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February 16, 2010

Mr. Randell H. Iwasaki, P.E., Director
Caltrans Office of the Director
1120 N Street, MS 49
Sacramento, CA 95814

Dear Mr. Iwasaki:

The El Dorado County Department of Transportation, as lead agency for the US 50 Silva Valley Interchange, requests your support in the application for authorization to advance this project under the California Transportation Commission's Design-Build Demonstration Program.

The Silva Valley Interchange project is a high priority project for our County.

This project was originally approved by Caltrans in 1991 with a Project Report and a CEQA Final Environmental Impact Report produced by El Dorado County. This project will provide significant safety improvements, congestion relief and circulation benefits to the US 50 corridor in the area of El Dorado Hills and is long overdue to be constructed.

The Phase 1 Silva Valley Interchange project is proposed on US 50 between the existing El Dorado Hills Boulevard and the Bass Lake Road Interchanges at PM 1.8. The current estimated construction cost for Phase 1 is $38,500,000 (including construction management). The County has set aside local funds specifically for this interchange project in the amount of $28,500,000. The County has partnered with AKT Development, and their partners in an adjacent development project, to secure any necessary additional developer funding needed to complete Phase 1.

The future Phase 2 and ultimate interchange configuration cost is estimated at $11,500,000. The County will work through its Transportation Commission to secure additional state and federal dollars, to match with local development impact fees, to fully fund the construction cost of Phase 2.

The County plans to revalidate the original project planning documents as quickly as possible in order to participate in this Design Build Program opportunity. The County is currently working with Caltrans Special Funded Projects Division on this project and has completed and updated the Geometric Approval Drawings and has a Traffic Study Report ready for final approval.

Please feel welcome to call me at 530-621-7533 or email at Jim.Ware@edcgov.us if you have any questions or if you need additional background information on this important.

Sincerely,

James W. Ware, P.E.
Director of Transportation

JWW/kjt

10-0240.A.1

DESIGN-BUILD DEMONSTRATION PROGRAM
PROJECT AUTHORIZATION REQUEST

ED-50-0.9/2.65
03-1E2900
Construct Interchange on Hwy 50 in El Dorado County

Executive Summary

This project proposes to construct a new Silva Valley Parkway interchange on Highway 50 in El Dorado County between the existing El Dorado Hills Boulevard and Bass Lake Interchanges at PM 1.8. This new interchange is needed to accommodate increased traffic resulting from existing and planned development. It will mitigate approved development plans and congestion at the existing interchanges. An Environmental Impact Report was approved in 1990 and a Project Report was approved in 1991. The interchange project is funded from development impact fees collected from local development activity since 1990 and to date, the County has collected nearly $29 million towards the cost of the interchange. The interchange EIR and Project Report did not contemplate that the interchange would be constructed until the year 2000 at the earliest. Environmental evaluation for the project is currently underway and the project team has begun early design efforts.

El Dorado County (County) desires to utilize design-build on this project to achieve several important benefits including faster delivery, transfer of risk, and cost certainty. The County expects to save ten months or more through the use of design-build. The County is requesting authorization to award based on Best Value. The County expects to achieve better value through competition between design-builders on their approach to minimize cultural and wetland impacts and value engineering to the proposed structures (5 bridges, 5 retaining walls, and a box culvert extension) and to more quickly and efficiently to field conditions that may arise that were not previously discoverable.

The County requests that this project be considered for one of the five local transportation projects for the design-build demonstration program (approved September 9, 2009 – Resolution G-09-09). This project meets the California Transportation Commission's (CTC) expectations for a project that is mid-sized (between $20 million - $200 million), design-build based on best value, and located in northern California. This project satisfies the criteria for CTC approval with the exception of funding. Because the Phase 1 Project is fully funded with 100% local funds, the project is not programmed for funding from the STIP, SHOPP, TCRP, or from one of the programs designated under Proposition 1B of 2006.

