

Memorandum

TAB 69

To: CHAIR AND COMMISSIONERS
CALIFORNIA TRANSPORTATION COMMISSION

CTC Meeting: June 29-30, 2016

Reference No.: 4.8 – **REPLACEMENT ITEM**
Action Item

From: NORMA ORTEGA
Chief Financial Officer

Prepared by: Bruce De Terra, Chief
Division of
Transportation Programming

Subject: **AMENDMENTS TO PROJECTS IN THE 2016 SHOPP APPROVED UNDER
RESOLUTION G-16-14
RESOLUTION G-16-22, AMENDING RESOLUTION G-16-14**

RECOMMENDATION:

The California Department of Transportation (Department) recommends the California Transportation Commission (Commission) approve Resolution G-16-22 to allow the Department to correct, revised and amend projects currently programmed in 2016 State Highway Operation and Protection Program (SHOPP), which was approved at the May 2016 Commission meeting. Commission approval is required, in accordance with Senate Bill 486, which stipulates that the Commission approve any changes or new projects amended into the SHOPP.

ISSUE:

The Department recommends that the 144 programmed support components be amended in the 2016 SHOPP, as summarized in the table below and as shown in Attachment 1. The amendments noted below would be funded from 2016 SHOPP programming capacity.

Component	No.	FY 2016-17 (\$1,000s)	FY 2017-18 (\$1,000s)	FY 2018-19 (\$1,000s)	FY 2019-20 (\$1,000s)	Total (\$1,000s)
PA&ED	90	16,539	54,012	3,842	1,632	76,025
PS&E	51	26,277	17,762	971	0	45,010
RW Support	3	520	1,255	0	0	1,775
Total	144	43,336	73,029	4,813	1,632	122,810

BACKGROUND:

In each even numbered year, the Department prepares a four-year SHOPP which defines major capital improvements necessary to preserve and protect the State Highway System. Periodically, the Department amends the SHOPP to address newly identified needs prior to the next programming cycle. Between programming cycles, the Department updates scope, schedule and cost to effectively deliver projects.

Senate Bill 486, approved by Governor September 30, 2014, requires Commission approval of projects amended into the SHOPP.

Attachment

List of Support Component Amendments

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Attachment 1

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REPLACEMENT ITEM

Dist	Co	Route	PM/PM	EA	Project ID	PPNO	FY	Programmed (\$1,000s)		
								Component	Existing	Proposed
01	HUM	101	79.8/84.7	0E000	0113000091	2376	2018/19	PA&ED	1,100	1,480
<p>The National Oceanic and Atmospheric Administration (NOAA) Fisheries is requesting more Biological Assessment information than what was originally anticipated during the PA&ED phase, resulting in increased support cost.</p>										
01	LAK	29	28.5/31.6	29811	0114000043	3099	2017/18	PA&ED	500	4,000
<p>At the time the project was programmed, the Draft Environmental Document (DED) milestone had been met through a 2007 draft circulation. It was assumed that the \$500,000 programmed for PA&ED would be sufficient to finalize the environmental document. However, shortly after the project was programmed in 2014, it was determined that a partial recirculation of the DED was needed because of new information on (1) adverse impacts to three endangered plant species and (2) the elimination of vernal pool areas.</p> <p>The proposed additional support will cover the cost for this environmental effort, including updating environmental studies, public outreach, coordination, and support for Design. In addition, geotechnical investigations have been added to the PA&ED phase.</p>										
01	MEN	1	43.3/44.2	40110	0100000154	4490	2017/18	PA&ED	3,650	5,500
<p>Coordination is needed with the Department of Toxic Substances Control on Preliminary Endangerment Assessment for shallow soil and groundwater impacts resulting from leaching of wood timber treatment chemicals and bridge painting and related activities. In addition, the Department has encountered lengthy negotiations with the California Coastal Commission and Mendocino County obtaining permits to enter to gather soil samples on private property, regarding the jurisdiction boundary determination affect on the geotechnical investigation, the alternatives analysis for selection of drill sites and on the analysis of environmentally sensitive habitat areas. Also, additional staff time will be needed for responding to ongoing community opposition to bridge replacement alternatives, and numerous extensive public record requests.</p>										
01	HUM	254	6.8/42.1	40950	0100000158	2270	2017/18	PA&ED	266	513
<p>At the time the project was originally programmed, the need for environmental studies and pre-design work to analyze and reduce impacts to Giant Redwood tree roots was not anticipated. These new studies will require more PA&ED resources.</p>										
01	MEN	1	48.0/62.1	43480	0100000672	4507	2017/18	PA&ED	1,790	3,392
<p>An updated Advanced Planning Study (APS) was required on four bridge sites to analyze seismic retrofit strategy not originally addressed in initial Advance Planning Study. As a result, extensive ongoing consultation is needed with regulatory agencies on a full range of alternatives for replacement of the bridge versus bridge widening, rail upgrade and seismic retrofit. In addition, consultation with regulatory agencies on temporary and permanent impacts and mitigation requirements resulting from construction on multiple alternatives on four bridge sites will be needed.</p>										

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								Component	Existing	Proposed
01	DN	101	36.1/	43640	010000193	0100V	2016/17	PA&ED	7,000	10,942
<p>Completion of the environmental studies and consultations with resource and regulatory agencies will take longer than previously anticipated, due to the complexities involved in staging and constructing the new bridge in this sensitive environmental setting within the Coastal Zone and over the Wild and Scenic Smith River. Regulatory agencies are also asking additional unexpected questions that will require additional time and effort to answer.</p>										
01	MEN	271	17.7/18.0	0A840	0113000058	4545	2017/18	PA&ED	644	1,588
<p>Geotechnical investigations have been completed and the preliminary structures design has begun in the PA&ED phase to expedite overall project delivery timeline. However, more extensive environmental analyses are being required by the regulatory agencies than originally expected when project was programmed. Task Order memos are being developed to identify bat species, conduct paleontological review and evaluate wetland conditions in compliance with the regulatory agencies.</p>										
01	MEN	162	16.1	0B550	0112000137	4555	2016/17	PS&E	1,485	1,865
<p>The magnitude of the landslide at the project site was larger and more complex than originally anticipated earlier during project development. These site characteristics identified later contributed to additional Design support resources being required as this storm damage project evolved.</p>										
01	MEN	253	1.5/1.8	0B560	0112000138	4556	2016/17	PA&ED	59	319
<p>The identification of Naturally Occurring Asbestos at the project location required additional design and environmental consideration and resources than originally anticipated. The area and magnitude of the landslide was also more extensive than initially anticipated and as a result, required more technical studies to be performed. These additional studies, in combination with the remote location, resulted in higher support costs. In addition, once wetland areas were delineated, additional design adjustments were made to avoid them.</p>										
01	MEN	253	1.5/1.8	0B560	0112000138	4556	2016/17	PS&E	177	1,320
<p>The identification of Naturally Occurring Asbestos at the project location required additional geotechnical, design, structural design and environmental resources than originally anticipated. The area and magnitude of the landslides were also more extensive than initially anticipated and as a result, required additional resources for delivery of this storm damage project.</p>										
01	DN	199	33.4	0C470	0112000287	1094	2017/18	PA&ED	158	864
<p>Additional PA&ED resources are required due to the need for additional environmental analysis and pre-design work needed to deal with water supply issues and the need for a new power source; issues that were not known (or accounted for in support resources) at the time of programming. It is now known that a domestic water use permit will need to be obtained, which will require additional resources as well.</p>										

