

Memorandum **TAB 73**

To: CHAIR AND COMMISSIONERS
CALIFORNIA TRANSPORTATION COMMISSION

CTC Meeting: June 27-28, 2018

Reference No.: 2.5d.(1) –**REVISED ITEM**
Action Item

From: STEVEN KECK
Chief Financial Officer

Prepared by: Carrie Bowen
District 07 - Director

Subject: **ALLOCATION FOR PROJECT WITH COSTS THAT EXCEED THE PROGRAMMED
AMOUNT BY MORE THAN 20 PERCENT
(PPNO 07-4457)
RESOLUTION FP-17-74**

ISSUE

Should the California Transportation Commission (Commission) approve the California Department of Transportation's (Department) allocation request for \$11,000,000 for the State Highway Operation Protection Program (SHOPP) Mobility project (PPNO 4457) on Interstate 405 (I-405), in Los Angeles County?

RECOMMENDATION

The Department recommends that the Commission approve an allocation of \$11,000,000 for the (SHOPP) Mobility project (PPNO 4457) on I-405, in Los Angeles County.

Dist-Co-Rte	Construction Component	Programmed Amount	Program Adjustment	Funds Request	% Over Programmed Amount
07-LA-405	Capital	\$4,872,000	\$4,028,000	\$8,900,000	82.7 %
	Support	\$1,050,000	\$1,050,000	\$2,100,000	100.0 %
Total Allocation Request				\$11,000,000	

PROJECT DESCRIPTION

This project will reconstruct a Commercial Vehicle Enforcement Facility (CVEF) on southbound I-405 between the Vermont Avenue/190th Street Undercrossing and the Del Amo Boulevard Overcrossing, in the city of Carson, in Los Angeles County. The project's full scope is to build a truck inspection facility, rehabilitate and improve truck access and bypass lanes, construct a retaining wall, and install a weigh-in-motion (WIM) station. This CVEF facility is essential for the California Highway Patrol (CHP) and the Department of Homeland Security (DHS) commercial vehicle inspection. It also helps ensure the public safety and the State's transportation infrastructure. The facility is consistent with the Transportation Asset Management Plan (TAMP). The 2011 Inventory of Needs (ION) listed this project as a top priority (Priority #1) for the Department. A fully functional CVEF will provide consistent inspection and enforcement services, and will enhance mobility and freight transportation safety by monitoring the weight of trucks travelling to and from the two busiest ports in the nation: the Port of Los Angeles and the Port of Long Beach.

The project will also help preserve and extend the roadway pavement life, which depends largely on the weight and frequency of heavy truck traffic. It is estimated that the Department would risk spending 20 percent more for pavement rehabilitation and maintenance than necessary, if CVEF are not adequately maintained. Trucks cause a far greater impact on pavement and bridges than cars, and it has been well documented that a fully loaded 40-ton truck does as much pavement damage as 9,600 cars, and an empty truck does 16 times more pavement damage than a car.

In late 2010, the Department assigned the SHOPP Weigh Station program to a target of \$7,500,000 statewide. The intent of that action was to encourage the teams, in that program, to identify strategies to deliver the WIM program efficiently. At that time however, the State's fiscal position was challenging, and many programs were constrained with limited funding. This was also prior to any statewide discussions related to transportation asset management.

This project's plans have been reviewed by multiple stakeholders to improve the project delivery and to enhance the design elements of the facility based on lessons learned during construction of a similar project on northbound (N/B) I-405.

REASON FOR INCREASE

The project was programmed in the 2016 SHOPP for delivery in Fiscal Year 2016-17, with a scope to provide a fully functional CVEF facility that also meets CHP and DHS requirements. The project was programmed for \$4,872,000 in Construction Capital and \$1,050,000 in Construction Support. And the Department was granted a 12-month time extension by the Commission in June 2017.

With the implementation of transportation asset management culminating with the adoption of the TAMP guidelines by the Commission at the June 2017 meeting, the Department completed a supplemental PSR that same month that included PS&E for a project scope that included all elements required for a fully functional CVEF facility. Unfortunately, the final scope and estimate

was not fully finalized in time to update the 2016 SHOPP prior to the year of delivery (July 2017) so the Department must request the increase at the time of the Commission allocation. This request is for \$11,000,000 to construct a fully functional CVEF facility, of which \$8,900,000 is Construction Capital, and \$2,100,000 in Construction support.

