



US 6 and Wadsworth Boulevard Environmental Assessment Noise Assessment and Mitigation

June 4, 2008

Lakewood Cultural Center, Lakewood





Welcome (Seyed or Randy)

The mission of the Colorado Department of Transportation (CDOT) is to provide the best multi modal transportation system for Colorado that most effectively moves people, goods, and information.





Agenda (Mandy)

- Overview of the US 6 and Wadsworth EA
- Preferred Alternative
- CDOT Noise Policy
- Existing and Future (2035) Noise Levels
- Noise Reduction Measures
- Questions and Comments





Meeting Format (Mandy)

- Presentation
- Display boards
- Reference materials
- Tonight's goals:
 - Provide information about proposed improvements
 - Provide information about CDOT's noise policies and noise studies conducted for this project
 - Provide information about noise mitigation
 - Answer questions and collect input on alternatives and proposed noise mitigation





Project Purpose (Mandy)

Improve traffic flow and safety, accommodate high traffic volumes, and increase multi-modal travel options and connections at the US 6 and Wadsworth Boulevard interchange and along Wadsworth Boulevard between 4th Avenue and 14th Avenue.





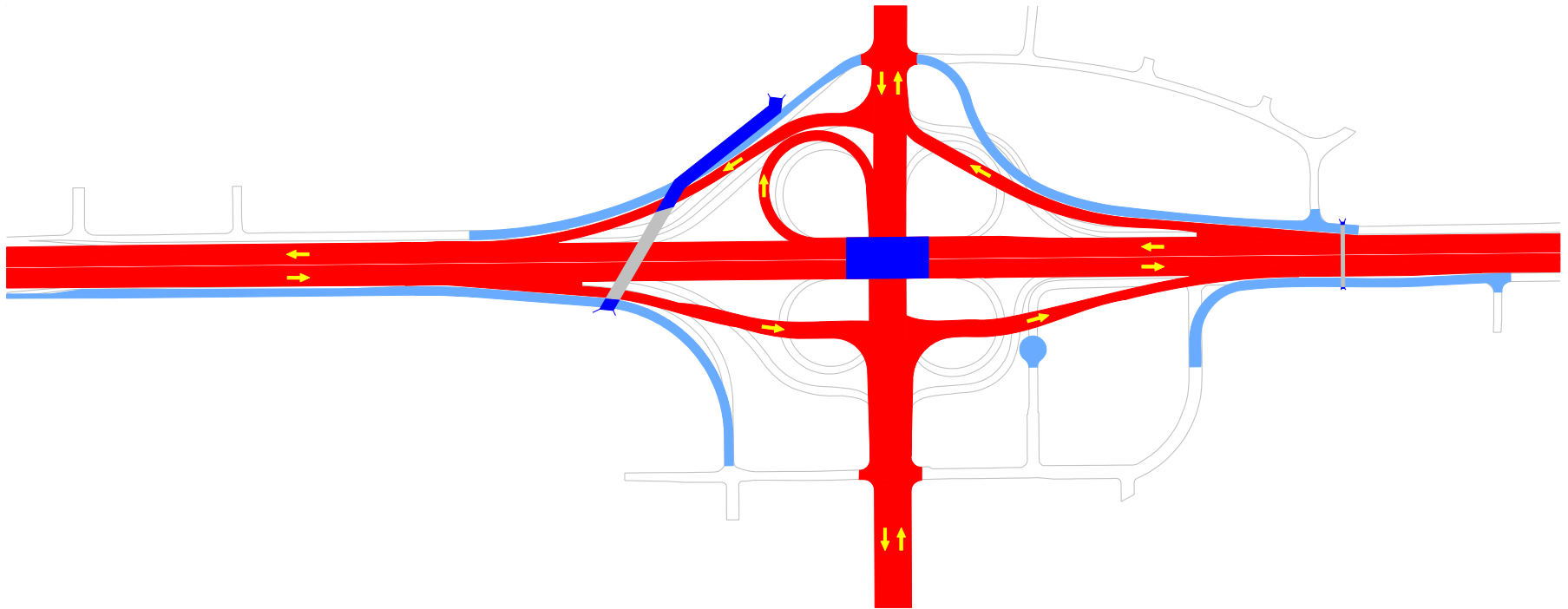
NEPA Process Progress (Mandy)

- Scoping (Completed)
- Purpose and Need (Completed)
- Develop and Evaluate Alternatives (Complete)
 - Level One Screening of Design Concepts (February 2008)
 - Level Two Evaluation (March 2008)
 - Preferred Alternative (April 2008)
- **Identify Impacts (April to August 2008)**
- **Determine Mitigation (April to August 2008)**
- EA Document (August to December 2008)
- Final Decision (December 2008)