Background and Importance of the Project

a. Description and Scope of the Project

This project proposes to construct a new Silva Valley Parkway interchange on Highway 50 in El Dorado County between the existing El Dorado Hills Boulevard and Bass Lake Interchanges. The proposed interchange would be located approximately 5,000 feet east of the existing El Dorado Hills Boulevard Interchange and 7,000 feet west of the exiting Bass Lake Road Interchange, and more specifically 800 feet east of the existing Clarksville/U.S. 50 Undercrossing at PM 1.8.

The project would include eastbound and westbound auxiliary lanes on U.S. 50 between the

existing El Dorado Hills Interchange and Silva Valley Parkway Interchange. The project would include that portion of an eastbound U.S. 50 truck climbing lane, located within the Silva Valley Parkway Interchange project.

The project is in agreement with El Dorado County general plan as well as surrounding development projects that have been approved sine 1990. The need for the interchange project was generated with the approval of the El Dorado Hills Specific Plan in 1988. The specific plan project contemplated that prior to build-out, the interchange would be warranted to serve the western part of El Dorado County. As such, the Project Report and EIR were prepared and a local development impact fee program was developed to collect funds for the interchange project.

A final Environmental Impact Report was certified (SCH #88050215) and a Notice of Determination was filed in 1990 and a Project Report was approved by Caltrans in 1991. The proposed project will be constructed in two phases. Phase 1 will include the majority of interchange improvements with the exception of the eastbound diagonal on-ramp and the westbound loop on-ramp. It is anticipated Phase 2 will be construction in 2030.

Funding for Phase 1 will be from the development impact fees collected from development in El Dorado County. Thirty-percent of all fees since 1990 have been collected to fund the interchange and to date, the fees generated total approximately $29 million dollars. Local developers will be funding the difference between the bid amount and the funds collected in the account to fund the interchange; therefore, 100% of the Phase 1 interchange is locally funded.

b. Project Benefits

This project will alleviate existing and forecasted congestion and improve traffic circulation. The primary deficiency of the roadway system is the inadequacy of El Dorado Hills Boulevard and Bass Lake Road Interchange to accommodate the increased traffic resulting from the growth in the area. An additional interchange is needed to accommodate this increase in traffic due to the cumulative growth of this area. Construction of the Silva Valley Interchange will relieve congestion on the existing El Dorado Hills Boulevard and Bass Lake Road Interchanges. This interchange will also provide capacity for the traffic produced by the residential areas north of U.S. 50, and the business and commercial development to the south of U.S. 50.

c. Regional Significance

The interchange project is included in El Dorado County's General Plan and General Plan EIR. Additionally, every development project approved since 1990 has contemplated and incorporated the interchange project. The interchange project is an integral component of the transportation system in western El Dorado County.

This project is one of the freeway connections proposed with the Capital SouthEast Connector project. The Capital SouthEast Connector is a proposed 35-mile roadway that will link communities in El Dorado and Sacramento Counties and the cities of Folsom, Rancho Cordova and Elk Grove. It spans from Interstate 5, south of Elk Grove, to Highway 50 in El Dorado County, just east of El Dorado Hills. The Connector is intended to alleviate traffic congestion on Highway 50, Interstate 5 and State Route 99. It will allow drivers to completely bypass downtown Sacramento, reducing the distance traveled and helping minimize additional travel delays during

rush hour. Although a terminus point for the Capital Southeast Connector, the interchange project was planned long before the connector project was planned and irrespective of the connector project, Phase 1 of the interchange is warranted to relieve traffic congestion.

d. Project Status

i. Stage of Development

An updated traffic report has been approved by Caltrans and environmental impacts previously identified in the EIR are being reviewed. It is anticipated that there may be additional environmental work necessary, however, the scope and depth of the environmental determination has not been determined by the County yet. Any additional environmental work would be completed by December 2010. Preliminary utility relocation plans and right of way engineering will begin in April 2010 with the Plans, Specifications, and Estimate (PS&E) phase starting concurrently.

