

# Memorandum

To: CHAIR AND COMMISSIONERS

Meeting Date: March 15-16, 2006

Reference No.: 2.5d.(2)  
Action Item

From: CINDY McKIM  
Chief Financial Officer

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Transportation Programming

Ref: **FINANCIAL ALLOCATION FOR PROJECTS THAT EXCEED 20 PERCENT OF THE PROGRAMMED AMOUNT RESOLUTION FP-05-67**

## **RECOMMENDATION:**

The California Department of Transportation (Department) recommends the California Transportation Commission (Commission) approve the following resolution.

## **FINANCIAL RESOLUTION:**

Resolved that \$74,952,000 be allocated from the Budget Act of 2005, Budget Act Item 2660-302-0042, to provide funds for the five projects described on the following pages.

## **SUMMARY AND CONCLUSIONS:**

This resolution allocates State funds totaling \$74,952,000 for four new major construction projects that are included in the State Highway Operations and Protection Program (SHOPP), and one new minor construction project listed in the District's approved 2005-06 fiscal year Minor A Program. The projects have construction costs that exceed, by more than 20 percent, the programmed amount of \$53,487,000.

Project # Allocation Amount Recipient County Dist-Co-Rte Postmile	Location Project Description Project Support Expenditures	EA (PPNO) Program/Year Prog. Amount	Budget Year Item # Program Codes	Allocation Amount	
				State Federal	Total Amount
<b>2.5d.(2) Allocations for Projects with Cost Increases Greater than 120 Percent</b>				<b>Resolution FP-05-67</b>	
1 \$13,600,000 Mendocino 01N-Men-20 R33.3/R37.9	Near Calpella, from the Calpella Overcrossing to Cold Creek Bridge. Rehabilitate roadway.	297701 01-0164L SHOPP/04-05 \$8,686,000	2004-05 302-0042 302-0890 20.20.201.120	\$13,600,000 -	\$13,600,000



**Project Location**



**ACTION UPDATE**

This item was presented and discussed at the February 2006 Commission meeting. The Commissioners requested that this item be brought back at the March 2006 meeting with additional information about the detour options and the cost of traffic control.

Following the February 2006 Commission meeting, the District’s Traffic Operations, Design, Construction, and Project Management offices reviewed the Traffic Management Plan (TMP) and determined the cost of this plan could be reduced by \$464,477 (from about \$1,414,000 to about \$949,523). The cost savings resulted from reductions to the Traffic Control System, traffic control efforts, and the CHP Enhanced Enforcement items in the plan.

Route 20, which is a major lifeline for goods movement and emergency vehicles, links the I-5 corridor in the Sacramento Valley to the Route 101 corridor near Ukiah. Closing Route 20 is not a viable alternative because no other routes are available for use as a detour. The closest detour would result in an approximate 60-mile drive, utilizing Routes 29 and 175. Route 175 traverses the Maycamas Mountains, is treacherous, can have winter restrictions, and prohibits large trucks. There are no existing county roads that could provide a functional detour.

**PROJECT DESCRIPTION**

This project is located in Mendocino County near Calpella, from the North Calpella Overcrossing to Cold Creek Bridge. This project will rehabilitate the existing pavement structural section by repairing areas of severe pavement failure, followed by placement of open-graded asphalt concrete over dense-graded asphalt concrete. The scope of work also includes replacing the existing Metal Beam Guard Rail to bring them to current design standards, rehabilitating 52 existing drainage facilities within the limits of the project, and minor slide repair work. The need for this project was identified by a prior deflection study that revealed pavement distress in the form of isolated to occasional cracking throughout most of the project limits.

**FUNDING STATUS**

The project is currently programmed in the 2004 SHOPP for \$8,686,000. This request for \$13,600,000 will result in an increase of \$4,914,000 (57%) above the programmed amount. This project is scheduled for advertisement in March 2006.

**REASON FOR INCREASE**

The increase in cost is attributed to the following:

- The programmed amount (\$850,000) for all existing drainage features was based on an initial estimate for rehabilitation. Since then, drainage facilities have been identified that warrant replacement rather than just rehabilitation, resulting in a \$2,050,000 increase in drainage costs.
- The previous estimate includes \$2,699,000 for asphalt concrete (AC) overlay, digouts/ pavement preparation, remove AC dike, and place AC dike. Due to increases in the cost of fuel and natural resources, the estimate for various AC items has increased \$1,364,000 from original estimate.
- There was an increase in the Traffic Management Plan cost from \$313,000 to \$949,523. The additional cost is mainly attributed to the extremely steep terrain at many of the culvert locations making access difficult and requiring more working days and traffic control than typical rehabilitation projects.
- The previous estimate did not include Metal Beam Guard Railing (MBGR), upgrades or associated Weed Control Mat (Fiber), and there was a slight increase for erosion control cost. The cost for these items is estimated to be \$625,900.

