

Specific items that follow up on information requested at the August 5, 2014, Senate Transportation and Housing Committee Hearing are as follows:

Welding Database

The welding database will be a useful tool for Caltrans as it has information on each of the approximately 918,000 welds on the East Span of the Bay Bridge. Specifically, a bridge worker will be able to specifically identify a weld on the bridge, and be able to search corresponding documents to understand the history of the weld (i.e., Did the weld need to be repaired? Who inspected the weld?) Currently, the contractor is completing an audit of the database records to ensure its accuracy. This is critical as this database will be used for 150 years. I am committed to share this database with the Senate Transportation and Housing Committee once it is available to Caltrans. It is anticipated that Caltrans will have ownership of this database from the contractor in November 2014. If the Committee desires, we can provide access to the millions of pages of hard copies of the information in the database to Committee staff in the meantime, and/or in provide a presentation on what the database will entail.

\$855 Million Bay Area Toll Authority Budget for Future Retrofit

Caltrans has been working with the Bay Area Toll Authority seeking information on this question. The Roland De Wolk Report notes this item on page 21:

“In fact, this inquiry has found MTC anticipates an \$855 million Bay Bridge rehabilitation budget, on top of a \$12 million-\$15 million annual maintenance budget already in place.”

The first part of this sentence is false. There is no \$855 million “Bay Bridge” rehabilitation budget. In addition to standard maintenance, the Department works with the Bay Area Toll Authority to develop a long-range budget for larger capital projects that are designed to rehabilitate or upgrade a wide variety of transportation facilities. The current 10 year rehabilitation plan is \$2.7 billion. Of this, \$1.4 billion is allocated to all seven Bay Area toll bridges, which includes \$866 million that has been expended through 2014. Of the \$1.4 billion in the plan for toll bridges, only \$351 million is allocated to the ENTIRE Bay Bridge with \$327 million going to the West Span, the old (1936) East Span, the Toll Plaza and the new Maintenance Complex. The only items in the entire rehabilitation plan that relate to the new East Span are three items totaling \$23.7 million that involve an upgrade to the security system portions of items 11, 19 and 100 in the maintenance plan). For your information, a copy of the outstanding punchlist items is included with this response (see Attachment B).

Long-Term Value / Maintenance Needs of the Bridge

When we look at the word “value,” it is important to remember the reason why we built the new East Span. After the Loma Prieta earthquake in 1989, and the deck failing on the old span of the Bay Bridge, a decision was made to upgrade to a new span. The new span is a 150-year lifespan. This bridge will be useable shortly after an earthquake. The value placed on the bridge by Caltrans focused on seismic safety and performance. This bridge will perform in an earthquake and able to handle anticipated ground motions of anticipated 1500-year seismic event.

Caltrans certainly had challenges during the construction process. Each of the challenges were overcome to ensure expected performances would be achieved. In addition, because of how the bridge was constructed, we retained the significant redundancies designed for. The long-term maintenance with the bridge should be less than other toll bridges in the Bay Area. In the short term, the new East Span will cost significantly less than the old East Span because it is a new, modern structure. Long term, we also anticipate annual maintenance costs to be less.

Value should be measured by whether toll payers received the bridge requirements designed for and constructed--specifically, the seismic safety and the life expected. This bridge provides both, for the budget established in 2005 and we do not expect maintenance costs to exceed those anticipated, which will be substantially less than for the old East Span.

Opportunity Costs Associated with Delay and Increased Cost

Funding for the new span has always been attached to bonds that are directed specifically to the Toll Bridge Program retrofit projects. This program is almost complete except for the old span demolition. The only exceptions to the bond funding are \$300 million from the State Highway Operation and Protection Program for the old span demolition and \$323 million from the Federal Highway Administration’s Highway Bridge Replacement and Rehabilitation Program. These bonds were backed by tolls. It could be argued that if there were a cheaper design, there would be less toll impacts or opportunity for tolls to be raised for other projects. Ultimately, the tolls paid for the bridge which was approved/selected by local representatives.

Other Bridges Encountering Similar Challenges

Every new project presents new problems to solve and complicated factors to consider. Solving these problems is what engineering and construction is all about. There are countless examples of bridge construction projects around the world that were delayed as a result of construction or other challenges. Examples can be found in Attachment C.

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The new Bay Bridge, like any major infrastructure project, had construction challenges along the way. We must remember that the East Span is not a typical highway bridge. These challenges are identified and evaluated by engineers at the request of Caltrans, as well as the bridge design team, and the contractor. Solutions are developed and reviewed by outside experts, and problems were overcome.

Thank you again for the opportunity to further clarify items discussed at the August 5, 2014 hearing.

Sincerely,



MALCOLM DOUGHERTY
Director