

Project Development is Advancing

This project must comply with the California Environmental Quality Act and National Environmental Policy Act prior to beginning full design of the project. We have shown in the schedule below that the environmental impact analysis is planned to start this spring 2016. Publication of the draft Environmental Impact Report/Environmental Assessment (EIR/EA) is planned for fall/winter 2016. Prior to publication of the draft EIR/EA, Caltrans will publicize a notice of availability of the draft EIR/EA for interested members to review, provide comment online, via email and/ or come to a public meeting to provide input. This notice will indicate where the draft EIR/EA will be available for review, both online and in hard copy, and the date, time, and location of the public meeting.

Caltrans will hold the public meeting to listen to public and agency comments on the draft EIR/EA. Once the public review period is closed, Caltrans will address all written public and agency comments. The final EIR/EA will include responses to the written comments and revisions to the draft EIR/EA. Only after the publication of the Final EIR/EA would Caltrans make a final decision on the project.

Project Schedule

	2015	2016	2017
PROJECT SCOPING & ALTERNATIVE DEVELOPMENT	[Bar]		
ENVIRONMENTAL ANALYSES & DRAFT EIR/EA		[Bar]	
PUBLIC REVIEW & COMMENT ON DRAFT EIR/EA		[Bar]	
RESPOND TO COMMENTS IN FINAL EIR/EA			[Bar]
CALTRANS DECIDES PROJECT AND BEGINS FINAL DESIGN			[Star]
CONSTRUCTION ANTICIPATED IN 2019			

For more information on the project, or to speak to a project representative, please call Bob Haus at 510-286-5576

Project Website: <http://www.dot.ca.gov/dist4/lagunitascreekbridge/>

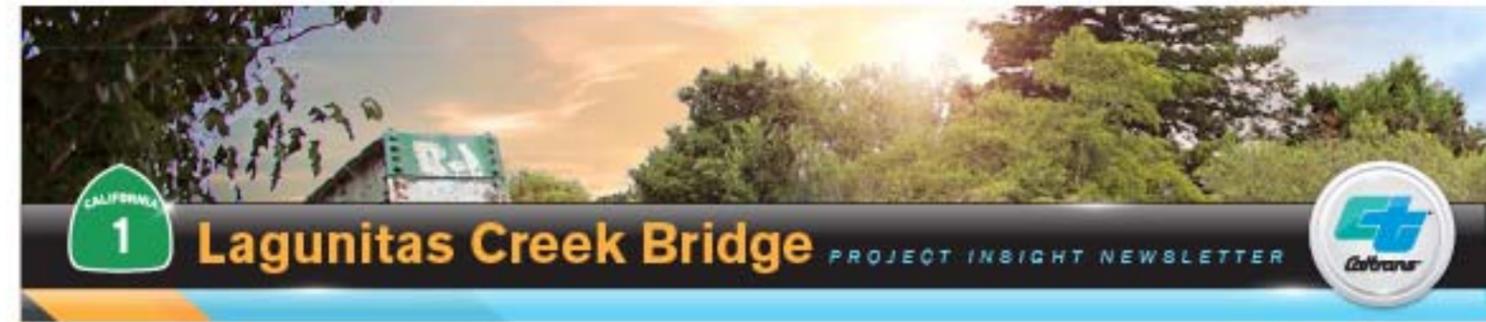
Mail comments: California Department of Transportation, Office of Environmental Analysis

Attn: Lagunitas Creek Bridge Project, P.O. Box 23660 Oakland, CA 94623

Email Comments: lagunitas_bridge@dot.ca.gov

Local
Postal Customer

PRRST STD
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In 1929, Marin County constructed the Lagunitas Creek Bridge, which serves as a vital connection between Point Reyes Station and the unincorporated town of Olema to the south on State Route 1 (SR 1). The project is an important safety project intended to address the deficiencies of the bridge and maintain local traffic circulation. Caltrans has determined the existing structure has several key deficiencies and would likely fail in a significant seismic event. Those deficiencies are:

- Under-reinforced concrete in support structures are likely to fracture during an earthquake event
- Seismic loadings may cause undersized steel truss member to buckle
- Due to lack of redundancy, an individual steel truss or bearing failure could lead entire truss-span to collapse
- Pier piling is of unknown depth and type and expected to be inadequate for seismic loads
- Substantial corrosion in the steel truss members and rivets may result in failure during a seismic event

The Lagunitas Creek Bridge is a critical crossing for communities in West Marin along SR 1 located on the south edge of Point Reyes Station. The purpose of this newsletter is to:

- Inform you about the Bridge alternatives development process;
- Inform you of the valuable input from community and local representatives;
- Present key issues being addressed and key trade-offs between alternatives under consideration; and
- Provide you with a schedule update.

