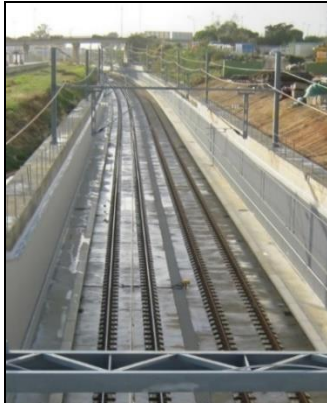
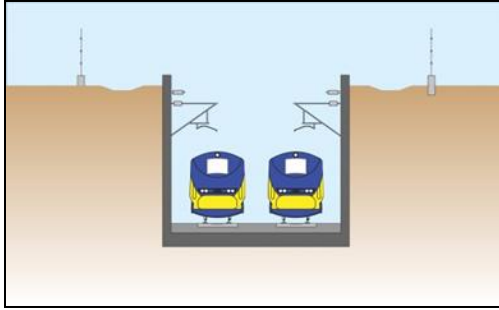


TUNNEL OVERVIEW

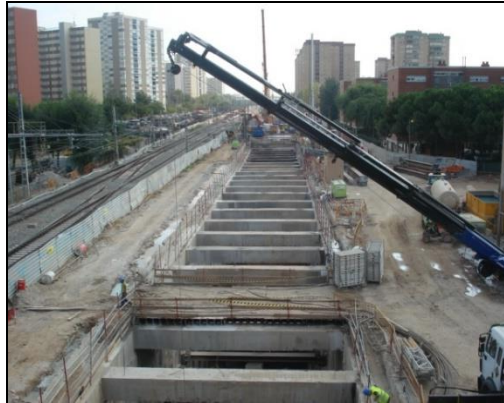
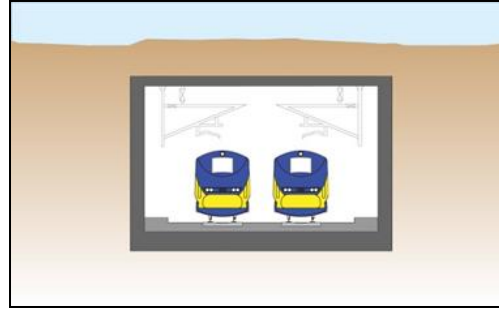


