

**Fifth Annual Status Report to the Legislature
Assembly Bills 405 and 2607 and Senate Bill 1210
Design-Sequencing**

I. Purpose

This is the fifth annual report and reflects activities through the end of March 31, 2005. The report is prepared in accordance with Chapter 795, Statutes of 2004 (amending Section 217 of the Streets and Highways Code), which states in pertinent part:

217.8. (a) Not later than July 1, 2006, and July 1 of each subsequent year during which a contract under the phase two pilot program, as described in Section 217.7, is in effect, the Department shall prepare a status report on its contracting methods, procedures, costs, and delivery schedules. Upon completion of all design-sequencing contracts, but in no event later than January 1, 2010, the Department shall establish a peer review committee or continue in existence the peer review committee created pursuant to former Section 217.4, which was added by Chapter 378 of the Statutes of 1999, and direct that committee to prepare a report for submittal to the Legislature that describes and evaluates the outcome of the contracts provided for in Section 217.7, stating the positive and negative aspects of using design-sequencing as a contracting method.

II. Background

Assembly Bill 405 (Knox), Chapter 378, Statutes of 1999, authorized the California Department of Transportation (Department) to conduct a pilot program to use design-sequencing contracts, for the design and construction of no more than six transportation projects, to be selected by the Director of Transportation. Assembly Bill 2607 (Knox), Chapter 340, Statutes of 2000, increased the number of transportation projects permissible under the Design-Sequencing Pilot Program from six to 12. Senate Bill 1210 (Torlakson), Chapter 795, Statutes of 2004, authorized a Phase II Pilot Program consisting of 12 additional projects.

Under traditional means of contracting for the construction of highway improvement projects, construction of any portion of the project cannot begin until the Department has developed complete plans and specifications for the entire project, placed the contract out for bid, and awarded the contract.

Design-sequencing is a method of contracting that enables the sequencing of design activities to permit each construction phase to commence when design for that phase is complete, instead of requiring design for the entire project to be

completed before beginning construction. For this pilot program, the Department is responsible for providing the contract plans. The contract for the entire project is awarded to one contractor with as little as 30 percent complete plans. This process allows for the successful contractor to work with the designers to incorporate innovative designs and construction methods to improve delivery. With design-sequencing, there is a potential for earlier delivery of the project to the public.

Design-sequencing should not be confused with the design-build method of contracting. Design-build is a project delivery method that combines the design and construction into one contract where the design firm and the construction contractor are a team, working together to design and construct phases of a project concurrently. The contracting agency identifies the end result parameters and establishes the design criteria.

III. Program Objectives & Guidelines

The goal of this pilot program is to test whether the design-sequencing form of contracting is beneficial to California in the administration of its highway improvement program.

In selecting the projects for the pilot program, the Director of the Department has attempted to balance geographical areas among the pilot projects as well as pursue diversity in the types and complexity of projects undertaken.

The Department has developed general procedures with the assistance of the Federal Highway Administration (FHWA). Once a project has been selected as a design-sequencing project, care has been taken to minimize risks associated with the additional flexibility allowed through this legislation.

IV. Project Information

Phase I Pilot Program

Eleven of the 12 pilot projects have been selected. Five projects have been completed and five projects are in the construction phase. The Department was unable to fill the final design-sequencing slot prior to the January 1, 2005 sunset date established for the Phase I Pilot Program in AB 2607. In addition, one project could not be awarded prior to the sunset date. Once the projects are completely closed out, performance and cost analyses can be completed.

Since the fourth annual report, one project has been completed. This project on Route 210 in Los Angeles County was to construct soundwalls and was completed on March 21, 2005. This project achieved no time savings relative to the

originally planned completion date due to a materials shortage during construction. It could be said that this material shortage would have applied regardless of whether design-sequencing was used.

A preliminary analysis of the completed projects has been done and the results appear positive. The five Phase I projects completed represent \$47.9 million in capital construction costs (about eight percent of the total Phase I Pilot Program) and the projects still in construction represent \$569.0 million. Completed projects have an average time savings of five months. Preliminary results from the completed projects indicate that Design-Sequencing has not resulted in an increase in capital construction costs compared to traditional delivery methods. However, support costs have been two to six percent greater when using Design-Sequencing. To date, there has been no reduction in the utilization of Disadvantaged Business Enterprises when using Design-Sequencing.

Phase II Pilot Program

The Department made a statewide call for potential projects for the Phase II Pilot Program in March 2005. Sixteen projects were nominated for inclusion in the program. The Department is evaluating the nominations and will be recommending the first set of projects by the summer of 2005.

