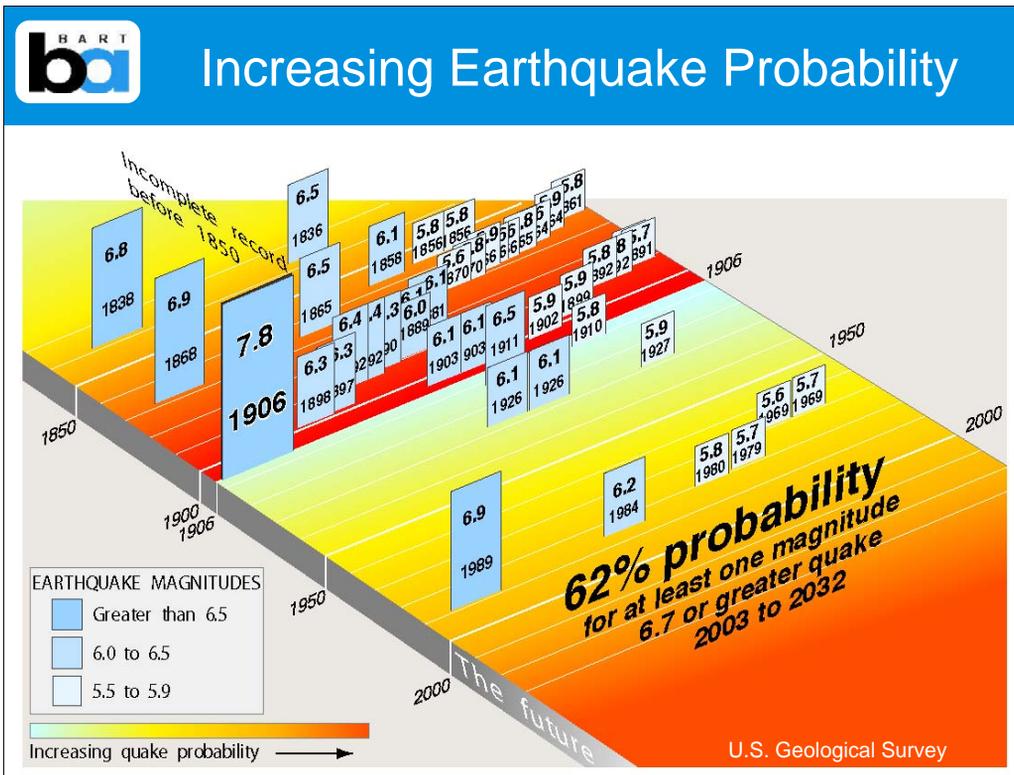


Thank you for viewing this presentation about the San Francisco Bay Area Rapid Transit District (BART) Earthquake Safety Program, as presented to the El Cerrito City Council on January 22, 2008.

If you have questions not answered on the following slides, please visit www.bart.gov/earthquakesafety or contact Catherine Westphall at (510) 464-7595.

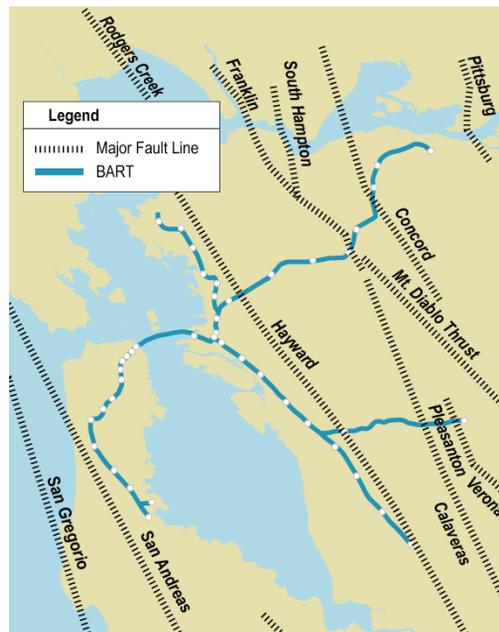


This chart is from the U.S. Geological Survey. The bars are the major earthquakes the Bay Area has experienced over time – most notably the 1906 San Francisco Earthquake and the 1989 Loma Prieta quake. Analysis of historical earthquakes has shown that earthquakes re-occur in cycles. Scientists predict that we are now at the beginning of the next cycle of earthquakes to release built-up strain, which would mirror what the Bay Area experienced in the late 1800s, as shown on this chart.

It is with this in mind that we are moving forward to strengthen BART as quickly as possible.



BART Earthquake Safety Program



- Program is BART's top priority.
- Program is crucial to public safety.
- Primary Vulnerabilities
 - Transbay Tube
 - Aerial Guideways
 - Stations
- Proceeding as quickly as possible.
- Passage of Measure AA, BART Earthquake Safety Bond, in 2004 secured majority of funding.