ALIGNMENT: UNDERGROUND

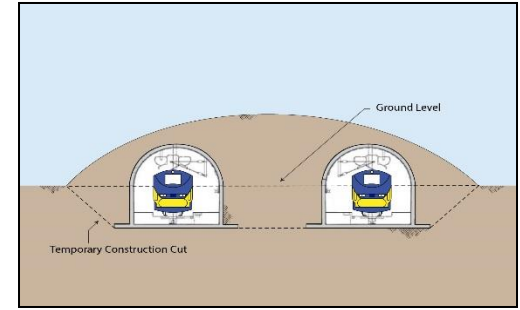
Trench



Cut-and-Cover

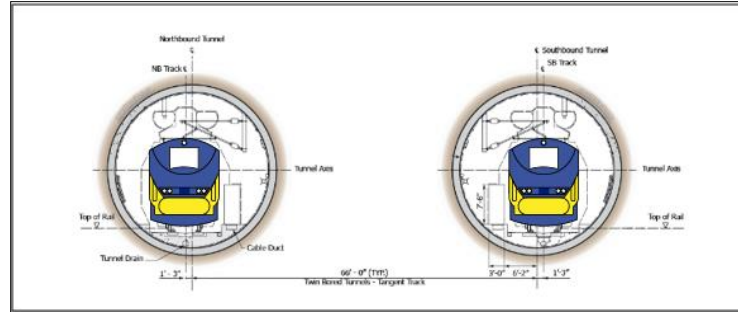


Artificial Tunnel



ALIGNMENT: UNDERGROUND

Tunnel



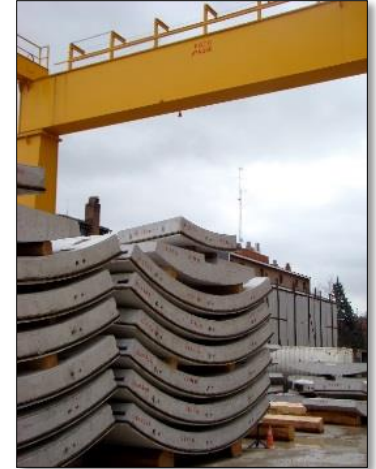
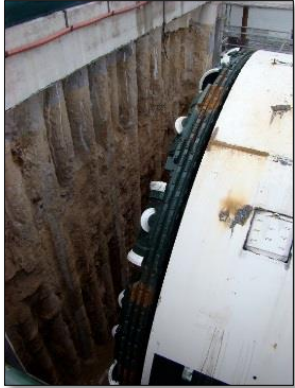
**Tunnel
Boring
Machine
(TBM)**



**Mined with
Conventional
Excavation
Equipment**

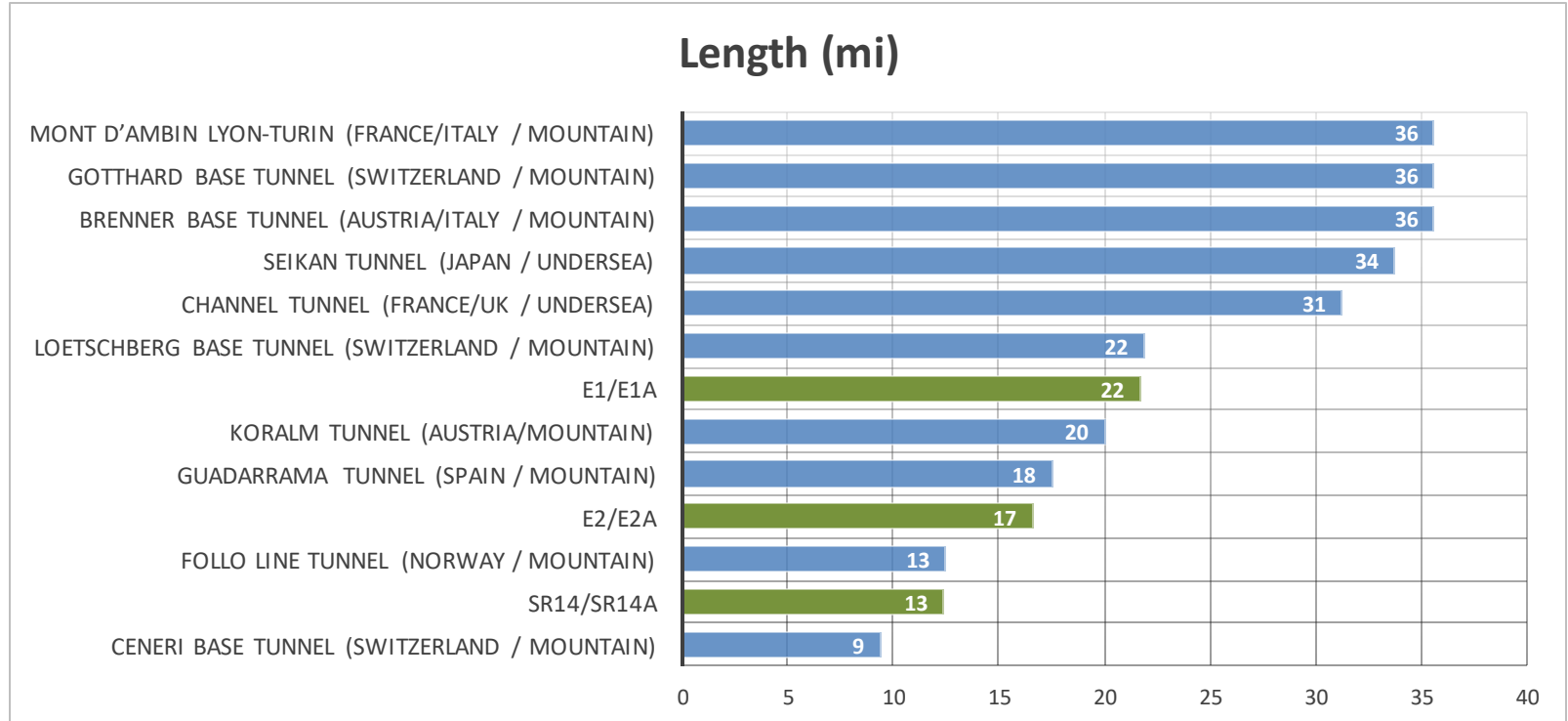
TUNNEL BORING MACHINE (TBM)