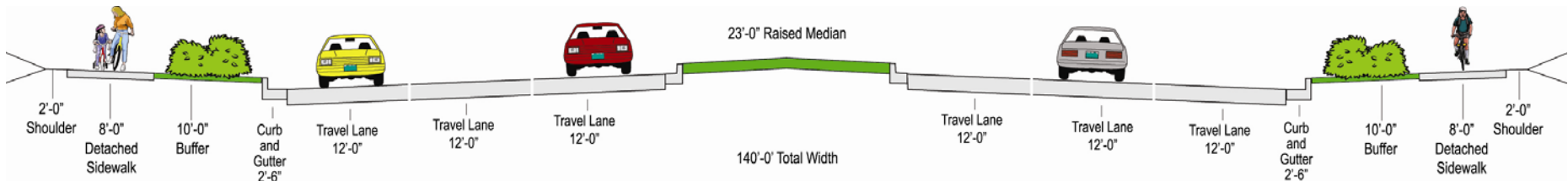
Interchange Preferred Alternative Tight Diamond with Loop





Wadsworth Boulevard

- Six travel lanes
- Raised median
- Detached sidewalks





CDOT Noise Policy (Kirk)

- Determine existing and future noise levels
- If noise levels exceed FHWA noise threshold of 66 dBA, noise mitigation is warranted
- If noise mitigation is feasible and reasonable, it is included in the project design
- Noise mitigation is only considered for new or expanded roadways (not for existing roads where traffic has increased or changed over time)





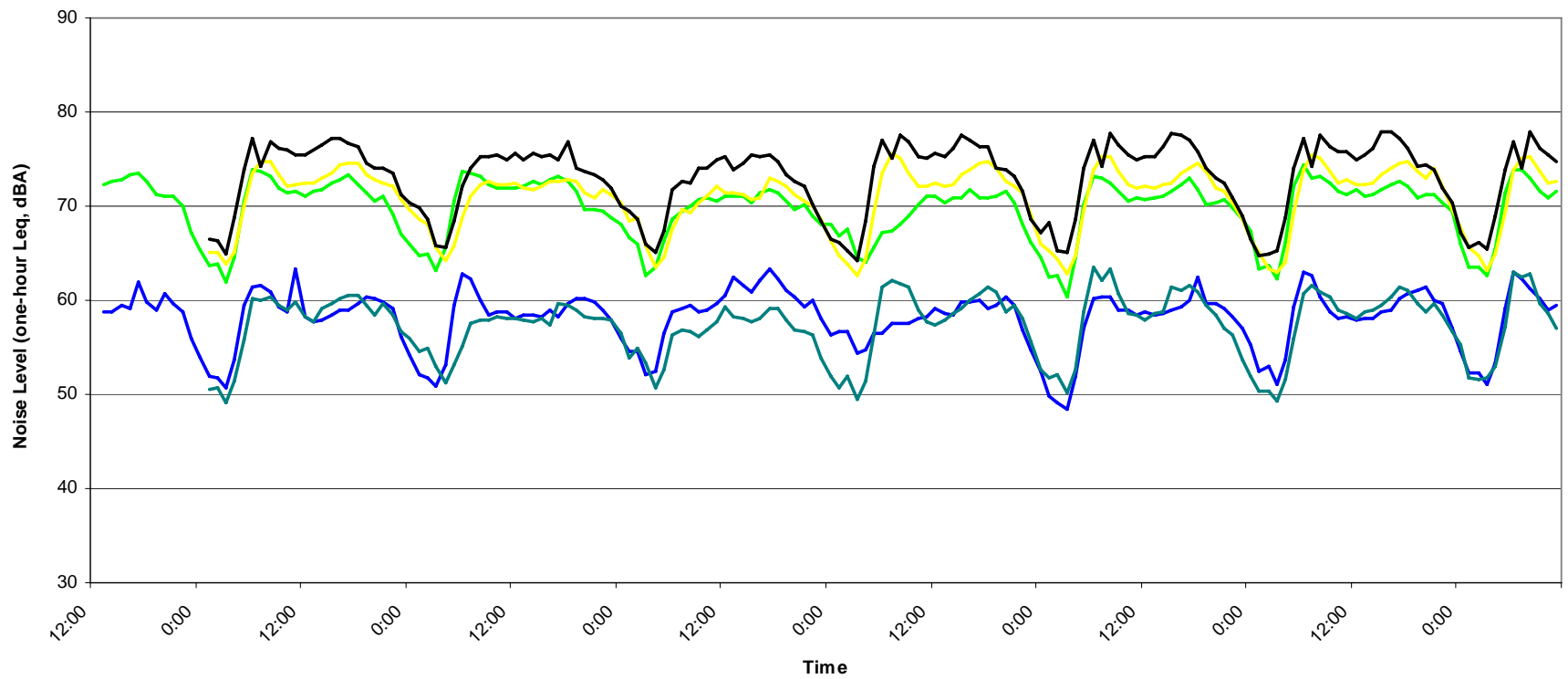
Existing Noise Levels (Mike)

