

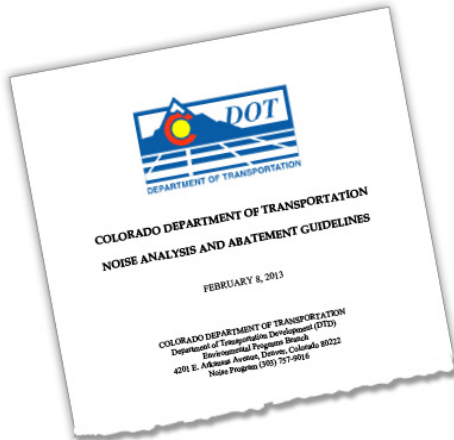


## I-25 Arapahoe Interchange Reconstruction

## Noise Analysis Overview

### Previous Study Recommendations

- The Environmental Assessment (EA) recommended two noise walls for the project: one along Arapahoe Road and one along Yosemite Street.



*The analysis followed CDOT Noise Analysis and Abatement Guidelines.*

### Design Project Noise Analysis

- 30% design data was used to further analyze the noise walls recommended in the EA. This helped determine final noise wall heights and lengths.
- Validation noise measurements and corresponding traffic volume counts were taken at eight locations (four along Arapahoe Road and four along Yosemite Street) over two days in December 2014 and January 2015. These measurements confirmed the accuracy of the noise model.



### 30% Design Noise Wall Analysis Results

- Both walls are predicted to provide noise reduction equivalent to predictions in the EA, and for some locations even slightly more (1 to 3 dBA). This is subject to change as final design data is developed.

#### Changes from the Environmental Assessment Recommendations

##### Arapahoe Noise Wall:

- 1) Noise wall panels are taller for some locations.
- 2) The east end terminus now wraps around to the south and is extended about 40 feet.
- 3) Predicted noise reductions are 0 to 3 dB more (subject to change as design is finalized).

##### Yosemite Noise Wall:

- 1) Slight adjustments to a few noise wall panel heights.
- 2) Predicted noise reductions are 1 to 2 dB more (subject to change as design is finalized).

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### Next Steps

- 1) Complete a final noise wall vote per CDOT guidelines.
- 2) Adjust the noise wall design to minimize utility conflicts and property impacts.
- 3) Publish a Final Noise Wall Analysis Technical Report.
- 4) Acquire the necessary right-of-way and easements for construction and maintenance of the walls.
- 5) Construct the noise walls.