Offers maximum efficiency and performance for relatively long tunnels

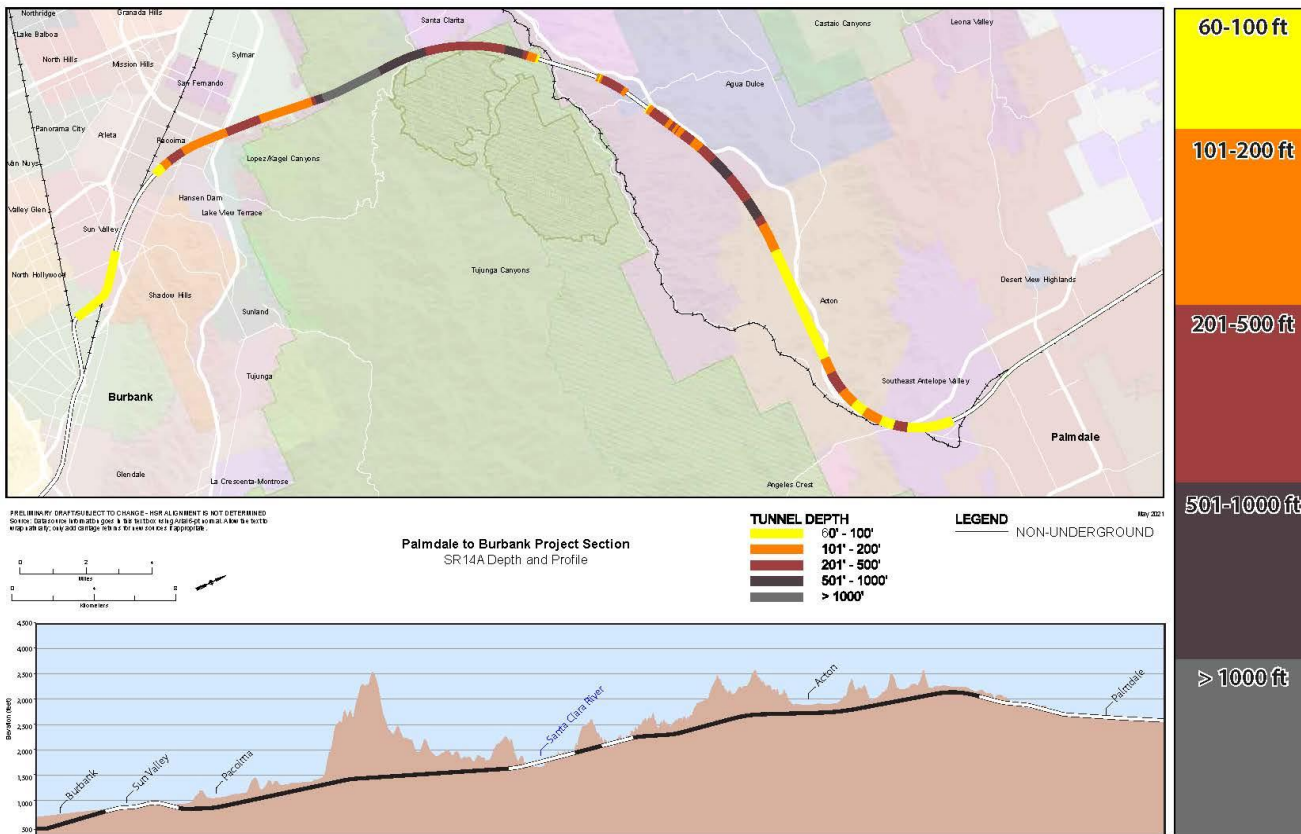