ii. Current Schedule Derek/Rob: ***which schedule?***

FEIR Approved	Feb, 1990
Environmental Completion	Sept, 2010
PA&ED Complete	Dec, 2010
R/W Acquisition Complete	Apr, 2011
PS&E Preparation Complete	July, 2011
Right of Way Certification	Sept, 2011
Advertise	Nov, 2011
Award	Feb, 2012
Construction Complete (Phase 1)	Oct, 2013

e. Project Cost Estimate (Derek/Rob: ***need to confirm amount)***

Construction Capital	$32,600,000
Right of Way & Utility Relocation	$7,000,000

f. Vicinity Map

Exhibits attached to this application show the vicinity of the project within the Sacramento Area, the location of the project within El Dorado County area, and the proposed project improvements.

Justification for Design-Build Authorization

a. Summary of Analysis and Steps Taken to Date

The CTC approved a resolution to authorize design-build procurement by local transportation agencies in September 2009. The authorization is for a Design-Build Demonstration Program that is subject to the CTC approval with the intent of approving 5 local agency projects ranging in size, complexity and location. El Dorado County has prepared and submitted this Project Authorization Request to be considered for one of the five local projects.

It is our understanding that Caltrans is developing templates for the Request for Qualifications

(RFQ) and Request for Proposals (RFP). The templates are currently being reviewed and once the templates are approved and the CTC has authorized this project for design-build, the County will prepare and release the RFQ and RFP documents per the proposed implementation schedule contained in this Authorization Request.

b. Procurement Type Request (Best Value or Low Bid)

The County is requesting authorization to utilize Best Value procurement for this project. The project scope includes primarily specialized work and it is anticipated that the County and the State will obtain value through competition of other factors than just price. This project will allow for flexibility in final design and the County expects to achieve value in transferring utility coordination, maintenance of traffic, environmental coordination and associated risks. Best Value procurement will allow the County and the State to compare the approach to these areas by competing design-builders and select the entity that best meets the County and the State's goals.

At this time, the County is considering using the following as selection criteria:

- Design-Build Team Qualifications
- Project Cost
- Project Schedule
- Value Analysis Alternatives
- Project Management Approach
- Quality Management Approach
- Maintenance of Traffic
- Public Communication

The relative weights for each of these criteria will be developed and clearly documented in the Request for Proposal submitted to the shortlisted design-build entities.

Implementation Schedule

The following is the proposed schedule for delivery of this project utilizing design-build:

PA&ED	December, 2010
Request for Proposals	July, 2010
Award DB Contract	September, 2010
R/W Acquisition Complete	April, 2011
R/W Certification Complete	September, 2011
Construction Complete (Phase 1)	December, 2012

c. Expected Design-Build Benefits

Thirty-two states have design-build authority and have used design-build to deliver a large number of projects. There have also been a number of studies that have documented the benefits of design-build over the design-bid-build method of contracting. Based on the results achieved by other state departments of transportation that have utilized the design-build and the available research, the County anticipates achieving the following benefits by using design-build on this project:

i. **Schedule Acceleration** - Under design-build, portions of the design and construction phases are overlapped leading to significant time savings. Improved coordination between the designer and the builder lead to better constructability and improved efficiency. The site is characterized with sloped terrain, drainage areas, oak trees, and cultural resources. These factors can more easily be accommodated in the field as conditions warranted. The ability for the contractor to identify and remedy the issues more quickly will be more time and cost efficient. The design-builder is also able to order critical materials earlier and schedule subcontractors more effectively. Finally, the designer is able to design the project to take advantage of the contractor's strengths (equipment, materials on hand, and expertise). Each of these benefits can lead to significant time savings. It is anticipated that design-build will enable this project to be completed about 10 months earlier than design-bid-build.

ii. **Innovation** – It is not expected that new design or construction techniques will arise from this process in the construction of the interchange. The innovation in the design-build process is the early involvement of the contractor that enables engineering considerations to be incorporated into the design phase and enhances the constructability of the engineered project plans. Interjecting contractor knowledge early into design can foster creative engineering and construction solutions as well as possible innovation available in the staging of construction, minimizing cultural and biological impacts, and maintenance of traffic. Design-build projects have the ability to lessen the impact on the traveling public by shortening overall construction schedule while allowing the contactor maximum flexibility.