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Dist	Co	Route	PM/PM	EA	Project ID	PPNO	FY	Programmed (\$1,000s)		
								Component	Existing	Proposed
02	PLU	70	11.5/11.9	0H450	0215000017	3578	2017/18	PA&ED	360	690
<p>The risk plan identified a "risk" regarding a rock wall that needed to be removed as it could be considered historical and would require significantly more time for State Historic Preservation Officer coordination. To keep this safety project on schedule, the project team decided to avoid this historical resource by realigning the roadway away from it. In order to avoid this particular wall, the project will require a new wall and support resources for geotechnical drilling and evaluations. Additional support resources are needed to provide an elevated environmental document, based on coordination with the Department of Fish and Wildlife regarding permits required for drainage system work.</p>										
02	LAS	36	6.1/14.3	4E460	0200020287	3468	2017/18	PA&ED	1,100	1,650
<p>Archeological artifacts were discovered within the project limits requiring additional environmental studies.</p>										
02	MOD	299	/	4F210	0212000072	3484	2017/18	PA&ED	610	1,820
<p>Additional environmental resources are needed to investigate for hazardous soils, the proximity of a historic building near the project location, a new local Fire Station ingress and egress needing modification, archeology evaluations, flood plane impacts, and impacts of the project to a public park. In addition, it was assumed that geotechnical drilling would be performed by state staff. However, due to a lack of available drill rigs, the geotechnical drilling must be contracted out at a higher cost.</p>										
02	LAS	36	7.2/7.4	4F560	0213000006	3512	2017/18	PA&ED	600	1,500
<p>Archeological artifacts were discovered within the projects limits. Hydraulic studies are requiring additional preliminary design, surveys and environmental efforts in order to address backwater conditions.</p>										
02	TEH	5	R25.4/	4F590	0213000010	3515	2019/20	PA&ED	1,105	1,592
<p>Additional resources are required to prepare a higher level environmental document than originally planned. Additional costs will be incurred due to the use of consultants for the environmental services.</p>										
02	SIS	263	57.1/	2E480	0200000586	3424	2017/18	PA&ED	1,800	2,700
<p>Design, Geotech, and Structure efforts shifted from the PS&E phase to the PA&ED phase to provide information needed for the environmental document. In addition the design change from a box girder structure to an arch type structure reduces the environmental impacts but increases the design cost of the project.</p>										
02	SIS	96	23.2/56.0	4C150	0213000132	3314	2017/18	PA&ED	500	1,200
<p>A budget increase is needed to negotiate the mitigation required by resource agencies. As the project limits are within the Tribal Lands of the Karuk Tribe, cultural studies will be necessary at each location. The cultural studies will be performed by consultants, which was not anticipated at the time of programming, adding additional costs for the PA&ED phase.</p>										

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02	TRI	VAR	VAR	4G250	0213000094	3536	2017/18	PA&ED	540	800
Six culverts will be replaced utilizing trenchless technology. Newly written guidelines require geotechnical borings at these locations to characterize the soil properties adequately for both proper selection of culvert material and to provide adequate information in the contract regarding soil properties. These guidelines were not in place when the project was programmed, therefore, geotechnical drilling was not resourced in the initial work plan.										
02	SHA	299	7.6/18.3	3E740	0200020160	3456	2019/20	PA&ED	3,480	4,200
As the number of potential archeological and biological impacts have significantly increased, additional biological and archeological consultants are needed to perform environmental studies.										
02	PLU	70	14.9	1C750	0200000080	3208	2016/17	PS&E	1,460	1,820
Due to unforeseen PG&E and Federal Energy Regulatory Commission requirements consisting of: redesign of temporary construction access, redesign of permanent rock slope protection, and changes in construction staging, all to reduce the impact to power generation operations, additional design efforts are needed.										
02	TRI	36	26.7/27.1	4F860	0213000043	3526	2017/18	PA&ED	970	1,420
Foundation drilling and geotechnical support are being performed during PA&ED instead of PS&E in an effort to reduce risks.										
03	YOL	80	2.4/R11.3	1F230	0300001109	6701	2018/19	PA&ED	100	734
This project began in 2010, was shelved, then re-programmed in 2014 with the assumption that only a revalidation of the previously completed environmental document was required. However, the scope of work and locations changed, due to ramp meter policy changes and other projects absorbing ramp meter locations. The ramp meter policy in effect in July 2010 did not require that an additional lane be provided for high-occupancy vehicles as it does today. The need to widen all proposed ramp locations per the current ramp meter policy has resulted in an increase in support costs.										
03	SAC	160	20.9/	3F090	0312000056	5832	2017/18	PA&ED	405	4,381
The initial resource estimate was based on planning level work with no information about the true seismic vulnerability of the structures. An assessment of resource needs has been made with the new scope. However, additional studies, including geotechnical drilling, were required before the scope could be determined; drilling requirements resulted in additional effort to obtain right of entry and geotechnical drilling permits. Training for geotechnical drillers and acquiring a specialist with required license to drill in Sacramento and San Joaquin Counties also contributed to the increased cost.										
03	SAC	99	4.9/	3F540	0313000136	6916	2017/18	PA&ED	298	872
An increase to PA&ED is needed to develop bridge replacement alternative at Lagoon Creek Bridges.										
03	NEV	80	19.0/19.4	3F920	0313000239	4296	2018/19	PA&ED	0	801
This project started as a minor project, but design changes have increased costs such that it needs to be programmed as a major project.										