- Measured noise levels for about one week at five locations
 - Three locations had direct line of sight to US 6
 - One location was three of houses back from US 6
 - One was along Wadsworth

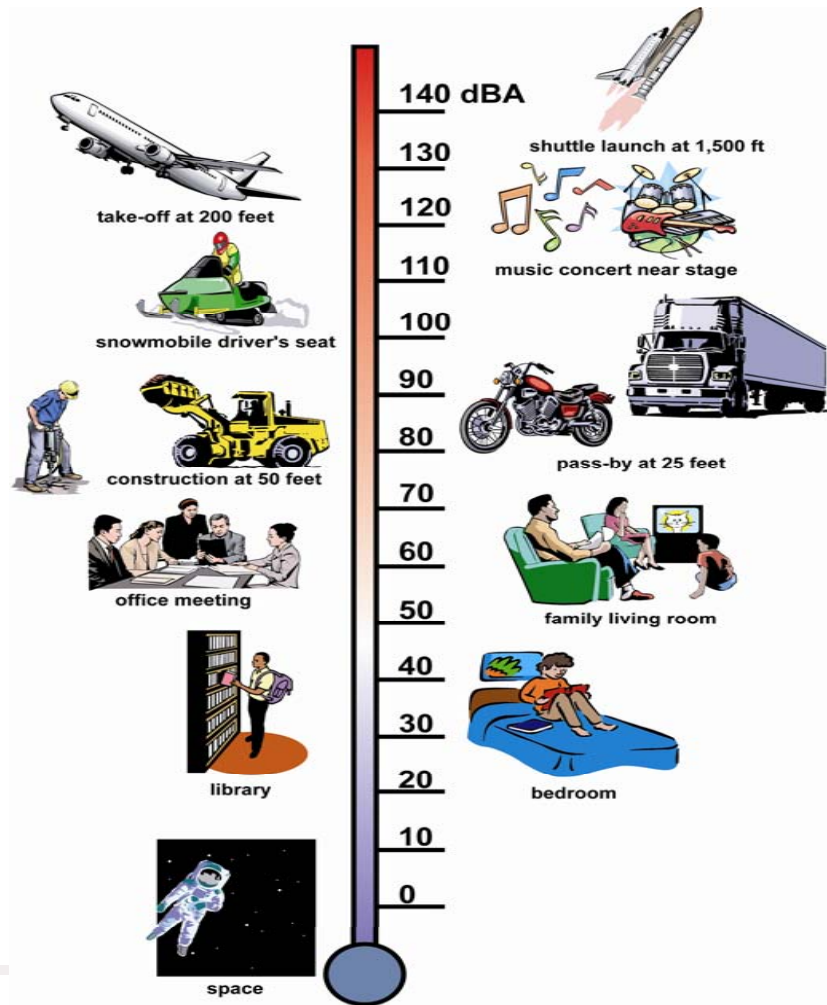




Existing Noise Levels (Mike)



Typical Noise Levels (Mike)