Because of these significant bridge deficiencies, Caltrans has received state and federal funding. Caltrans is developing a range of alternatives together with representatives from the local community and Marin County.

These images of Lagunitas bridge reflect deterioration that can undermine the structural integrity of the bridge: aging steel, compacted rust, shifting and cracking concrete



Community Members Help Evaluate Trade-offs

To incorporate community input in developing and refining the range of alternatives, Caltrans worked with Supervisor Kinsey's office to identify the following representatives to form a Stakeholder working group (SWG) to provide Caltrans input on refining the range of alternatives to be evaluated in a detailed environmental review document:

- Coastal Commission, Shannon Flala
- Pt. Reyes Village Association, Chuck Eckart
- Business Community, Amanda Eischstaedt
- Marin Department of Public Works, Dan Dawson
- Marin County Planning and Parks, Curtis Havel
- Mainstreet Moms, Cathleen Dorinson
- Emergency Services, Randy Engler
- Farming Community, Lynn Stray
- National Parks Service/National Seashore, Brannon Ketcham

Each member of the SWG represents a community interest or a resource agency that may be directly affected by the project. Members that represent community interests, such as Pt. Reyes Village Association, Business Community, Mainstreet Moms, and Farming Community, are liaisons between the community and Caltrans. SWG meetings are closed to the public, however, meeting summaries are posted online (<http://www.dot.ca.gov/dist4/lagunitascreekbridge/>).

The SWG has been reviewing details of the bridge alternatives, providing Caltrans with input and asking for additional information they need to understand the trade-offs between bridge designs and construction approaches. Ultimately, the SWG's role is to provide Caltrans with useful input in the range of alternatives to be reviewed in the environmental analysis process. The public will be asked to review the environmental analyses which will provide comparative review of the range of alternatives. Continue reading to understand all that the SWG has been considering. ***We want to thank the members of this SWG for giving their time to help shape this project and make it the best it can be for the community.***

Developing the Range of Alternatives Began with YOU!

We have collected your input during the scoping meetings in both April and October 2015. The team has been busy refining the alternative to respond to the following key issues we heard:

- **Construction duration** – Minimize traffic congestion and noise by minimizing construction duration.
- **Biological resources** – Protect wetlands and federal- and state-listed special-status species.
- **Transportation** – Maintain full access and minimize traffic delay during construction.
- **Public services** – Accommodate emergency response services access throughout construction.
- **Community and business impacts** – Avoid hardships on local businesses by not impeding tourism.
- **Cultural resource** – Preserve the historic character of this community.
- **Visual** – Maintain the color, scale and charm of the existing bridge.

The full range of comments are summarized in a scoping summary report, which is available on the Caltrans District 4 Environmental Documents webpage: <http://www.dot.ca.gov/dist4/lagunitascreekbridge/>

The Range of Solutions

Based on the technical analysis, and feedback we received from community stakeholders and other local agencies, we have developed a range of potential solutions that address local needs in different ways. The alternatives are a combination of different bridge types and construction approaches. Each bridge type provides different advantages and disadvantages; and to address construction related concerns, Caltrans proposes alternative construction approaches. The four bridge types are shown below and there are two primary construction methods: Conventional Construction and Accelerated Bridge Construction (referred to as ABC).

A conventional construction approach would require up to a 3 year construction period, whereas the ABC could shorten the construction schedule to under 1 year with notable trade-offs, such as full closure of the Lagunitas Bridge for approximately 2 to 3 weeks.