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03	NEV	80	19.0/19.4	3F920	0313000239	4296	2018/19	PS&E	100	416
This project started as a minor project, but design changes have increased costs such that it needs to be programmed as a major project.										
04	ALA	80	/	01411	0414000436	0064Q	2016/17	PS&E	1,500	5,000
The PS&E increase is due to unanticipated design changes due to conflicts with a water transmission line, a lengthy Fire Marshall review process, and new software modelling techniques.										
04	ALA	84	13.0/13.6	16030	0400000429	0084B	2017/18	PA&ED	4,000	6,500
Due to extensive comments and concerns raised by the public, and upon review of project history in the corridor and extensive comments on the draft EIR/CE, it was recommended in May 2015 that the document be elevated from the previous EIR/CE to an EIR/EA and recirculated for public review.										
04	ALA	84	13.0/13.6	16030	0400000429	0084B	2017/18	PS&E	5,000	6,000
An increase is needed due to additional design effort to mitigate environmental impacts (such as the provision of bat habitat in the bridge soffit), and to implement staging to minimize construction impacts. In addition, labor rates have increased as a result of a delay in the PA&ED schedule.										
04	SON	1	15.1/15.8	0A020	0400000129	0748E	2017/18	PA&ED	6,500	8,000
Additional support was not originally accounted for: 1. Piezometers to measure the ground water elevation to assess impacts to wetlands that feeds to wells that supply water to residences in the area; 2. Geotechnical investigations to finalize the selection of the preferred alternative; 3. Additional Public Informational meeting as requested by the community and local stakeholders; and 4. Additional coordination with Coastal Commission, Coastal Conservancy, Sonoma County to address their comments on the EIR/EA										
04	SOL	84	12.1/12.2	0G660	0400000343	0886	2018/19	PA&ED	1,836	3,000
The additional cost is related to consultations with the resource agencies, technical assessments needed that include value analysis, a sea level rise study and bathymetric survey, additional analysis and modification of multiple alternatives, and Advance Planning Study revisions.										
04	SF	1	6.0/	1A905	0414000340	1067C	2017/18	PA&ED	650	1,020
The increase is due to renegotiation with the San Francisco Public Utilities Commission to deviate from the original connection fee agreement, and for combining the NEPA/CEQA document with the Presidio Trust.										
04	SM	82	13.7/	1G020	0400002011	0686	2016/17	PA&ED	846	2,900
The City of Burlingame requested an 18-month operational pilot study to temporarily prohibit left turns from southbound CA-82 (El Camino Real) to eastbound Floribunda Avenue before Caltrans proceeds with finalizing PA&ED. The 18-month operations pilot study is in response to significant public comments following circulation of the DED. The cost increased to implement pilot study, review and update previous PA&ED studies, prepare supplemental reports, and modify and recirculate DED if a new alternative is proposed.										

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04	SON	116	26.6/26.9	1G840	0400020616	0730E	2017/18	PS&E	660	750
Additional support cost is needed for community outreach and public informational meeting requested by the City's commerce department to inform downtown businesses and local consumers about the project and impacts during construction.										
04	SON	116	26.6/26.9	1G840	0400020616	0730E	2017/18	RW Sup	140	590
The programmed amount is not sufficient to acquire the needed 21 parcels from business owners, and to coordinate with four different utility companies										
04	SON	1	22.5/	1J750	0414000348	1481A	2017/18	PA&ED	280	551
Additional support cost is needed for coordination with the Department of Parks and Recreation, Coastal Commission, and Sonoma County that was not originally anticipated. In addition, an unanticipated task order for a biologist is now required.										
04	MRN	1	2.2/	1S558	0412000635	0312T	2016/17	PS&E	400	1,300
The project was redesigned to replace the concrete barrier with a metal beam guardrail to avoid conflict with a proposed drainage system. The change required rework of retaining wall foundation design.										
04	SON	1	24.3/24.4	2J540	0414000527	1485P	2017/18	PA&ED	780	1,200
Additional support cost is needed for coordination with the Department of Parks and Recreation, Coastal Commission, and Sonoma County that was not originally anticipated. In addition, an unanticipated task order for a biologist is now required.										
04	NAP	121	20.5/20.7	2J570	0414000530	1485Q	2017/18	PA&ED	372	600
Additional design effort and field visits are required to minimize the environmental impacts and costs due to construction operations, staging, and need for access road.										
04	CC	4	48.1/48.3	2J590	0414000535	1484C	2017/18	PA&ED	334	894
PA&ED was not adequately budgeted to evaluate the four alternatives identified.										
04	SF	101	2.0/	3G620	0412000141	0587D	2017/18	PA&ED	2,400	4,000
More effort was needed for additional alternatives, traffic studies and Advance Planning Study to minimize traffic impacts at the critical 101/280 Junction in San Francisco. Consultants & construction experts were employed to review design alternatives, constructability, and schedules.										
04	SCL	9	4.9/	3G630	0412000409	0386F	2017/18	PA&ED	1,200	2,800
Since Saratoga Creek Bridge is over a 100 years old and eligible for National Register of Historic Places and California Register of Historical Resources, the two alternatives in the Project Initiation Document have been expanded to six to address potential impacts to natural features of the area, local businesses, adjacent properties, nearby communities, City of Saratoga and Saratoga Spring Picnic Resort.										
04	SF	1	R0.0/R6.9	4C130	0400001180	0585E	2017/18	PA&ED	294	800
Due to partnering efforts and negotiations with the City and County of San Francisco, the project scope has changed numerous times, resulting in an increase in support costs.										

