

## More Updates at Each Milestone

Public input is an important part of the state and federal environmental review processes. Caltrans is now conducting an environmental analysis of the identified project alternatives and will provide the public with an opportunity to review and comment on the results during the 30-day public review period of the environmental document. Each of the milestones moving forward indicated in the schedule below will be announced through a Newsletter and other advertisements. Caltrans will consider all comments submitted during the public review and comment period. All public comments will be made available via the project website and both comments and responses will be incorporated into the Final environmental document. Only after the receipt and review of comments on the draft environmental document will Caltrans make a decision on the selection of the project alternative in the final environmental document.

## Project Schedule for Environmental Review Phase

| PROJECT SCHEDULE                    | 2015   |        |      |        | 2016          |        |      |        | 2017   |        |
|-------------------------------------|--------|--------|------|--------|---------------|--------|------|--------|--------|--------|
|                                     | SPRING | SUMMER | FALL | WINTER | SPRING        | SUMMER | FALL | WINTER | SPRING | SUMMER |
| Scoping Period And Public Meetings  | ■      |        | ●    |        |               |        |      |        |        |        |
| Stakeholder Working Group Meetings  |        |        |      | ●      | ●             | ●      |      |        |        |        |
| Prepare Draft EIR/EA                |        |        |      |        | ■ WE ARE HERE |        |      |        |        |        |
| Public Review And Comment (30 Days) |        |        |      |        |               |        |      | ■      |        |        |
| Public Meeting                      |        |        |      |        |               |        |      | ★      |        |        |
| Final EIR/EA                        |        |        |      |        |               |        |      |        | ■      |        |

For more information, please call Branch Chief of Public Information, 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](mailto:lagunitas_bridge@dot.ca.gov)

## BE WORK ZONE ALERT

### IMPORTANT NOTICE!

Soil testing (geotechnical borings) is planned to occur over the course of 2-3 days in late June or early July. The results will help determine structural design parameters for the bridge.

The borings would occur during off-peak traffic hours and within the pavement or gravel shoulder area south and north of the bridge. Expect delays. Flaggers will help direct traffic during this 2-3 day task.

*This task is a preliminary investigation activity. It does not signify beginning of construction. No bridge selection would occur prior to completing the EIR/EA.*



This ongoing series of newsletters for the Lagunitas Creek Bridge Project on State Route 1 (SR1) will continue, each timed to coincide with the major Environmental Review milestones for the project. Through these newsletters, Caltrans will be providing key updates on the Environmental Review process and information on how you can continue to provide input. The objective of this issue of the newsletter is to summarize the process of determining the range of bridge alternatives that will be analyzed in the project's Environmental Impact Report/Environmental Assessment (EIR/EA).

## Community Members Provide Input

Caltrans has been working with the Stakeholder Working Group (SWG) to incorporate important community input in the development, refinement, and narrowing of the range of feasible bridge alternatives. (For more information see the previous newsletter and meeting summaries posted online at <http://www.dot.ca.gov/dist4/lagunitascreekbridge/>.)

Since Newsletter #1, the SWG has reviewed additional details about the suspension bridge alternative, required width measurements of each bridge type, and a range of aesthetic treatments of the bridge types (see inside). At the April SWG meeting, members of the group expressed their concerns about potential safety issues with :

- Conflicts between vehicles and the pedestrians crossing at the Sir Francis Drake Blvd with SR 1 intersection.
- Pedestrian and bicycle access where the shoulders narrow north of the Lagunitas Creek bridge at the overflow culvert.

## Screening the Suspension Bridge Alternative

Upon further review, Caltrans found that the suspension bridge design alternative could result in higher environmental impacts than the other bridge types under consideration. Due to the physical constraints at the bridge location, the suspension towers would have to be supported on large foundations that would likely require the purchase of adjacent private property and possibly the relocation of one residence. In addition, the foundations would require many more piles to be driven into the ground than the other bridge types, potentially resulting in long durations of noise impacts. Furthermore, unlike other bridge types, its more complicated construction requirements would not allow the suspension bridge to be constructed under the Accelerated Bridge Construction (ABC) method that has received considerable community support. It would require a conventional, three-year long construction. Finally, the preliminary cost estimates showed that the expense of building this bridge type far exceeds that of any of the alternatives.