V. Peer Review Committee

Senate Bill 1210 requires that, upon completion of all design-sequencing contracts, a Peer Review Committee (Committee) established by the Department prepare a report for submittal to the Legislature that describes and evaluates the outcome of the contracts; examines the contracting methods used, the procedures for design-sequencing, and the costs and delivery schedules; and states the positive and negative aspects of using design-sequencing as a contracting method. The Committee has met four times and is in the process of determining the criteria for measuring the success of the pilot programs. This includes assisting in the finalization of guidelines and procedures to be used in the delivery of future design-sequenced projects and determining the factors on which to evaluate the pilot program. The Committee will remain active until all design-sequenced projects have been completed.

VI. Summary

The Design-Sequencing Pilot Program offers the Department a great opportunity to evaluate the effectiveness of this contracting method as applied to highway improvement projects. As the projects move through the design-sequencing contract process and information on delivery schedules and cost become available,

the information will be provided to the Committee for inclusion in the final report to the Legislature.

The evaluation portion of the Phase I Pilot Program has begun and the Committee has been working on the criteria by which to evaluate the pilot program, evaluate the positive and negative aspects of using design-sequencing, and assist in the development of the final guidelines for future design-sequenced contract applications.

Senate Bill 1210 (Torlakson), Chapter 795, Statutes of 2004, authorizes the Department to conduct a second phase of the pilot program with an additional 12 projects. The Department will include information on these projects in future annual reports.

From the preliminary evaluations completed to date, the Department envisions design-sequencing as a valuable project delivery tool that can reduce project completion time on appropriately selected projects.

DESIGN SEQUENCING PILOT PROGRAM (Phase I)

PROJECT STATUS (as of 3/31/05)

Stage	District-Co-Rte-KP	E.A.	Cost ¹ (millions)	Project Description	Project Status	Time ² Savings ³ (mos.)
Complete	07-LA-405-59.6/62.8	191004	\$5.6	405/101 Interchange, construct northbound auxiliary lane from Mulholland Dr to Ventura Blvd.	Facility opened to the traveling public in 1/03. Construction completed on 3/11/03.	10 Actual
	03-Sac-80-18.3 03-Sac-51-12.7/13.7	2A8604	\$4.9	Construct westbound lane from I-80 to near the Watt Ave OC on southbound SR-51.	Facility opened to the traveling public in 9/02. Construction completed on 10/9/03.	18 Actual
	04-Ala-680-M0.0/R21.9 04-SCI-680-M7.6/M9.9	253714	\$24.5	Construct interim southbound HOV lane on Rte 680 from Rte 84 in Alameda Co to Rte 237 in Santa Clara Co.	Facility opened to the traveling public in 12/02. Construction completed on 2/1/03.	0 Actual
	04-Sol-80-15.4/18.0	259014	\$7.6	Stabilize landslide near Red Top Road.	Construction completed on 6/15/04.	0 Actual
	07-LA-210-62.1/64.1	0533U4	\$5.3	Construct soundwalls in the City of Azusa.	Construction completed on 3/21/05.	0 Actual
Design	04-Son-101-31.4/34.8	245400	\$57.0	Construct HOV lanes from Route 12 to Steele Lane.	PA&ED achieved on 12/31/03. Project RTL on 9/1/04. Project was not funded before the 1/1/05 sunset date. ⁵	12
Construction	08-Riv-215, 60, 91	334844	\$196.6	Realign and widen I-215, SR-60 and SR-91.	This project awarded in 2/04. Target to complete construction is 4/07.	6
	11-SD-15-M30.0/M44.8 Middle Segment ³	080904 080914 080924	\$204.1	Construct lanes within the existing median and install a movable barrier to manage congestion and reduce delays.	Contracts awarded on 10/29/03, 8/11/04, and 9/9/04. Construction began in 12/03 and is targeted for completion in 1/07.	23
	04-CC-680-25.1/39.1	2285U4	\$38.5	Add an HOV lane in each direction of traffic within the existing median.	Construction began in 03/03 and target completion date is 12/05.	0
	08-SBd-15-67.4/113.6	3555U4	\$115.1	Widen northbound and southbound freeway from Victorville to Barstow.	Target date for completion is 7/05.	0
	11-SD-905 9.2/19.3 (Phase I) ⁴	091804	\$14.7	Construct 905/125 Siempre Viva Interchange.	Target construction completion date is 7/06.	1

Notes:

- 1 Cost represents current Capital Construction Cost.
- 2 Time Savings based on projected Construction Complete date (CCA) under Design-Bid-Build versus projected (or actual if already attained) CCA date under Design-Sequencing.
- 3 Corridor project - 5 contracts treated as a single pilot project.
- 4 Corridor project - 2 contracts treated as a single pilot project.
- 5 PA&ED - Project Approval and Environmental Document, RTL - Ready to List for advertisement.
- 6 One nomination unfilled.