Mosquito Road Bridge Project:
Frequently Asked Questions



Why does the bridge need to be replaced?

In 1859, the Board of Supervisors directed Mosquito Road to be built and in 1867, the "Swinging Bridge" was built. In 1939, the bridge was largely reconstructed using the 1867 foundations. In current times, the bridge has required extensive maintenance which has required long term road closures. Given the time when the bridge was built and rebuilt, the bridge does not meet current standards such as load requirements and bridge width. Structurally, the bridge is rated near the bottom of the list of all state bridges. The sufficiency rating (SR) (measure of structural integrity) is 12.5 on a scale of 0 to 100 and is on FHWA's bridge inventory eligibility list for replacement. Bridges with a SR of < 50 are eligible for replacement. The SR = 12.5 is one of the State's lowest rated bridges.

How will the proposed project fix the problem?

A new bridge will be built to accommodate two lanes of traffic, support emergency vehicle passage, and be built to current safety standards. The width of the bridge will also accommodate bicycles and pedestrians. The proposed bridge replacement will result in a new bridge with a SR = 100 and with a new 75 year life cycle.

How will alternatives be evaluated?

Alternatives are evaluated based on many factors: technical criteria such as environmental and right of way and construction impacts, geological constraints, safety, cost benefit analysis, as well as how the bridge fits within the community context. Community context would include answers to questions such as does the bridge placement (location) and design blend into the rural setting. All of these and other criterion are relatively weighed, applied to each alternative and scored, then ranked on the best scoring performance.

Who decides which alternative, if any, is selected?

Based on public input, the design team will evaluate the alternatives and ultimately make a recommendation for an alternative. County staff will provide input to the evaluation and determine a preferred alternative. County staff will then present the preferred alternative to the Board of Supervisors who will in turn, select either the preferred or different alternative for final design and construction. Due to the Federal Highway Bridge Program funding source, Caltrans and FHWA will need to concur with fundability of any alternative that is recommended, preferred and selected.

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Are there any anticipated impacts to the neighboring properties?

New roadway right of way will most likely be required from neighboring properties. Cuts and fills along with retaining walls will be necessary for new/reconstructed roadway approaches.

How long will it take to complete the project?

It is anticipated that this bridge may take approximately 4 to 5 years to begin construction and 2 years to construct.

How much will the bridge cost?

That is yet to be determined. This study phase of the project will determine the cost for each of the alternatives. Currently, the bridge is roughly estimated to cost anywhere from $5M to $35M depending on the alternative. The project is programmed for "place holder" funds within the Federal Highway Bridge Program for $32,400,000. Being programmed does not guarantee the funds. The project needs to be studied and an alternative agreed upon by Caltrans and FHWA in order to have the actual necessary amount of funds authorized for constructing the project. Currently, only $2,000,000 is authorized for the project.

How will it be funded?

Through the federal Highway Bridge Program with Toll Credits to offset the local match requirement, resulting in 100% funding support to the County.

How can the public voice their opinion?

The County will be hosting several public workshops throughout the phase of the project. These public workshops are specifically designed to provide the public the opportunity to provide input and observe the development of the project. In addition, the public is welcome to attend any project update presentations to the Board of Supervisors. The County website has a project link where the public can also provide comment online.

Why are consultants being used for this work? How were they selected? What are their qualifications?

This project requires an extensive design team and will require many resources and vast amounts of time to deliver the technical aspects – bridge, road, aesthetics, environmental, geotechnical, etc. The County neither has the available resources or time for these specific efforts. However, the County has the available resources and time to manage a consultant team's technical capabilities. The County issued an open solicitation for qualified consultants to perform the technical tasks required and involved Caltrans and Placer County in evaluating consultant proposals and interviews. Caltrans, Placer County and El Dorado DOT selected Quincy Engineering's Team as the firm with the highest level of qualifications to effectively and efficiently work for the County and with Caltrans on the delivery of this project.

What is the timing for construction?

Begin construction in 2018 and complete construction in 2019.

Will the road be closed during construction?

Given that a detour around this bridge site is approximately 18 miles, the project will be designed to primarily maintain traffic during construction. There may be brief periods of time when the road will need to be closed to facilitate safe construction activities, but this will likely be limited to 1 to 2 weeks at a time and will likely only occur a few times during the two years of construction. The timing of any road closure for construction will be planned to coincide with any need to close the road for existing bridge maintenance to limit the closures.

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How will the new bridge be connected to the existing single lane road?

This study phase of the project considers various alternatives including bypassing the segment of single lane road, and connecting the bridge to the single lane road. Since the project involves federal funds, Caltrans and FHWA will review the alternatives and the County's evaluation of the alternatives. Caltrans and FHWA will determine which alternatives are fundable or not. If Caltrans and FHWA determine the alternative to be one that connects to the single lane road, then the new bridge will be constructed with two lanes and the roadway approach to the bridge will be two lanes to match the bridge then reduced to match the existing roadway.

Why are aesthetics important to a bridge project?

This bridge site is considered a special and unique site. Since this location has great history and character, building a bridge with special aesthetic features is an opportunity to reflect and memorialize the history, heritage and natural resources of the location. Federal funding is a source for aesthetics providing the community the opportunity to decide the appropriate treatments for the bridge and other features.

What effects aesthetics?

The roadway alignment leading to the bridge, the bridge type, view of the bridge and view shed of the canyon and river all affect aesthetics. The bridge's exterior and columns, railings and abutments are all opportunities for aesthetic treatment.

Will a new bridge cause an increase in traffic to Mosquito/Swansboro?

The County's General Plan and zoning for the Mosquito/Swansboro area set the factors that control the traffic to and from this community. The 5.25 miles of two lane meandering roadway on rolling terrain leading to the bridge site from Placerville set the roadway character similarly as the 2.25 mile roadway from the bridge to the Mosquito/Swansboro area. This project could result in making continuous two lane segments of roadway on either side of the river, but based on the leading roadway segments and zoning, this project is not expected to increase traffic, only make a safer facility for the existing traffic.

What will happen to existing bridge?

The existing bridge is being handled by the County as a separate project. This project will focus only on the new bridge and connecting roadway approaches to the new bridge. However, this project will be designed to maintain access to the existing bridge/river.