

MEMORANDUM

To: CHAIR AND COMMISSIONERS
CALIFORNIA TRANSPORTATION COMMISSION

CTC Meeting: August 14-15, 2019

From: STEVEN KECK, Chief Financial Officer

Reference Number: 2.5d.(1), Action Item

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District 03 – Director

Subject: ALLOCATION FOR PROJECT WITH COSTS THAT EXCEED THE PROGRAMMED AMOUNT BY MORE THAN 20 PERCENT (PPNO 9579/EA 0A570 – YUBA COUNTY – STATE ROUTE 20) RESOLUTION FP-19-03

ISSUE:

Should the California Transportation Commission (Commission) approve the California Department of Transportation's (Department) allocation request for \$58,300,000 for the State Highway Operation and Protection Program (SHOPP) Roadway Rehabilitation project (PPNO 9579) on State Route 20, in Yuba County?

RECOMMENDATION:

The Department recommends that the Commission approve the requested allocation for this SHOPP project.

PROJECT DESCRIPTION:

This project will rehabilitate 9.9 lane miles of Pavement on State Route 20 with a 20-year design life. Shoulders will be widened a standard eight feet to provide an improved motorist recovery area and to better accommodate bicycles and pedestrians. The highway will be realigned and adjusted to address non-standard horizontal and vertical curves. Right and left turn lanes are being added at several locations and the truck climbing lane is being extended to reduce collisions and increase operational improvements. Highway lighting is being added to improve the stopping sight distance. The Dry Creek Bridge built in 1938 will be replaced with a new bridge to address scour issues, provide standard shoulders and bridge rail, strengthen to allow full permit loads, and accommodate a path for bicycles and pedestrians.

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The existing pavement condition is listed as “good”, however, this is due to an overlay project constructed in 2015. That project was implemented as a five-year interim strategy until the pavement rehabilitation project could be designed and constructed. This project is consistent with the Commission-adopted Transportation Asset Management Plan.

FUNDING AND PROGRAMMING STATUS:

The project was programmed in the 2018 SHOPP for \$38,100,000 in Construction Capital and \$6,900,000 in Construction Support for delivery in Fiscal Year 2018-19.

The Department completed the Plans, Specifications and Estimate (PS&E) and updated the Engineer’s Estimate (EE) in June 2019 for this project. The total Construction Capital cost has increased from the programmed amount of \$38,100,000 to \$51,400,000. Therefore, the Department is requesting an allocation that exceeds the programmed Construction Capital funds by more than 20 percent.

The Construction Support estimate was re-evaluated based on the final project design including an increase in working days from 400 to 450. Due to the proposed use of Automated Machine Guidance on construction equipment and efficiencies from managing multiple projects in close proximity, the project Construction Support remains the same as the programmed amount of \$6,900,000.

REASON(S) FOR COST INCREASE:

The cost estimate increase needed to advertise this project is due to changes related to earthwork, drainage, traffic control, stage construction, a water line relocation, and unit prices.

One reason for the cost increase, related to earthwork, stems from lessons learned on an adjacent project. After encountering more underground rock formations than expected on the adjacent project, a more detailed Geotechnical Investigation was performed and completed in March 2019. The results showed an increase of 30 percent more rock formations than was originally estimated. This increased the unit prices to excavate the material since it will require controlled blasting. Another reason was due to increased quantities for Roadway Excavation and Import Borrow that were identified during design refinements and evaluating earthwork balancing during construction staging. This represents approximately 42 percent of the cost increase.

The second reason is related to changes to Drainage and Traffic Control that were identified when stage construction and traffic handling plans were refined during the design phase. To accommodate the reconstruction of the highway with a vertical curve, it was determined that a detour road was necessary to maintain traffic and access for local residents. Final drainage quantities have increased, including the need for additional temporary drainage facilities. There are increased costs related to stage construction and traffic handling due to the increased working days, grade (elevation) differential between the existing and proposed roadway and an increased need for blasting operations that will require intermittent full roadway closures. This represents approximately 16 percent of the cost increase.