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04	ALA	80	4.6/5.7	4G230	0412000357	1003J	2016/17	PA&ED	122	343
The project was originally programmed with support estimates on the low end considering the complexity and scope of the project at time of programming. The increase is due to additional field reviews, environmental studies, and addressing community concerns now needed for the project.										
04	SON	116	31.0/31.3	4G380	0412000463	0817Q	2017/18	PA&ED	720	1,197
The increase is due to a design change from a culvert replacement to constructing a single span bridge over a creek. Therefore, additional environmental studies are needed for the new bridge.										
04	SOL	12	19.2/	4G560	0412000504	8060A	2017/18	PA&ED	594	1,174
The additional support cost is due to environmental field surveys now required and staff learning new roundabout design software.										
04	SM	1	4.2/4.4	4G650	0412000624	0045Q	2016/17	PA&ED	700	1,200
The additional support cost is due to an effort to consider adding high priority fish passage locations into the scope and evaluating alternatives.										
04	SCL	101	17.8/41.1	4G950	0413000235	0086X	2016/17	PS&E	310	1,721
Increase in PS&E support is due to differing site conditions, additional surveys & potholing.										
04	SOL	80	1.1/R25.1	4G960	0413000147	0481C	2016/17	PS&E	450	866
The project's delivery was accelerated by two years. Advancing the project required additional resources from the various functional units. Additional surveys were also needed to prepare drainage design and grading plans for the gore areas. Also, the Project Initiation Document (PID) did not identify the need for detours.										
04	CC	4	0.0/T31.5	4G980	0413000122	0481D	2016/17	PA&ED	330	950
The project team determined that the Project Initiation Document did not account for additional efforts to prepare preliminary plans, a more detailed storm water data report, extensive field site investigations at each of the maintenance vehicle pullout (MVP) and gore locations, and coordination with maintenance staff to relocate several MVP locations to avoid impacts to environmentally sensitive areas. Additional work was also not considered in the PID, which include the preparation of a Biological Assessment (BA) to be submitted to the U.S. fish and Wildlife Service (USFWS), since half of the project is located within close proximity to occurrences of endangered species.										
04	SON	12	25.8/33.3	4H050	0413000080	0269M	2017/18	PA&ED	1,000	1,519
The resource agency rejected the placement of rock slope protection along a creek. Therefore, additional support costs are needed to prepare new design strategy, gather additional survey information 400 feet upstream and downstream along creek.										
04	NAP	29	13.5/25.5	4H200	0413000258	0378E	2016/17	PA&ED	510	1,500
There are sensitive historic and prehistoric cultural resources within the project limits which need to be studied and evaluated and were not accounted for in the Project Initiation Document.										
04	SM	1	37.9/R48.0	4H210	0413000140	0636S	2016/17	PA&ED	500	1,400
Due to discovery of protected species, additional support is needed for environmental studies.										

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04	ALA	580	R41.4/R41.5	4H260	0413000123	0133H	2016/17	PS&E	462	1,060
Additional support is needed to address the City of Oakland's review comments of the PS&E package, which is 65% complete, and to perform design modifications, resolve utility conflicts, and revise the traffic control plans based on those comments.										
04	ALA	880	11.9/27.5	4H580	0413000162	0483W	2016/17	PS&E	2,700	5,200
This Project requires additional field inspections in response to lessons learned on other guardrail and curb ramp projects in the area to minimize utility and other conflicts during construction. Also, there is an increase due to scope refinement and coordination with other projects.										
04	SCL	152	6.1/R35.2	4H860	0413000292	0487N	2016/17	PA&ED	108	457
The original programmed PA&ED budget was significantly underestimated for the project limits that extend over 26 miles on a highly sensitive environmental corridor. The cost increase was due to additional environmental studies.										
05	MON	101	62.1/63.2	0F970	0513000017	9700	2017/18	PS&E	1,416	2,006
The cost increase was due to complicated Union Pacific Transport Company (UPTC) negotiations.										
05	SLO	1	32.6/32.6	0L721	0515000097	0072	2017/18	PA&ED	972	1,424
Technical studies, including archaeological site testing, required more effort than originally scoped.										
05	SLO	1	34.5/	0L722	0515000098	0072A	2017/18	PA&ED	972	1,399
Technical studies, including archaeological site testing, required more effort than originally scoped.										
05	SLO	58	3.1/	0L723	0515000099	0072B	2017/18	PA&ED	973	1,419
Technical studies will require more effort than expected. Also, there was difficulty getting rights of entry onto ranch property within the project location.										
05	MON	68	L4.0/R18.1	0N190	0513000142	4019	2016/17	PS&E	480	787
The cost increase is due to numerous field visits and design adjustments now requested due to the type of work and number of locations of the project.										
05	SCR	1	10.2/17.5	1C850	0512000240	2432	2017/18	PA&ED	147	606
Forty-seven curb ramps were loosely scoped in the Project Initiation Document. However, additional field surveys and detailed design hours are now required to determine the environmental impacts and Right of Way requirements.										
06	FRE	168	R0.0/R11.7	0E350	0612000136	1772	2016/17	PS&E	411	830
Additional work was added to the scope, that includes relocating 13 controller cabinets that are presently located in the gore areas to the top of the ramps, as well as fiber optic cabling and communication conduits.										
06	TUL	201	/	0H200	0612000157	6521	2016/17	PS&E	2,905	3,900
An updated estimate was needed to provide resources for additional specialty units that were not initially programmed. Also, the project design has been refined to address concerns from contested property owners.										

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06	KER	155	1.5/	0P290	0612000106	6636	2016/17	PS&E	722	1,100
<p>Due to the complexity of the project, PS&E is projected to overrun the programmed budget. The project proposes a roundabout, which is a relatively new concept in the district. Therefore, additional resources were needed to get the project staff educated on the roundabout design features. Furthermore the design of the roundabout went through many iterations before it was acceptable to reviewers.</p>										
06	KER	58	R55.4/R59.7	0S470	0615000048	6730	2016/17	PA&ED	616	966
<p>Due to an environmental change of scope, from having to obtain a Letter of Concurrence from USFWS to needing formal consultation and a Draft Environmental Document and Draft Project Report for the project, the PA&ED support cost increased.</p>										
06	MAD	41	36.3/40.8	0R160	0614000043	6716	2017/18	PA&ED	397	600
<p>Due to the need to prepare right of way engineering mapping, in this component as opposed to PS&E, to keep the project on schedule, the PA&ED support cost increased.</p>										
06	TUL	198	R11.7/R19.7	0S340	0614000114	3034	2016/17	PS&E	1,040	1,525
<p>After a field review with Maintenance staff, additional work was added to the scope that includes drainage in the median, inside shoulder widening and cross-slope correction. Also, additional surveys are now required to incorporate the new scope.</p>										
07	LA	1	1.0/	27540	0700000520	4165	2017/18	PA&ED	1,075	3,438
<p>The PAED support increase is due to the additional review needed to select the appropriate alternative. Since the existing bridge was originally constructed 60 years ago, the project team will need to extensively explore the alternatives of either retrofitting or replacing the bridge. Additional studies now include the necessary utility relocation alternatives, the impact from the expected mean sea level rise and other environmental studies for the alternatives. A value analysis and a life cycle analysis are needed to evaluate the alternatives and help determine which alternative is more beneficial and cost effective. The bridge service loading, seismic displacement and liquefaction will also be investigated to assist in selecting an alternative.</p>										
07	LA	1	7.7/9.2	28670	0700020923	4387	2016/17	PS&E	5,000	6,101
<p>The support increase is due to proposed locations being added and deleted based on field conditions at each location.</p>										
07	LA	19	4.0/8.4	28990	0712000015	4485	2016/17	PA&ED	300	836
<p>The support increase is due to a scope change and inclusion of utility relocations for upgrading curb ramps and sidewalks. The Project Initiation Document did not anticipate any relocation of utilities.</p>										
07	LA	101	30.9/38.1	29110	0712000068	4493	2016/17	PA&ED	200	616
<p>The increase in PA&ED support cost is due to surveys, utilities, and electrical work which were determined to be needed and were not originally anticipated in the Project Initiation Document. This project has 36 locations and many of them are far and scattered on Route 101 in Los Angeles and Ventura Counties, which contributed to higher survey and design cost. Also the relocation of electrical boxes, cabinets, traffic signal poles, street lighting poles, and upgrading of push-buttons required more utility and electrical design resources than originally planned.</p>										

