

THE CALTRAIN CORRIDOR VISION PLAN

Appendix D

New Rail Service: Concepts for the Future

What if growth continues in the Caltrain Corridor over the long term? How we will keep people moving in the future? Given the potential for growth at locations east of Highway 101, which are not close to existing rail stations, it's worth considering a new rail branch through this area in the future. One concept we examined is a new branch off of the Caltrain corridor between Redwood City and Santa Clara to serve new potential markets in East Palo Alto, Mountain View, Sunnyvale and Santa Clara east of Highway 101 (the Bayshore Freeway).

The alignments we considered aim to maximize the use of existing rights-of-way to minimize construction impacts to communities. We assumed at-grade alignments wherever they were possible without community impact. Along Highway 101, aerial alignments alongside the freeway were considered feasible for much of the route. Wherever at-grade and aerial alignments were not feasible (for example, through East Palo Alto), we identified below-grade/tunneled alignments.

From north to south, the primary alignment generally follows:

- UP Redwood Junction Industrial Lead, also known as the Dumbarton Corridor, from the existing Caltrain corridor in Redwood City to East Palo Alto
- A new underground alignment through East Palo Alto
- US-101 Bayshore Freeway, from East Palo Alto to the existing Caltrain corridor in Santa Clara

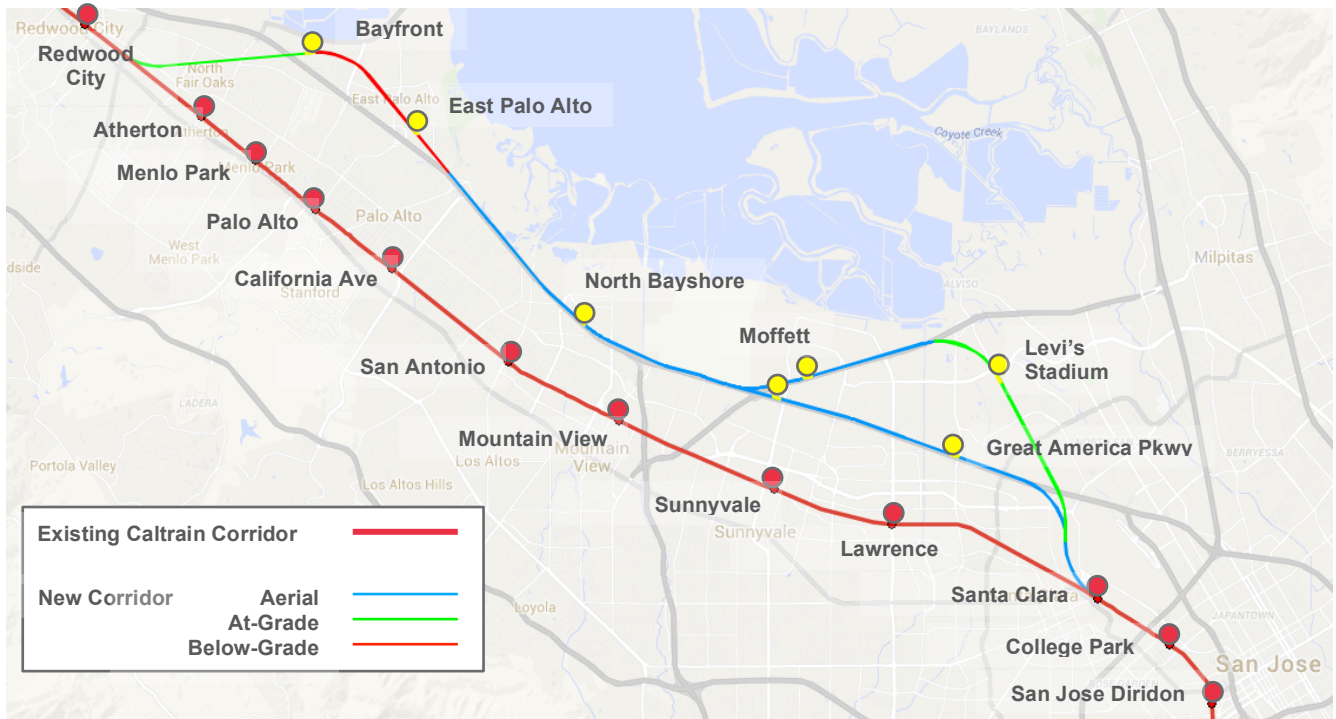
Between Sunnyvale and Santa Clara, we considered a second alignment option generally following:

- SR-237 Southbay Freeway from Sunnyvale to Levi's Stadium
- UP Coast Subdivision (i.e., the Capitol Corridor and ACE corridor) from Levi's Stadium to the existing Caltrain Corridor at Santa Clara

We included representative new stations on the proposed branch alignment at:

- Bayfront (Menlo Park)
- East Palo Alto
- North Bayshore
- Moffett
- Great America Parkway / Levi's Stadium

Figure 1. Concept for a New Bayshore Rail Alignment



The approximate sketch-level geometry of this new Bayshore branch alignment was designed to allow 110 miles per hour operation in accordance with California High-Speed Rail design criteria (using minimum values as prescribed in Technical Memorandum 2.1.2: Alignment Design Standards for High-Speed Train Operation, 2009). The assumed minimum horizontal curve radius was 5,400 feet.

With a new branch line between Redwood City and Santa Clara, overall capacity could be reduced if the travel times on the two branches are unequal (i.e., trains would not diverge and merge cleanly). We avoided this effect by assuming that trains operating on the two branches would not share tracks between Santa Clara and Diridon station (i.e., train schedules on the two branches would be independent south of Santa Clara).

For performance information about this proposed Bayshore alignment, see Appendix A. (Available at spur.org/caltraincorridor)