

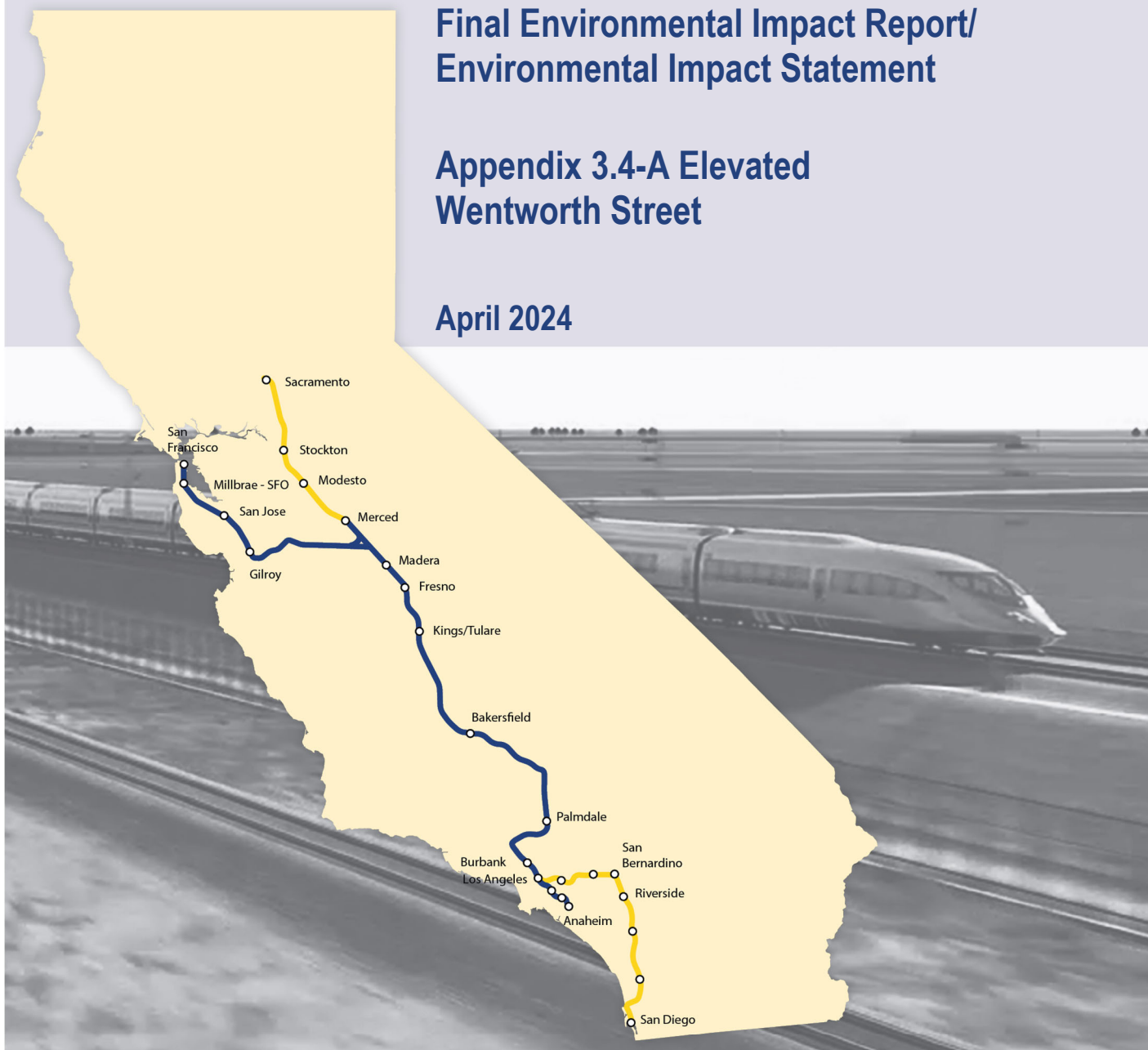
California High-Speed Rail Authority

Palmdale to Burbank *Project Section*

Final Environmental Impact Report/
Environmental Impact Statement

Appendix 3.4-A Elevated
Wentworth Street

April 2024



CALIFORNIA
High-Speed Rail Authority

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being or have been carried out by the State of California pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated July 23, 2019, and executed by the Federal Railroad

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APPENDIX 3.4-A ELEVATED WENTWORTH STREET

Cross-Spectrum Acoustics Inc.

