

State Route 710 North

SINGLE BORE FREEWAY TUNNEL FACT SHEET

Description

The Single Bore Freeway Tunnel (SBFT) connects the existing southern stub of State Route 710 in Alhambra, to the existing northern stub of Interstate Route 710, south of the Interstate 210/State Route 134 interchange in Pasadena. The alignment is approximately 6.3 miles long, and consists of a bored tunnel (4.2 miles), short (0.7 miles) cut-and-cover tunnel segments at the south and north termini, and at-grade (1.4 miles) segments; with no intermediate interchanges or vertical ventilation shafts.

The SBFT has the highest net present value at approximately \$1.5 Billion. The preliminary construction cost estimate is \$3.15 Billion (in 2014 \$s) of which approximately \$50 Million is earmarked for TSM/TDM improvements. The construction is expected to take between 4 and 5 years.

Continued local input and coordination with cities, state and local fire representatives, first responders, California Highway Patrol, Caltrans, power companies, railroads, the flood control district and other affected agencies, is expected throughout the remaining project development phases.

Transportation Benefits

The SBFT is expected to carry 90,000 vehicles per day, remove 42,000 vehicles per day from local streets within the study area and save motorists (using the tunnel) 13 minutes, in addition to providing the following benefits:

- > Improves local and regional mobility
- > Improves air quality for affected cities within the study area
- > Reduce congestion and cut-through traffic on local streets- 42,000 fewer vehicles per day
- > Travel time savings (and less delay) -4000 fewer vehicle hours traveled per day during peak period within the study
- > Fewer vehicle miles traveled on local streets- reduce arterial travel by 280,000 vehicles miles travelled per day
- > Improve connectivity and mobility - increase throughput by 66,000 vehicles per day on the freeway, and increase person throughput by 49,000 daily

- > Create the greatest number of jobs- approximately 42,000 (only surpassed by the dual bore tunnel alternative potential jobs)
- > Generates the highest employment earnings approximately \$29 Million (in 2010 \$s) per year (only surpassed by the dual bore tunnel alternative potential earnings)

Design Features

Portals are planned at the southern terminus, south of Valley Boulevard and at the northern terminus, north of Del Mar Boulevard. Ventilation structures will be located at both ends of the tunnel, (incorporated into the south portal building design at the south end, and situated near the 210 interchange at the north end). In addition to providing innovative traffic and traveler information systems, other supporting tunnel systems will include, but not be limited to:

- > Air scrubbers, fans and longitudinal ventilation systems
- > Fire suppression systems (sprinkler system)
- > 24 hour communication and surveillance systems

Transportation System Management/ Transportation Demand Management (TSM/ TDM) Elements