Input from the SWG confirmed that, in addition to these shortcomings, the larger scale of this type of bridge would not be compatible with the character of the community. Therefore, at the recommendation of the SWG, Caltrans decided to remove the suspension bridge type from further consideration for this project, leaving the three other bridge types (three-span steel truss, full-span steel truss, and three-span concrete) to be carried forward in the environmental review.



Visual simulation of suspension bridge

## Project Purpose and Need

The purpose of the project is to provide a safe, seismically-stable crossing over Lagunitas Creek on State Route 1 in Point Reyes Station. The project need is to address the safety deficiencies of the existing 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

## REFINING THE BRIDGE ALTERNATIVES FURTHER

Caltrans seeks to make all its projects responsive to the context of the surroundings. For the Lagunitas Creek Bridge, Caltrans is working with the SWG to help refine elements such as the scale and visual character of the bridge. This section describes how community input has been incorporated into developing the bridge design.

### Bridge Scale

Scale refers to the overall size of a structure, whether it's the width or the height or bulk. A consistent message from the community echoed in the SWG meetings, is that the bridge should not detract from the community's rural, small-town character. Caltrans provided the SWG with a range of bridge cross-sections and truss styles for input. The options for lane, shoulder, and sidewalk widths is limited by the requirements of Caltrans' Highway Design Manual and federal regulations such as the American with Disabilities Act (ADA). However, these requirements still allow for enough flexibility for bridge configurations that are compatible with the existing and desired roadway dimensions.

Width of the travel lanes is proposed to be 11 feet with 5-foot-wide shoulders and the cantilevered sidewalk or rail-separated sidewalk is proposed as 6 feet wide to meet ADA requirements. These measurements are narrower than the Caltrans Highway Design Manual recommends, but they meet rural highway safety standards and allow for safe passage for pedestrians.

Discussions with the SWG have emphasized that children walking or biking to school, equestrians, pedestrians with strollers or wheelchairs, as well as motorized vehicles and delivery trucks all need to be able to safely cross Lagunitas Creek. However, accessibility for all must be balanced against keeping the overall bridge consistent with the community's rural, small-town character.

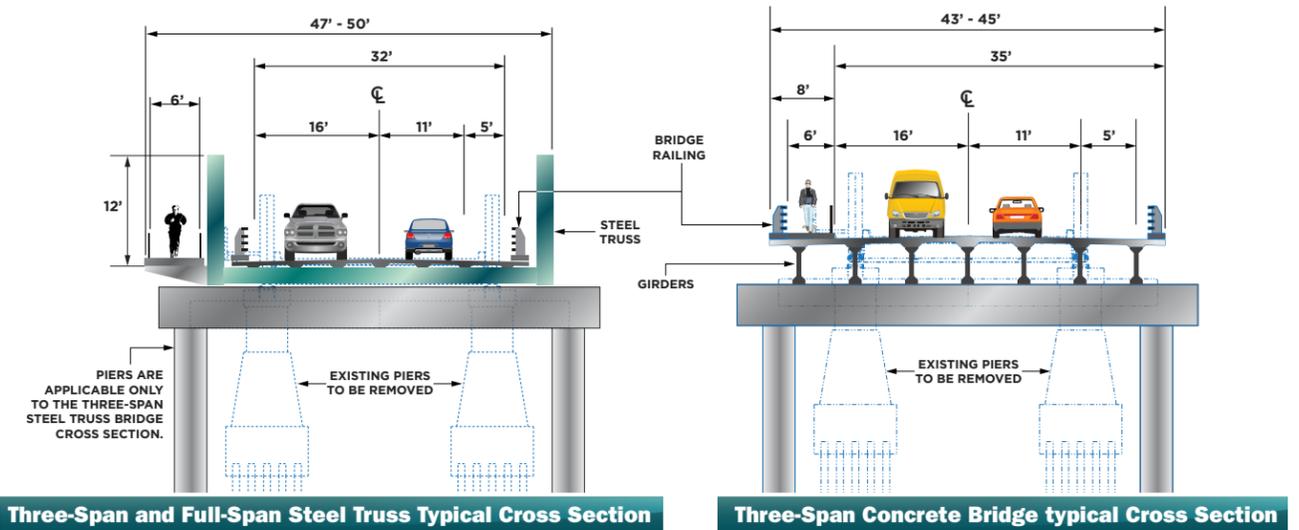
One element to help maintain the narrow character of the bridge is to place the sidewalk outside the proposed truss structure as a cantilevered sidewalk, or at least physically separated with a railing from the travel way (see inset below for comparison).

