

# THE SAN FRANCISCO-OAKLAND DAV DDIDGE CEICAAC CAEETY DDG

### BAY BRIDGE SEISMIC SAFETY PROJECTS

CALTRANS

BAY AREA TOLL ALITHORITY

CALIFORNIA TRANSPORTATION COMMISSION



West Span

Yerba Buena Island Transition SAS

Skyway

Oakland ouchdowr

FACT SHEET

# **West Approach**

Seismic safety work involves completely removing and replacing this one-mile section of freeway in its original footprint, as 280,000 vehicles continue to travel over it each day!



#### **PROJECT OVERVIEW**

The West Approach refers to a one-mile stretch of Interstate 80 linking San Francisco to the Bay Bridge. It is delineated by Fifth Street and the San Francisco anchorage on Beale Street. Seismic safety work on the West Approach involves completely removing and replacing this one-mile section of freeway in its original footprint, as 280,000 vehicles continue to use the bridge each day!



As part of this \$429 million retrofit-by-replacement project to rebuild the West Approach, the double-deck roadways from 3rd Street to the anchorage are being rebuilt so that each deck will have independent columns and foundations.

#### **CONSTRUCTION ELEMENTS**

Of the many seismic retrofit projects planned for the Bay Bridge, efforts to rebuild the West Approach occur in the most densely populated area. Some of the work, which has mobilized enormous demolition and construction equipment from all over the country, takes place within feet (or even inches!) of apartment buildings and offices South of Market Street in San Francisco. In an effort to keep traffic moving and to minimize neighborhood disruptions, the project is being performed through a series of six highly complex phases of demolition and construction.

#### A WHOLE NEW APPROACH

A one-mile stretch of I-80 approaching the bridge, and two on- and three off-ramps, will be demolished and completely rebuilt. The work

### **Key Facts**

- Project Start Date: 2003
- Anticipated Completion Date: 2009
- Construction Contractor: Tutor-Saliba Corporation
- Year that the San Francisco-Oakland Bay Bridge opened to traffic: 1936

required to rebuild the West Approach is being performed through elaborately choreographed stages, as each section of the one-mile freeway is demolished and rebuilt one section at a time. To ensure public safety, the work often requires major lane reconfigurations, traffic shifts, and temporary deck closures. Vehicles are detoured onto temporary roadways as the original structures are demolished and rebuilt. When the new structures are completed, traffic is once again shifted and the temporary structure is demolished.

Work on the West Approach is one of a series of seismic safety projects to strengthen the Bay Bridge. Seismic retrofit work on the bridge's West Span was completed in 2004. Work to completely replace the original eastern span started in 2002. Replacing it will be a dramatic Self-Anchored Suspension (SAS) span, a 1.2-mile long Skyway and a touchdown near the Oakland Toll Plaza. A temporary transition structure at Yerba Buena Island will be required, to allow traffic to safely use the existing bridge and tunnel while the tie-in to the new bridge is completed. After these seismic safety projects are completed, the original eastern span will be demolished.

#### **SCHEDULING IS KEY**

Most of the major demolition and construction work is scheduled at a time when it will be least disruptive to the 280,000 vehicles crossing the bridge each day. However, as with any project of this magnitude, traffic backups and neighborhood impacts are likely to occur. Bridge builders continue to go to extreme lengths to minimize these impacts by scheduling work over weekends and at night. Sometimes it means consolidating work into a condensed time frame. Often, hundreds of workers must toil around-the-clock to get the job done before heavy commute-hour traffic begins.

#### LABOR DAY CLOSURE

The most challenging work on the West Approach occurred over Labor Day weekend in 2006, when a 1,000-foot segment of roadway on the upper deck was removed in just 77 hours. The roadway is being replaced with a new, seismically upgraded structure. This

required the erection of a system of steel beams and columns to support 400 feet of the lower deck; the removal of steel and concrete reinforcements, including 25-ton structural steel bolsters and 22-ton steel columns; the processing of concrete and steel; and the removal of many tons of debris. Extensive plans were also made for dust control, safety monitoring, milestone tracking, and risk mitigation. The work also involved the cooperation of numerous transportation agencies, airports, emergency service providers and many cities and counties.

#### **KEEPING EVERYONE INFORMED**

Keeping neighbors, motorists, and the general public informed has been key during major demolition and construction work on the West Approach. Outreach efforts include community meetings, door-to-door canvassing, the staffing of a project hotline, mailings, public service announcements, and media and legislative outreach.

The work on the West Approach over Labor Day weekend required the project's most extensive outreach campaign, beginning several weeks in advance of the closure and intensifying as it neared. The campaign extended from Mendocino to Bakersfield. It included television, radio, and print announcements; the distribution of nearly one million fact sheets to airports, hotels, hospitals and other venues; and extensive canvassing of residential and commercial neighborhoods.

Because of this comprehensive public outreach, motorists avoided the bridge over Labor Day weekend, and workers were able to finish this enormous task on time!



This is one in a series of fact sheets available on the San Francisco-Oakland Bay Bridge Seismic Safety Projects published by the

**BAY BRIDGE PUBLIC INFORMATION OFFICE** 311 Burma Road, Oakland, CA 94607

Tel: (510) 286-7167 email: info@baybridgeinfo.org

PS030407IM