

## MEMORANDUM

## TAB 90

To: CHAIR AND COMMISSIONERS  
CALIFORNIA TRANSPORTATION COMMISSION

CTC Meeting: August 15-16, 2024

From: STEVEN KECK, Chief Financial Officer

Reference Number: 2.5e.(10), Action Item - **YELLOW REPLACEMENT ITEM**

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District 07 – Director

Subject: **SUPPLEMENTAL FUNDS FOR CONSTRUCTION COMPLETION PHASE  
PPNO 5024/EA 32490 – LOS ANGELES COUNTY – INTERSTATE 5  
RESOLUTION FA-24-12**

**ACTION UPDATE:** *Updates to required working days and design efforts.*

### **ISSUE:**

Should the California Transportation Commission (Commission) approve the California Department of Transportation's (Department) request for an additional \$3,078,000 in Construction Capital and \$974,000 in Construction Support for the State Highway Operation and Protection Program (SHOPP) Drainage System Restoration project on Interstate 5 (I-5), in Los Angeles County, to complete the construction contract?

### **RECOMMENDATION:**

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

### **PROJECT DESCRIPTION:**

This project is located on I-5 in the City of Los Angeles, at Humboldt Street Underpass, Glendale Boulevard Overcrossing, and Sheldon Street Overcrossing, in Los Angeles County. The project will upgrade pump plants.

### **FUNDING AND PROGRAMMING STATUS:**

In March 2018, the project was programmed for \$5,946,000 in Construction Capital and \$1,110,000 in Construction Support in the SHOPP for allocation in Fiscal Year 2020-21. In June 2020, the project was amended to decrease Construction Support to \$1,004,000 due to the reduced scope. In June 2021, the project received a 4-month allocation time extension for

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the Construction phase. In August 2021, the project was allocated for \$6,211,000 in Construction Capital and \$1,188,000 in Construction Support. In March 2022, the project received a 4-month award time extension for the Construction phase. In April 2022, the project was awarded for \$5,493,000 in Construction Capital. In December 2022, construction began with 135 working days. Construction activities and delays depleted the number of initial working days, and as a result the number of working days was increased to 425. The project has not requested G-12 funds. The remaining funds are currently at \$1,539,000 in Construction Capital and \$363,000 in Construction Support. The project is 65 percent complete with 140 working days remaining. The planned Construction Contract Acceptance is scheduled for March 2025.

**REASON FOR COST INCREASE:**

The project realized cost increases due to various unforeseen site conditions that were encountered during construction of the pump plants.

**Capital Cost Increase:**

This project involves the upgrade of three pump stations along I-5, each comprising of two primary elements, drainage work and pump station electro-mechanical upgrades. The drainage work entails the addition of new box culverts to the drainage structures associated with each pump station. This will provide extra storage capacity and prevent the pump station from becoming overwhelmed and flooding on the adjacent freeway.

Various unforeseen site conditions were encountered during construction of this project. At the Humboldt Street Underpass location, a buried man-made concrete slab was encountered in the area designated for a proposed culvert. This required additional efforts to remove the slab. Furthermore, subsequent to the construction of the new storage box culvert, it was discovered that the elevation of the existing storage box culvert, down-stream from the new one, was higher than indicated in the as-built plans. This discrepancy led to a redesign and additional work was required to elevate the invert elevation of the new storage box culvert to ensure proper flow into the existing drainage systems feeding into the pump station. Delays while the redesign work took place resulted in additional time-overhead (TRO) expenses.

At the pump station near the Glendale Street Overcrossing, an existing 8-inch storm drainpipe, not depicted on the plans or as-builts, was uncovered during excavation. In order to investigate the function of the conflicting drainpipe, the contractor experienced delays to their operations while working around the obstruction. Additionally, upon excavation, it was discovered that an existing 36-inch pipe was deteriorating, requiring repairs and the addition of concrete collars to reinforce the drainpipe and prevent further deterioration. The cost associated with differing site conditions at this location also includes TRO due to associated critical delays.

At the Sheldon Street Overcrossing location, modifications from the original plans were required. Initially, the plans called for the construction of two drainage inlets adjacent to the roadway and within the existing gutter. However, field conditions did not allow for the installation of the drainage inlets due to inadequate clear area width to the edge of excavation.

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The lack of space required a significant redesign of the drainage system to avoid construction within the gutter. This redesign required different shoring and excavation for the box culvert installation and required the removal of a concrete anchor block and rerouting fiber optic conduit. In addition, more debris than anticipated had to be cleared from the pump plant's wet pit before operating bypass systems. This action is required during electro-mechanical construction activities within the pump station.

The electro-mechanical upgrades required at all pump stations entail the demolition and site preparation of facilities that have surpassed 50 years in age. Various conditions not readily apparent during the design phase field visits, namely dimensional issues in fitting the electrical enclosures within the existing facilities, were encountered at the pump station currently undergoing work (the first of three pump stations). As a result, similar conditions are expected to be encountered at the other two locations, which will require additional expenditures for completion of work.

The project encountered significant delays and the associated TRO costs escalated due to coordination issues with the electrical utility. Work could not begin on the electro-mechanical upgrades within the pump plants until Los Angeles Department of Water and Power (LADWP) de-energizes the facilities. The contract specifications provided for 30 days to coordinate the de-energization. The actual time for this was eclipsed 150 working days, and to date only one of the pump plants have been de-energized. Their procedure requires the design and approval of re-energization plans before the de-energization of the three pump plants, constraining the contractor's schedule and resulting in a critical delay. Further delays are anticipated upon completion of the pump plant work and the subsequent need for re-energization.

There is also a significant increase, over 200 percent above the Engineer's estimated quantity, for the excavated material containing aurally deposited lead (ADL). The Department's Design group has confirmed that the item was underestimated. In addition, there were quantity overruns due to actual structure excavation for ADL quantities significantly deviated from the contract plan. The contractor determines what excavation limits are required to ensure a safe work area, and due to existing soil conditions, the excavation limits were larger than the typical cross sections indicated. The excavated slopes suffered damage from the heavy storms this past winter and required re-excavation, stabilization, and clean-up.

There were also costs associated with anticipated miscellaneous supplemental work on this project, pertaining to water pollution control and the maintenance of existing electrical systems.

Overall, the additional capital costs required to complete construction amount to \$3,078,000. And the remaining funds, currently at \$1,539,000, will be utilized to complete outstanding contract item work.

**Support Cost Increase:**

Due to the additional work listed above for the capital cost increase, there will be an associated increase to support costs. The costs include redesign efforts, inspection, coordination with

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utility companies, administration, and support associated with commissioning pump plants. In addition, the construction duration for this project was increased by 290 working days (from 135 to 425 working days) due to the delays.

**CONSEQUENCES:**

If this request for supplemental funds is not approved, the Department will not be able to complete construction of this project and address the deficiencies of the existing pump plants. The existing pump plants are more than 50 years old, and parts are no longer available in the event of failure or emergency repair. Therefore, the pumps need to be upgraded to preserve the integrity of the highway. If the construction contract is further delayed, it will likely result in claims by the contractor. To complete construction at a later time, another project will have to be programmed in a future SHOPP cycle at a possible higher project cost.

**FINANCIAL RESOLUTION:**

Resolved, that \$3,078,000 be allocated from the Budget Act of 2023, Budget Act Item 2660-302-3290 for Construction Capital, and \$974,000 in Construction Support, to provide funds to complete the Construction phase for this SHOPP project.

Attachment