

Memorandum

To: CHAIR AND COMMISSIONERS

CTC Meeting: August 12-13, 2009

Reference No.: 2.1b.(2)
Information Item

From: CINDY McKIM
Chief Financial Officer

Prepared by: Ross Chittenden
Manager
Proposition 1B Program

Subject: **MULTI-PROGRAM PROJECT AMENDMENT**
RESOLUTION CMIA-PA-0910-005
STIP AMENDMENT 08S-052

SUMMARY:

The California Department of Transportation (Department) and the City/County Association of Governments of San Mateo County (C/CAG) propose to amend the Corridor Mobility Improvement Account (CMIA) baseline agreement and the 2008 State Transportation Improvement Program (STIP) for the Widen US 101 and Add Auxiliary Lanes from Marsh Road to Embarcadero Road project (PPNO 0658B).

The Department will request that the California Transportation Commission (Commission) approve the CMIA baseline agreement and STIP amendment at the next scheduled Commission meeting following the notice period.

BACKGROUND:

This project is located on Route 101 in San Mateo and Santa Clara Counties. The current project will:

- a) Widen Route 101 to add auxiliary lanes in each direction from the Marsh Road Interchange in San Mateo County to the Embarcadero Road Interchange in Santa Clara County.
- b) Widen/modify various on/off-ramps at four interchanges within the project limits.
- c) Re-construct Ringwood Pedestrian Overcrossing and Henderson Underpass to accommodate the auxiliary lanes.
- d) Install Intelligent Transportation System (ITS) equipment within the project limits.

The Department and the C/CAG are requesting this amendment to:

- a) Eliminate the Henderson Underpass structure from the project scope.
- b) Update the project funding plan, with no net change to the overall cost of the project.
- c) Split the updated overall project scope into three segments.
 - Segment 1 (PPNO 0658B) – US 101 Auxiliary Lanes: Embarcadero Road to University Avenue.
 - Segment 2 (PPNO 0658C) – US 101 Auxiliary Lanes: University Avenue to Marsh Road.
 - Segment 3 (PPNO 0658D) – US 101 Replacement Landscaping – Embarcadero Road Interchange to Marsh Road Interchange.

ELIMINATION OF HENDERSON UNDERPASS STRUCTURE

A Value Analysis study completed in April 2008, recommends eliminating the Henderson Underpass structure from the scope of this project. The railroad structure over Route 101 is scheduled to be replaced as part of the Dumbarton Railroad Corridor Project, which is currently in the environmental phase and anticipated to be completed in April 2011. Eliminating this scope avoids throw-away costs of replacing this structure, which would have to be re-constructed in the near future as part of the Dumbarton Railroad Corridor project. The auxiliary lanes can pass below the existing structure; therefore, the project benefits are not adversely impacted by this decision to eliminate Henderson Underpass structure.

UPDATE PROJECT FUNDING PLAN

The Construction Capital has increased by \$16,908,000, from \$81,731,000 to \$98,639,000. This increase is offset, however, by the elimination of the Henderson Underpass structure from the scope of the overall project, bringing the revised construction capital cost to \$82,139,000 (a difference of \$408,000). The cost increase is attributed to the following changes:

- Additional pavement overlay that is needed to cover lane-lines on existing pavement and to eliminate spalling of Portland Cement Concrete pavement joints caused by shifting wheel loads during lane shifts.
- Additional mitigation of aurally deposited lead quantities in the shoulders has increased four-fold as determined by recently completed investigations.
- The cost of overhead sign structures has increased by a factor of six due to changes to the wind-load design standards.
- Requirements for follow-up landscaping and irrigation have increased due to the change in the location of the Ringwood Avenue Pedestrian Overcrossing. The original estimate only included replacing/replanting vines along various soundwalls. While the new location requires additional landscape treatment, it results in significant lower right of way costs.

The cost for Construction Support has increased by \$1,994,000, from \$10,527,000 to \$12,521,000. Construction support has been updated based upon actual expenditures incurred for a similar project that is currently under construction.

The cost for Plans, Specifications and Estimates (PS&E) has increased by \$660,000, from \$8,525,000 to \$9,185,000. The additional PS&E costs are due to the changes required to accommodate the Asphalt Concrete overlay and additional work resulting from the project split such as additional specifications, construction details, quantity sheets, title sheets, storm water data reports and work necessary to prepare the contracts for advertising and award.

The cost of Right of Way (R/W) Support has increased by \$40,000, from \$496,000 to \$536,000. The R/W Support budget has been updated based upon the latest requirements for temporary easements and utility relocations.