iii. **Risk Transfer** - The design build process allows for transfer of risks including cost escalation and schedule delays. The design-build contract is for a firm fixed price and a schedule guarantee for the work. The contractor is responsible for completing the scope of the work in accordance with the schedule. This would include responsibility for the schedule performance of subcontractors after the initial award. The contractor is responsible for any increase in the quantities of commodities, labor, and any other units that evolve as design is advanced.

iv. **Cost Certainty** - Because design-build projects are awarded on a fixed price basis, with limited opportunities for cost growth, the County will have greater certainty regarding the total project cost at a fairly early stage of the process. Under the design-build delivery methodology, the contractor provides the County with a fixed price for the construction before detailed design is complete and then is responsible for working with the designer to make sure that price remains fixed.

d. <u>Proposed Project Funding Plan</u>

The proposed interchange project – phase 1 is 100% funded from Local funds through Developer Impact Fees. Since 1990, the County has set-aside 30% of every developer road fee dollar paid to fund the interchange. As of December 2009, approximately $29 million has been collected.

e. **Project Considerations**

i. **Project Eligibility** – Although this project has not been programmed for funding in the STIP, SHOPP, TCRP or 1B funds, the project meets all other design-build criteria, including 100% funded with local funds. This interchange projects is unusual in funding respect in that it is 100% locally funded and constructed, thus, the reason why it is not included in the above-referenced funding programs. We request, with this application, consideration of a finding of consistency with the CTC Guidelines on design-build with respected this eligibility requirement.

ii. **State or Local Project** – This is a State Project on the State Highway System and will fill one the five slots allocated by CTC.

iii. **Selection Method (low bid/best value)** – The County is requesting authorization to utilize best value method.

iv. **Geographic Location (north/south)** – This project is in El Dorado County and will be a "North" project as defined by the CTC Guidelines.

v. **Project Size** – This project falls in the over $20 million and less than $200 million category.

Conclusion/Summary

The County desires to utilize the design-build method of contracting for this project to achieve several important benefits which include schedule acceleration, risk transfer, and cost certainty. The project meets all the eligibility requirements as outlined in the CTC's design-build guidelines, with the exception of project programming, approved in September 2009. It is requested that the CTC authorize the use of design-build method of procurement for this project with a Best Value award.

Attachment
Vicinity Map Exhibits
Project Delivery Selection Questionnaire

DESIGN-BUILD
PROJECT SELECTION TOOL

The following is a tool that the Department of Transportation (Department) is developing to assist in determining the appropriate delivery method for projects. The Department is testing this tool on projects on the State Highway System that have been nominated for the Design-Build Demonstration Program authorized by Senate Bill (X2) 4. Please provide a response to each question below.

EVALUATION OF PROJECT SCOPE AND CHARACTERISTICS		
QUESTION No.	**QUESTION**	**Rating (A, B or C)**
1a)	**Where is the project in the project development process?** A. Detailed or final engineering stage B. Preliminary design C. Conceptual engineering stage	B
1b)	**What is the size/complexity of the project?** A. Relatively simple, smaller project with no need for specialized outside expertise B. Medium size project with more technically complex components and schedule complexity C. Large, complex project with significant schedule complexity (e.g. multiple phases, extensive third-party issues, specialized expertise needed)	B
1c)	**Does the project involve significant impacts to highway users and local businesses/community during construction?** A. No more than typical B. More than typical C. Much more than typical	B
1d)	**Does the project present right-of-way limitations that would benefit from a contractor's assistance?** A. No more than typical B. More than typical C. Much more than typical	B
1e)	**Does the project present environmental permitting issues that would benefit from a contractor's assistance?** A. No more than typical B. More than typical C. Much more than typical	B
1f)	**Does the project present utility or third-party issues that would benefit from a contractor's assistance?** A. No more than typical B. More than typical C. Much more than typical	A
1g)	**Does the project present unique work restrictions or traffic maintenance requirements that would benefit from a contractor's assistance?** A. No more than typical B. More than typical C. Much more than typical	B
1h)	**Would the project benefit by packaging features of work to allow early lock-in of construction materials/labor pricing?** A. No more than typical B. More than typical C. Much more than typical	B
1i)	**Would the project benefit by raising quality standards/benchmarks to minimize maintenance and achieve lower life-cycle cost?** A. No more than typical B. More than typical C. Much more than typical	A