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The third reason is that the costs for relocating the Browns Valley Irrigation District (BVID) water line has been moved from R/W Capital to Construction Capital. This is 6 percent of the cost increase, and was done to improve the coordination with the roadway work, avoid potential delays, reduce impacts to customers and reduce the overall costs of the water line relocation. It should be noted that while there is an increase in Construction Capital, there will be a larger reduction in R/W Capital for an overall net savings of this work.

Lastly, there are cost increases related to unit prices and miscellaneous items. Unit prices have been updated due to the evaluation of current bidding trends. Increases apply to a variety of items, but especially for those items related to the bridge replacement, roadway structural section, and stormwater. Miscellaneous Items such as supplemental work, mobilization, time related overhead, contingency and state furnished materials have all been increased accordingly with the increases to the overall project costs. This represents approximately 36 percent of the cost increase.

CONSEQUENCES:

The Department has determined that if request for a Construction Capital allocation of \$51,400,000 and a Construction Support allocation of \$6,900,000 is not approved the Department will not be able to advertise this SHOPP project and needed pavement rehabilitation will not be accomplished.

FINANCIAL RESOLUTION:

Resolved, that \$51,400,000 be allocated from the Budget Act of 2019, Budget Act Item 2660-302-0890 and Non-Budget Act Item 2660-802-3290 for construction and \$6,900,000 for construction engineering to provide funds to advertise the project.

Attachment

2.5 Highway Financial Matters

Project No.	Allocation Amount	County	Dist-Co-Rte	Postmile	Location	Project Description	Project Support Expenditures	PPNO Program/Year Phase Prgm'd Amount	Budget Year	Amount by
								Project ID Adv Phase EA	Item # Fund Type Program Code	Fund Type

2.5d.(1) Allocations for Projects with Cost Increase Greater than 20 Percent

Resolution FP-19-03

1	\$58,300,000	Yuba	03-Yub-20	13.3/R18.2	Near Marysville, from Marysville Road to 0.1 mile east of Yuba River Bridge. <u>Outcome/Output:</u> Rehabilitate roadway, replace Dry Creek Bridge No. 16-0010 to provide full permit load capacity, bring horizontal alignment and shoulder widths up to current design standards, and extend the existing truck climbing lane. This project will improve safety and ride quality.			03-9579 SHOPP/18-19 CON ENG \$6,900,000 CONST \$38,100,000 0300020593 4 0A570	505-3290 RMRA 001-0890 FTF 20.10.201.120 2017-18 802-3290 RMRA 2019-20 302-0890 FTF 20.20.201.120	\$791,000 <u>\$6,109,000</u> \$6,900,000 \$5,896,000 <u>\$45,504,000</u> \$51,400,000
		<u>Engineering</u>								
						<u>Budget</u>	<u>Expended</u>			
						PA&ED \$4,300,000	\$3,676,871			
						PS&E \$2,800,000	\$2,591,864			
						R/W Sup \$2,950,000	\$2,210,508			

(CEQA - MND, 8/4/2017; Re-validation 6/14/2019)
(NEPA - CE, 11/15/2017; Re-validation 6/14/2019)

(Future consideration of funding approved under Resolution E-18-02; February 2018.)

(SB 1 Baseline Agreement approved under Resolution SHOPP-P-1819-04B; October 2018.)

(Four month time extension for CONST and CON ENG approved under Waiver 19-29; June 2019.)

(As part of this allocation request, the Department is requesting to extend the completion of CONST and CON ENG an additional 24 months beyond the 36 month deadline.)

Performance Measure: Pavement					
	<u>Unit</u>	<u>Good</u>	<u>Fair</u>	<u>Poor</u>	<u>Quantity</u>
Existing Condition	Lane mile(s)	9.9	0.0	0.0	9.9
Post Condition	Lane mile(s)	9.9	0.0	0.0	9.9