SOUND PRESSURE LEVELS

SOURCE: HANKARD ENVIRONMENTAL, INC. - OCTOBER 2006





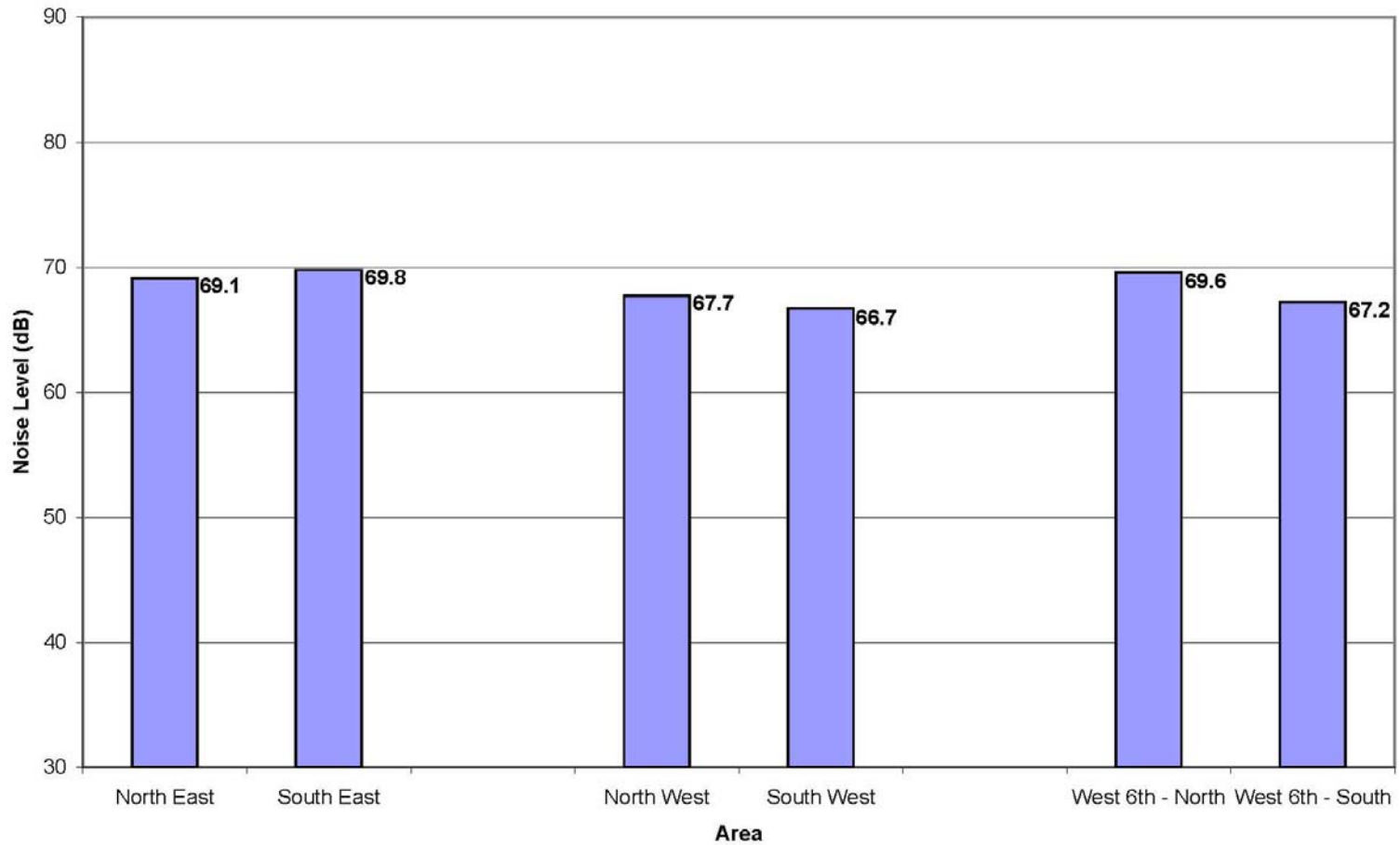
Predict Future Noise Levels (Mike)

- Use FHWA's Traffic Noise Model (TMN) to predict future noise levels with and without the project
- Model takes into account
 - Location of roadways and residences
 - Terrain
 - Elevation
 - Traffic volumes and speeds
 - Existing and proposed barriers
- Model validated using field measurements





Future Noise Levels (no noise walls) (Mike)





Noise “Impact” (Mike)

- CDOT’s Noise Abatement Criteria for residences is 66 dBA
- Noise levels are greater than 66 dBA in this project area
- Therefore this project qualifies for a noise abatement analysis



Range of Noise Control Measures (Mike)

- **Variety of measures considered:**
 - Shift road away from residences (not feasible)
 - Partially bury roadway (not feasible)
 - Construct natural barriers (earthen berms) (not feasible)
 - Soundproofing (not allowed by policy or effective for outdoor areas)
 - Speed (minimal noise benefit and difficult to enforce)
- **Quiet pavement could be considered in final design**
 - Primary consideration for pavement type is cost and effectiveness of maintenance
- **Noise walls determined to be appropriate control**