EVALUATION OF SUCCESS CRITERIA		
QUESTION No.	**QUESTION**	**Rating (A, B or C)**
2a) Schedule Issues		
1	**Can time savings be realized through concurrent design and construction activities (fast-tracking)?** A. No more than typical B. More than typical C. Much more than typical	B
2	**Can the schedule be compressed?** A. No more than typical B. More than typical C. Much more than typical	B
2b) Opportunity for Innovation		
1	**Will the project scope allow for innovation (e.g., alternate designs, traffic management, construction means and methods, etc.)?** A. No more than typical B. More than typical C. Much more than typical	B
2	**Must the project scope be primarily defined in terms of prescriptive specifications (i.e., predetermined materials and methods), or can performance specifications (expressing desired end results) be used, or a combination of both?** A. Primarily prescriptive specifications B. Combination of prescriptive and performance specifications C. Performance specifications for significant elements	B
2c) Quality Enhancement		
1	**Will there be opportunities for contractors to provide materials or methods that provide greater value than normally specified by the state on similar projects?** A. No more than typical B. More than typical C. Much more than typical	A
2	**Will there be the opportunity for realization of greater value due to designs tailored to contractor's area of expertise?** A. No more than typical B. More than typical C. Much more than typical	B
3	**Will warranties or maintenance agreements be used?** A. No B. Limited to short-term workmanship and materials C. Much more than typical	A

EVALUATION OF SUCCESS CRITERIA (Continued)		
QUESTION No.	**QUESTION**	**Rating (A, B or C)**
2d) Cost Issues		
1	**Will there be opportunities for contractors to provide designs with lower initial construction costs than those typically specified by the state?** A. No more than typical B. More than typical C. Much more than typical	A
2	**Will there be opportunities for contractors to provide alternate design concepts with lower lifecycle costs than those typically specified by the state?** A. No more than typical B. More than typical C. Much more than typical	A
3	**Is funding for the project committed and available?** A. Secured for design phase only or cannot support accelerated construction B. Funding can accommodate fast-tracking to some extent C. Funding will accommodate compressed schedule/fast-tracking	C
4	**Will the cost of procurement affect the number of bidders?** A. Procurement cost would significantly limit competition B. Procurement cost could affect the number of bidders C. Procurement cost would not be a significant issue given the size or complexity of the project	B
5	**Will project budget control benefit from the use of formal contingencies?** A. No benefit B. A formal contingency may permit the Transportation Entity to add project scope or enhance quality within the constraints of its published budget C. A formal contingency is required to allow the Transportation Entity to maximize project scope and quality within the constraints of its published budget	C
2e) Staffing Issues		
1	**Does the Transportation Entity have the expertise and resources necessary for a complicated procurement process?** A. Inadequate resources or expertise B. Limited resources or expertise C. Adequate resources and expertise	B
2	**Are resources available to complete the design?** A. Resources are available to complete design B. Resources are available for partial design C. Specialized expertise, not available in-house, is required	A
3	**Are resources available to provide construction oversight?** A. Resources are available B. Full-time construction oversight could strain staff resources C. Resources are unavailable	A

Please provide name and telephone number of person most familiar with the responses to this questionnaire for potential follow-up questions:

Matt Smeltzer
Name

(916) 358-3551
Telephone Number

FIGURE 3

INTERCHANGE AREA

SILVA VALLEY PARKWAY/
ROUTE 50 INTERCHANGE

MARCH 1, 2010

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	50	1.7	1	

LOCATION MAP

10-0240.A.12