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								Component	Existing	Proposed
07	VEN	33	7.6/	29130	0712000083	4496	2016/17	PA&ED	250	1,640
<p>The support cost has increased due to the very environmentally sensitive nature of the project. The Environmental Planning team, based on resource agency requirements, has requested 65% of the design details during the environmental phase in order to be able to conduct their work. In addition, some right of way support activities are needed to obtain the necessary permits to allow the Geotechnical team to conduct investigations and foundation recommendations.</p>										
07	LA	1	56.5/56.9	29140	0712000094	4498	2017/18	PA&ED	738	2,342
<p>During the PA&ED phase, a longer bridge alternative was introduced to the environmental studies to address the risk that the Coastal Commission may require a longer bridge to accommodate fish passage and restoration of the lagoon next to the bridge.</p>										
07	LA	5	25.7/	29230	0712000109	4505	2016/17	PA&ED	140	1,100
<p>The cost increase is due to the complexity of environmental permits, a bike detour, and studying the possibility of closing the ramp during construction.</p>										
07	LA	5	16.1/17.0	29640	0713000031	4594	2016/17	PS&E	699	1,540
<p>Specific locations were not identified in the Project Initiation Document. However, during the design phase, the identification of specific locations during the design phase required multiple field reviews, extensive as-built plan research, utility impact assessment, and safety coordination. The identified locations will also require additional effort by electrical design staff that was not accounted for in the original estimate.</p>										
07	LA	10	R14.0/19.0	29660	0713000057	4599	2016/17	RW Sup	30	550
<p>The support cost increase is due to coordination with a number of different railroad lines and the acquisition of a number of different parcels. The proposal to install catwalks to better accommodate Maintenance staff may require new agreements with the railroad companies to be prepared. There is also a possibility that the right of way acquisitions may involve the condemnation process. The proposed painting work will also require set-up areas which will affect various parking facilities located beneath the structure to be painted.</p>										
07	LA	110	23.6/30.0	29750	0713000194	4617	2016/17	PA&ED	363	897
<p>The original programmed support cost was based on having a Categorical Exemption for Environmental Clearance. However, because this project is located in a historical area, an Environmental Impact Statement or Environmental Assessment Report EIS/EA is now necessary.</p>										
07	LA	1	3.5/	29910	0713000302	4632	2016/17	PA&ED	89	478
<p>The Los Alamitos Traffic Circle has been identified as a potential historic property, which requires a thorough study to be in compliance with Section 106 of the National Historic Preservation Act. Reports are required on both the built environment and archaeology of the traffic circle. After preliminary background research, it was found that the traffic circle is potentially historically significant, as one of the first traffic circles (if not the first) built in the state. The Traffic Circle will likely be eligible for listing in the National Register of Historic Places, which means potential effects of the project to the historic property must be considered.</p>										
07	LA	60	R3.2/11.8	30110	0714000009	4699	2017/18	PA&ED	75	1,173
<p>Work that would typically be done during the PS&E phase was done during the PA&ED phase.</p>										

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07	LA	60	R3.2/11.8	30110	0714000009	4699	2017/18	PS&E	5,105	7,751
The original estimate assumed existing survey data could be used. Upon further investigation, it was determined that the old survey data was incomplete and inadequate. Therefore, new surveys are required. In addition, the original estimate did not account for right of way impacts related to curb ramps.										
07	LA	10	2.1/18.4	30150	0714000020	4700	2017/18	PS&E	2,387	7,462
Additional field work is required to perform surveys, coordinate right of way needs and to address utility conflicts.										
07	LA	187	3.5/8.9	30300	0713000493	4691	2017/18	PS&E	700	3,631
In the Project Initiation Document, 150 curb ramps were identified. However, during the PS&E phase, a thorough review was done and identified an additional 137 curb ramps. Also, it was determine that there would be a need for right of way acquisition and utility relocations.										
07	LA	138	46.7/50.0	30740	0714000219	4769	2017/18	PS&E	828	1,329
The project proposes to include deferred pavement work and to upgrade the existing nonstandard curb ramps to meet the current standards. In addition the Project Initiation Document underestimated the workload involved in utility investigations, field surveys, research of existing right of way, and drainage systems modifications.										
07	LA	605	R15.5/R19.5	30770	0714000221	4772	2016/17	PS&E	164	637
The project was programmed with limited field data and the assumption that utility conflicts and right of way requirements would be minimal. During the PS&E phase it was determined that utility conflicts and right of way requirements will be significant.										
07	LA	14	R25.5/R35.0	31230	0715000063	4833	2017/18	PA&ED	270	1,310
The project was programmed with limited field data. Additional resources and needed to perform field surveys and inspections at each of location.										
07	LA	5	R81.8/R87.8	31250	0715000065	4835	2017/18	PA&ED	900	1,545
The original proposal to construct bioswales at most locations is not feasible due to the non-existence of irrigation lines at those locations. Therefore, alternate solutions like biofiltration trenches are currently being considered instead of bioswales. This change in design has increased the cost of geotechnical work because more drilling is involved in the design of the biofiltration trenches at each location. Also the Hazardous Waste support cost has increased due to this change.										
07	LA	5	R75.0/R81.8	31260	0715000067	4836	2017/18	PA&ED	950	1,498
The original proposal to construct bioswales at most locations is not feasible due to the non-existence of irrigation lines at those locations. Therefore, alternate solutions like biofiltration trenches are currently being considered instead of bioswales. This change in design has increased the cost of geotechnical work because more drilling is involved in the design of the biofiltration trenches at each location. Also the Hazardous Waste support cost has increased due to this change.										
07	LA	14	35.0/R53.5	31280	0715000069	4838	2017/18	PA&ED	240	1,310
The project was programmed with limited field data. Additional resources and needed to perform field surveys and inspections at each of location.										