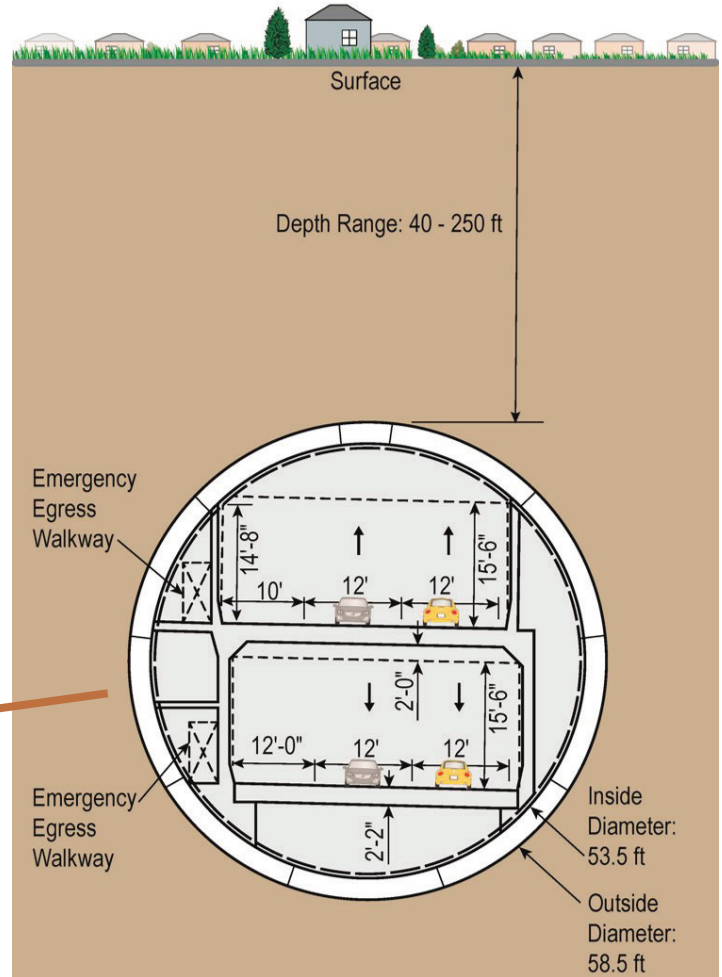
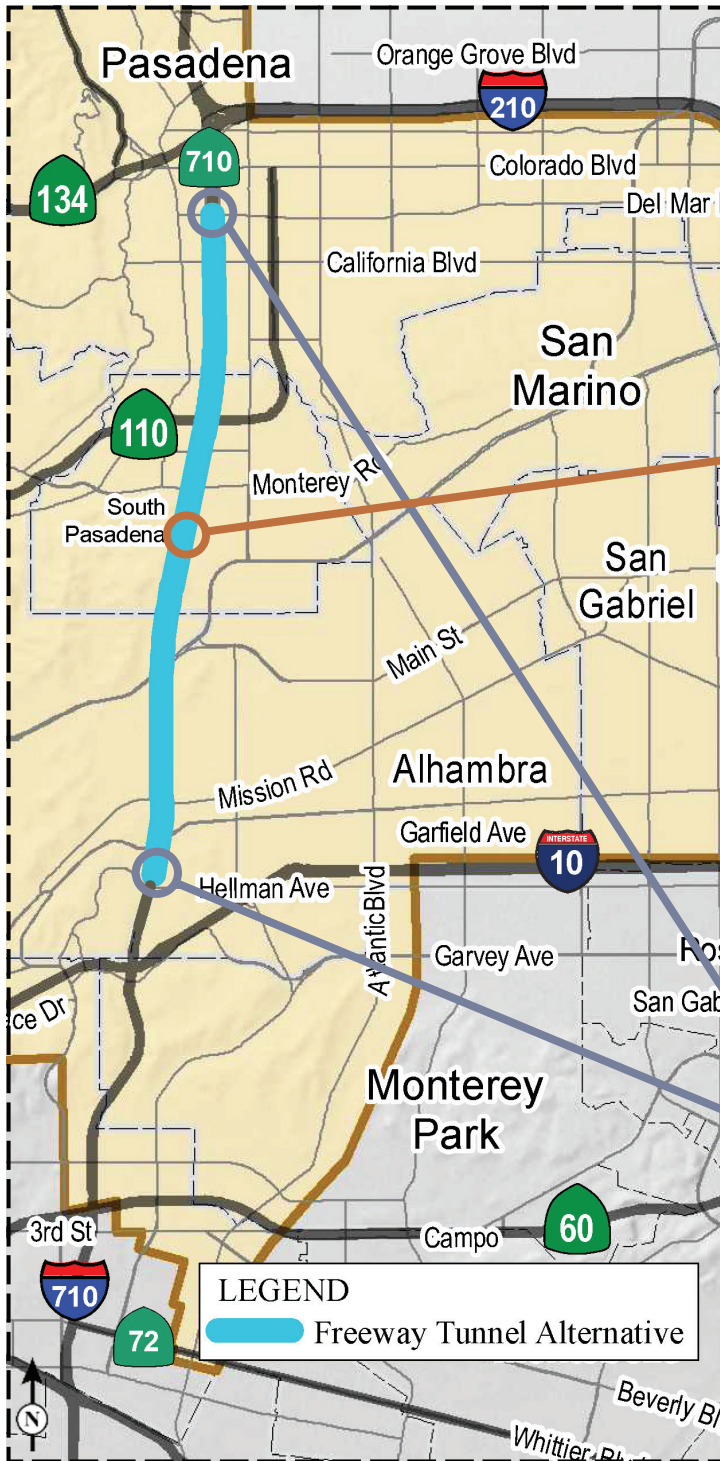
The SBFT includes all of the proposed TSM/TDM operational improvements, except for the proposed connector between Valley Boulevard to Mission Road and the extension of St. John Avenue between Del Mar and California Boulevards, due to design conflicts.

Operational Consideration

The SBFT with tolls would provide a potential revenue source and an opportunity to deliver a Public Private Partnership project. Restricting heavy trucks in excess of 33,000 tons, in addition to prohibiting vehicles carrying flammable or hazardous materials, will optimize traffic operations. Express bus service in the tunnel will have a negligible effect on improving system performance.

FREEWAY TUNNEL PROJECT AREA

BORED TUNNEL SECTION



CUT AND COVER SECTION