The shortfall in the PS&E, R/W Support, Construction Support and Construction Capital budgets will be offset by savings from the Project Approval and Environmental Document (PA&ED) and R/W Capital budgets. The PA&ED has been completed with \$900,000 in savings. The R/W Capital estimate has been reduced by \$2,202,000 due to the reconfiguration of the Ringwood Avenue Pedestrian Overcrossing ramps. This new ramp layout no longer requires any parcel acquisitions. The total amount programmed for the project remains same.

SPLIT THE PROJECT INTO THREE SEGMENTS

The overall project scope is proposed to be delivered in two roadway contracts (Segment 1 [PPNO 0658B] and Segment 2 [PPNO 0658C]) and one landscape replacement project (PPNO 0658D). This split will allow Segment 1, which roughly represents two-thirds of the auxiliary lanes work scope, to be completed 20 months ahead of the current baseline schedule for the overall project. Although the construction of Segment 2 is scheduled to begin after Segment 1 is completed, it will still be completed according to the current baseline schedule for the overall project. Staging the delivery of Segment 2 this way will provide an opportunity to coordinate this segment with the San Francisquito Creek Bridge project (PPNO 0685P) programmed in the State Highway Operation and Protection Program in Fiscal Year 2010-12 that falls within the project limits of Segment 2.

In addition, because landscape projects have long establishment periods, the replacement planting portion (Segment 3) is proposed to be split from the parent project. This segment will be funded with local funds. It is further proposed to remove this landscape project from the CMIA regular reporting requirements since completion is several years after completion of the main contract.

PROJECT DELIVERY

As described above, a major portion of the auxiliary lanes work will be completed 20 months ahead of the current baseline delivery schedule for the combined project. The table below lists major delivery milestones for all three segments.

Project Milestone	Baseline (0658B)	Segment 1 (0658B)	Segment 2 (0658C)	Segment 3 (0658D)
End Design Phase (RTL)	Dec. 2010	Aug. 2010	Sep. 2011	June 2013
Begin Construction Phase	Apr. 2011	Jan. 2011	Feb. 2012	Sep. 2013
End Construction Phase	Nov. 2013	Mar. 2012	Nov. 2013	Nov. 2017
Begin Close-out Phase	Nov. 2013	Mar. 2012	Nov. 2013	Nov. 2017
End Close-out Phase	Nov. 2014	Mar. 2013	Nov. 2014	Nov. 2018

The Metropolitan Transportation Commission concurs with the changes described above and shown in the following tables.

The table below summarizes the previously described transfer of funds across various phases of the overall combined project.

Revised Combined Project - US 101 Auxiliary Lanes from Marsh Road to Embarcadero Road (PPNO 0658B)

Baseline - On Route 101 in San Mateo and Santa Clara counties. This project will a) widen US 101 to add auxiliary lanes in each direction from Marsh Road Interchange in San Mateo County to Embarcadero Road Interchange in Santa Clara County, b) widen/modify various on-ramps at the four interchanges [Marsh, Willow, University and Embarcadero], c) re-construct the Ringwood Pedestrian Overcrossing ~~and the Henderson Underpass~~ to accommodate the auxiliary lanes, and d) install Intelligent Transportation System (ITS) equipment

(DOLLARS IN THOUSANDS)													
FUND	TOTAL	Project Totals by Fiscal Year						Project Totals by Component					
		Prior	08/09	09/10	10/11	11/12	12/13 and beyond	R/W	CON	PA&ED	PS&E	R/W Supp	CON Supp
RIP													
Existing	14,221	5,200	9,021			0			0	5,200	8,525	496	
Change	0	(1,100)	315			785			785	(1,100)	319	(4)	
Proposed	14,221	4,100	9,336			785			785	4,100	8,844	492	
CMIA													
Existing	60,000				60,000	0			49,473				10,527
Change	0				(3,802)	3,802			(1,534)				1,534
Proposed	60,000				56,198	3,802			47,939				12,061
Demo													
Existing	1,800			1,800				1,800					
Change	0			0				0					
Proposed	1,800			1,800				1,800					
Loc Funds													
Existing	35,368			3,110	32,258	0	0	3,110	32,258	0	0	0	0
Change	0			(2,207)	(24,940)	24,953	2,194	(2,202)	1,157	200	341	44	460
Proposed	35,368			903	7,318	24,953	2,194	908	33,415	200	341	44	460
Total													
Existing	111,389	5,200	9,021	4,910	92,258	0	0	4,910	81,731	5,200	8,525	496	10,527
Change	0	(1,100)	315	(2,207)	(28,742)	29,540	2,194	(2,202)	408	(900)	660	40	1,994
Proposed	111,389	4,100	9,336	2,703	63,516	29,540	2,194	2,708	82,139	4,300	9,185	536	12,521

This revised overall project is split into three segments as described on the following pages.