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07	LA	110	R0.8/24.1	3009U	0714000238	4681	2016/17	PA&ED	550	1,439
<p>The support cost increased due to additional storm water treatment locations needed and having to produce a full fledged Storm Water Pollution Prevention Plan instead of a Short Form that had been planned based on the original scope of work.</p>										
08	RIV	74	17.5/25.7	1E070	0813000141	0054K	2016/17	PA&ED	295	584
<p>The existing as-built topography had to be merged with the design "as-built" plans (i.e. roadway, contour, pavement delineation, etc.) to generate the base map topography for design. The decision to proceed with this option was to avoid requesting a full survey data, which will delay the schedule substantially. In addition, some of the work that is traditionally done in the PS&E phase is being done in the PA&ED phase.</p>										
08	SBD	60	0.9/2.9	0F030	0800020358	0033E	2017/18	PA&ED	1,013	2,243
<p>The environmental document was originally anticipated as an IS/CE, but is now an IS/EA. As a result, additional resources will be used in the PA&ED phase to also do design work.</p>										
08	SBD	10	R36.9/R39.1	0K293	0812000100	0163C	2017/18	PS&E	1,246	2,290
<p>During the design phase, a decision was made to change the strategy for this rehabilitation project. It is no longer a crack seal and overlay project, instead the number 2 and 3 lanes in the westbound direction will be replaced. Therefore, additional resources for design work is needed.</p>										
08	RIV	60	R6.9/R12.2	0Q753	0812000108	0038K	2017/18	PA&ED	215	849
<p>Additional curb ramps have been added to the project scope, which requires additional design work, as well as the identification of right of way requirements, utility conflicts, and environmental impacts.</p>										
08	RIV	111	47.3/55.3	0R300	0812000056	0105C	2017/18	PA&ED	662	1,657
<p>For this ADA project, the survey work has been much more complicated than anticipated. There are 117 curb ramps, 97 drive ways and 400 feet of sidewalk scattered over a 5 mile stretch. Much of the alignment information within the project limits could only be obtained from City archives. It has been a very tedious and time consuming task for the survey team and these additional resources were not planned nor anticipated.</p>										
08	SBD	62	41.0/41.5	1E610	0814000055	0225K	2017/18	PA&ED	690	1,117
<p>The Project Initiation Document workplan did not take into account the unforeseen issues listed below: 1) Additional resources needed to consult with Bureau of Land Management so they can review and approve the Environmental Document and approve the modification of Right of Way Prescriptive Rights Agreement; 2) The Initial Site Assessment (ISA) was conducted and recommended additional site investigation for further details on soil contamination. This additional work will be conducted by a consultant; therefore, additional funds are now needed; and 3) The initial survey request asked for 20 feet from the edge of the pavement to be surveyed. However, the Project Engineer discovered that due to the steep slope, 30 feet from the edge of the pavement is now needed. This required sending a survey crew to the project location again, which required additional resources.</p>										

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09	INY	168	/	35210	0900020090	0611	2017/18	PA&ED	287	643
<p>The reason for the increase was due to delays in PA&ED because of unanticipated non-resourced historic surveys that were required as part of the environmental process. Surveying work was also underestimated and included consultants to complete. PA&ED was also delayed for unanticipated and non-resourced historic surveys, resulting in higher hourly rates.</p>										
10	STA	108	33.2/	0H480	1012000193	5411	2018/19	PS&E	1,019	1,439
<p>The project was initiated in the Minor program. However, due to project cost increase, it has been subsequently programmed in the SHOPP. The site needs to be re-surveyed and re-assessed by Geotechnical, Structures Design, and Environmental branches. Consequently, support cost will increase. Moreover, existing metal beam guard rail needs to be replaced and temporary construction easements may need to be acquired.</p>										
10	SJ	VAR	/	0P550	1012000055	0338	2017/18	PA&ED	900	1,224
<p>The increase in PA&ED cost is due to a scope change.</p>										
10	SJ	VAR	/	0P550	1012000055	0338	2017/18	PS&E	2,000	3,928
<p>The increase in PS&E cost is due to a scope change.</p>										
10	MER	5	0.4/0.9	0W620	1012000020	3008	2017/18	PA&ED	121	362
<p>The recommended alternative for this project is to build a recycle wastewater treatment system similar to the pilot wastewater system currently under construction at the Dunnigan rest area in District 3. The Project Report identified the need and recommended the wastewater system at this rest area be similar to the Dunnigan rest area.</p>										
10	STA	5	27.0/27.5	0W630	1012000021	3009	2016/17	PS&E	592	854
<p>The increase in support cost for PS&E phase is due to the unforeseen complexity in design work when the programming document was developed, and the issues associated with the need to address the electric supply.</p>										
10	SJ	12	14.9/18.1	0Y550	1013000239	3079	2016/17	PS&E	150	495
<p>Support cost increased in PS&E because the initial estimate did not include several key team members who have since been added to the estimate.</p>										
10	STA	99	R0.0/R24.8	1C290	1014000108	3088	2017/18	PA&ED	765	1,224
<p>The Project Initiation Document underestimated the amount of effort involved in designing 90 plus curb ramps. The added staff hours will allow for the proper design and review of each of these locations along with the on- and off-ramp work.</p>										
12	ORA	90	0.61/7.95	0M910	1213000036	4317	2016/17	PS&E	2,605	3,126
<p>Unanticipated Aerially Deposited Lead (ADL) testing is needed along the project limits at 91 locations (36 curb ramps and 55 driveways). Permits to Enter are required for access to most of these properties to obtain the ADL samples. Additional coordination with cities and business owners will be required to minimize interruption during business hours for ADL testing and coordination for the future construction of the project. Unforeseen special inlet design adjacent to driveways, and relocation of many additional utilities such as fire hydrants, electrical poles and utility vaults are also required. In addition, some of the driveways require special design pavers to match existing at adjacent business districts and others require additional unanticipated work due to adjacent steep slopes to match adjacent business properties.</p>										