The remaining cost increase of \$237,000 is due to other miscellaneous items.

**FUNDING OPTIONS**

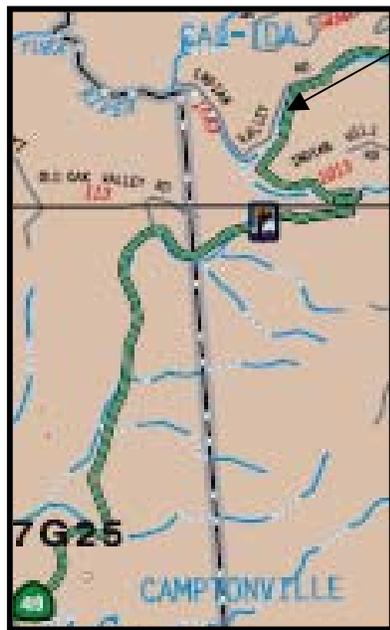
**OPTION A:** Approve this request as represented above for \$13,600,000 to allow this project to be advertised.

**OPTION B:** Deny this request and direct the Department to reduce the scope of the project to remain within the programmed amount. The only means to accomplish this would be to reduce the project limits.

**RECOMMENDED OPTION**

The Department recommends Option A.

Project # Allocation Amount County Dist-Co-Rte Postmile	Location Project Description Project Support Expenditures	EA PPNO Program/Year Prog Amount	Budget Year Item # Program Codes	Allocation Amount	
				State Federal	Total Amount
<b>2.5d.(2) Allocations for Projects with Cost Increases Greater than 120 Percent</b>				<b>Resolution FP-05-67</b>	
2 \$125,000	At various locations. Upgrade guardrail.	0E2001	2004-05 302-0042	\$125,000	-
Sierra 03N-Sie-49 L 0.7/R3.7		Minor	302-0890 20.20.201.210	-	\$125,000
		\$875,000		\$125,000	



Project Locations



**PROJECT DESCRIPTION**

This project is located in Nevada and Sierra Counties, on Route 20 from 0.2 mile to 0.5 mile east of Brunswick Road and on Route 49 from 0.6 mile north of Yuba County line to north of Yuba River. This safety improvement project proposes to remove the existing wood post supported, ungalvanized MBGR, and replacing it with steel post supported, galvanized MBGR. The end treatments will be upgraded and AC dike will be replaced or added.

**FUNDING STATUS**

The project is in the District's approved 2005-06 fiscal year Minor A Program for \$675,000 and is included on the District's list of projects approved by the Commission in July 2005 under Resolution FM-05-05. Under the Minor Delegated authority, \$875,000 is available for the project. The Engineer's Estimate is now \$1,000,000, therefore an additional \$125,000 is required. This request for \$125,000 will result in an increase of 14% above the programmed amount.

**REASON FOR INCREASE**

When the project was originally scoped at \$675,000, the Department used unit prices for MBGR on wood posts. Due to steep slopes, the need for Cast in Drilled Hole (CIDH) piles was later identified to support the metal beam guardrail. A Project Report establishing the full scope and cost of the project at \$800,000 was approved in August 2005. Due to heavy October 2005 winter storms, side slopes washed out in the project area resulting in a need for an additional 40 CIDH piles, which increased the cost by \$56,000. Also, the number of working days needed to be increased from 50 to 90, resulting in the need for a more comprehensive traffic management plan (\$147,000 increase). Additional items that contributed to the cost increase were steel (\$46,000 increase) and AC (\$33,000 increase).