Both the three-span and full-span steel truss bridge alternatives (including a cantilevered sidewalk) would range from 47 feet to 50 feet wide (see exhibits provided on the right).

The three-span concrete bridge with a rail-separated sidewalk would be approximately 45 feet wide. The bridge alternatives to be studied will only include one separated sidewalk along the west side of the bridge. Other dimensions of the bridge structure (such as the piers, the truss height, and the thickness of the bridge deck) are determined by the seismic safety design requirements.

### CONCEPTUAL

PLEASE NOTE, THESE VISUALS ARE CONCEPTUAL AND FOR VISUALIZATION PURPOSES ONLY.



### Bridge Character

The flexibility in character is determined by the selection of the bridge type, and possible design options associated. For instance, the steel truss structures for the three-span or the full-span bridge could be curved versus angular. Because a full-span bridge must span from creek bank to creek bank, the structural support must include overhead cross bars, whereas the three-span truss design would not. The concrete bridge could remain open without any structure above the barrier rail, or it could incorporate a faux truss that could, for example, mimic the appearance of the existing bridge truss. See some of the possibilities for each bridge type below. Several of the SWG members observed that the concrete bridge type, without the faux truss, offers bridge users more visibility of Lagunitas Creek and Point Reyes Station, as well as less obstruction for those at the Sir Francis Drake and SR 1 intersection south of the bridge. **Caltrans will be interested in your perspectives when the EIR/EA is available for public review!**



Three-Span Steel Truss Bridge with option of the sidewalk adjacent to shoulder



Three-Span Steel Truss Bridge with the option of a cantilevered sidewalk shows a more narrow truss



Three-Span Concrete Bridge



Three-Span Concrete Bridge With Faux Truss



Full-Span Steel Truss Angular



Full-Span Steel Truss Curved

### Range of Alternatives Moving Forward

Through our collaboration with the SWG, Caltrans has narrowed the alternatives to be analyzed in the EIR/EA. In addition to the ABC construction methods for each bridge type considered, one alternative includes the conventional, three-year construction method. This alternative will provide a point of comparison and serve as a fallback option in case an unforeseen obstacle prevents use of the ABC methods.

- ALTERNATIVE 1:** No-Build Alternative
- ALTERNATIVE 2A:** Three-span, short steel truss bridge, ABC, longitudinal move-in
- ALTERNATIVE 2B:** Three-span, short steel truss bridge, conventional (with temporary detour bridge)
- ALTERNATIVE 3A:** Three-span, concrete bridge, ABC, longitudinal move-in
- ALTERNATIVE 4A:** Full-span, steel truss bridge, ABC, longitudinal move-in
- ALTERNATIVE 4B:** Full-span, steel truss bridge, ABC, transverse slide-in

Through the environmental process, Caltrans will work with regulatory permitting agencies to avoid and minimize impacts. This process can result in further refining the alternatives.