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01	HUM	101	27.7/53.9	0A110	0112000211	2301	2017/18	PA&ED	1,198	1,625
<p>One of the three bridge locations identified for seismic retrofit is now being considered for a bridge replacement. The studies required to determine if a retrofit can be completed without a replacement have resulted in more expenditures in this phase. The team is now also investigating the historical designation of the bridge.</p>										
01	VAR	101	3.7/39.8	0C590	0113000013	7011	2016/17	PS&E	415	670
<p>This guardrail upgrade project involves multiple highways and counties. Varying regulatory jurisdictions will require more technical study coordination than originally estimated, which will result in more field visits over widespread locations. This has also increased the amount of mapping required for the permit applications.</p>										
01	MEN	101	20/45.9	0C430	0112000293	4572	2016/17	PS&E	299	550
<p>Two high risk utilities have been identified that have potential to be in conflict with the improvements. Potholing will be required within a creek in order to positively identify the high risk utilities. This effort will require more mapping and environmental clearances.</p>										
01	MEN	1	42.4/43.3	40140	0100000155	4491	2017/18	PA&ED	4,525	5,800
<p>More detailed analysis of biological, wetland, and hazardous materials impacts is required for California Coastal Commission, Army Corps of Engineers, California Water Quality Control Board and California Fish and Wildlife than originally anticipated in earlier estimates.</p>										
01	HUM	101	110.6/113.8	0B420	0112000126	2340	2016/17	PS&E	1,020	1,500
<p>The original mitigation strategy was to purchase mitigation credits under a mitigation bank developed by a separate project. After the PA&ED phase was completed, it was discovered that the proposed mitigation site did not have sufficient capacity. A new mitigation strategy is under development and involves additional unforeseen work at two locations. Additional support funds are needed for an increased effort in development of the mitigation package.</p>										
02	LAS	36	22.4/R29.4	4F990	0213000057	3529	2016/17	PA&ED	450	1,400
<p>The Project Initiation Document assumed that 45 of the 90 existing curb ramps were compliant. It was later determined that all 90 of the existing curb ramps need to be upgraded to meet current ADA standards. This resulted in a need for additional resources to avoid impacts to historical buildings and minimize the number of affected parcels. A Complete Streets analysis evaluated options, including utilizing bulb-outs requested by the City of Susanville, potential modification of lane configurations, improving bike lanes, and pedestrian movements. In addition, a traffic study was needed as part of the analysis.</p>										

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03	YUB	20	18.2/20.2	3F510	0313000020	9590	2017/18	PA&ED	3,800	4,700
<p>Due to the lack of survey data during the project initiation phase, a low resolution digital elevation model was used to estimate the length of the proposed bridge at 350 feet, which meant that the planned truck climbing lane would end before the bridge. After detailed studies conducted during the PA&ED phase, it was determined that the bridge needs to be 750 feet long. In addition, the traffic operations study performed during the PA&ED phase requires the truck climbing lane to be extended across the bridge. These changes resulted in analyzing more alternatives than anticipated. While performing the cultural resources excavations, numerous unexpected cultural resource artifacts were found at several locations. These findings will require more effort than anticipated for staff to analyze and catalog the artifacts, prepare associated reports, obtain concurrence from the State Historic Preservation Officer, and finalize technical studies. As a result, additional PA&ED support is needed.</p>										
03	PLA	80	41.4/42.2	3F480	0313000017	5103	2016/17	PS&E	430	730
<p>The project proposed to replace the existing onsite wastewater treatment system with a 3-pond facultative treatment system. It was assumed that the 3-pond system would be created by digging into the existing ground. After geotechnical evaluation of the site, it was found that the site consists of both shallow bedrock and high groundwater, which necessitated a change to the planned design concept. The pond design is being modified so that it is built entirely above ground. Additional resources are needed for the geotechnical effort and the change in design concept.</p>										
03	ED	50	67.3/67.3	3F530	0313000135	3304	2017/18	PA&ED	624	2,000
<p>Due to the project location near the City of South Lake Tahoe and the potential impact to Lake Tahoe tourism during construction, a Community Impact Analysis (CIA) is required to complete the environmental document. The CIA was not anticipated, and requires a technical study titled Economic Impacts Due to Traffic Detours. In addition, Caltrans crews are not available to complete foundation drilling in the time needed to keep the project on schedule. Therefore foundation drilling will be contracted out at a higher cost.</p>										
03	SUT	20	5.0/11.3	1A920	0300020608	8132	2017/18	PA&ED	850	2,000
<p>In the Project Initiation Document it was assumed that eight parcels would be needed. A complete parcel count now shows a need for 28 parcels. In addition, wetlands that were not apparent during development of the PID, at the height of the drought, are now apparent. The newly identified wetlands will require additional studies and design work to minimize impacts.</p>										
04	ALA	580	R30.8/R41.5	27010	0412000131	0135A	2017/18	PA&ED	1,121	1,400
<p>Additional survey work that was not anticipated in the Project Initiation Document is now required. This will increase the the cost of the PA&ED phase.</p>										
04	MRN	1	24.7	4S780	0400020145	0315D	2017/18	PS&E	2,400	3,200
<p>This project required multiple redesigns to address regulatory agencies' concerns, which increased the cost of the PS&E phase.</p>										
04	MRN	101	0.0/4.0	3G210	0412000027	2119Q	2016/17	PS&E	360	650
<p>Multiple curb ramp locations require coordination with several external agencies. Additional effort is required to determine right of way requirements.</p>										

