

Noise and Vibration

Noise

- Based on Federal Transit Administration guidance being used by FRA, a potential noise impact is determined by comparing the predicted future Project noise level to the existing noise level.
 - A Moderate impact is defined as a change in noise which is noticeable.
 - A Severe impact is defined as a significant percentage of the population would be highly annoyed.

Alternative	Number of Buildings Potentially Affected by Noise	
	Moderate	Severe
1	<i>Future No-Build conditions would be similar to existing conditions</i>	
3A	254	0
3B	1,078	175
3C	979	111

- With noise attenuation, ventilation plants would be designed to emit a maximum noise level of 50 dBA.*

*50 dBA = approximately the noise produced by an indoor air conditioner at a distance of three feet)

Vibration

- The Alternatives were modeled and compared to Federal Transit Administration frequent events criteria (more than 70 train passbys per day) to evaluate the potential change in ground-borne vibration.
- Vibration criteria are related to ground-borne vibration levels from train passbys that could exceed 72 VdB at a distance of 50 feet.*
- Potential impacts from future vibration were identified based on an increase in vibration of 3 VdB above the existing condition.

Alternative	Number of Residences exceeding FTA Vibration Criterion (72 VdB)
1	23
3A	69
3B	138
3C	92

- Vibration control measures to eliminate impacts would be evaluated in detail during final design.

*72 VdB = Approximate threshold for human annoyance