**FUNDING OPTIONS**

**OPTION A:** Approve this request as represented above for \$125,000 to allow this project to be advertised.

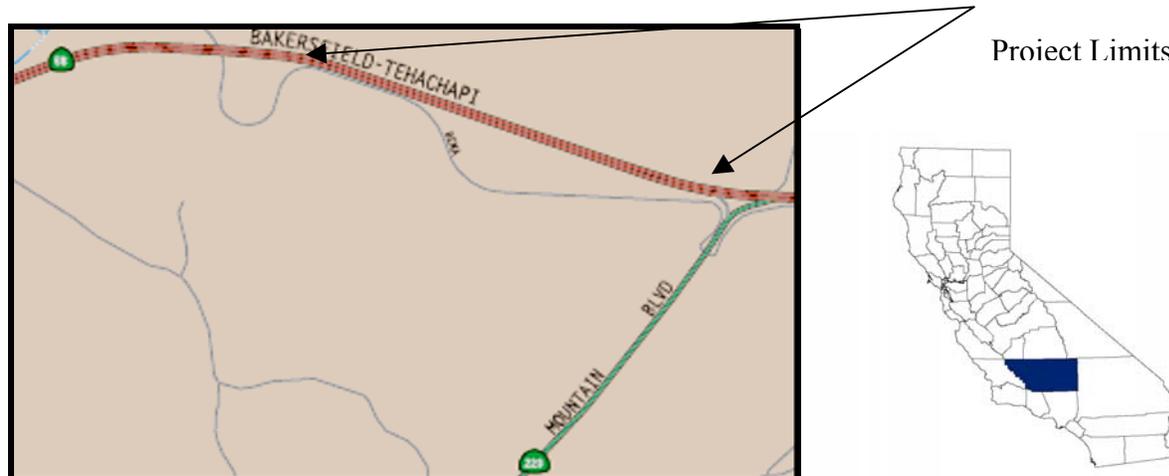
**OPTION B:** Deny this request and direct the Department to reduce the scope of the project to remain within the allocated amount. (Reducing the scope of work on this project, and executing another project to complete the deleted work later, would result in greater costs and more disruption to the traveling public.)

**OPTION C:** Deny this request and direct the Department to reprogram this project in a future funding cycle.

**RECOMMENDED OPTION**

The Department recommends Option A.

Project # Allocation Amount County Dist-Co-Rte Postmile	Location Project Description Project Support Expenditures	EA PPNO Program/Year Prog Amount	Budget Year Item # Program Codes	Allocation Amount	
				State Federal	Total Amount
<b>2.5d.(2) Allocations for Projects with Cost Increases Greater than 120 Percent</b>				<b>Resolution FP-05-67</b>	
3 \$12,351,000 Kern 06S-Ker-58 67.0/77.3	Near Woodford from Caliente Creek Bridge to Bear Mountain Ranch. Roadway rehabilitation.	463601 06-3460 SHOPP/05-06 \$8,140,000	2005-06 302-0042 302-0890 20.20.201.120	\$12,351,000 -	\$12,351,000



**PROJECT DESCRIPTION**

This project is located in Kern County, on Route 58 from 0.3 mile west of Caliente Creek Bridge to Bear Mountain Ranch. This project proposes to rehabilitate 10.3 miles of Route 58 and overlay with 2-inch Rubberized AC on both lanes and shoulders for both directions of traveled way. A safety concrete median barrier will also be constructed.

**FUNDING STATUS**

The project is currently programmed in the 2004 SHOPP for \$8,140,000 for construction in the 2005-06 fiscal year. This request for \$12,351,000 will result in an increase of 52% above the programmed amount.

**REASON FOR INCREASE**

The cost increase is primarily due to an increase in the unit price of AC and Rubberized AC (RAC). The total quantity of the AC and RAC items on the project has not changed since the Plans, Specifications and Estimate (PS&E) was completed in July 2005. Unprecedented increases in prices over the past five months have necessitated this request for an increased allocation. Recent bid prices for these items received from similar type and size projects in proximity to this project provided a basis to estimate the true costs and nature of this work.

AC and RAC related items account for \$3,523,000 of the cost increase. Mobilization accounts for \$486,000 of the increase. Additionally, the Department’s prior backwards looking estimating practices produced Engineer’s Estimates that did not reflect current market conditions, which caused the project estimate to be too low.

**FUNDING OPTIONS**

**OPTION A:** Approve this request, as represented above, for \$12,351,000 to allow this project to be advertised.

**OPTION B:** Deny this request and direct the Department to reduce the scope of the project to remain within the allocated amount. (The Department has reviewed the project scope of work and is unable to identify any options that would reduce the project cost increase to below 20 percent of the programmed amount. Any reduction of the scope of work will result in not meeting the project's purpose and need.)

**OPTION C:** Deny this request and direct the Department to reprogram this project in the future funding cycle of the SHOPP. (The Department has considered this option. However, the Department could not fully assess the impact of the delay. This option will result in further deterioration of the existing pavement to an unacceptable level; maintenance costs will continue to rise; maintenance personnel will be exposed to high volumes of traffic.)

**RECOMMENDED OPTION**

The Department recommends Option A.

Project # Allocation Amount Dist-Co-Rte Postmile	Location Project Description Project Support Expenditures	EA PPNO Program/Year Prog Amount	Budget Year Item # Program Codes	Allocation Amount State Federal Total Amount
<b>2.5d.(2) Allocations for Projects with Cost Increases Greater than 120 Percent</b>			<b>Resolution FP-05-67</b>	
4 \$22,792,000 Los Angeles 07S-LA-2 24.4/82.3	Near La Carescenta from Route 210 to the San Bernardino County line. Pavement rehabilitation.	214201 04-2790 SHOPP/05-06 \$14,292,000	2004-05 302-0042 302-0890 20.20.201.121	\$22,792,000 - \$22,792,000



Project Limits



**PROJECT DESCRIPTION**

This project is located in Los Angeles County near La Carescenta-Flintridge, from Route 210 to San Bernardino County Line (PM 24.4/82.3). This is a Capital Preventive Maintenance (CAPM) project, and it proposes to cold plane and place Rubberized AC (RAC) at various locations within the project limits.