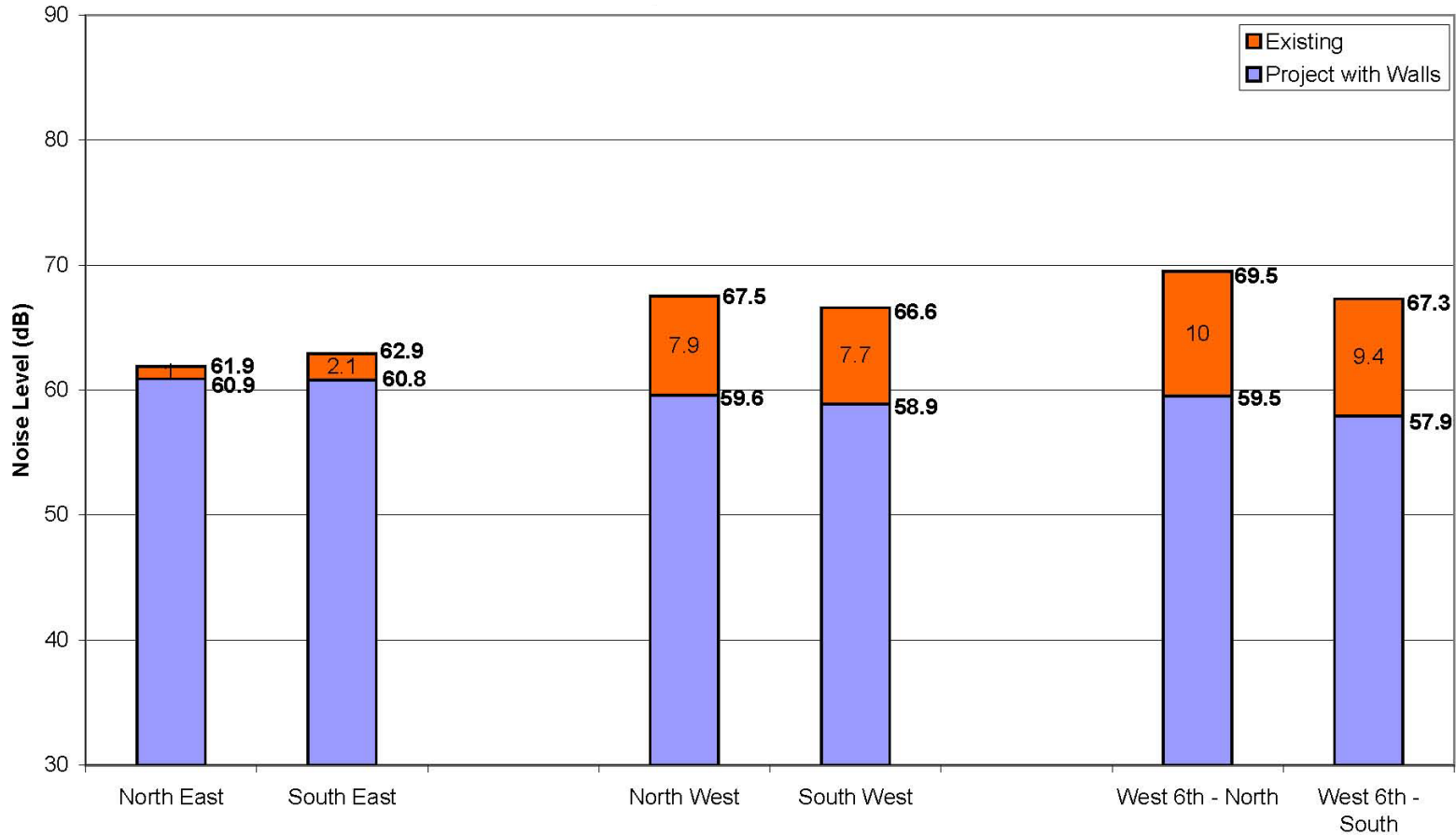
Proposed Noise Walls (Mike)

- **East of interchange**
 - Re-build and extend westward the existing 15-foot-high sound walls on both sides of US 6
- **West of Interchange**
 - Construct new 15-foot-high walls along both sides of US 6 from Wadsworth Boulevard to Garrison Street
- **On bridge**
 - Construct 4-foot-high concrete barriers
 - Higher bridge walls considered but would create safety, maintenance, and construction issues
- **Wadsworth**
 - No walls proposed due to need for multiple access points





Noise Level Reductions (Mike)



Area



Noise Mitigation Summary (Mike)

- __ linear feet of noise walls proposed
- Cost estimated at \$__ million
- Typical noise reduction for residences
 - Closer than 300 feet from wall - more than 10 dBA
 - Noise levels half as loud
 - 300 to 500 feet from wall – approx. 5 dBA
 - Noticeable decrease in noise
 - 500 to 700 feet from wall – approx. 3 dBA
 - Perceptible decrease in noise
 - Between 700 and 1,000 feet from wall – less than 3 dBA
 - Barely perceptible decrease in noise
 - 1,000 feet or farther from wall
 - No change





Questions and Comments (Mike)

- Talk with staff
- Fill out a comment sheet
- Visit the project website

www.US6Wadsworth.com

