

Bay Bridge studio envisions new uses for old eastern span

Caltrans long ago established that the eastern span of the Bay Bridge was “seismically unsuitable as a life-line structure” because of damage from the 1989 Loma Prieta Earthquake. Engineers began working in the early 1990s on a replacement for the cantilever portion of the bridge. In January 2002, construction began on a new causeway and suspension span to replace the entire cantilever span and truss structures. Completion currently is scheduled for 2013. In addition to the overall \$5.7 billion cost of the project, the Toll Bridge Seismic Retrofit Program expects to spend \$232 million to demolish the eastern span between 2013 and 2014. Demolition design is underway and on schedule.

Last fall at UC Berkeley’s College of Environmental Design studio, Joseph Esherick Visiting Professor Frederic Schwartz, FAIA, and lecturer Marc L’Italien, FAIA, asked

12 graduate students in architecture to think outside the box and suggest uses that would not only retain the obsolete 1936 structure, but also transform it into a new neighborhood, complete with housing, office and retail space, parks, and other public uses.

One graduate student, Nicole Lew, found it “really exciting to work in this studio for the semester. The Bay Bridge studio was a combination of both the practical and the fantastic. During our research, we came across many images of the construction of the Bay Bridge in the 1930s that convinced me that this structure should be preserved and reused for something new.”

Some of the information and images below originally appeared in an article by John King, “[Design fantasies for obsolete Bay Bridge span](#),” *San Francisco Chronicle*, January 12, 2010. Three student projects are summarized here.

Lan Hu—The Waving Bay Street. Hu’s proposal reconfigures the soon to be dismantled portion of the bridge into a waterline community committed to sustainability, anchored by a hotel and ferry terminal. Her design “aims to abstract the natural and urban forms of the Bay Area and project them in vertical cascades onto the bridge—an organization which lets people live on the hills and have the sea right beneath.”

In order to decrease the wind load on the bridge, the project breaks the length of the community into six twisting, block long, five-story buildings. The shape allows wind to pass through the structure and improves the microclimate on the bridge. The twisting shape allows glass floor areas to project over the water, with a roof garden on every floor. The south facing façade is self-shading; sun is allowed to bathe the north facing deck.



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A high rise hotel and a ferry terminal are placed at the west edge of the severed bridge.

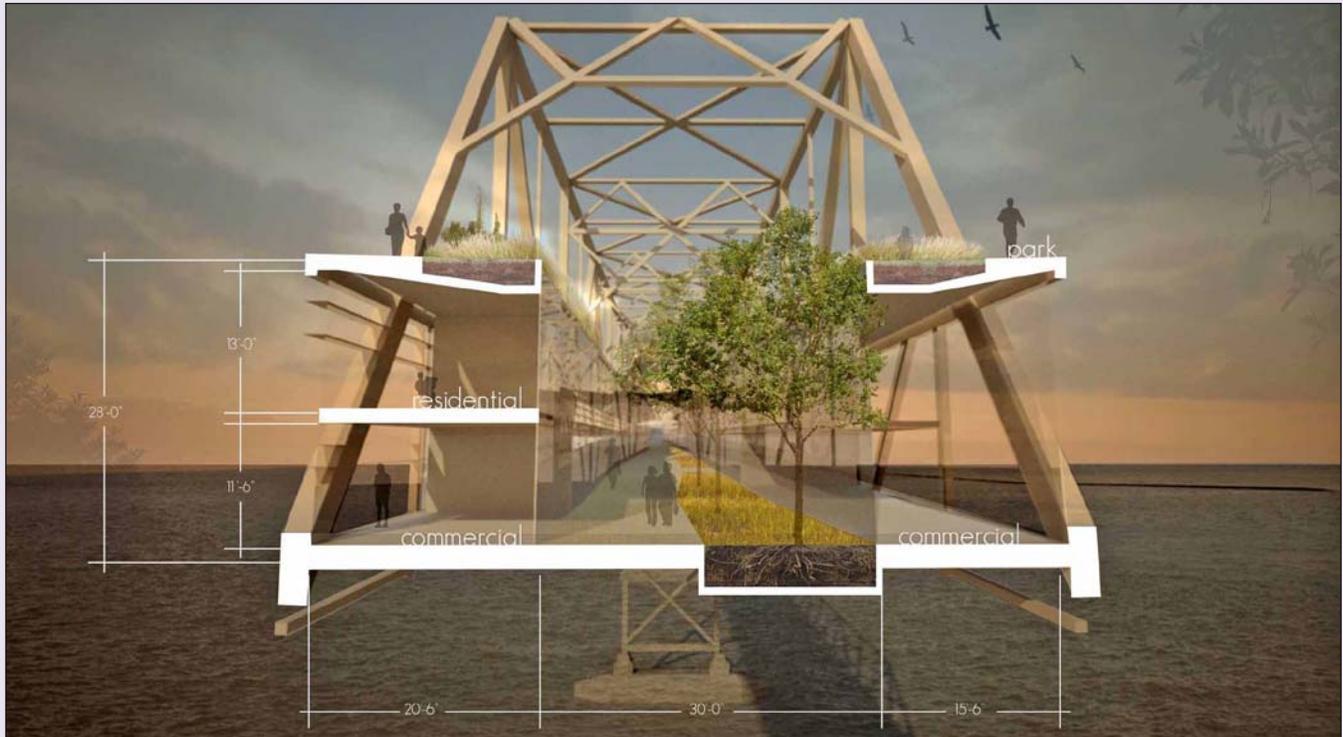


Nicole Lew—A Park above the Bay. Lew proposes to reuse the bridge as a planted greenway. While this segment of the bridge will lose its role as a vehicular connection between San Francisco and the East Bay, her proposal would establish a connection for people, plants, and animals. A new park will feed into the Bay Trail—a recreational corridor that already connects parks around the Bay via bicycle paths and hiking trails.

The proposal has three “focal points—a Bay ecology learning center at the beginning of the causeway, a library at the beginning of the trussed section, and a performance space at the end of the cantilever.”



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The park will span the full length of the top deck until just after the cantilever, where the old bridge will be cut short to make way for the new bridge. In the space between the existing top and bottom decks will be two stories of residential and commercial space. This is an inversion of the typical street, with the public park and circulation above and the retail and residential below. The park “folds down” below the top deck, funneling light and plants to the areas below.

David Dana—Farming on the Bay Bridge. Urban dwellers are detached from the farming process. Having the opportunity to farm on the former Bay Bridge would be an attraction for locals—and an opportunity to explore and exploit the potential of the site for artificial farming.



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Dana views the site no longer as a bridge but a neighborhood. His project would create a self-sufficient community that grows food and flowers. A series of esplanades and plazas would be built along the upper deck; an internal transportation system in the lower deck. A nine-story hotel—assembled within the current tower—and an educational campus located at the opposite end of the truncated bridge, would be connected by a promenade of housing units and a system of farming platforms based on the concept of scaffolding.



The architecture is intended to be prefabricated, demountable, and flexible, able to change with the seasons. The combination of uses affords an array of social activities and interactions that can forge community.

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