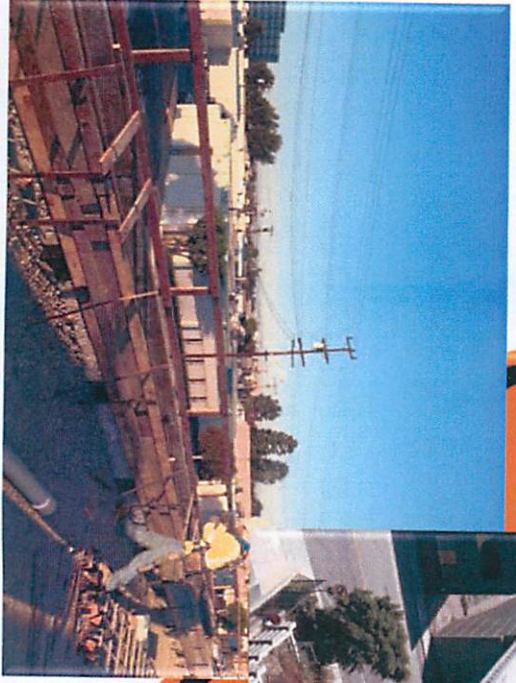
Metro-Caltrans Collaboration



- On-going schedule and budget/expenditure monitoring
- Weekly construction field activities, progress and issues meeting - action plans.
- Monthly coordination meetings
- Risk Assessment studies
 - Monthly monitoring
 - Quarterly reports
- Third party coordination to accelerate work
- Timely evaluation, negotiations, payment of validated change orders and settlement of contractor's claims to save time



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