The South Bound (S/B) I-405 CVEF is very similar to, and at the same general location as, the recently completed N/B I-405 CVEF. However, the S/B facility includes ~~three~~ **four** additional components the N/B facility did not include; ~~a WIM scale, Bypass lane, and a Retaining wall. The WIM scale will be located at about 2 miles before the entrance to the S/B CVEF facility to provide an early detection of overloaded trucks. The Bypass lane will serve to facilitate passage of load conforming trucks to continue on I-405 without stopping at the CVEF. And the retaining wall will be separating the facility from a neighboring property.~~ **a 850 foot long by 10 foot wide CHP access lane, an 850 foot long retaining wall along the CVEF boundary, and a storm water system outside of the retaining wall for drainage purposes. In addition, the S/B CVEF will require constructing a new 650 foot Type-60 concrete barrier between the CVEF and the mainline freeway to replace the outdated, existing Type-50 concrete barrier. The costs of these four items, combined with the added cost of mobilization, contingency and Time Related Overhead (TRO), increases the S/B CVEF cost by \$2,300,000.**

Additionally, since June 2014, when the N/B CVEF contract was awarded, the Department has experienced a 25 percent increase in the cost of awarding construction contracts due to the current bidding environment and the global increase of construction material costs. The estimated cost increase due to these factors is \$1,730,000.

It should also be noted that the N/B facility contract was awarded in 2014, and the cost estimate to construct the S/B CVEF facility was based on 2018 prices. Furthermore, the S/B facility cost estimate accounts for the cost of four items that were not included in the N/B facility, and reflects the higher prices associated with the current bid environment in the region. Although higher than the cost of the N/B facility by \$3,900,000, this request for the S/B facility at \$8,900,000 in construction capital is reflective of cost increase factors outlined above.

~~These three items explain the higher cost to construct the S/B facility in comparison to the N/B facility. In addition, while the cost of the N/B facility was estimated and allocated more than three years ago, the higher cost of the S/B facility is based on 2018 prices to reflect the current bid environment in the region.~~

The requested increase in Capital cost will account for a fully scoped project with three more components, and will also account for the current bid prices, bringing the project cost to a reasonably comparable cost to N/B facility. The Capital cost increase is also based on an Engineer's Estimate (EE) that has been updated and certified as of June 6, 2018.

The Department also compared the programmed Support cost to construct the South Bound (S/B) I-405 to the recently completed N/B CVEF. The Department expects to utilize the same level of construction support used on the N/B CVEF to deliver the S/B project. The requested increase will

yield a Support cost allocation equaling the support cost of the completed N/B facility. The Department, due to lack of available funds, had under-programmed the support cost.

CONSEQUENCES

The Department investigated down-scoping the project and only delivering the fiscally constrained components, but this proved not to be acceptable because without the bypass lanes and other components, the facility cannot be fully operational. Also, if a two stage construction approach were used, CHP could not use the southbound CVEF during the second construction phase due to conflict in the work area of the contractor and the enforcement area. The two phase construction strategy would not only cost more, but would also increase the duration of the total construction period by an additional 4-5 years, adding inoperable time waiting for the completion of the second phase. In addition, the CHP advised the Department that it would not certify the facility as functional for its use unless all elements of the facility were fully completed. Downsizing and using two-phased delivery contracts would introduce additional risks that could delay, and increase the project cost. The Department estimated it would risk spending 20 percent more for pavement rehabilitation and for maintenance if the CVEF was not fully operational. A deficient CVEF would also result in reduced inspection services of potentially unsafe or overweight trucks traveling on state roadway. Furthermore, federal transportation funds could be jeopardized when the Department is not in compliance with the mandate to enforce commercial vehicle laws and regulations.

Constructing a fully functional, fully operational facility on a single contract will deliver one of the projects within the Department's Transportation Asset Management Plan (TAMP), and, by saving funds that would be needed to execute contracts for the two phase approach, will be in the best interest of public.

The Department has determined that if this allocation request for \$11,000,000 is not approved, the Department will not be able to advertise this SHOPP Mobility project and construction will be delayed. Furthermore, constructing a fully functional, fully operational facility on a single contract will ensure that infrastructure deterioration will not continue, due to the likelihood of having unchecked overweighted trucks using the State Highway System.

The Department has exercised all feasible measures to minimize costs in carrying out the work related to this project and has determined that this request, which is higher than the original programmed amount, is well-supported.

RESOLUTION

Resolved, that \$8,900,000 in Construction Capital be allocated from the Budget Act of 2016, Budget Act Items 2660-302-0042, and \$ 2,100,000 in Construction Support, to provide funds to advertise the project.