TUNNELS

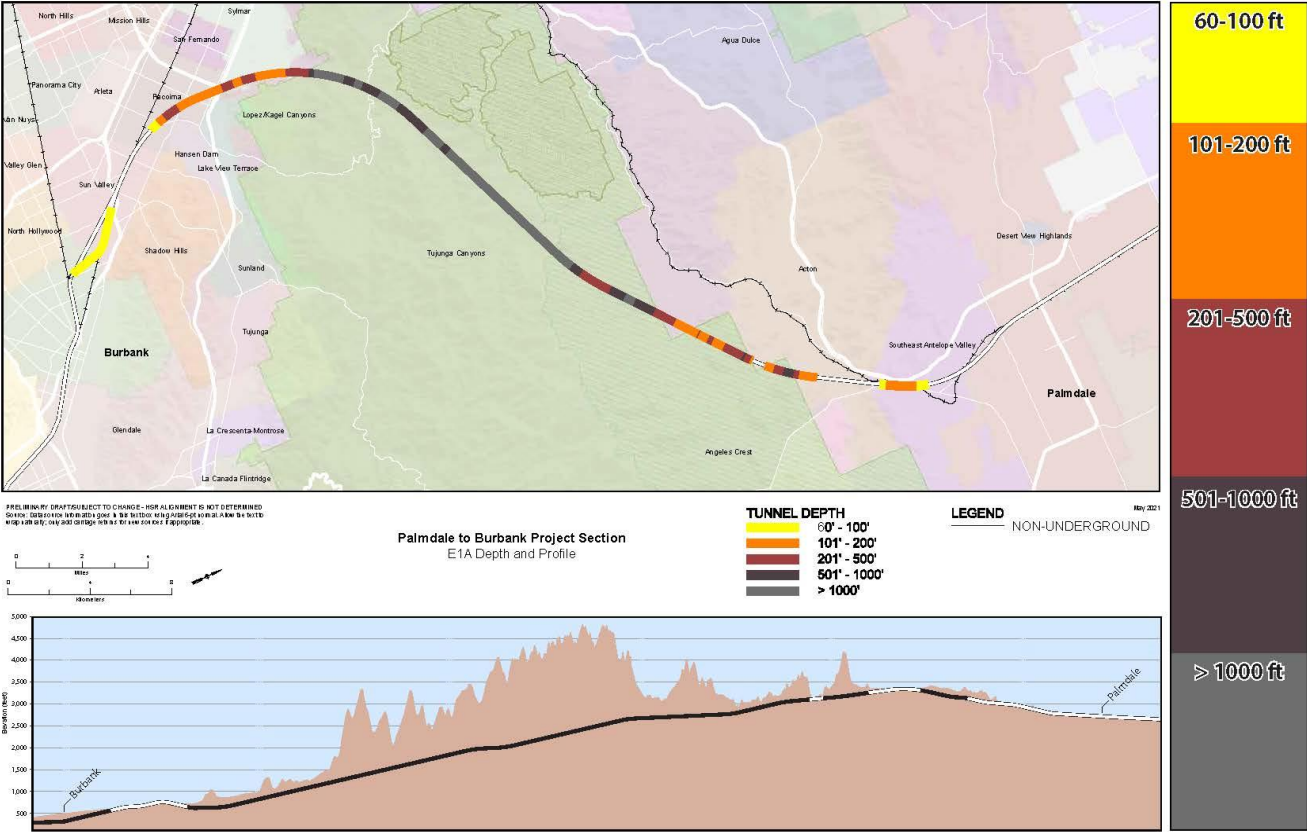
Longest single tunnel lengths compared with other rail tunnels