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04	SON	101	R33.5/R43.4	4G480	0412000490	0780G	2016/17	PS&E	450	700
Additional funding is needed to address electrical systems that were not identified in the PA&ED phase, and to coordinate with utility companies.										
04	SOL	80	13.9	3G690	0412000153	8315N	2017/18	PA&ED	850	1,200
Additional funding is needed to develop a Traffic Management Plan, provide public outreach, coordinate public meetings, and address potential traffic impacts due to planned lane closures.										
04	NAP	121	0.7	4G210	0412000310	0775G	2017/18	PA&ED	1,350	1,750
Additional funding is needed to consult with resource agencies and prepare the fish passage profile and cross sections to meet the agencies' requirements.										
04	NAP	128	R7.4	1G430	0412000126	0587H	2016/17	PS&E	1,050	2,200
Unanticipated utility conflicts will require multiple design alternatives and additional effort to coordinate and finalize utility relocations plans, right of way acquisition, and environmental re-evaluation.										
04	SCL	152	13.8/14.7	1G870	0400020620	0730F	2016/17	PS&E	730	1,050
Additional funding is needed to coordinate and finalize utility relocation plans, and to conduct hazardous material studies to comply with environmental requirements.										
04	SCL	152	0.0/6.2	2A251	0413000402	0483Q	2017/18	PS&E	440	750
Additional funding is needed for extensive coordination with various environmental resource agencies at multiple locations in a highly sensitive environmental corridor.										
04	SCL	152	R21.8/R35.2	0J800	0414000067	0480K	2019/20	PA&ED	1,375	1,800
This project requires additional survey effort that was not accounted for in the Project Initiation Document. In addition, early coordination with various environmental resource agencies will be required.										
04	ALA	13	12.1/13.4	2G482	0415000362	0124L	2018/19	PS&E	765	1,000
Additional funding is needed to address recently discovered field conditions that will require additional investigation, coordination, and custom ADA design.										
04	SCL	280	14.9	4H880	0413000296	0211Z	2016/17	PS&E	360	1,800
Additional funding is needed to perform an environmental/biological evaluation, to consult with resource agencies to relocate a species, and to perform biology monitoring. In addition, a landscape investigation and analysis is required to determine tree cutting, trimming, replanting, and irrigation for the "screen" trees that separate the freeway from the surrounding community.										
04	SF	VAR	VAR	4H751	0416000119	0158G	2016/17	PS&E	1,250	3,100
Additional funding is needed due to different site conditions, which will require additional surveys and potholing, resolution of utility conflicts, and additional coordination with external agencies.										
06	KIN	5	0.0/9.0	0S490	0615000050	6729	2018/19	PA&ED	400	650
This project is being accelerated due to rapidly deteriorating pavement conditions. Due to heavy workload among state environmental staff, the environmental studies are being contracted out at a higher cost.										

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06	VAR	Var	Var	0S610	0614000253	6724	2016/17	PS&E	2,151	2,550
<p>This wire theft project is constantly evolving, with numerous locations being investigated and additional right of way needs being identified. Design staff have made and will continue to make numerous field trips to reassess the project conditions and adjust the design and right of way requirements. This will increase the cost of the PS&E phase.</p>										
07	LA	101	S0.0/1.9	30080	0713000489	4680	2016/17	PS&E	1,346	1,726
<p>The Project Initiation Document did not include detailed analysis of the proposed curb ramp locations. A review of the curb ramp locations revealed impacts to right of way, utilities, and existing electrical facilities. Additional PS&E resources are needed to address these impacts.</p>										
07	LA	405	28.0/39.0	30780	0714000222	4773	2016/17	PS&E	312	953
<p>The Project Initiation Document did not include detailed analysis of the proposed curb ramp locations. A review of the curb ramp locations revealed impacts to right of way, utilities, and existing electrical facilities. Additional PS&E resources are needed to address these impacts.</p>										
07	LA	101	1.8/8.4	30790	0714000223	4774	2016/17	PS&E	280	941
<p>The Project Initiation Document did not include detailed analysis of the proposed curb ramp locations. A review of the curb ramp locations revealed impacts to right of way, utilities, and existing electrical facilities. Additional PS&E resources are needed to address these impacts.</p>										
07	VEN	126	1.0/R8.2	31220	0715000066	4832	2017/18	PA&ED	230	460
<p>It was discovered that the original proposal to construct bio-swales at most locations is not feasible. Alternate solutions like bio-filtration trenches are currently being considered instead of bio-swales. Additional funding is need for geotechnical work, hazardous waste evaluation, and field surveys.</p>										
07	VEN	33	0/6.3	30340	0714000006	4697	2017/18	PS&E	585	1,165
<p>It has been decided to install guardrail at 63 locations that were not included in the Project Initiation Document. Additional resources are required to cover this added scope of work, and to address structures design work that was not anticipated.</p>										
08	SBD	330	R32.4/R33.7	38852	0812000124	0256C	2017/18	PA&ED	490	767
<p>This project started out as a Minor A project. During the PA&ED phase, it was decided to add a second bridge to the project scope, which increased the cost beyond the limits of a Minor A projects. A SHOPP amendment was approved but did not take into account the resources already expended under the Minor A project. These resources need to be accounted for in the programmed amount.</p>										
08	RIV	74	0.0/5.8	1C850	0813000047	0050P	2017/18	PA&ED	2,060	3,934
<p>Coordination with United States Forest Service has identified the need for additional studies, including a tree survey, that were not included in the original estimate. In addition, topographic surveys were performed by consultants at a higher cost than state staff. Also, during the PA&ED phase the length of required retaining walls increased from 7,000 linear feet to 9,000 linear feet, which requires additional design effort.</p>										
08	SBD	142	3.8/5.7	0L710	0800000431	0242K	2017/18	RW Sup	135	940
<p>During development of the Project Initiation Document it was assumed that only six temporary construction easements would be required. More recent analysis revealed the need for 22 parcels, seven of which will require fee takes. It is also expected that some condemnations will be required. Additional Right of Way Support resources are needed to address the increased workload.</p>										

List of Support Component Amendments

Reference No.: 4.8

June 29-30, 2016

Attachment 1

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REPLACEMENT ITEM

Dist	Co	Route	PM/PM	EA	Project ID	PPNO	FY	Programmed (\$1,000s)		
								Component	Existing	Proposed
08	SBD	2	2.4	0H470	0812000074	0127J	2017/18	PS&E	611	878
<p>During the early stages of the PS&E phase it was determined that the bridge that is proposed to be widened also requires seismic retrofit. The additional design effort was not anticipated in the original estimate.</p>										
10	MER	140	0.0/42.1	0Y110	1013000108	3018	2017/18	PA&ED	819	1,442
<p>To address environmental impacts due to mitigation and archeological assessments, a detailed survey is required at every location, which increased the cost of the PA&ED phase.</p>										
10	TUO	108	26.4/34.4	0Y800	1015000007	3137	2018/19	PA&ED	460	750
<p>Additional resources are needed to study several alternatives at seven slide locations, and to coordinate with the United States Forest Service regarding proposed easements.</p>										
10	TUO	120	48.8/50.5	0Y790	1015000006	3136	2018/19	PA&ED	327	650
<p>A recent field visit determined that the original scope would remove an emergency road. To avoid removing the emergency road, a new alternative was developed that would impact United States Forest Service land. This will require extensive coordination and negotiation, which will increase the PA&ED cost.</p>										
12	ORA	39	9.9	0H270	1200000211	3184	2016/17	PS&E	550	825
<p>Due to recent identification of utility conflicts and the addition of sidewalks that were not identified in the Project Initiation Document, the cost of the PS&E phase has increased.</p>										