Segment 1 (PPNO 0658B) - US 101 Auxiliary Lanes from University Avenue to Marsh Road

Baseline - On Route 101 in San Mateo and Santa Clara counties. This project will a) widen US 101 to add auxiliary lanes in each direction from University Avenue to Marsh Road Interchange, b) widen/modify on/off-ramps at Marsh Road, Willow Road, and University Avenue (partial) interchanges, c) re-construct Ringwood Pedestrian Overcrossing to accommodate the auxiliary lanes, and d) Install ITS equipment.

(DOLLARS IN THOUSANDS)													
FUND	TOTAL	Project Totals by Fiscal Year						Project Totals by Component					
		Prior	08/09	09/10	10/11	11/12	12/13	R/W	CON	PA&ED	PS&E	R/W Supp	CON Supp
Regional Improvement Program (RIP)													
Existing	0	0	0						0	0	0		
Change	9,172	2,800	6,372						2,800	6,056	316		
Proposed	9,172	2,800	6,372						2,800	6,056	316		
Corridor Mobility Improvement Program (CMIA)													
Existing	0				0				0				0
Change	56,198				56,198				47,939				8,259
Proposed	56,198				56,198				47,939				8,259
Loc Funds													
Existing	0		0		0			0	0				
Change	8,021		903		7,118			903	7,118				
Proposed	8,021		903		7,118			903	7,118				
Total													
Existing	0	0	0		0			0	0	0	0	0	0
Change	73,391	2,800	7,275		63,316			903	55,057	2,800	6,056	316	8,259
Proposed	73,391	2,800	7,275		63,316			903	55,057	2,800	6,056	316	8,259

Segment 2 (PPNO 0658C) - US 101 Auxiliary Lanes from Embarcadero Road to University Avenue

Baseline - On Route 101 in San Mateo and Santa Clara counties. This project will a) widen US 101 to add auxiliary lanes in each direction from Embarcadero Road to University Avenue, b) widen/modify on/off-ramps at the Embarcadero, and University Avenue (partial) interchanges, c) install ITS equipment.

(DOLLARS IN THOUSANDS)													
FUND	TOTAL	Project Totals by Fiscal Year						Project Totals by Component					
		Prior	08/09	09/10	10/11	11/12	12/13	R/W	CON	PA&ED	PS&E	R/W Supp	CON Supp
Regional Improvement Program (RIP)													
Existing	0	0	0			0			0	0	0	0	
Change	5,049	1,300	2,964			785			785	1,300	2,788	176	
Proposed	5,049	1,300	2,964			785			785	1,300	2,788	176	
Corridor Mobility Improvement Account (CMIA)													
Existing	0					0							0
Change	3,802					3,802							3,802
Proposed	3,802					3,802							3,802
Demo													
Existing	0			0				0					
Change	1,800			1,800				1,800					
Proposed	1,800			1,800				1,800					
Loc Funds													
Existing	0					0		0					
Change	24,563					24,563		24,563					
Proposed	24,563					24,563		24,563					
Total													
Existing	0	0	0	0		0		0	0	0	0	0	0
Change	35,214	1,300	2,964	1,800		29,150		1,800	25,348	1,300	2,788	176	3,802
Proposed	35,214	1,300	2,964	1,800		29,150		1,800	25,348	1,300	2,788	176	3,802

Segment 3 (PPNO 0658D) - US 101 Landscape Replacment from Embarcadero Road to Marsh Road

Baseline - On Route 101 in San Mateo and Santa Clara counties. This project will construct replacement landscaping from Embarcadero Road to Marsh Road

(DOLLARS IN THOUSANDS)													
FUND	TOTAL	Project Totals by Fiscal Year						Project Totals by Component					
		Prior	09/10	10/11	11/12	12/13	13/14	R/W	CON	PA&ED	PS&E	R/W Supp	CON Supp
Loc Funds													
Existing	0			0	0		0	0	0	0	0	0	0
Change	2,784			200	390		2,194	5	1,734	200	341	44	460
Proposed	2,784			200	390		2,194	5	1,734	200	341	44	460
Total													
Existing	0			0	0		0	0	0	0	0	0	0
Change	2,784			200	390		2,194	5	1,734	200	341	44	460
Proposed	2,784			200	390		2,194	5	1,734	200	341	44	460