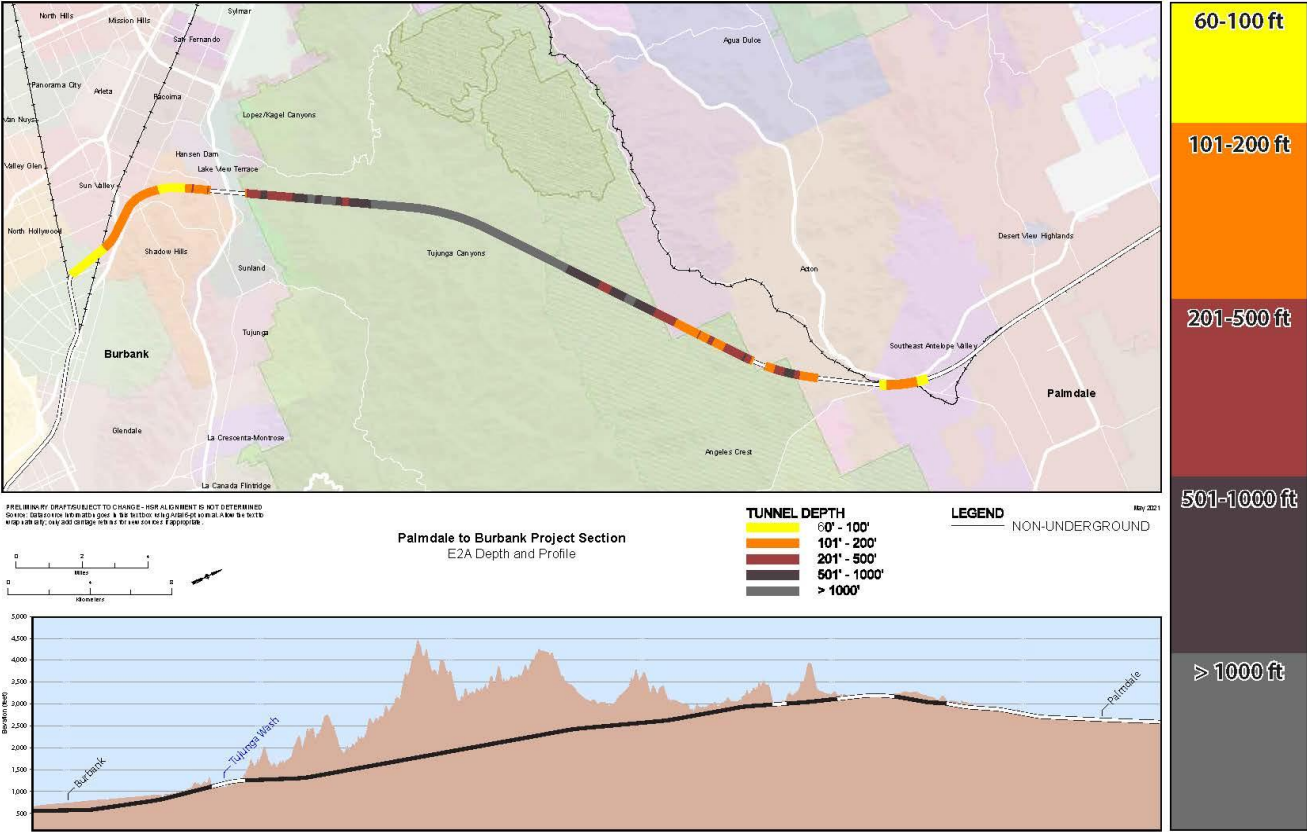
TUNNEL DEPTH MAP SR14A



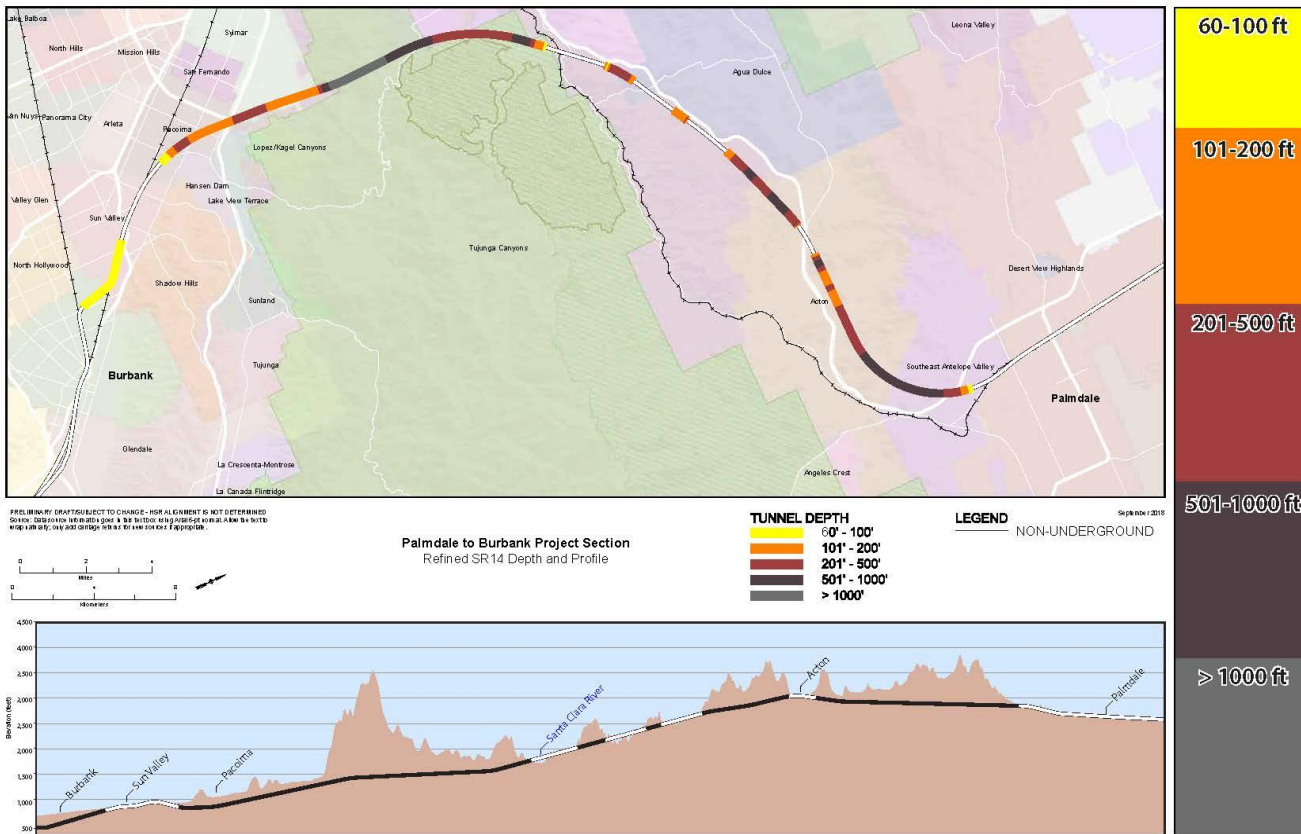
TUNNEL DEPTH MAP E1A



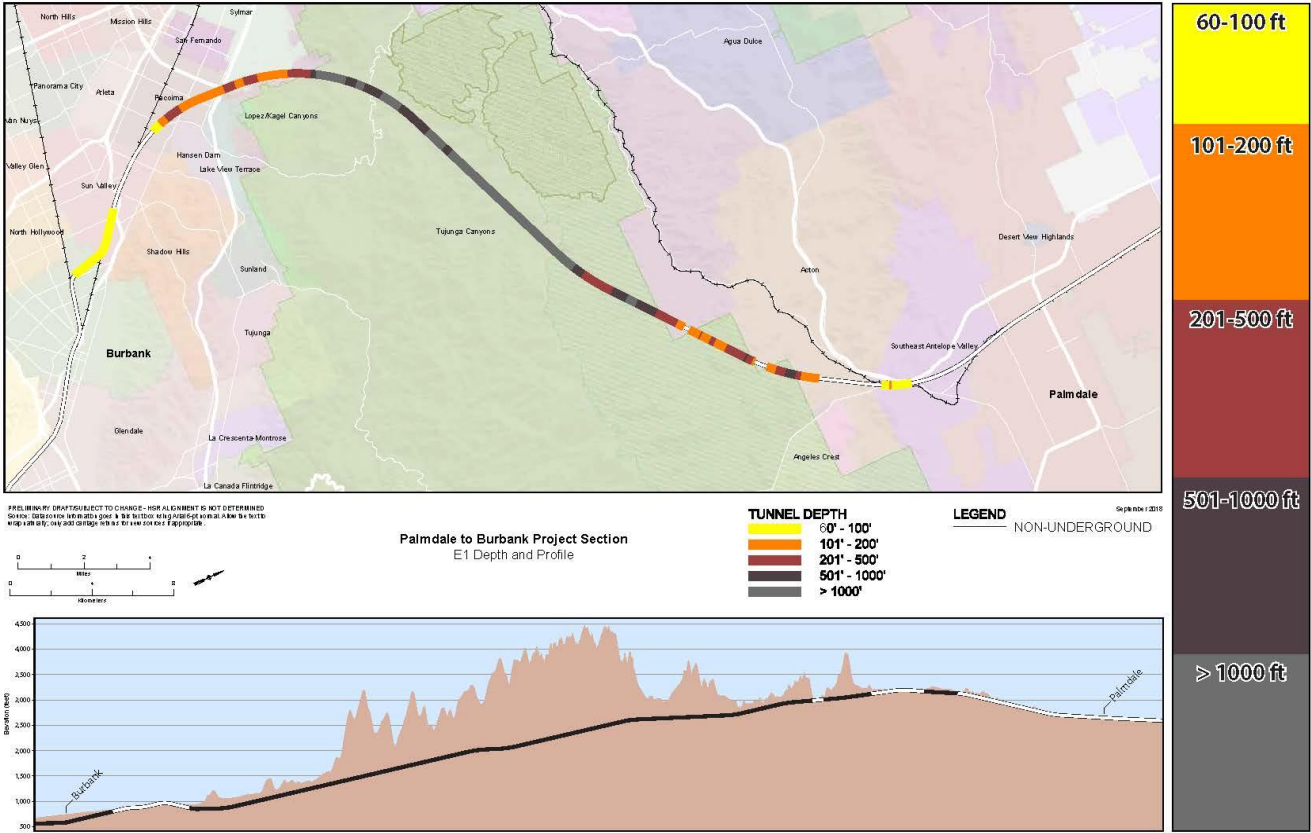
TUNNEL DEPTH MAP E2A



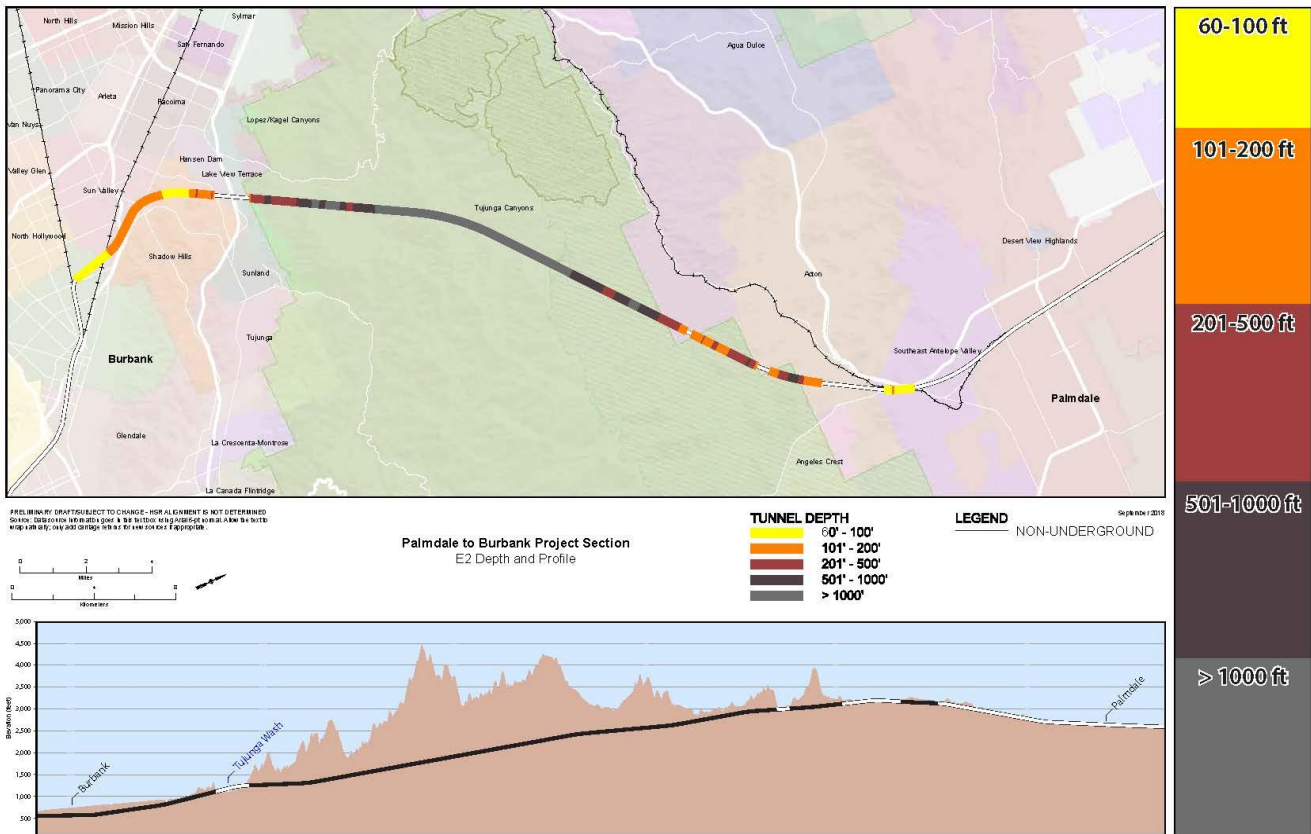
TUNNEL DEPTH MAP REFINED SR14



TUNNEL DEPTH MAP E1



TUNNEL DEPTH MAP E2