Exploring the Retrofit Alternative

Together with the local representatives (SWG), Caltrans reviewed the possibility of retrofitting the existing bridge as an additional alternative to bridge replacement. Retrofitting the bridge would involve:

- **Rebuilding or removing and refurbish every portion of the bridge (piers, pilings, steel members, concrete deck, railing)**
- **Building a temporary detour bridge**
- **A 3-year long construction period**
- **Extensive work in the creek to build supporting structure to maintain the bridge during the retrofit for safety precautions**

The result would not resemble the existing bridge because the steel members would be thicker, the pier and abutment foundations would be enlarged and yet, the lanes would be narrowed to install protective railings needed and there would be no improvements for sidewalk or bicycles or equestrian users (current sidewalk does not meet Americans with Disabilities Act (ADA) requirements). Since extensive effort and cost would be required with no long-term benefit, the SWG supported not carrying this alternative into further review.

Balancing Pro's and Cons of Construction Approaches

Conventional construction is a proven, low risk approach, but the 3-year disruption may cause too much hardship on the community. A shorter, more intense approach may be preferable, but depending on the bridge type, ABC approaches differ or, with some bridge types, ABC is not an option. For easy recognition, the ABC approach is abbreviated according to how the super-structure is installed. There are two primary ABC approaches: the **longitudinal move-in** approach and the **transverse slide-in** approach. An overview of each construction approach is provided below in table 1.

Table 1. Differences in Construction Approaches

Impact Areas	Conventional Construction	ABC – Transverse Slide-in (build new bridge on east side and slide in from the side)	ABC – Longitudinal Move-in (build to center from either end)
Duration of construction	Up to 3 years	Under 1 year	Under 1 year
Applicable Bridge types	All	Only Single-span, steel truss bridge	3-span and Single-span Steel Truss bridges as well as the 3-span Concrete Bridge
Traffic route during construction	Build a 2-lane detour bridge	Use existing bridge until new bridge is built. Use new bridge in temporary location while existing is dismantled, then short closure with lengthy detour route	Use existing bridge until piers and abutments are built. Then use lengthy detour during up to 3 week closure, when bridge is dismantled and new bridge is assembled onsite.
Duration of closure of SR 1 at Lagunitas Bridge	No full closure	10 to 14 days	14 to 21 days

Table 2 lists the combinations of bridge types and construction approaches under review and some comparative features. While conventional construction is possible with each alternative, only one is being carried forward for comparative purposes. SWG supported the analysis of conventional construction on one alternative as a basis of comparison even though their preference is for the shortest possible construction period. The criteria presented in the table were chosen to communicate early understanding of possible impacts.

Table 2. Comparison of Alternatives Under Consideration

Alternatives	Piers in the Water	Height of structure above bridge deck	Approx. Staging Area Needed
Alternative 1: No Build	No change – Piers remain in the water.	No change (12 feet)	Not applicable
Alternative 2a: 3-span, Steel truss, (Conventional Construction)	Yes, 4 piers near the existing pier location at edge of waterway	16 feet truss	1.7 acres
Alternative 2b: 3-span, Steel truss, (ABC-Longitudinal Move-in)	Yes, 4 piers located just beyond current bridge width at edge of waterway	16 feet truss	1.4 acres
Alternative 3: 3-span, Concrete Bridge (ABC-Longitudinal Move-in)	Yes, 4 piers located just beyond current bridge width at edge of waterway	3 feet (railing only, unless other aesthetic treatments are added)	1.4 acres
Alternative 4a: Single-span Truss (ABC-Longitudinal Move-in)	No piers in the creek channel	21 feet truss	1.4 acres
Alternative 4b: Single-span Truss (ABC-Transverse Slide-in)	No piers in the creek channel	21 feet truss	1.7 acres
Alternative 5: Suspension (Conventional Construction)	No piers in the creek channel	20-25 foot towers at either end	1.4 acres
Alternative 6: Retrofit (Conventional Construction)	Yes, 4 piers located just beyond current bridge width at edge of waterway	No change (12 feet)	1.7 acres

^aAlternatives with an 'a, b or c' indicates that different construction approaches are proposed for the same bridge type.

Figure 1: Four bridge types under consideration

