ROUTE 210 NOISE STUDY

TIP

For additional advice see
Dale Carnegie Training®
Presentation Guidelines

Introduction and Project Description

The project entails the construction of a 28 mile corridor extending from the city of La Verne in Los Angeles County to the city of San Bernardino in San Bernardino county in California passing through 7 cities.

Introduction and Project Description

The new freeway construction includes 6 MF lanes and 2 HOV lanes.

Approximately 20 miles have been constructed and the freeway opened to traffic in November 2002. The remaining 8 miles is presently under construction and will be completed in July 2007.

Ambient and Projected Noise Levels

- The area of the corridor is mainly residential with ambient noise levels ranging from 41 dBA to 69 dBA with an average ambient noise level of 53 dBA.
- Unmitigated noise levels range from 61 dBA to 76 dBA.

Policy Used

- The policy used for this study is the 1995 FHWA Highway Traffic guidance and not the 1998 Traffic Noise Analysis Protocol.

Projected Noise Levels Versus Field Noise Measurements

- Projected noise levels
- 1 66.1 dBA
- 2 61.3 dBA
- 3 60.3 dBA
- 4 60.2 dBA
- 5 63.0 dBA
- 6 63.0 dBA
- 7 63.0 dBA

- Field Noise Measurements
- 1 67.2 dBA
- 2 61.8 dBA
- 3 63.8 dBA Reflection
- 4 66.7 dBA Reflection
- 5 63.0 dBA
- 6 63.7 dBA
- 7 63.7 dBA

Projected Noise Levels Versus Field Noise Measurements

- Projected Noise Levels
- 8 63.5 dBA
- 9 60.5 dBA (Wall)
- 10 62.9 dBA (Wall)
- 11 63.6 dBA (Berm)
- 12 62.4 dBA (D B/W)
- 13 62.8 dBA (D B/W)
- 14 60.5 dBA (D W)

- Field Noise Measurements
- 8 63.8 dBA
- 9 59.9 dBA (Wall)
- 10 57.6 dBA (Wall)
- 11 61.9 dBA (Berm)
- 12 60.9 dBA (D B/W)
- 13 63.5 dBA (D B/W)
- 14 61.3 dBA (D W)

Questions Asked by Public/ Local Agencies

1. The most important question that is not easy to defend is (What do you mean the sound wall is not cost effective you are increasing the noise level from 45 dBA to 70 dBA?)

Questions Asked by Public/Local Agencies

2. Why don’t you take noise readings when it is windy? It is windy at my house every day.

3. The PCC pavement seems to be louder than other freeways. Can you resurface the freeway to lower the noise?

Lessons Learned

- 1. If you are the Office Chief of Environmental Engineering, move to another job before they open the freeway to traffic.
- 2. Sound 32 the previous model used in California assumes an AC pavement, when you have a PCC pavement, your noise levels are higher by 2 dBA

Lessons Learned

- 3. When you conduct public hearings to discuss noise impacts, stress the fact that 65 dBA is not quiet. People assume that if it is under 67 dBA it is quiet.
- 4 When you conduct public hearings, explain that insulation of private residences is only provided when the noise level is increased by 30 dBA or when the noise level is 75 dBA and above and it is not reasonable and feasible to provide a sound wall.

Lessons Learned

- 5. When you consider a sound wall and determine that it is not feasible because it is dropping the noise level by 4 dBA, make sure your modeling is conservative. You will be challenged.
- 6. In area with sound walls on one side be ready to discuss reflections.
- 7. People assume that sound walls are required for safety and visual obstruction/privacy

Lessons Learned

- 8. I would seriously consider opening the freeway to traffic before constructing the sound walls, that is if the cities agree to this approach. The reason behind that is when you are increasing the noise from 45 dBA to 73 dBA and then providing the sound walls to drop it to 66 dBA, the public will not realize the benefit of the sound walls.

Lessons Learned

- 9. Make sure you keep the public informed at different stages of the project. We did, however we explained to the public only once that 65 dBA is not quiet. Repeat this in every meeting.

Lessons Learned

- 10. 16 foot sound walls on top of huge retaining walls (20 feet) will provide a lot of reflection to the other side of the freeway as much as 5 dBA.


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