COMPARISON BETWEEN THE ROUTES

Design Feature (mi)	Alternatives					
	SR14A*	E1A	E2A	Refined SR14	E1	E2
Total length	39.7	36.8	32.9	38.7	36.6	32.8
Surface	8.5	8.1	6.4	8.4	8.7	7.1
Elevated	1.3	0.8	1.5	2.7	0.6	1.3
Underground - Tunnel	27.9	26.3	24.1	25.6	24.6	22.5
Tunnel Segment 1	13.2	1.7	1.7	7.3	1.6	1.6
Tunnel Segment 2	1.0	1.6	1.6	3.1	21.7	16.6
Tunnel Segment 3	12.4	21.7	16.6	0.5	1.4	4.2
Tunnel Segment 4	1.4	1.4	4.2	0.9		
Tunnel Segment 5				12.4		
Tunnel Segment 6				1.4		
Underground - Other	2.0	1.6	0.9	2.0	2.6	1.9

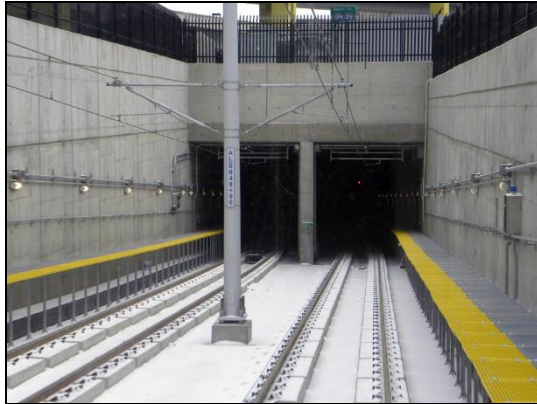
**Denotes the Preferred Alternative*

SPOILS CONVEYANCE SYSTEM EXAMPLES





PORTAL EXAMPLES



STAY INVOLVED

(800) 630-1039

palmdale_burbank@hsr.ca.gov

Southern California Regional Office

California High-Speed Rail Authority

355 S Grand Ave, Suite 2050

Los Angeles CA 90071

www.hsr.ca.gov



@cahsra



facebook.com/CaliforniaHighSpeedRail



@cahsra



youtube.com/CAHighSpeedRail