**FUNDING STATUS**

The project is currently programmed in the 2004 SHOPP for \$14,292,000 for construction in the 2005-06 fiscal year. This request for \$22,792,000 will result in an increase of 59% above the programmed amount.

**REASON FOR INCREASE**

The cost increase is primarily due to an increase in the unit price of AC and RAC. The total quantity of the AC and RAC items on the project has not changed since the Plans, Specifications and Estimate (PS&E) was completed in October 2005. AC and RAC related items account for \$5,478,100 of the cost increase. Mobilization and Contingencies account for \$1,182,530 of the increase. Additionally, the Department's prior backwards looking estimating practices produced Engineer's Estimates that did not reflect current market conditions, which caused the project estimate to be too low.

**FUNDING OPTIONS**

**OPTION A:** Approve this request as represented above, for \$22,792,000 to allow this project to be advertised.

**OPTION B:** Deny this request and direct the Department to reduce the scope of the project to remain within the allocated amount. Reducing the scope of work would result in miles of deteriorating pavement being used by the traveling public. Another follow up project would be necessary due to the existing condition and would likely result in greater costs and more disruption to the traveling public.

**OPTION C:** Deny this request and direct the Department to reprogram this project in the future funding cycle of the SHOPP.

**RECOMMENDED OPTION**

The Department recommends Option A.

Project # Allocation Amount County Dist-Co-Rte Postmile	Location Project Description Project Support Expenditures	EA PPNO Program/Year Prog Amount	Budget Year Item # Program Codes	Allocation Amount State Federal Total Amount
<b>2.5d.(2) Allocations for Projects with Cost Increases Greater than 120 Percent</b>			<b>Resolution FP-05-67</b>	
5 \$26,084,000 San Bernardino 08S-SBd-15 20.4/R29.2	Near Devore from Sierra Avenue to north of Kenwood Avenue and on Route 215. Pavement rehabilitation.	0A4231 08-0069H SHOPP/05-06 \$21,494,000	2004-05 302-0042 302-0890 20.20.201.120	\$26,084,000 - \$26,084,000



Project Limits



**PROJECT DESCRIPTION**

This project is located in San Bernardino County near Devore, from Sierra Avenue to north of Kenwood Avenue (PM 12.7/15.8) and also on Route 215, from Devore Road to Route 15 (PM 17.3/17.8). This roadway rehabilitation project proposes to replace pavement on traveled lanes including on- and off-ramps; replace deteriorated PCC slabs; replace bridge approach slabs; and upgrade safety and drainage items such as guardrail and dikes. The project scope also includes construction of approximately two miles of new pavement and widening of Kenwood Avenue Undercrossing to improve safety by providing a smoother merge of Route 215 with Route 15.

**FUNDING STATUS**

The project is currently programmed in the 2004 SHOPP for \$21,494,000. This request for \$26,084,000 results in an increase of 21% above the programmed amount.

**REASON FOR INCREASE**

The cost increase is primarily due to the sharp increase in the unit price of the rapid set Portland Cement Concrete Pavement (PCCP). Bid prices seen in the last three months in Southern California area have ranged from \$775/m<sup>3</sup> to over \$1200/m<sup>3</sup> for PCC Rapid Set Concrete. The PCCP paving items were estimated previously in the \$200 and \$500 range for regular PCCP and Rapid Strength, respectively. The increase in this item accounts for \$1,877,185 of the cost increase. The price of AC paving has also increased from \$35-\$65/tonne to approximately \$80/tonne, for a cost increase of \$1,439,500. Additionally, the Department's prior backwards looking estimating practices produced Engineer's Estimates that did not reflect current market conditions, which caused the project estimate to be too low.

**FUNDING OPTIONS**

**OPTION A:** Approve this request as represented above for \$26,084,000 to allow this project to be advertised.

**OPTION B:** Deny this request and direct the Department to reduce the scope of the project to remain within the allocated amount. Reducing the scope of work would result in miles of deteriorating pavement being used by the traveling public. Another follow up project would be necessary due to the existing condition and would likely result in greater costs and more disruption to the traveling public.

**OPTION C:** Deny this request and direct the Department to reprogram this project in the future funding cycle of the SHOPP.

**RECOMMENDED OPTION**

The Department recommends Option A.