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TECHNICAL MEMORANDUM

To: Scott Steinwert and John Cook, Circlepoint
From: Lance Meister and Scott Edwards, Cross-Spectrum Acoustics Inc.
Date: March 29, 2018
Subject: CAHSR Palmdale-Burbank – Elevated Wentworth Street Design Change
Reference: CSA Project No. J2014-1470

Cross-Spectrum Acoustics (CSA) has reevaluated the noise predictions and noise effects for Alignment E2 and E2A of the California Highspeed Rail Project (CAHSR) Palmdale-Burbank segment due to a design change of Wentworth Street. The design change occurs in the Central Subsection of Alignment E2 and E2A where the proposed alignment transitions from tunnel to aerial structure in the Tujunga Wash near Wentworth Street. The Noise and Vibration Technical Report evaluated a design of this area where the proposed CAHSR alignment passed over the existing, at-grade profile of Wentworth Street. The proposed design change would elevate Wentworth Street on aerial structure to pass over Alignment E2 and E2A. There are no proposed changes to the profile of Alignment E2 and E2A due to the design change. This technical memo summarizes the change in noise that would occur because of the design change.

Figure 1, below, shows the proposed design change of Wentworth Street on an aerial structure passing over the proposed Alignment E2 and E2A. Elevating the existing traffic noise would result in a change to the noise environment for nearby noise-sensitive receivers on Wheatland Avenue and Vail Drive shown in Figure 2.



Figure 1. Proposed Design Change - Elevated Wentworth Street



Figure 2. Proposed Design Change – Nearby Noise-Sensitive Receivers

CSA analyzed the change in noise due to the proposed design change and determined that:

- Noise from traffic on Wentworth Street would increase by a maximum of 0.3dB due to the road being elevated by as much as 30ft above the existing profile of Wentworth Street at the point of closest approach to noise-sensitive receivers,
- Noise from CAHSR operations would decrease by approximately 0.2dB due to the additional shielding of CAHSR noise provided by the elevated roadway structure,

- The net increase in noise would be 0.1dB or less, and
- There would be no change in the predicted number of noise effects in this area (Wentworth Street to McBroom Street). Moderate and severe noise effects are projected in this area at 10 residences and two residences, respectively, on the northbound side of the tracks. These effects would be due to the proximity of the receivers to the proposed track on aerial structure and the speed of the train.

Table 1, below, presents the results of the noise effects assessment in the area of the proposed design change. Note that there is no difference to this table from the corresponding portion of “Table 6-59 Residential Noise Effects Assessment, E2 and E2A Central Subsection” from the Noise and Vibration Technical Report, as noise levels are presented to the nearest whole decibel.

Table 1. Residential Noise Effects Assessment, E2 and E2A Central Subsection

Location	Side of Track	Closest Receiver(s) Distance to Near Track (feet)	Max. Train Speed (mph)	Existing Noise Level (dBA)	Project Noise Level (dBA)	Noise Impact Criteria (dBA)		Number of Effects	
						Mod	Sev	Mod	Sev
Wentworth St to McBroom St	NB	431	150	54	61	55	61	10	2
Wentworth St to McBroom St	SB	No noise sensitive receivers							

Figure 3, below, shows the location of predicted noise effects. Note that there is no difference to the predicted noise effects due to the design change as compared to the original noise assessment.



Figure 3. Location of Predicted Noise Effects

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