This map shows the locations of major Bay Area fault lines in relation to the BART system, shown in blue. The 1989 Loma Prieta earthquake occurred on the San Andreas fault, with the epicenter 60 miles south of this area. BART sustained very little damage in 1989 because it was built to very high standards for the time and because the quake occurred so far away. However, BART must be brought up to today's standards and be prepared for closer quakes. The Hayward Fault is of concern because of its proximity to BART and because it is due for a major earthquake. The last time it experienced a major rupture was in 1868.

The Earthquake Safety Program is BART's top priority. In-depth studies found that Transbay Tube, aerial (elevated) guideways and aerial stations are most vulnerable. The majority of funding for the program was secured when voters passed Measure AA in November of 2004.



This map shows where BART crosses El Cerrito and the general locations where BART will perform strengthening work within the City. Most of the work will be strengthening of aerial (elevated structures).



Aerial Guideway Vulnerability



186 Aerial Guideway Supports in El Cerrito

El Cerrito Plaza and El Cerrito del Norte Stations

- Foundations too Small
- Potential for Crumbling of Columns, Similar to Cypress Freeway



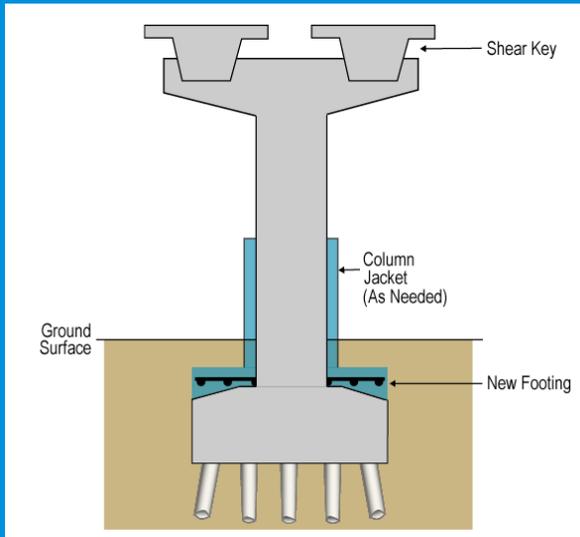
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BUILDING A STRONGER SYSTEM

There are 186 aerial guideway support structures in El Cerrito. El Cerrito Plaza and El Cerrito del Norte stations are also aerial (elevated) and must be strengthened.

Vulnerabilities identified include foundations being too small and potential crumbling of concrete columns, similar to what happened to the Cypress Freeway during Loma Prieta.



Aerial Guideway Strengthening Concepts



- Strengthen Foundations
- “Jacket” Columns (if necessary – very few needed)
- Add Shear Keys
- Station Retrofits: Generally similar to adjacent guideways, plus strengthening canopies, staircases, escalators, etc.



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For the aerial guideways, foundation and column strengthening are likely to be the majority of our upgrade activities. Foundations will be strengthened by adding steel reinforcement and concrete to the top of the existing concrete footing. Where needed, columns will be wrapped with a steel or carbon-fiber jacket. Column jackets will be needed on fewer than ten percent of all of the columns in El Cerrito.

Shear keys under the trackway may be needed in some locations. Retrofits for the El Cerrito stations will include strengthening canopies, staircases, escalators and other station elements.



Excavation at Work Site



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This Caltrans photo shows construction similar to what BART will perform. BART will continue to operate safely during the retrofit construction.



Process with the City

- Held meeting to get public input on temporary detours of Ohlone Greenway paths – input is under review.
- Working with City staff to coordinate potential efficiencies between BART Earthquake Safety work and City Greenway Project(s).
- Extend BART agreement with City.
- City reviewing BART's plans.



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BART is working with City of El Cerrito staff to coordinate construction details. On December 18, 2007, BART also obtained valuable public input at a meeting on temporary detours of the Ohlone Greenway paths that will be necessary to safely complete the work.



Community Relations

- BART standard practice is to coordinate with all stakeholders to ensure effective communication during work.
 - Lessen impacts.
 - Plan for access.
 - Provide notification.

- As with the SFO extension and all major BART construction projects, a comprehensive community relations plan will be developed for this project to communicate with all affected parties.



As with all major BART construction projects, BART staff will work with the community to lessen impacts, plan for access, and provide advance notification about the work.



Next Steps

- Continue working with City staff for BART plan approvals.
- Initiate discussions with other neighbors, and identify preferences for communicating construction information.
- Refine construction schedules:
 - Anticipate approx. 2 months per column
 - Work starts approx. late 2009 at first locations
 - All work complete approx. 2013



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BART will continue working with City staff and the community to prepare for construction.

Construction schedules will not be finalized until after BART accepts a contractor's bid. Construction work will begin approximately late 2009 at the first locations, and all work is expected to be complete by the end of 2013.



Questions & Answers

**BART is Committed to
Safeguarding Bay Area
Transportation and
Economic Well-Being**



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Again, thank you for viewing these slides. If you have any questions, please visit www.bart.gov/earthquakesafety or contact Catherine Westphall at (510) 464-7595.